FLORIDA INTERNATIONAL UNIVERSITY

MODESTO A. MAIDIQUE CAMPUS
11200 SW 8th Street
Miami, Florida 33199
305-348-2000

BISCAYNE BAY CAMPUS
3000 NE 151st Street
North Miami, Florida 33181
305-919-5500

FIU at I-75
1930 S.W. 145 Avenue
Miramar, Fl 33027
954-438-8600

ENGINEERING CENTER
10555 W. Flagler Street
Miami, Florida 33174
305-348-3034

EMERGENCY - DIAL 911

AREA CODES:
Modesto A. Maidique Campus phone numbers begin with area code 305
Biscayne Bay Campus phone numbers begin with area code 305
FIU at I-75 phone numbers begin with area code 954
Engineering Center numbers begin with area code 305

From any FIU campus, dial FIU numbers direct:
All Modesto A. Maidique Campus phone numbers 7-xxxx
All Biscayne Bay Campus phone numbers 6-xxxx
All FIU at I-75 phone numbers 6-xxxx
All Engineering Center numbers 7-xxxx

Florida International University

Member of the State University System
Miami, Florida

2019-2020 UNIVERSITY UNDERGRADUATE CATALOG

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Note: The programs, policies, requirements, regulations published in this catalog are continually subject to review in order to serve the needs of the University's various constituencies and to respond to the mandates of the State Board of Education 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 laws rests with students.

Fees given in this catalog are tentative pending legislative action.

Florida International University
Modesto A. Maidique Campus
11200 SW 8th Street
Miami, Florida 33199

UNDERGRADUATE ADMISSIONS ADDRESS
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P.O. Box 659003
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Biscayne Bay Campus
3000 NE 151st Street
North Miami, Florida 33181

EMAIL ADDRESS:
admiss@fiu.edu

President Mark B. Rosenberg

Dear Undergraduate Students:

Welcome!

As I tell our incoming class every year: You belong here. Without you, we're not FIU. You uplift us! You make all of our efforts possible! Our entire FIU community is committed to helping you achieve your dreams. We have everything you need to succeed. Motivated and challenging faculty with courses here and abroad. Internship and career opportunities. Dedicated advisors who are here to work with you to figure out how to stay on track so that you can graduate in four years!

We will do everything we can to help get you to that special day when you walk across the commencement stage to the cheers of your family and loved ones. Recently, we have developed a series of "Personalized Education Pathways." This approach allows our incoming students to find their own customized plan – one that works for them, their life, and their situation.

As one of the largest public research universities in the country, FIU plays a critical role in our community's and nation's future. We recognize the many challenges in our world today and we are committed to doing what is right. One of the things that is special about our FIU is that our students, faculty, staff and alumni have a shared sense of purpose: we want to leave this world a better place than we found it.

We demonstrate this commitment every single day by standing up to some of society's most pressing concerns – from sea level rise, transportation, to prevalent health concerns and more. We have a special kind of drive and determination that take our research efforts from the Arctic to Aquarius, the world's only underwater laboratory. We're constantly accelerating our research. In fact, FIU is in the top tier of research universities in the U.S., according to the Carnegie Classification of Institutions of Higher Education.

Today, FIU offers over 200 nationally and internationally recognized bachelor's, master's and doctoral degree programs in business, engineering, nursing, public health, architecture and other disciplines.

StartUP FIU gives our students and community a place to bring their ideas and launch their ventures, as well as develop and commercialize new, innovative technologies. StartUP FIU FOOD allows food entrepreneurs in Miami access to our Chaplin School of Hospitality & Tourism Management's state-of-the-art food laboratories and grow their businesses. In 2017, we opened the Ratcliffe Arts + Design Incubator. In partnership with StartUP FIU and located at BBC, it is among the most innovative arts entrepreneurship spaces housed at a public university in South Florida!

Through the Green Family Foundation Neighborhood HELP initiative, our students are improving health outcomes and quality of life for families in medically underserved neighborhoods in Miami-Dade County. Using a collaborative, multidisciplinary approach, NeighborhoodHELP provides real-world training that prepares FIU students to become compassionate leaders of the South Florida health care workforce.

It's also driving out breast cancer with the Linda Fenner 3D Mobile Mammography Center. This state-of-the-art van brings free breast health screening, health education, and navigation services to women without access to care in Miami-Dade County.

We are so honored to welcome you to the FIU family! When you graduate in four years, you will be ready for the career that you desire, and equally important, you will be ready for a good life – and working to make this world a better place! I look forward to seeing you on campus!

Sincerely,

Academic Calendar 2019-2020

FALL 2019

August 26 - December 14, 2019

GENERAL DATES AND DEADLINES

March 11 Monday	Fall 2019 class schedule available for returning undergraduate students
Mar 26 - Apr 29 Tues - Mon	Official registration for Fall degree-seeking students only by assigned registration time and day. Priority registration available on http://my.fiu.edu
June 3 Monday	First day to apply for Fall 2019 graduation
August 22 Thursday	Non-degree seeking student registration begins
August 30 Friday	Last day to submit Non-degree Application for Fall 2019 term
September 27 Friday	Last day to apply for Fall 2019 graduation
TBA	Commencement exercises – Please refer to https://commencement.fiu.edu/
December 24 Tuesday	Winter Break 1 (No Classes)
December 25 Wednesday	Christmas Day (Observed)
December 31 Tuesday	Winter Break 2 (Observed)
January 1 Wednesday	New Year's Day (Observed)

TERM A

August 26 - October 12, 2019

Apr 30 - Aug 25 Tues - Sun	Fall "A" open registration for degree-seeking students
August 25 Sunday	Last day to register without incurring a $100 late registration fee
August 26 Monday	Classes begin Short-Term Loan Applications available
September 2 Monday	Labor Day Holiday (University Closed)
September 3 Tuesday	Last day to add courses; last day to drop courses or withdraw from the University without incurring financial liability for tuition and fees Last day to change grading option on a course
September 4 Wednesday	Fall "A" term payment due date Last day for students to apply for a Short-Term Loan
September 5 Thursday	$100 late payment fee assessed for outstanding balances
September 6 Friday	Cancellation of enrollment for unpaid tuition and fee balances not covered by payment plan, scholarships or other awards Last day to withdraw from the University with a 25% refund of tuition
September 9 - 13 Mon - Fri	Reinstatement after cancellation for non-payment
September 23 Monday	Deadline to drop a course with a DR grade Deadline to withdraw from the University with a WI grade Fall "A" Return of Title IV deadline for financial aid recipients
October 12 Saturday	Classes end On-Campus exams for online courses
October 16 Wednesday	Deadline (by 11:59 pm) for faculty to submit grades
October 17 Thursday	Fall "A" grades available for students

TERM B

October 21 - December 7, 2019

Apr 30 - Oct 20 Tues - Sun	Fall "B" open registration for degree-seeking students
October 20 Sunday	Last day to register without incurring a $100 late registration fee
October 21 Monday	Classes begin

	Short-Term Loan Applications available
October 28 Monday	Last day to add courses; last day to drop courses or withdraw from the University without incurring financial liability for tuition and fees Last day to change grading option on a course
October 29 Tuesday	Fall “B” term payment due date Last day for students to apply for a Short-Term Loan
October 30 Wednesday	$100 late payment fee assessed for outstanding balances
November 1 Friday	Cancellation of enrollment for unpaid tuition and fee balances not covered by payment plan, scholarships or other awards Last day to withdraw from the University with a 25% refund of tuition
November 4 - 8 Mon - Fri	Reinstatement after cancellation for non-payment
November 11 Monday	Veteran’s Day (University Closed)
November 18 Monday	Last day to drop a course with a DR Last day to withdraw from the University with a WI grade Fall “B” Return of Title IV deadline for financial aid recipients
November 28 Thursday	Thanksgiving Day (University Closed)
November 29 - 30 Fri - Sat	Thanksgiving Break (University Closed)
December 7 Saturday	Classes end On-campus exams for online courses
December 18 Wednesday	Deadline (by 11:59 p.m.) for faculty to submit grades
December 19 Thursday	Fall "B" grades available for students

TERM C

August 26 - December 7, 2019
Final Week of Term: December 9 – 14, 2019

Apr 30 - Aug 25 Tues - Sun	Fall “C” open registration for degree-seeking students
August 25 Sunday	Last day to register without incurring a $100 late registration fee
August 26 Monday	Classes begin Short-Term Loan Applications available
September 2 Monday	Labor Day Holiday (University Closed)
September 3 Tuesday	Last day to add courses; last day to drop courses or withdraw from the University without incurring financial liability for tuition and fees Last day to change grading option on a course
September 4 Wednesday	Fall “C” term payment due date Last day for students to apply for a Short-Term Loan
September 5 Thursday	$100 late payment fee assessed for outstanding balances
September 6 Friday	Cancellation of enrollment for unpaid tuition and fee balances not covered by payment plan, scholarships or other awards
September 9 - 13 Mon - Fri	Reinstatement after cancellation for non-payment
September 20 Friday	Last day to withdraw from the University with a 25% refund of tuition
November 3 Sunday	Fall “C” Return of Title IV deadline for financial aid recipients
November 4 Monday	Deadline to drop a course with a DR grade Deadline to withdraw from the University with a WI grade
November 11 Monday	Veterans Day Holiday (University Closed)
November 28 Thursday	Thanksgiving Day University Closed)
November 29 - 30 Fri – Sat	Thanksgiving Break (University Closed)
December 7 Saturday	Classes end On-campus exams for online courses
December 9-14 Mon - Sat	Final week of the term - modified class schedule: Final exams and other course assessment activities are scheduled during this week
December 18 Wednesday	Deadline (by 11:59 pm) for faculty to submit grades
December 19 Thursday	Fall "C" grades available for students

SPRING 2020

January 6- April 25, 2020

GENERAL DATES AND DEADLINES

October 7 Monday	First day to apply for Spring 2020 graduation
October 21 Monday	Spring 2020 class schedule available for returning undergraduate students
Nov 5 - Dec 9 Tues - Mon	Official registration for degree-seeking students only, by assigned registration time and day. Priority registration available on http://my.fiu.edu
January 2 Thursday	Non-degree seeking student registration begins
January 10 Friday	Last day to submit Non-degree Application for Spring 2020 term
February 7 Friday	Last day to apply for Spring 2020 graduation
TBA	Commencement exercises – Please refer to https://commencement.fiu.edu/

TERM A

January 6 - February 22, 2020

Dec 10 – Jan 5 Tues - Sun	Spring “A” open registration for degree-seeking students
January 5 Sunday	Last day to register without incurring a $100 late registration fee
January 6 Monday	Classes begin Short-Term Loan Applications available
January 13 Monday	Last day to add courses; last day to drop courses or withdraw from the University without incurring financial liability for tuition and fees Last day to change a grading option on a course
January 14 Tuesday	Spring “A” term payment due date Last day for students to apply for a Short-Term Loan
January 15 Wednesday	$100 late payment fee assessed for outstanding balances
January 17 Friday	Cancellation of enrollment for unpaid tuition and fee balances not covered by payment plan, scholarships or other awards Last day to withdraw from the University with a 25% refund of tuition
January 20 Monday	Martin Luther King Holiday (University Closed)
January 20 - 24 Mon - Fri	Reinstatement after cancellation for non-payment
February 3 Monday	Deadline to drop a course with a DR grade Deadline to withdraw from the University with a WI grade Spring “A” Return of Title IV deadline for financial aid recipients
February 22 Saturday	Classes end On-Campus exams for online courses
February 26 Wednesday	Deadline (by 11:59 pm) for faculty to submit grades
February 27 Thursday	Spring “A” grades available for students

TERM B

March 2 - April 18, 2020

Dec 10 – Mar 1 Tues - Sun	Spring “B” open registration for degree-seeking students
March 1 Sunday	Last day to register without incurring a $100 late registration fee
March 2 Monday	Classes begin Short-Term Loan Applications available
March 9 Monday	Last day to add courses; last day to drop courses or withdraw from the University without incurring financial liability for tuition and fees Last day to change grading option on a course
March 10 Tuesday	Spring “B” term payment due date Last day for students to apply for a Short-Term Loan
March 11 Wednesday	$100 late payment fee assessed for outstanding balances

March 13 Friday	Cancellation of Enrollment for unpaid tuition and fee balances not covered by payment plan, scholarships or other awards Last day to withdraw from the University with a 25% refund of tuition
March 16 - 20 Mon - Fri	Reinstatement after cancellation for non-payment
March 30 Monday	Deadline to drop a course with a DR grade Deadline to withdraw from the University with a WI grade Spring “B” Return of Title IV deadline for financial aid recipients
April 18 Saturday	Classes end On-Campus exams for online courses
April 29 Wednesday	Deadline (by 11:59 pm) for faculty to submit grades
April 30 Thursday	Spring “B” grades available for students

TERM C

January 6 – April 18, 2020

Final Week of the Term: April 20 - April 25, 2020

Dec 10 - Jan 5 Tues - Sun	Spring “C” open registration for degree-seeking students
January 5 Sunday	Last day to register without incurring a $100 late registration fee
January 6 Monday	Classes begin Short-Term Loan Applications available
January 13 Monday	Last day to change grading option on a course Last day to add courses; last day to drop courses or withdraw from the University without incurring financial liability for tuition and fees
January 14 Tuesday	Spring term payment due date Last day for students to apply for a Short-Term Loan
January 15 Wednesday	$100 late payment fee assessed for outstanding balances
January 17 Friday	Cancellation of enrollment for unpaid tuition and fee balances not covered by payment plan, scholarships or other awards
January 20 Monday	Martin Luther King Holiday (University Closed)
January 20 - 24 Mon - Fri	Reinstatement for cancellation after non-payment
January 31 Friday	Last day to withdraw from the University with a 25% refund of tuition
February 24 - 29 Mon - Sat	Spring Break (University Open, No Classes)
March 15 Sunday	Spring "C" Return of Title IV deadline for financial aid recipients
March 16 Monday	Last day to drop a course with a DR grade Last day to withdraw from the University with a WI grade
April 18 Saturday	Classes end On-campus exams for online courses
April 20 - 25 Mon - Sat	Final week of the term - modified class schedule: Final exams and other course assessment activities are scheduled during this week
April 29 Wednesday	Deadline (by 11:59 pm) for faculty to submit grades
April 30 Thursday	Spring “C” grades available for students

SUMMER 2020

May 11 - July 31, 2020

GENERAL DATES AND DEADLINES

February 14 Friday	First day to apply for Summer 2020 graduation
March 2 Monday	Summer & Fall 2020 class schedule available for returning undergraduate students
Mar 17 - Apr 20 Tues - Mon	Official registration for degree-seeking students by assigned registration time and day
May 7 Thursday	Non-degree seeking student registration begins
May 15 Friday	Last day to apply for Summer 2020 graduation
TBA	Commencement exercises - Please refer to https://commencement.fiu.edu/

TERM A

May 11 - June 19, 2020

Apr 21 - May 10 Tues - Sun	Summer “A” open registration for degree-seeking students
May 10 Sunday	Last day to register without incurring a $100 late registration fee
May 11 Monday	Classes begin Short-Term Loan Applications available
May 15 Friday	Last day to submit Non-degree Application for Summer “A” 2020 term
May 18 Monday	Last day to add courses; last day to drop courses or withdraw from the University without incurring financial liability for tuition and fees Last day to change grading option on a course
May 19 Tuesday	Summer “A” term payment due date Last day for students to apply for a Short-Term Loan
May 20 Wednesday	$100 late payment fee assessed for outstanding balances
May 22 Friday	Cancellation of enrollment for unpaid tuition and fee balances not covered by payment plan, scholarships or other awards
May 25 Monday	Memorial Day Holiday (University Closed)
May 26 - 29 Tue - Fri	Reinstatement after cancellation for non-payment
June 5 Friday	Last day to withdraw from the University with a 25% refund of tuition
June 4 Thursday	Summer "A" Return of Title IV deadline for financial aid recipients
June 8 Monday	Last day to drop a course with a DR grade Last day to withdraw from the University with a WI grade
June 19 Friday	Classes end On-campus exams for online courses
June 24 Wednesday	Deadline (by 11:59 pm) for faculty to submit grades
June 25 Thursday	Summer “A” grades available for students

TERM B

June 22 - July 31, 2020

Apr 21 – Jun 21 Tues - Sun	Summer “B” open registration for degree-seeking students
June 21 Sunday	Last day to register without incurring a $100 late registration fee
June 22 Monday	Classes begin Short-Term Loan Applications available
June 26 Friday	Last day to submit Non-degree Application for Summer “B” 2020 term
June 29 Monday	Last day to add courses; last day to drop courses or withdraw from the University without incurring financial liability for tuition and fees Last day to change grading option on a course
June 30 Tuesday	Summer “B” term payment due date Last day for students to apply for a Short-Term Loan
July 1 Wednesday	$100 late payment fee assessed for outstanding balances
July 2 Thursday	Cancellation of enrollment for unpaid tuition and fee balances not covered by payment plan, scholarships or other awards Last day to withdraw from the University with a 25% refund of tuition
July 3 Friday	University closed in observance of Independence Day
July 6 - 10 Mon - Fri	Reinstatement after cancellation for non-payment
July 16 Thursday	Summer "B" Return of Title IV deadline for financial aid recipients
July 20 Monday	Last day to drop a course with a DR grade Last day to withdraw from the University with a WI grade
July 31 Friday	Classes end On-campus exams for online courses
August 5 Wednesday	Deadline (by 11:59 pm) for faculty to submit grades
August 6 Thursday	Summer “B” grades available for students

TERM C

May 11 - July 31, 2020

Apr 21 - May 10 Tues - Sun	Summer “C” open registration for degree-seeking students
May 10 Sunday	Last day to register without incurring a $100 late registration fee
May 11 Monday	Classes begin Short-Term Loan Applications available
May 15 Friday	Last day to submit Non-degree Application for Summer “C” 2020 term Last day to apply for Summer 2020 graduation May 18 MondayLast day to add courses; last day to drop courses or withdraw from the University without incurring financial liability for tuition and fees Last day to change grading option on a course
May 19 Tuesday	Summer “C” term payment due date Last day for students to apply for a Short-Term Loan
May 20 Wednesday	$100 late payment fee assessed for outstanding balances
May 22 Friday	Cancellation of enrollment for unpaid tuition and fee balances not covered by payment plan, scholarships or other awards
May 25 Monday	Memorial Day Holiday (University Closed)
May 26 - 29 Tues - Fri	Reinstatement after cancellation for non-payment
June 5 Friday	Last day to withdraw from the University with a 25% refund of tuition
June 29 Monday	Last day to drop a course with a DR grade Last day to withdraw from the University with a WI grade
June 29 Monday	Summer "C" Return of Title IV deadline for financial aid recipients
July 3 Friday	University closed in observance of Independence Day
July 31 Friday	Classes end On-campus exams for online courses
August 5 Wednesday	Deadline (by 11:59 pm) for faculty to submit grades
August 6 Thursday	Summer “C” grades available for students

**Graduation will not be processed for a term until the end of the full "C" term.

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. Students should make their requests known to the instructor at the beginning of the term.
For a listing of religious holidays, you may visit http://www.interfaith-calendar.org.

University Information

MISSION

Florida International University is an urban, multi-campus, public research university serving its students and the diverse population of South Florida. We are committed to high-quality teaching, state-of-the-art research and creative activity, and collaborative engagement with our local and global communities.

VISION

Florida International University will be a leading urban public research university focused on student learning, innovation, and collaboration.

VALUES

Florida International University is committed to the following core values:

- Truth—in the pursuit, generation, dissemination, and application of knowledge
- Freedom—of thought and expression
- Respect—for diversity and the dignity of the individual
- Responsibility—as stewards of the environment and as citizens of the world
- Excellence—in intellectual, personal, and operational endeavors

THE UNIVERSITY

Florida International University, a member institution of the State University System of Florida, was established by the Florida Legislature in 1965. Classes began in September 1972, with 5,667 students enrolled in upper division and graduate programs – the largest opening day enrollment in U.S. collegiate history. In 1984, FIU received authority to begin offering degree programs at the doctoral level. The Carnegie Foundation for the Advancement of Teaching ranks FIU as a Research University in the High Research Activity Category.

The University is a member of Phi Beta Kappa, the nation's oldest and most distinguished academic honor society. Florida International University offers more than 200 baccalaureate, master's and doctoral degree programs in the following colleges and schools: College of Arts, Sciences and Education (School of Education and Human Development, School of Environment, Arts, and Society and School of Integrated Science and Humanity); College of Business (School of Accounting, Chapman Graduate School, and Landon Undergraduate School of Business); College of Communication, Architecture + The Arts (School of Communication and Journalism and School of Music); College of Engineering and Computing (School of Computing and Information Sciences and Moss School of Construction, Infrastructure and Sustainability); College of Law; Herbert Wertheim College of Medicine; Nicole Wertheim College of Nursing and Health Sciences; Honors College; Robert Stempel College of Public Health and Social Work (School of Social Work); Steven J. Green School of International and Public Affairs, and Chaplin School of Hospitality and Tourism Management.

FIU has more than 55,000 students, 1,614 full-time faculty, and over 9,000 degrees awarded annually, making it the largest university in South Florida and placing it among the ten nation's largest colleges and universities. The University has two campuses – Modesto A. Maidique Campus in western Miami-Dade County and the Biscayne Bay Campus, a branch campus, in northeast Miami-Dade County. A shuttle bus runs continuously between the two campuses throughout the day. FIU offers programs at the FIU at I-75 academic center in adjacent Broward County and the FIU Downtown on Brickell academic center in Miami. Additionally, numerous programs are offered at off-campus locations and online.

MODESTO A. MAIDIQUE CAMPUS

The Modesto A. Maidique Campus is a 344-acre site on the western edge of Miami, the center of a metropolitan area of almost four million people. Apartment-style residence halls, a nationally certified environmental preserve, and athletic facilities all contribute to a pleasant collegiate atmosphere on Modesto A. Maidique Campus, which is also Florida International University's largest campus. FIU's Modesto A. Maidique Campus (MMC) has impressive campus architecture, lush tropical landscaping, a Sculpture Park, and the eight-story Green Library. There is also a state-of-the-art Wertheim Performing Arts Center, a recreation center, a health and wellness center, an expanded university center, a 4,500 seat FIU Arena and a football stadium. Modesto A. Maidique Campus also has laboratories, auditoriums, music and art studios, an art museum, an international conference theater, and an experimental theater. There is a wide variety of clubs and student organizations on campus to meet the professional, service, athletic, social, and cultural needs of the FIU community.

FIU's libraries at Modesto A. Maidique Campus and Biscayne Bay Campus house have volumes and serials including print and online journals electronic databases, numerous resources in other formats along with substantial holdings of federal, state, local, and international documents, maps, institutional archives, and curriculum materials. Law and Medical libraries are on the Modesto A. Maidique Campus.

Housing and Residential Life provides a wide variety of living accommodations on campus. Residence halls at Modesto A. Maidique Campus include Panther Hall, Everglades Hall, University Park Towers, University Apartments, Parkview Hall, and Lakeview Housing. Housing staff assist students in selecting accommodations to meet their particular needs. All are single gender accommodations. There are no co-ed, family, or married housing offerings.

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 over 6,000 students. The campus is headquarters for academic programs in Hospitality and Tourism Management; Communication and Journalism; Marine Science; and Creative Writing. Course work in Arts, Sciences and Education; Business Administration; Communication, Architecture and the Arts; Computer Science; Nursing; and Criminal Justice are also offered (for specific degree programs please refer to Academic Programs in this catalog).

The campus houses the Glen Hubert Library, Osher Lifelong Learning Institute, and the Roz and Cal Kovens Conference Center, a state-of-the art conference facility located on Biscayne Bay.

A residential complex living accommodation is available on the Biscayne Bay Campus. The Wolfe University Center is the focal point of all student activities including clubs and entertainment, student life, and dining facilities.

FIU at I-75

Florida International University has brought higher education closer to home for thousands of South Broward residents through its academic center, FIU at I-75. Located at 1930 SW 145th Avenue in Miramar, classes are held in an 89,000 square-foot LEED-certified facility shared with Broward College. The center includes classrooms, computer labs, case study rooms, administrative offices, student collaborative areas and a dining facility.

Select programs at the bachelor's and master's level are being offered by the College of Arts, Sciences and Education; College of Business; Steven J. Green School of International and Public Affairs; and the College of Engineering and Computing. Non-Credit programs and current courses are offered.

Students attending FIU at I-75 benefit from computer labs and access to the resources of both the FIU libraries (Modesto A. Maidique Campus and Biscayne Bay Campus) and the Broward County Public libraries. The Biscayne Bay Campus and FIU at I-75 Student Government Association sponsors social and cultural events that provide students with opportunities to enhance their experiences outside of the classroom. For more information on FIU at I-75 and its program offerings, please visit http://miramar.fiu.edu

FIU DOWNTOWN ON BRICKELL

FIU Downtown on Brickell consists of 60,000 square feet at 1101 Brickell Avenue. FIU Downtown on Brickell includes multi-purpose classrooms, a reception space, leadership and faculty offices, and a dining area. With its prime location, FIU Downtown on Brickell provides working professionals a convenient place to further their education. A range of master level business programs are offered at the venue. Graduate public administration and global governance academic programs complement the business offerings. FIU Downtown on Brickell is also home to the College of Arts, Sciences and Educations' Metropolitan Center, a public affairs center that focuses on economic development, land use, housing, and applied social research.

For more information on FIU Downtown on Brickell programs, please visit **http://dwntwn.fiu.edu/**.

MIAMI BEACH URBAN STUDIOS

The Miami Beach Urban Studios (MBUS) is a unique 16,000sf facility in the 420 Lincoln Road Building that hosts an interdisciplinary array of innovative exhibitions, classes, research laboratories, and events for the College of Communication, Architecture + The Arts (CARTA). It also houses affiliated institutions (Sea Level Solutions Center, The Amernet String Quartet, ARC+, and temporarily, the Miami Urban Future Initiative). MBUS contains the 3,5000sf Knight-sponsored CARTA Innovation Lab, which with over 33 3D printers is one of the largest 3D printing laboratories of its kind in the United States. The lab was selected to be a participant in the HD/EDUCAUSE Building the Campus of the Future Project. In the broadest sense, MBUS provides a platform for people to explore new ideas in arts, design, technology, and the sciences.

For more information on MBUS, please visit **http://mbus.fiu.edu**.

ACCREDITATIONS

All academic programs of Florida International University (FIU) are approved by the Florida Board of Education, the FIU Board of Trustees and the Florida Board of Governors. FIU is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate, baccalaureate, master's, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call (404) 679-4500 for questions about the accreditation of FIU. SACSCOC reaffirmed FIU's accreditation on December 6, 2010. General inquires about FIU, such as admission requirements, financial aid, educational programs, etc., should be addressed directly to the appropriate FIU department and not the Commission's office. Degree programs at FIU are accredited or approved by the appropriate specialized accreditation agency, or are pursuing full 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. The professional accrediting agencies and the respective FIU degree programs are listed in alphabetical order below.

Accounting
Association to Advance Collegiate Schools of Business (AASCB)

Anesthesiology Nursing
Council on Accreditation of Nurse Anesthesia Educational Programs (CoA-NA),

Architecture
National Architectural Accrediting Board (NAAB)

Art Education
National Association of Schools of Art and Design Commission on Accreditation (NASAD)

Art History
National Association of Schools of Art and Design Commission on Accreditation (NASAD)

Athletic Training
Commission on Accreditation of Athletic Training Education (CAATE)

Business
Association to Advance Collegiate Schools of Business (AACSB) International

Chemistry
American Chemical Society (ACS)

Computer Science
Accreditation Board for Engineering and Technology (ABET)

Construction Management
American Council for Construction Education (ACCE)

Counselor Education
Council for Accreditation of Counseling and Related Educational Programs (CACREP)

Dietetics and Nutrition
Accreditation Council for Education in Nutrition and Dietetics (ACEND)

Education
Council for the Accreditation of Education Preparation (CAEP)

Engineering
Accreditation Board for Engineering and Technology, Inc. (ABET)

Forensic Science
American Academy of Forensic Sciences

Health Informatics and Analytics
Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)

Healthcare
Commission on Accreditation of Healthcare Management Education

Hospitality Management
Accreditation Commission for Programs in Hospitality Administration (ACPHA)

Interior Architecture
Council for Interior Design Accreditation (CIDA)

Journalism and Mass Communication
Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

Landscape Architecture
Landscape Architectural Accreditation Board (LAAB)

Law
American Bar Association (ABA)

Medicine
Liaison Committee for Medical Education (LCME)

Music
National Association of Schools of Music Commission on Accreditation (NASM)

Nursing
Commission on Collegiate Nursing Education (CCNE)

Occupational Therapy
American Occupational Therapy Association (AOTA)
Accreditation Council for Occupational Therapy Education (ACOTE)

Physician Assistant
Accreditation Review Commission on Education for the Physician Assistant

Physical Therapy
American Physical Therapy Association (APTA)
Commission on Accreditation in Physical Therapy Education (CAPTE)

Psychology (Clinical Science)
American Psychological Association (APA)

Public Administration
Commission on Peer Review and Accreditation (COPRA), Network of Schools of Public Policy, Affairs, and Administration (NASPAA)

Public Health
Council on Education for Public Health (CEPH)

School Psychology
National Association of School Psychologists (NASP)
National Council for Accreditation of Teacher Education

Social Work
Council on Social Work Education Office of Social Work Accreditation and Educational Excellence (CSWE)

Speech Language Pathology
Council on Academic Accreditation in Audiology and Speech-Language Pathology

Theatre
National Association of Schools of Theatre Commission on Accreditation (NAST)

Academic Programs

MODESTO A. MAIDIQUE CAMPUS PROGRAMS

COLLEGE OF ARTS, SCIENCES AND EDUCATION

http://cas.fiu.edu

BACHELOR OF ARTS IN:
- Biology
- Chemistry
- Earth Sciences
- English
- Interdisciplinary Studies
- Liberal Studies
- Mathematics with Mathematics Education
- Philosophy
- Physics
- Psychology
- Sustainability and the Environment
- Women's and Gender Studies

BACHELOR OF SCIENCE IN:
- Biochemistry
- Biological Sciences
- Chemistry
- Environmental Studies
- Geosciences
- Marine Biology
- Mathematical Sciences
- Physics
- Statistics

SCHOOL OF EDUCATION AND HUMAN DEVELOPMENT

http://education.fiu.edu

BACHELOR OF SCIENCE IN:
- Early Childhood Education/ESOL
- Elementary Education
- Recreation and Sport Management
- Physical Education
- Exceptional Student Education

COLLEGE OF BUSINESS

http://business.fiu.edu/

BACHELOR OF ACCOUNTING

BACHELOR OF BUSINESS ADMINISTRATION WITH MAJOR IN:
- Business Analytics
- Finance
- Human Resource Management
- International Business
- Logistics and Supply Chain Management
- Management
- Management Information Systems
- Marketing
- Real Estate

COLLEGE OF COMMUNICATION, ARCHITECTURE + THE ARTS

http://carta.fiu.edu/

ACCELERATED MASTER OF:
- Architecture
- Interior Architecture
- Landscape Architecture

BACHELOR OF ARTS IN:
- Art
- Art History
- Communication Arts
- Music
- Theatre

BACHELOR OF FINE ARTS IN:
- Art
- Theatre

BACHELOR OF MUSIC

BACHELOR OF SCIENCE IN:
- Art Education

SCHOOL OF COMMUNICATION AND JOURNALISM

https://sjmc.fiu.edu

BACHELOR OF SCIENCE IN COMMUNICATION WITH MAJORS IN:
- Advertising
- Broadcast Media
- Journalism
- Public Relations

BACHELOR OF SCIENCE IN:
- Digital Communication and Media
- Public Relations, Advertising, and Applied Communication

COLLEGE OF ENGINEERING AND COMPUTING

http://cec.fiu.edu/

BACHELOR OF ARTS IN:
- Information Technology
- Computer Science

BACHELOR OF SCIENCE IN:
- Biomedical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Construction Management
- Electrical Engineering
- Environmental Engineering
- Information Technology
- Interdisciplinary Engineering
- Internet of Things
- Mechanical Engineering

NICOLE WERTHEIM COLLEGE OF NURSING AND HEALTH SCIENCES

http://cnhs.fiu.edu

BACHELOR OF HEALTH SERVICES ADMINISTRATION

BACHELOR OF SCIENCE IN:
- Nursing
- Nursing RN

ROBERT STEMPEL COLLEGE OF PUBLIC HEALTH AND SOCIAL WORK

http://stempel.fiu.edu

BACHELOR OF SCIENCE IN:
- Dietetics and Nutrition
- Social Work

CHAPLIN SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

http://hospitality.fiu.edu

BACHELOR OF SCIENCE IN:

Hospitality Management*

STEVEN J. GREEN SCHOOL OF INTERNATIONAL AND PUBLIC AFFAIRS

http://sipa.fiu.edu

BACHELOR OF ARTS IN:

Asian Studies
Economics
French and Francophone Studies
Geography
Global Studies
History
International Relations
Latin American and Caribbean Studies
Political Science
Portuguese
Religious Studies
Sociology/Anthropology
Spanish

BACHELOR OF SCIENCE IN:

Criminal Justice
Crime Science
Economics

BACHELOR OF PUBLIC ADMINISTRATION

**This degree cannot be completed entirely at MMC. A substantial amount of the coursework will need to be completed at the Biscayne Bay campus. Make an appointment to speak with a department advisor for specifics.*

BISCAYNE BAY CAMPUS PROGRAMS

http://bbc.fiu.edu

COLLEGE OF ARTS, SCIENCES AND EDUCATION

http://cas.fiu.edu

BACHELOR OF ARTS IN:

English
Liberal Studies
Psychology

BACHELOR OF SCIENCE IN:

Marine Biology

COLLEGE OF BUSINESS

http://business.fiu.edu/

BACHELOR OF ACCOUNTING*

BACHELOR OF BUSINESS ADMINISTRATION WITH A MAJOR IN:

Finance*
Management*
Marketing*

COLLEGE OF COMMUNICATION, ARCHITECTURE + THE ARTS

SCHOOL OF COMMUNICATION AND JOURNALISM

https://sjmc.fiu.edu

BACHELOR OF SCIENCE IN COMMUNICATION WITH MAJORS IN:

Advertising
Broadcast Media
Digital Media Studies
Journalism
Public Relations

BACHELOR OF SCIENCE IN:

Digital Communication and Media
Public Relations, Advertising, and Applied Communication

NICOLE WERTHEIM COLLEGE OF NURSING AND HEALTH SCIENCES

http://cnhs.fiu.edu

BACHELOR OF SCIENCE IN:

Nursing (Foreign-Educated MD to BSN)

CHAPLIN SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

http://hospitality.fiu.edu

BACHELOR OF SCIENCE IN:

Hospitality Management

**This degree cannot be completed entirely at BBC. A substantial amount of the coursework will need to be completed at the Modesto A. Maidique campus. Make an appointment to speak with a department advisor for specifics.*

FIU at I-75 PROGRAMS

http://broward.fiu.edu

COLLEGE OF ARTS, SCIENCES AND EDUCATION

http://cas.fiu.edu

BACHELOR OF ARTS IN:

Liberal Studies

COLLEGE OF BUSINESS

http://business.fiu.edu/

BACHELOR OF BUSINESS ADMINISTRATION WITH A MAJOR IN*:

International Business
Management
Marketing

**This degree cannot be completed entirely at FIU at I-75. A substantial amount of the coursework will need to be completed at the Modesto A. Maidique campus. Make an appointment to speak with a department advisor for specifics.*

MINORS

A minor program is an arrangement of courses enabling a student to develop a degree of expertise and knowledge in an area of study in addition to his or her major academic

program of study. To receive a minor, a student must also complete the requirements for a baccalaureate degree from the University. A minor is not interdisciplinary.

COLLEGE OF ARTS, SCIENCES AND EDUCATION

http://cas.fiu.edu

- Aerospace Studies
- Astronomy
- Biology
- Chemistry
- English
- Environmental Studies
- Geology
- Humanities
- Marine Biology
- Mathematical Sciences
- Mathematics
- Meteorology
- Military Science
- Philosophy
- Physics
- Psychology
- Statistics

SCHOOL OF EDUCATION AND HUMAN DEVELOPMENT

http://education.fiu.edu

- Education

COLLEGE OF BUSINESS

http://business.fiu.edu/

- Business
- Business Analytics
- Entrepreneurship
- Logistics and Supply Chain Management
- Marketing
- Professional Sales
- Project Management
- Social Media and E-Marketing Analytics

COLLEGE OF COMMUNICATION, ARCHITECTURE + THE ARTS

http://carta.fiu.edu/

- Art
- Art History
- Dance
- Music
- Music Composition
- Sacred Music
- Theatre

SCHOOL OF COMMUNICATION AND JOURNALISM

https://sjmc.fiu.edu

- Business Communication
- Communication Studies
- International Communication

COLLEGE OF ENGINEERING AND COMPUTING

http://cec.fiu.edu

- Aerospace Engineering
- Biomedical Engineering
- Computer Science
- Construction Management
- Energy Systems
- Engineering Science
- Mechanical Design
- Robotics and Mechatronics

(for non-Engineering majors only)

- Biomedical Engineering

NICOLE WERTHEIM COLLEGE OF NURSING AND HEALTH SCIENCES

http://cnhs.fiu.edu

- Health Services Administration

ROBERT STEMPEL COLLEGE OF PUBLIC HEALTH AND SOCIAL WORK

http://cphsw.fiu.edu

- Nutrition
- Social Welfare

CHAPLIN SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

http://hospitality.fiu.edu/

- Beverage Management
- Hospitality Studies
- Hotel/Lodging Management
- International Hospitality Studies
- Restaurant/Food Service Management
- Travel and Tourism Management

STEVEN J. GREEN SCHOOL OF INTERNATIONAL AND PUBLIC AFFAIRS

http://sipa.fiu.edu

- Asian Studies
- Criminal Justice
- Economics
- French Language and Culture
- General Translation Studies
- Geography
- History
- International Relations
- Italian Language and Culture
- Japanese Language and Literature
- Labor Studies
- Political Science
- Portuguese
- Public Administration
- Religious Studies
- Sociology and Anthropology
- Spanish Language and Culture

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

Awarded by an academic unit to a student at the time of awarding a bachelor's degree; or upon completion of the

appropriate coursework to a student who already has a bachelor's degree.

An 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. An 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 section in each College or School.

COLLEGE OF ARTS, SCIENCES AND EDUCATION

ACADEMIC CERTIFICATES IN:

Actuarial Studies
Agroecology
Biodiversity Conservation and Management
Coastal and Marine Affairs
Comparative Immunology
Environmental Studies
Exile Studies
Film Studies
Forensic Science
Law, Ethics and Society
Linguistics Studies
Post-baccalaureate Undergraduate Premedical
Professional and Public Writing
Queer Studies
Women's and Gender Studies

SCHOOL OF EDUCATION AND HUMAN DEVELOPMENT

PROFESSIONAL CERTIFICATES IN:

Recreation Management

COLLEGE OF BUSINESS

ACADEMIC CERTIFICATES IN:

Banking
Entrepreneurship
Health and Fitness Marketing
Import-Export and Supply Chain Management
International Bank Management
International Trade and Investment
Marketing Research and Analysis
Retail Marketing and Management
Sales and Customer Relationship Management
Social Media and Digital Marketing Analytics
Team Management

COLLEGE OF COMMUNICATION, ARCHITECTURE + THE ARTS

ACADEMIC CERTIFICATES IN:

Digital Communication and Media
History and Theory of Architecture
Landscape Architecture
Music Business
Music Technology
Visual Production

SCHOOL OF COMMUNICATION AND JOURNALISM

PROFESSIONAL CERTIFICATES IN:

Global Media Communication

COLLEGE OF ENGINEERING AND COMPUTING

PROFESSIONAL CERTIFICATES IN:

Aerospace Engineering
Heating, Ventilating and Air Conditioning Design
Materials Engineering
Robotics Engineering

CHAPLIN SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

PROFESSIONAL CERTIFICATE IN:

Iot in Hospitality

NICOLE WERTHEIM COLLEGE OF NURSING AND HEALTH SCIENCES

PROFESSIONAL CERTIFICATEs IN:

Occupational Therapy Prerequisite
Physical Therapy Prerequisite
Speech-Language Pathology

ROBERT STEMPEL COLLEGE OF PUBLIC HEALTH AND SOCIAL WORK

PROFESSIONAL CERTIFICATE IN:

Child Welfare Services
Introductory Fire Officer Development
Advanced Fire Officer Development

STEVEN J. GREEN SCHOOL OF INTERNATIONAL AND PUBLIC AFFAIRS

ACADEMIC CERTIFICATES IN:

African Studies
Afro-Latin American Studies
Ancient Mediterranean Civilization
Applied Geographic Information Systems
Applied Social Science Research Methods
Asian Studies
Asian Globalization and Latin America
Chinese Studies
Conflict and Dispute Resolution
Cuban and Cuban-American Studies
European and Eurasian Studies
Food Studies
German Language and Culture
Global Black Studies
Global Cybersecurity Policy
Haitian Studies
Human Rights and Political Transitions
Jain Studies
Japanese Studies
Jewish Studies
Labor Studies
Languages and Cultures of North Africa
Latin American and Caribbean Studies
Leadership Studies
Middle East and Muslim World Studies
National Security Studies
North American Studies

Pre-Law Skills and Professional Values
Pre-Modern Cultures
Public Policy Studies
South and Southeast Asia Area Studies
Study of Spirituality
Translation and Interpretation

PROFESSIONAL CERTIFICATES IN:

French Language and Culture
Holocaust and Genocide Studies
Italian Language and Culture
Portuguese Language and Brazilian Culture Studies
Spanish Language

For additional information, please contact the appropriate college or school.

Some degrees are offered fully online. For more specific information, please visit the program of interest at ***www.fiu.edu***.


Global Citizen
FIU's Quality Enhancement Plan (QE
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Academic and Career Success

The Division of Academic and Career Success is dedicated to creating a coordinated student support system which works collaboratively across the University to ensure students have the opportunities, information, and assistance they need to be academically and professionally successful.

CAREER AND TALENT DEVELOPMENT

The centralized Career and Talent Development (CTD) department assists students at all university locations with career readiness, employment and graduate school educational opportunities. CTD also works closely with the specialized Career Services teams located in the College of Business and School of Hospitality and Tourism Management. CTD's high-tech and high-touch philosophy offers specialized career readiness services and individualized attention through the drop-in program and one-on-one appointments.

Students are encouraged to register with CTD immediately after enrolling in classes: by visiting any of their locations, activating their Handshake account, making an appointment, or utilizing the Drop-In Program. The department can help students identify a major, find an internship, or locate a career that is right for them. Students can get involved with Career and Talent Development through department programs and services, including:

- *CAREER DEVELOPMENT AND COACHING* - This area offers career assessments, individual student coaching appointments, resume reviews and career development workshops on a variety of topics to assist in identifying educational and/or career paths.
- *EMPLOYER ENGAGEMENT* - CTD organizes and hosts various employer engagement opportunities to connect students with employers. These programs and events include job shadowing (Panther Shadows), career connections, on-campus interviews, targeted recruitment events and major career and internship fairs.
- *INTERNSHIPS* – CTD assists students in identifying and securing practical experience in their chosen major. Internship opportunities can include academic credit, paid and/or field-related experience. Internships have proven to significantly increase the possibility of gaining employment upon graduation.
- *DIGITAL CAREER RESOURCES* – In addition to in-person programming, student and alumni also have 24/7 access to CTD's Career Readiness Programming. Handshake is the premier platform to initiate these professional development and employer engagements at FIU. Students should claim their account at fiu.joinhandshake.com, immediately after enrolling in classes. Support is also provided to students in establishing their digital profile on platforms such as LinkedIn. Students are encouraged to utilize the myriad of other online and digital resources as detailed on CTD's website: http://career.fiu.edu.

LOCATIONS AND ACCESS: Students can find CTD services at: Modesto A. Maidique Campus, SASC 305, (305) 348-2423; Biscayne Bay Campus, WUC 255, (305) 919-5770; Engineering Center, EC 2852, Engineering, (305) 348-1281.
Web site: **https://career.fiu.edu**.
Career Management Website: https://fiu.joinhandshake.com.

CENTER FOR STUDENT ENGAGEMENT

The Center for Student Engagement supports student success by fostering academic, career, and campus engagement opportunities via collaborative partnerships with the FIU campus community. These opportunities include events such as the Love Your Major Fair, Student Engagement Fair, Panther Academic Success Series, and Panther Connections Panels, as well as our Peer Mentor Program. In addition, our staff is committed to helping students achieve their goals by assisting them with finding and/or choosing engagement opportunities based on interests/majors.

Information is available in SASC 428, Modesto A. Maidique Campus, ACI-180, Biscayne Bay Campus, and on our website: https://cse.fiu.edu.

COMMON READING PROGRAM

The Common Reading Program affords students the opportunity to participate in a common curricular experience that creates community and a common ground for discussion. The program is tailored specifically for incoming first-year students. Students receive the book at orientation and are expected to have read the book before the first day of class. Together with faculty and peers, students will discuss and think critically about key concepts from the book. The Common Reading Program will encourage students to partake in intellectual engagement and will create a sense of community among newly admitted Panthers. For more information, visit https://commonreading.fiu.edu.

COLLEGE LIFE COACHING PROGRAM

The FIU College Life Coaching Program provides guidance to students, both academically and socially, by offering coaching sessions and educational workshops where students can learn to apply the life skills necessary to succeed in the university setting. The specific objectives of the program are to prepare students to: (1) develop coping strategies and critical thinking skills in order to overcome obstacles and succeed academically; (2) engage in self-reflection to identify short-term and long-term goals, evaluate personal progress related to goals, and modify plans to ensure continuous improvement; (3) identify and apply personalized study habits; (4) utilize effective time management techniques; (5) understand extrinsic and intrinsic motivators and their effect on success to better follow through with academic and personal goals. Services are available by appointment only. For more information, email coaching@fiu.edu, call (305) 348-8137, or visit http://coaching.fiu.edu.

STUDENT SUCCESS TECHNOLOGY

FIU is committed to providing students the tools they need to be successful. This includes an innovative and integrated suite of programs designed to help students

connect with their advisors, stay on track, and learn about opportunities to enhance their educational experience.

STRATEGIC INITIATIVES AND DATA COACHING

The Strategic Initiatives and Data Coaching team works to improve student success outcomes at FIU through the promotion of a data analytics culture. Using the variety of data tools available at the university, the team works closely with College Success Teams to identify important areas of focus and develop high impact strategies for improvement related to student retention, graduation, and employment, as well as academic operations. They create communication channels between units to facilitate strong collaboration across FIU and implement strategic programs and projects in support of the university's student success goals.

CENTER FOR ACADEMIC SUCCESS

The Center for Academic Success houses the University Testing Center as well as the University Learning Center. It provides a variety of academic support services to students at all levels.

UNIVERSITY TESTING CENTER

The University Testing Center facilitates the administration of the ALEKS, Civic Literacy Test (CIV 2222), College-Level Examination Program (CLEP), TEAS, NTN, HESI A², SAT, placement testing (PERT), among others. The Testing Center also provides information on other undergraduate and graduate admission assessments, along with professional and individualized distance learning examinations. Additional information is available in person at the Modesto Maidique Campus in GL 120 and at the Biscayne Bay Campus in ACI 160, by calling (305) 348-2441 (Modesto Maidique Campus) and (305) 919-4043 (Biscayne Bay Campus) or by visiting **https://testing.fiu.edu**.

PLACEMENT TESTING

Testing is available to students for placement into selected courses. Mandatory placement testing for college preparatory requirements is provided prior to Freshman Orientation and at other designated times during each semester. Students need to consult with an academic advisor regarding any questions about test requirements.

UNIVERSITY LEARNING CENTER

The University Learning Center provides academic support to students across all levels of academic preparation. Tutoring is available for courses in mathematics, statistics, sciences, and accounting. Reading enhancement programs are available for students who want to refine their study skills and tackle a more rigorous curriculum, particularly in reading intensive courses. Academic Success Plans (ASP's) are also available for students who seek to improve their academic performance based on their specific majors. The administrative staff collaborates with various disciplines across the university to provide a comprehensive range of services for students. The University Learning Center is equipped with an open study area along with a computer lab and SMART boards for instructional use. The Center also supports online tutoring for many academic disciplines. Services are available by appointment or by walk-in. For more information visit our website at **https://learningcenter.fiu.edu**, or call (305) 348-2441 (MMC) and (305) 919-4044 (BBC).

GLOBAL LEARNING

Global learning is the process of diverse people collaboratively analyzing and addressing complex problems that transcend borders. Through the process of global learning, all FIU undergraduates will acquire knowledge of the interrelatedness of local and global issues, the ability to analyze issues from multiple perspectives, and the willingness to engage in local, global, international, and intercultural problem solving. Students must take a minimum of two global learning *(GL)* designated courses prior to graduation. Freshmen must take one GL foundations course as they are completing their University Core Curriculum (UCC) requirements and one GL discipline-specific course as they are completing their major requirements. Transfer students with 60 or more credits or those entering with UCC requirements met must complete either two GL discipline-specific courses or one GL foundations and one GL discipline-specific course. The GL requirement may be waived only in the following cases: (1) students who are admitted to FIU with a previously earned Bachelor's degree from a regionally accredited institution; (2) readmitted students with 0-6 credits pending to graduate. Waivers must be submitted by the student's academic advisor. Transfer courses may not be used to meet this FIU requirement. For more information, visit **https://goglobal.fiu.edu/**.

UNIVERSITY CORE CURRICULUM

Florida International University seeks to develop productive, creative, and responsible citizens who both shape society and lay the foundation for tomorrow. In addition to exploring areas of specialization, the university experience must provide a venue for investigating the origins and natures of cultures, ideas, and the physical universe and endow graduates with the ability to analyze critically, think sustainably, learn creatively, and express themselves clearly and cogently. Diversity and breadth of experience are essential characteristics of both education and success in our global community.

The University Core Curriculum (UCC) provides the broad, well-defined curriculum that enables graduates to think critically, analytically, and creatively, with a passion to learn and with the skills and ability to assemble, assess, incorporate, and synthesize new knowledge and information; organize and clearly express their knowledge and ideas; and determine the importance and relevance of new ideas through a synthesis of both broad and narrow contexts and the integration of seemingly disparate pieces into a meaningful whole.

The UCC rests upon the belief that a foundational curriculum, shared by students, fosters intellectual development and enhances personal, social, intellectual, and academic relations. Together with concentration in major fields of study, the UCC builds the base that makes future academic and professional excellence possible.

Implementation of the UCC and day-to-day monitoring of student compliance with UCC requirements are the responsibility of Academic and Career Success. The individual academic units rely on their respective academic advisors to assist students with understanding and completing the requirements of the UCC.

The UCC requirements outlined below apply to all FIU students who entered as freshman in Summer B 2015 or later and to all students who entered as transfer students (and have not already earned an AA degree at a state college or university in the state of Florida) in Fall 2015 or later.

Global Learning Foundations Course (GL) (*one, three-credit course required*): Global learning foundations courses are indicated with a "*GL*" after the course title.

Gordon Rule with Writing (GRW) Requirement: Students are required to demonstrate college-level writing skills through six semester hours of Gordon Rule Writing-designated courses (indicated with a "*GRW*" after the course title). To fulfill this requirement, students can select any two GRW-designated courses in the University Core Curriculum. These courses can be from the same or different categories.

Civic Literacy (CL) Requirement: Students must demonstrate understanding of American Civics. This may be completed through coursework (AMH 2020 or POS 2041 completed at a Florida College System or Florida State University System institution), or an approved assessment. This requirement is applicable to FIU students enrolling for the first time in college (FTIC) starting in Summer 2018, and transfers Fall 2018.

First Year Experience *(one, one-credit course required)*: The transition to a university environment is a unique one for first-time university students. FIU's First Year Experience course is designed to facilitate this transition. The course provides a forum for integrating the FIU experience and for discussing issues promoting intellectual, personal, academic, social growth and success as a member of the University community. It also introduces students to University policies, procedures, and services; addresses academic and career choices; and enhances study and time-management skills. All students entering the University with fewer than 30 semester hours are required to take this one-credit course, SLS 1501 First-Year Experience. *College credit earned during high school does not exempt students from this requirement.*

Communication *(two, three-credit courses from either sequence required)*: A foundation in the critical analysis of issues and texts, both discursive and creative, and in argumentation and persuasion is essential in all university courses. The Communication courses provide this foundation by encouraging the mastery of written and oral communication models, including the essay and research paper.

For students entering FIU with 30 or fewer credits and for all first-time-in-college students, ENC 1101, Writing and Rhetoric I and ENC 1102, Writing and Rhetoric II are required.

For students entering FIU with more than 30 credits (who are not first-time-in-college students), ENC 2304, College Writing for Transfer Students, and one of the following: ENC 3311, Advanced Writing and Research; or ENC 3249 Professional and Technical Writing for Computing; or ENC 3213, Professional and Technical Writing; or ENC 3314 Writing Across the Curriculum are acceptable.

Humanities *(two, three-credit courses required, one from Group One and one from Group Two)*: Students will confirm the ability to think critically through demonstrating interpretive ability and cultural literacy. Students will acquire competence in reflecting critically upon the human condition.

Humanities – Group One (State Required)
One course must be from the following list.

ARH 2000	Exploring Art – *GL*
HUM 1020	Introduction to Humanities
LIT 1000	Introduction to Literature
MUL 1010	Music Literature/Music Appreciation
PHI 2010	Introduction to Philosophy - *GRW*
THE 2000	Theatre Appreciation – *GL*

Humanities – Group Two (FIU Required)
One course must be from the following list.

AFH 2000	African Civilizations – *GRW/GL*
AMH 2041	Origins of American Civ – *GRW/GL*
AMH 2042	Modern American Civilization –G*RW/GL*
ARC 2701	History of Architecture 1 – *GRW*
ENG 2012	Approaches to Literature* – *GRW*
EUH 2011	Western Civilization: Early European Civilization – *GRW/GL*
EUH 2021	Western Civilization: Medieval to Modern Europe – *GRW/GL*
EUH 2030	Western Civilization: Europe in the Modern Era – *GRW/GL*
HUM 3214	Ancient Classical Culture and Civilization – *GRW*
HUM 3306	History of Ideas – *GRW*
IDS 3309	How We Know What We Know – *GRW/GL*
LAH 2020	Latin American Civilization – *GRW/GL*
PHH 2063	Classics in Philosophy: Introduction to the History of Philosophy – *GRW*
PHI 2600	Introduction to Ethics – *GRW*
POT 3013	Ancient and Medieval Political Theory – *GRW*
REL 2011	Introduction to Religion – *GRW/GL*
SPC 3230	Rhetorical Communication: A Theory of Civil Discourse – *GRW*
SPC 3271	Rhetoric and Public Address – *GRW*
WOH 2001	World Civilization – *GRW/GL*

*(indicates a course with a prerequisite)

Mathematics *(two, three-credit courses required, one from Group One and one from Group Two)*: Students will determine appropriate mathematical and computational models and methods in problem solving, and demonstrate an understanding of mathematical concepts. Students will apply appropriate mathematical and computational models and methods in problem solving.

Student who successfully complete a mathematics course in Group Two for which a course in Group One is an immediate prerequisite shall be considered to have completed Group One and will take two mathematics courses from Group Two. However, ONE OF THE TWO MATHEMATICS COURSES MUST HAVE A MAC, MGF, OR MTG PREFIX.

Mathematics – Group One (State Required)
One course must be from the following list.

MAC 1105	College Algebra*
MAC 2311	Calculus I*#

MGF 1106	Finite Mathematics
MGF 1107	The Mathematics of Social Choice and Decision Making
STA 2023	Statistics for Business and Economics

Mathematics – Group Two (FIU Required)
One course must be from the following list.

CGS 2518	Data Analysis
COP 2210	Programming I
COP 2250	Programming in Java
MAC 1140	Pre-Calculus Algebra* (credit cannot be received for both MAC 1140 and Pre-Calculus Algebra & Trigonometry/MAC1147)
MAC 1114	Trigonometry* (credit cannot be received for both MAC 1114 and Pre-Calculus Algebra & Trigonometry/MAC 1147)
MAC 1147	Pre-Calculus Algebra and Trigonometry*
MAC 2233	Calculus for Business*
MAC 2312	Calculus II*#
MAC 2313	Multivariable Calculus*
MTG 1204	Geometry for Education
PHI 2100	Introduction to Logic
STA 2122	Statistics for Behavioral and Social Sciences I
STA 3111	Statistics I
STA 3145	Statistics for the Health Professions

(*indicates a course with a prerequisite); # Students who successfully complete MAC 2241 Calculus I for Biology, or MAC 2281 Calculus I for Engineering, with a grade of C or higher will be deemed to have satisfied Mathematics Group I/MAC 2311. Students who successfully complete MAC 2242 Calculus II for Biology, or MAC 2282 Calculus II for Engineering, with a grade of C or higher will be deemed to have satisfied Mathematics Group II/MAC 2312.)

Social Science *(two, three-credit courses required, one from Group One and one from Group Two)*: In these courses students investigate social, political, and economic configurations; cultural and psychological features of human life; gender, race/ethnicity, and social class; consciousness and identity; social interactions with the natural environment; and local, national, and global aspects of the human world.

Social Science – Group One (State Required)
One course must be from the following list.

AMH 2020	American History Introductory Survey Since 1877 – *GRW/GL/CL*
ANT 2000	Introduction to Anthropology – *GL*
ECO 2013	Principles of Macroeconomics
POS 2041	American Government – *CL*
PSY 2012	Introductory Psychology
SYG 2000	Introduction to Sociology – *GL*

Social Science – Group Two (FIU Required)
One course must be from the following list.

AFA 2004	Black Popular Cultures: Global Dimensions – *GRW/GL*
AMH 3560	The History of Women in the United States – *GRW*
ANT 3212	World Ethnographies – *GL*
ANT 3241	Myth, Ritual and Mysticism – *GL*
ANT 3451	Anthropology of Race and Ethnicity
ASN 3410	Introduction to East Asia – *GRW/GL*
COM 3461	Intercultural/Interracial Communication – *GL*
CPO 2002	Introduction to Comparative Politics
CPO 3103	Politics of Western Europe – *GRW*
CPO 3304	Politics of Latin America
DEP 2000	Human Growth and Development
ECO 2023	Principles of Microeconomics
ECS 3003	Comparative Economic Systems*
ECS 3021	Women, Culture, and Economic Development* – *GL*
EDF 3521	Education in History
EGS 1041	Technology, Humans and Society – *GL*
EVR 1017	The Global Environment and Society – *GL*
GEA 2000	World Regional Geography – *GL*
GEO 2000	Introduction to Geography
IDS 3163	Global Supply Chain and Logistics – *GL*
IDS 3183	Health Without Borders – *GL*
IDS 3189	International Nutrition, Public Health and Economic Development – *GL*
IDS 3315	Gaining Global Perspectives – *GL*
IDS 3333	Diversity of Meaning: Language, Culture, and Gender in Society – *GL*
INP 3004	Introductory Industrial/Organization Psychology
INR 2001	Introduction to International Relations
INR 3081	Contemporary International Problems – *GRW/GL*
LBS 3001	Labor and Globalization – *GL*
POT 3302	Political Ideologies
REL 3308	Studies in World Religions – *GRW/GL*
SOP 3004	Introductory Social Psychology
SOP 3015	Social and Personality Development
SPC 3210	Communication Theory – *GRW*
SYD 3804	Sociology of Gender
SYG 2010	Social Problems – *GL*
SYG 3002	Basic Ideas of Sociology
SYP 3000	The Individual in Society
WST 3015	Introduction to Global Gender and Women's Studies – *GRW/GL*
WST 3641	LGBT and Beyond: Non-Normative Sexualities in Global Perspective – *GL*

(*indicates a course with a prerequisite)

Natural Science *(two, three-credit courses required, one from Group One and one from Group Two, and two corresponding one-credit labs)*: Student will demonstrate the ability to critically examine and evaluate scientific observation, hypothesis, or model construction, and to use the scientific method to explain the natural world. Students will successfully recognize and comprehend fundamental concepts, principles, and processes about the natural world.

Any student who successfully completes a natural science course for which one of the general education core course options (Group One) in natural science is an immediate prerequisite shall be considered to have completed the natural science course from Group One and will take two science courses from Group Two.

Emphasizing the essential connection between theory and experiment, the hands-on laboratory experience provides the context for testing scientific theories.

Natural Science – Group One (State Required)
One course and lab must be from the following list.

AST 1002 & AST 1002L	Descriptive Astronomy
BSC 2010 & BSC 2010L	General Biology I
BSC 1085 & BSC 1085L	Anatomy and Physiology I

CHM 1020 & CHM 1020L	Chemistry for Liberal Studies
CHM 1045 & CHM 1045L	General Chemistry I*
ESC 1000 & ESC 1000L	Introduction to Earth Sciences
EVR 1001 & EVR 1001L	Introduction to Environmental Science – *GL*
PHY 1020 & PHY 1020L	Understanding the Physical World
PHY 2048 & PHY 2048L	Physics with Calculus I*
PHY 2053 & PHY 2048L	Physics without Calculus I*

Natural Science – Group Two (FIU Required)
One course and lab must be from the following list.

AST 2003 & AST 2003L	Solar System Astronomy
BOT 1010 & BOT 1010L	Introductory Botany
BSC 2011 & BSC 2011L	General Biology II
BSC 2023 & BSC 2023L	Human Biology
CHM 1033 & CHM 1033L	Survey of Chemistry*
CHS 3501 & CHS 3501L	Survey of Forensic Science
EVR 3013 & EVR 3013L	Ecology of South Florida
GEO 3510 & GEO 3510L	Earth Resources – *GL*
GLY 1010 & GLY 1010L	Physical Geology
GLY 1101 & GLY 1101L	History of Life
GLY 3039 & GLY 3039L	Environmental Geology
HUN 2000 & HUN 2000L	Foundations of Nutrition Science
IDS 3211 & IDS 3211L	Global Climate Change: Science, Society, and Solutions – *GL*
IDS 3212 & IDS 3212L	The Global Scientific Revolution and Its Impact on Quality of Life – *GL*
IDS 3214 & IDS3214L	Coastal Environment from the Bay to the World – *GL*
MET 2010 & MET 2010L	Meteorology and Atmospheric Physics
MCB 2000 & MCB 2000L	Introductory Microbiology – *GL*
OCB 2003 & OCB 2003L	Introductory Marine Biology – *GL*
OCE 3014 & OCE 3014L	Oceanography – *GL*
PCB 2061 & PCB 2061L	Introductory Genetics
PCB 2099 & PCB 2099L	Foundations of Human Physiology
PHY 2049 & PHY 2049L	Physics with Calculus II*
PHY 2054 & PHY 2049L	Physics without Calculus II*

*(indicates a course with a prerequisite)

Arts Requirement *(three credit hours required)*: Art embodies human dreams, visions, and imagination and renders the human experience creatively in sound, movement, performance, design, language, color, shape, and space. Art responds critically to current events, changes in society, and the drama of human life.

In fulfilling this requirement, students will become acquainted with the fundamental aspects of the arts while developing a capacity to understand, appreciate, or experience particular forms. Students address universal themes central to the cultural traditions of the past and present as expressed through the perspectives of the arts.

Required course must be from the following list.

ARH 2050	Art History Survey I
ARH 2051	Art History Survey II
COM 3404	Nonverbal Communication – *GRW*
COM 3417	Communication in Film – *GRW/GL*
CRW 3010	Creative Writing: Forms and Practices*
DAA 1100	Modern Dance Techniques I
DAA 1200	Ballet Techniques I
ENL 3504	Texts and Contexts: British Literature to 1650*
ENL 3506	British Literature to 1660
FOT 2120	Literature in Translation
IDS 3336	Artistic Expression in a Global Society – *GL*
MUH 2018	Evolution of Jazz
SPC 2608	Public Speaking
SPT 3110	Literature in Translation
TPP 2100	Introduction to Acting

(*indicates a course with a prerequisite)

Additional UCC Information

1. Transfer students who have successfully completed one or both science courses without labs at another institution prior to admission to FIU will be deemed to have completed the appropriate components of the science requirement.
2. Students in the Honors College who have satisfied designated Honors Courses will be deemed to have met sections of the UCC & GL requirements. Visit **https://honors.fiu.edu** for course equivalencies.
3. **State Board of Education Rule 6A-10.030 (Gordon Rule)** The State of Florida requires all public community colleges and universities to include intensive writing and mathematics in their curriculum to ensure that students have achieved substantial competency in these areas. This requirement must be fulfilled within the first two years of study.

6a. **Writing Requirement** (12 credits) Students must successfully complete twelve hours of writing courses with a grade of 'C' or better. Six hours must be in communication courses (i.e., courses with the prefix ENC). The additional six hours must be taken approved as intensive writing *GRW* courses, which require demonstration of college level writing skills through multiple assignments. Students who matriculated prior to 1983 need only six credits of writing courses with an ENC prefix

6b. **Mathematics** (6 credits) One course must be at or above College Algebra level. Students subject to Rule 6A.10.030 need six credits of mathematics, three of which can be a computer programming course, a statistics course, or PHI 2100, Introduction to Logic. A grade of 'C' or higher shall be considered successful completion of this requirement.

Students who matriculated prior to 1983 need only three credits of mathematics, but they must take one mathematics or statistics course.

4. **2018 Florida Statute 1007.25 (4) Civic Literacy**

Beginning with students initially entering a Florida College System (FCS) or Florida State University System (SUS) institution in the 2018-2019 school year and thereafter, each student must demonstrate competency in civic literacy. This can be completed through a course (AMH 2020 or POS 2041 taken at a FCS or SUS institution) or through assessment: Advanced Placement Government and Politics: United States (minimum score of 3); Advanced Placement United States History (minimum score of 4); CLEP American Government (minimum score of 50); U.S. Citizenship and Immigration Services Naturalization Test – Civics (U.S. history and government) with supplemental questions (minimum score of 60. Students may visit the Testing Center website at https://testing.fiu.edu for details about scheduling to take

the U.S. Citizenship and Immigration Services Naturalization Test and the CLEP American Government exam to satisfy the Civics Learning (CL) requirement.

ADDITIONAL POLICIES AND REQUIREMENTS

1. A student who has graduated from a Florida State College with an Associate in Arts degree will have met the University Core Curriculum requirements.
2. A student who has met the General Education requirements (as noted on their transcript) of any institution in the State University System of Florida will have met the University Core Curriculum requirements.
3. A student who has earned a previous Baccalaureate degree from an accredited institution will have met the University Core Curriculum requirements.
4. A student who has taken the freshman and sophomore years in an accredited college other than a Florida public community college or an institution in the State University System of Florida may receive credit for courses meeting the University Core Curriculum requirements.
5. A student who has been admitted before completing an equivalent general education program must do so at the University prior to graduation.
6. Most departments require certain common prerequisite courses in addition to the University Core Curriculum requirements. Applicants should consult the catalog section dealing with the program they wish to pursue to determine the nature and extent of the additional requirements.

Course Descriptions

Definition of Prefixes

IDS-Interdisciplinary Studies; SLS-Student Life Skills

IDS 3163 Global Supply Chains & Logistics – *GL* (3). Global supply chains and their interactions with all facets of business and society. Design issues and operation issues are investigated using simulation models and case studies.

IDS 3183 Health Without Borders – *GL* (3). This is an undergraduate course to orient students; regardless of their major field of studies, with a global perspective of the interrelatedness of factors affecting health that transcends borders.

IDS 3189 International Nutrition, Public Health and Economic Development – *GL* (3). This course will examine the impact of global public health, nutrition and economic development on the physical and political environment. Recommended also for non-majors.

IDS 3203 Sustainability Assessment of Energy Alternatives for World Communities – *GL* (3). An introduction to energy sources, needs and usage, technologies and their sustainability in world communities that include research concerning the present situation and identification of future solutions.

IDS 3211C Global Climate Change: Science, Society, and Solutions – *GL* (3). IDS 3211L Global Climate Change: Science, Society, and Solutions Lab – *GL* (1). This course examines the interconnected relationship between humans and the structures we have created and our natural environment and the systems that underlie it in looking at global climate change.

IDS 3212 The Global Scientific Revolution and Its Impact on Quality of Life – *GL* (3). IDS 3212L The Global Scientific Revolution and Its Impact on Quality of Life Lab – *GL* (1). This course explores how scientific advances change the lives of communities globally and teach non-science majors basic concepts in energy and electronics that they use in their daily lives.

IDS 3214 Our Coastal Environment from the Bay of the World – *GL* (3). IDS 3214L Our Coastal Environment from the Bay of the World Lab – *GL* (1). Natural science principles applied to the world's coastal and marine environments, with emphasis on human use of and interaction with those environments, using cases from Florida and around the globe.

IDS 3309 How We Know What We Know – *GL* (3). Merges the skills of global information literacy with the critical perspective to ascertain and measure the authenticity and credibility of information in academic and casual research and writing. Meets the state composition requirement. Prerequisites: ENC 1101 and ENC 1102.

IDS 3315 Gaining Global Perspectives – *GL* (3). Students learn to socially locate themselves vis-à-vis others and how their perspectives affect perceiving and understanding others. Students acquire and apply new perspectives to see as others do.

IDS 3333 Diversity of Meaning: Language, Culture, and Gender in Society – *GL* (3). This course will explore the areas of language, gender and culture as they influence and affect diverse ways of knowing and meaning and making in real and virtual global networks.

IDS 3336 Artistic Expression in a Global Society – *GL* (3). Exploration of the interrelatedness of societies and culture through language, music and art are explored to appreciate how individuals convey thought and respond to events from various perspectives.

SLS 1402 Discover Your Major (1). This course is designed for exploratory majors. Through the process of self-exploration and career planning, students will learn how to match their interests and skills to an appropriate major/career.

SLS 1501 First Year Experience (1). A review of basic skills and competencies necessary to college success including time management, study skills, and academic policies/procedures. Includes mandated information.

SLS 1510 Strategies for Success (1-3). Focus will be on providing students with important information to help them reflect on how they can improve their academic standing, including information and activities related to: learning strategies, study skills, time management, problem solving, goal setting, and how to use resources effectively.

Any freshman student who has below a 2.0 GPA prior to the application of the NC policy will be required to enroll in SLS 1510 for one credit in the spring semester of his/her first year.

SLS 3407 Major and Career Exploration (1). Students will be exposed to the fundamentals of career

development strategies and clarify interests and skills as related to major/career choice. Prerequisite: Sophomore standing.

CIVIC LITERACY REQUIREMENT

Baccalaureate degree-seeking students initially entering a Florida College System (FCS) or Florida State University System institution (SUS) in the 2018-19 school year and thereafter must demonstrate competency in civic literacy through one of the following options prior to graduation: (a) Successfully passing POS 2041 American Government or AMH 2020 American History Since 1877. (b) Achieving the standard score on one of the following assessments: U.S. Citizenship and Immigration Services Naturalization Test – Civics (U.S. History and Government) with supplemental questions (score of 60 or higher); Advanced Placement Government and Politics: United States (score of 3 or higher). Advanced Placement United States History (score of 4 or higher); CLEP American Government (score of 50 or higher).

FOREIGN LANGUAGE REQUIREMENT (FLENT/FLEX)

In addition to the above University Core Curriculum requirements, any student who was admitted with a foreign language deficiency must successfully complete appropriate coursework in one foreign language prior to graduation. The selection of coursework will be based on a student's level of proficiency in a foreign language. Students are encouraged to meet with an academic advisor to discuss options to meet this requirement including two years of foreign language in high school, credit-by-exam, transfer credit, and foreign credentials (TOEFL, completion of high school equivalent outside of the U.S. in a language other than English). A previously earned Baccalaureate degree from an accredited institution also meets this requirement. Please refer to the Undergraduate Admissions section for more information.

TRANSFER AND TRANSITION SERVICES

The Transfer and Transition Services Office (TTS) provides transfer students with the information and resources necessary for a successful transition to the University. A critical component of the transfer process is determining course equivalencies. The State of Florida offers transfer course guarantees for students who earn the A.A. degree or meet General Education requirements from Florida public institutions. There are also transfer guarantees for students who transfer courses from private institutions in Florida whose courses are included in Florida's Statewide Course Numbering System (SCNS).

TTS coordinates the course equivalency process for courses in the University Core Curriculum, as well as previous FIU curricula (Core Curriculum and General Education). TTS also coordinates equivalencies for credit-by-exam mechanisms and military education.

Each academic department is responsible for determining course equivalency for transfer courses that may be applicable to the student's program, including upper-division requirements.

Transfer and Transition Services contact Information: Student Academic Success Center (SASC) 440, Modesto A. Maidique Campus, (305) 348-3844, , or ACI-180 at the Biscayne Bay Campus, (305) 348-3844, **transfer@fiu.edu** and https://transfer.fiu.edu/.

CONNECT4SUCCESS

FIU Connect4Success ensures that students enrolled at partner colleges transition to the University with greater ease and academic readiness. Connect4Success offers students guaranteed admission to FIU, but not to limited access programs, once they complete their Associate in Arts (AA) degree within three years at any Florida College System Institution. During that time, students receive an FIU OneCard and have access to select FIU events and the library. Connect4Success also includes advising services by FIU Bridge Advisors housed at several partner college campuses. FIU Bridge Advisors work in tandem with college advisors to ensure that students are: selecting appropriate majors that match their skills and interests, completing appropriate prerequisites prior to transitioning, and using all available resources to support timely degree completion.

TRANSFER CREDIT

For purposes of clarity, transferability refers to the conditions under which the University accepts credits from other post-secondary institutions. Applicability of credit toward a degree refers to the prerogative of the respective academic division to count specific credit toward a student's degree requirements. Collegiate work will be considered for transfer credit only from post-secondary institutions that are fully accredited by a regional accrediting association or from nationally accredited institutions (recognized by the U.S. Department of Education) that participate in Florida's Statewide Course Numbering System (SCNS) at the time the coursework was completed.

The Office of Admissions will evaluate the acceptability of total credits transferable to the University. Transfer credit will be applied as appropriate to a student's degree program. TTS will determine the applicability of courses for University Core Curriculum requirements and prerequisites, and the academic unit of the student's major is the authority for upper division and prerequisite requirements. If a student chooses to transfer to another academic unit within the University, credit previously earned at another post-secondary institution may be re-evaluated and applied as appropriate to the student's new degree program.

A maximum of 60 lower division semester hours taken at a two-year or a four-year institution may be counted toward a degree at the University. A maximum of 30 upper division semester hours taken at a two-year institution that offers baccalaureate degrees or a four-year institution may be counted toward a degree at FIU.

Lower division courses in excess of 60 semester hours may serve to meet specific course requirements for an FIU degree, but credit hours represented by these courses will not reduce the number of credit hours to be completed at the University.

A grade of 'D' will be accepted for transfer credit, although it may not satisfy specific requirements. However, such a grade in coursework in the major field is

subject to review and approval by the appropriate academic department.

Credit earned for military education will be transferred and evaluated in accordance with the recommendations of the American Council on Education (ACE). After being accepted by FIU, credit earned in accredited post-secondary institutions outside of the U.S. will be transferred and evaluated in consultation with the official evaluation of foreign education.

CREDIT-BY-EXAM

The academic programs of the University are planned in such a manner that students may complete some of their degree requirements through one or more accelerated mechanisms. Florida International University accepts examinations for credit according to State guidelines established by the Florida Board of Governors' Articulation Coordinating Committee (ACC) in August 2006. Based on these guidelines, the following exams have transfer guarantees established at the State level: Advanced Placement (AP), Cambridge Advanced International Certificate of Education (AICE/A and AS-Level), College Level Examination Program (CLEP), DANTES Subject Standardized Tests (DSST), Excelsior College Examinations (UExcel), and International Baccalaureate (IB).

These guidelines include, but are not limited to, the following:

1. Credit awarded by exam may not duplicate other credit.
2. If duplicate credit exists, the exam yielding the most credit will be awarded.
3. Course equivalencies are included in the student's transcript and degree audit.
4. There are no grades associated with credit-by-exam equivalencies.

A complete set of guidelines, as well as credit-by-exam equivalency tables, can be found on the Transfer and Transition Services website: **transfer.fiu.edu**.

ADDITIONAL CREDIT-BY-EXAM

Florida International University recognizes additional forms of acceleration, including the Caribbean Advanced Proficiency Examinations (CAPE), Defense Language Proficiency Test, Foreign Language Achievement Testing Service (FLATS), German Abitur, and French and General Baccalaureate. These credit-by-exam mechanisms are evaluated on a case by case basis in consultation with University faculty. The application of credit for these exams is left to the discretion of the University.

Florida International University awards credit for Advanced Level Program completed through College Board, Puerto Rico and Latin America Office. The following three exams and scores are accepted: Pre-Calculus (Level II) with a score of 4 or 5, English with a score of 4 or 5, and Spanish with a score of 3, 4, or 5.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

One credit-by-exam that is available to students while enrolled at the University is the College Level Examination Program (CLEP). This examination program is designed to measure knowledge in specific subject areas of general education. Credit earned through CLEP may be equated to courses in the University Core Curriculum or lower-division electives. To register for an exam, go to **https://testing.fiu.edu** or contact the University Testing Center at (305) 348-2441 (Modesto A. Maidique Campus) and (305) 919-4043 (Biscayne Bay Campus).

CREDIT USED TO ACCELERATE TIME-TO-DEGREE

Degree-seeking students may utilize several acceleration methods to accelerate time-to-degree, including credit-by-exam (CLEP, DSST), military or other ACE-evaluated courses, departmental proficiency examination, and prior learning. It is the prerogative of each academic unit to award credit for knowledge acquired through life/work experiences that are deemed equivalent to college level coursework upon careful review and assessment of learning outcomes. The optimal method of documenting prior learning is through departmental proficiency examination. The significant learning must be applicable to the student's degree program and should be discussed with an academic advisor and appropriately documented at the point of major selection.

Awarded credits are identified on a student's transcript but are not used in the calculation of the GPA. Departmental examination is noted on the student's transcript as EM (examination). Accelerated credit may not be applied to meet the 25% residency undergraduate degree requirement.

NATIONAL STUDENT EXCHANGE

National Student Exchange provides students with the opportunity to study at nearly 160 colleges and universities in the United States, its territories, and Canada for one semester or academic year, at little or no more tuition cost than they now pay. With a written advising agreement, full credit is given for work satisfactorily completed on exchange. NSE offers the student the opportunity to live in a different geographic setting, explore a particular academic interest, and, of course, make new and lasting friendships.

In order to participate in the National Student Exchange, degree-seeking students must be enrolled full-time and have a 2.8 cumulative GPA. For further information visit the office in SASC 402 at MMC and AC1 180 at BBC. or the website at **https://**nse.fiu.edu.

EXPLORATORY ADVISING

Exploratory Advising is housed within the College of Arts, Sciences & Education. CASE Exploratory Advising offers unique guidance to students who are unsure about their major. Exploratory Advising's goal is to lead students to the right choice during their first year of study at FIU.

There are six different Exploratory tracks based on your area of interest:

1. The **Global and Social Sciences** exploratory area contains majors that are ideal for students who are interested in pursuing careers in the social sciences such as psychology and education or who are considering studies in law.

2. The **Health Sciences** exploratory area contains majors that are ideal for students who have an interest in pursuing careers in nursing, nutritional counseling, or one of the graduate health profession programs.
3. The **Humanities and Arts** exploratory area contains majors that are ideal for students who are interested in pursuing careers in artistic and creative fields or who are considering studies in law.
4. The **Biological and Environmental Sciences** exploratory area contains majors that are ideal for students who have an interest in pursuing careers in medicine or who are considering studies in earth or environmental studies.
5. The **Administration and Management** exploratory area contains majors that are ideal for students who are interested in pursuing careers in business or managerial positions in different professions ranging from the hospitality industry and health care industry to careers in the public and nonpublic sectors.
6. The **Physical Science and Engineering** exploratory area contains majors that are ideal for students who have an interest in pursuing engineering and computing fields or who are considering studies in chemistry, physics, or mathematics.

Two exploratory courses, Discover Your Major (SLS 1402) and Major and Career Exploration (SLS 3407) have been developed to aid students in the decision-making process for selecting an appropriate major.

Please visit us in ZEB 210, email us at exploratory@fiu.edu, or call us at (305) 348-2886.

PRE-MEDICAL/PRE-HEALTH PROFESSIONS ADVISEMENT

Students interested in pursuing a career in one of the health professions [medicine (M.D./.D.O.), dentistry, veterinary medicine, pharmacy, optometry, podiatry, physicians assistant, or chiropractic medicine] may contact the FIU Office of Pre-Health Professions Advising at **Preprofc@fiu.edu** prior to registration in their first semester of study for advising information. Students will need to be in frequent communication with the Office of Pre-Health Professions Advising during their academic careers. When nearing completion of their required professional prerequisite courses, students must contact the Office of Pre-Health Professions Advising to arrange for an interview with the Pre-Health Professions Advisement and Evaluation Committee. For those applying to professional schools, the Office provides needed assistance with the application process and the Committee prepares an important letter of recommendation. Please visit the website of the Office of Pre-Health Professions Advising, at **https://prehealthadvise.fiu.edu** where you will find extensive information about the different career options within the health care professions, the pre-health curriculum, a description of the professional school application process and appropriate requirements for the different professional schools.

PRE-PHYSICAL THERAPY, PRE-OCCUPATIONAL THERAPY, PRE-ATHLETIC TRAINING, AND PRE-SPEECH LANGUAGE PATHOLOGY ADVISEMENT

Students interested in any of the above programs are encouraged to attend a Health Science Advising session in the Nicole Wertheim College of Nursing and Health Sciences. The session includes information on admission requirements and required prerequisites. For dates and times visit: **https://cnhs.fiu.edu** or call (305) 348-7709. Interested students may also schedule advisement appointments.

PRE-LAW ADVISEMENT

FIU provides support to students interested in pursuing a law degree through the Pre-Law Advising and Training Office (PLATO). Students interested in pursuing a career in law should register their interest on their My FIU Account by clicking on “Pre-Professional Interest” on the scroll down menu, selecting “Pre-Law” and clicking on the “Add” button. Students interested in attending law school should first attend Pre-Law seminar to learn about the law school application process, the Certificate in Pre-Law Skills and Professional Values, recommended undergraduate courses, preparing for the LSAT, selecting and financing law schools, special events, and more. To find details concerning the Pre-Law Seminars, students may visit PLATO’s website at **https://prelaw.fiu.edu/.** The website also provides requirements and application instructions concerning the Certificate in Pre-Law Skills and Professional Values. Students can also “like” the FIU Prelaw page on Facebook, follow PLATO on Twitter @PRELAW_PIR, and contact PLATO by email with any questions at **prelaw@fiu.edu**.

THE OFFICE OF SCHOLARSHIPS

The Office of Scholarships is dedicated to helping students find, apply for, and attain national and university-based opportunities. We are committed to assisting undergraduate and graduate students develop the skills, personal commitment and drive needed to pursue and receive scholarships that align with their educational and professional goals.

Students engage in a transformative experience which allows them to reflect purposefully on and expand their perspectives of themselves and their world, furthering the University’s commitment to collaborative engagement with our local and global communities. By going through our process, FIU students improve their critical thinking and persuasive writing skills, and prepare to assume their roles as leaders, both locally and globally. Through national and regional scholarships and fellowships, FIU students become active ambassadors of our community to the outside world.

Some of the services we offer include:

- meeting with students individually to discuss scholarship opportunities and guide them through the application process;
- providing information and resources to students in order to increase awareness of the scholarships available and the process involved in attaining them;
- mentoring students through workshops, presentations, advising, and individual guidance and feedback which result in competitive applications for national and regional awards;

- providing advising that helps students better understand their strengths and academic goals;
- providing academic value to students by improving their skills in analytical thinking and writing a research proposal or study plan, interviewing, and preparing for their post-graduate lives.

Please visit our website: **https://scholarships.fiu.edu**, email us at **scholarships@fiu.edu** or visit us at the Modesto A. Maidique Campus, PC 138.

ACADEMIC LEARNING COMPACTS

The Florida Board of Governors has mandated that the public universities in Florida develop an Academic Learning Compact for each baccalaureate degree program that they offer, accessible through **https://assessment.fiu.edu/academic-learning-compacts/index.html**.

The Compacts identify the expected core student learning outcomes for degree program graduates in the areas of communication skills, content/discipline knowledge and skills, and critical thinking skills. Students should acquire these skills if they follow the prescribed course of study in their declared major. Students may be expected to participate in a number of activities associated with the Compacts such as answering embedded questions in scheduled exams, creating a portfolio, enrolling in a capstone course, or sitting for a specialized exam. The program or department will notify students of what procedures have been developed to measure the learning specified in the Academic Learning Compact in their baccalaureate program beyond course grades.

Honors College

The Honors College at Florida International University is a community of outstanding students, dedicated scholars, and committed teachers who work together in an atmosphere usually associated with small private colleges, using the resources of a major state university.

The Honors College provides a broad interdisciplinary curriculum of unique courses and the chance to work closely with expert faculty and distinguished members of the larger community. Professors in the Honors College are committed to excellence and are carefully selected for their accomplishments as both teachers and scholars. Preparedness for graduate or professional study and for employment are significantly enhanced by exclusive Honors College research and study abroad programs, as well as networking, service and internship opportunities. The Honors College experience includes living-learning communities, an emphasis on peer and faculty mentoring, community service, national conference participation, and a variety of active student organizations.

Students may pursue any major available at the University and at the same time complete the Honors curriculum. The curriculum emphasizes critical, integrative, and creative thinking; group and independent research; oral presentation; and close contact between students and faculty.

The Honors College has special relationships with the university's professional and graduate schools that offer students unique opportunities: a three-plus-three program with the College of Law allows eligible students to begin law school in lieu of their fourth year of undergraduate study, and an early admission program with the College of Medicine, exclusively for Honors College students.

In addition to the interdisciplinary curriculum, Honors College students enjoy many other benefits:

- Transcript notation: "Graduated through the Honors College"
- Priority registration
- Honors College scholarships
- Unique study abroad programs
- Professional and Leadership training
- Early Assurance Programs to medical school, law school, and select PhD programs at FIU
- Advanced Research and Creativity in Honors (ARCH) program, pairing students with faculty mentors to conduct advanced research
- Career enrichment services with Honors-only job and internship opportunities
- Assistance to attend national and international conferences
- Student information technology centers and Honors Edge Innovation Lab
- Eligibility for membership in Honors College societies
- Graduate-level library borrowing privileges (full semester)
- Honors College housing and programming
- Community partnerships for service learning

For more information about the Honors College, see the Honors Curriculum in this catalog or visit **honors.fiu.edu**.


FIU achieves top Carnegie and sponsored research up 30 percent
FIU grows up, then keeps growing
Global Learning for Global Citizenship
FIU Global Learning

University Libraries

Uniquely positioned at the intersection of information, technology, and innovation, the University Libraries engage with local and global partners to foster student-centered learning and to support internationally recognized research. The Libraries are wonderful gathering places to pursue scholarly research, to learn about and use information technology, to write, to study, and to draw on a rich collection of print and electronic resources. Here you will find just about everything you need in order to collaborate and create new knowledge for the 21st century: almost 2 million volumes, tens of thousands of movies and songs, maps, rare books, electronic books, microfilms, and some 600 online databases containing millions of articles from tens of thousands of online journals, newspapers, government reports, and more. You can access many of these resources right from home by tapping into our online books, streaming videos, journals, newspapers, historical documents, photographs, and other materials. In addition, as an FIU student you have privileges at most other libraries in South Florida and all other Florida State University System libraries.

To help you with your research needs, our librarians will gladly assist you in person, by phone, by email, and by live chat and SMS/text; in collaboration with subject librarians we will work with you one-on-one showing you how to navigate the resources, assist with search strategies, and provide research consultations for in-depth projects. Group instruction is provided for classes by request, and in consultation with faculty, and via open workshops on focused topics such as Citation and Bibliography Management. The Libraries offer a variety of technology options, including wireless Internet access, mobile devices, laptop checkout, free high-quality document scanning, and color photocopying/printing. Drop by and have your computing questions answered at the Division of IT help desk or consult with skilled tutors at the Center for Excellence in Writing. The Libraries also house world-renowned digital collections including the Digital Library of the Caribbean (dLOC) and the Everglades Digital Library; state-of-the-art Geographic Information Systems (GIS) labs; the Latin American and Caribbean Center; and Special Collections. Through the newly created Digital Scholar Studio, the Libraries also offer active learning spaces as well as digital scholarship services and training on topics such as web publishing, digital exhibit building, and other digital scholarship tools/technologies.

In keeping with FIU's core value--student-centered service--the Libraries have study rooms, late and/or overnight hours, group- and quiet- study spaces, collaborative-learning areas, disability access, and cafés. Many areas have been redesigned and renovated to provide state-of-the-art technology hubs, complete with ubiquitous wireless computing, small-group presentation rooms, open area collaboration zones, HDTV media viewing and listening rooms, flexible modular furniture, and many other features designed to accommodate the way you collaborate, study, and use information throughout your university career and beyond.

Visit our locations: the Green Library on the Modesto A. Maidique Campus, the Hubert Library on the Biscayne Bay Campus, the Engineering Library Service Center, and virtually at **http://library.fiu.edu**

UNIVERSITY MUSEUMS

THE PATRICIA & PHILLIP FROST ART MUSEUM

The Frost Art Museum's vision is to spark curiosity and dialogue through art. We bring great art to our South Florida community. We are a campus resource for our entire FIU community, and we serve as a premier cultural destination for residents and visitors to one of America's most vibrant cities. We complement our exhibitions with a wide range of educational programs for our community.

Admission to the museum is free for everyone, and we welcome you to bring your family and friends for an afternoon visit followed by a cafecito from Vicky's Café on our first floor. We offer free educational programs throughout the month, including drawing in the galleries, lectures, tours with the curator, and zine-making workshops. In addition, the museum presents over 10 exhibitions every year. Our shows depict diverse cultures, histories, and perspectives.

The museum's permanent collection has grown to more than 6000 objects thanks to several notable donations of important works of art. From Pre-Columbian artifacts to twenty-first-century prints and photography, the extensive range of the collection allows the museum to provide in-depth research opportunities and exhibitions. The museum's permanent collection exhibition highlights our gems and rotates works throughout the year. In addition, much of our collection is available to search on our website.

Because the Frost Art Museum is part of one of the nation's largest research universities, education comprises a major component of the museum's mission. Each academic year, our curators and staff provide ongoing curriculum support to faculty across departments in FIU.

The Frost Art Museum continually reaffirms its commitment to promoting the excellence of its collections, exhibitions, and educational programs, by striving to discover innovative ways to reach and serve an increasingly larger and more diverse constituency - both nationally and internationally. Please visit the museum's website at http://frost.fiu.edu or call (305) 348-2890.

THE WOLFSONIAN–FIU

Located in the heart of Miami Beach's Art Deco District, The Wolfsonian–FIU is a museum and research center that uses objects to illustrate the persuasive power of art and design, to explore what it means to be modern, and to tell the story of social, political, and technological changes that have transformed our world. It encourages people to see the world in new ways, and to learn from the past as they shape the present and influence the future. The Wolfsonian achieves its mission through exhibitions, publications, educational programs, and individual scholarship.

The Wolfsonian became part of FIU in July 1997 when its founder, Mitchell "Micky" Wolfson Jr., donated his extraordinary collection, as well as the museum building, to the University. The core of The Wolfsonian's holdings consists of decorative arts, fine arts, propaganda, architectural materials, and industrial and graphic design from the period 1850 through 1950. The United States, Great Britain, Germany, Italy, and the Netherlands are the countries most extensively represented. There are also smaller but significant collections of materials from a number of other countries, including Austria, Czechoslovakia, France, Hungary, Japan, and the former Soviet Union. The collection of over 180,000 objects includes works on paper, furniture, paintings, sculpture, glass, textiles, ceramics, lighting and other appliances, as well as a rare books library.

In addition to its permanent collection galleries, The Wolfsonian presents temporary exhibitions that 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.

Through its public programs, 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, program, or the general calendar, please visit **wolfsonian.org** or call 305.531.1001.

The Wolfsonian offers important resources to the FIU community. The museum provides tours of its galleries to student groups and courses, and makes the collection of its rare books library (305.535.2634) available to students and faculty members for research projects. Students interested in learning more about these resources should contact the museum's associate director of curatorial and education at 305.535.2613 or **jon@thewolf.fiu.edu**.

THE JEWISH MUSEUM OF FLORIDA-FIU

The Jewish Museum of Florida-FIU (JMOF-FIU) is the only museum dedicated to telling the story of more than 250 years of Florida Jewish history, arts and culture, with a growing collection of more than 100,000 items. It is located in the trendy SoFi area of South Beach at 301 Washington Avenue. The Museum is housed in two restored historic buildings that were once synagogues for Miami Beach's first Jewish congregation. The original synagogue was built in 1929, and the second, built in 1936, was designed by Art Deco architect Henry Hohauser and features 80 stained-glass windows, a copper dome, and a marble *bimah*. The two buildings are joined together by Bessie's Bistro, named after former Miss America, Bess Myerson.

While reflective of the Jewish experience in Florida, JMOF-FIU creates understanding of the shared immigrant experience in our multicultural society. The Museum's core exhibition, *MOSAIC: Jewish Life in Florida, 1763 to Present* began as a statewide grassroots collecting effort, which included gathering photographs, artifacts and oral histories from descendants of pioneer families, as well as the state's more recent arrivals. Mosaic traveled to 13 Florida cities from 1990-1994 and generated so much interest that by 1995, it evolved into the Jewish Museum of Florida.

JMOF-FIU became part of the FIU in 2012, creating a historic partnership that leverages the resources of the Museum and FIU to ignite a new era of interdisciplinary education and research. Using the lens of the evolving immigration experience of Jews in Florida, JMOF-FIU

serves as a forum to promote tolerance, further global understanding and create connections to Jewish culture, history, arts and contemporary civic life for diverse audiences. Accredited by the American Association of Museums, JMOF has achieved a standard of excellence in its methodology for research, collecting, conservation, archiving, storing and interpreting its holdings.

The Museum's extensive collection focuses on the people who have shaped and continue to influence the development of our state, drawing crucial links between their contributions and the social, political, economic, cultural and religious aspects of Jewish life in Florida and the relationship of Jews to the dominant non-Jewish population. As such, the collection offers a wealth of opportunity for students and faculty for scholarly research across subject matters, from the arts and sciences to gender and religious studies, with artifacts, ephemera, documents, photographs and oral histories from every region of the state.

JMOF-FIU presents a vibrant schedule of thought-provoking history and art exhibits that change periodically, paired with a dynamic array of programs including: lectures, concerts, workshops, family activities, walking tours and presentations of contemporary topics of Jewish issues and interests worldwide, with international scholars and presenters and local movers and shakers. Many of the programs are in collaboration with FIU departments including the Green School of International and Public Affairs, Global Jewish Studies and School of Music as well as various cultural and community organizations.

JMOF-FIU is also an extended classroom for thousands of Miami-Dade County Public School students, inspiring them to explore their own cultural heritage and traditions and those of all ethnic groups in our multicultural society.

For more information, please visit **http://jmof.fiu.edu/** or call (305) 672-5044.

Academic & Student Affairs

The Division of Academic & Student Affairs seeks to enhance the academic mission of the University by promoting a vast array of educational, social, and cultural opportunities and programs. We believe that a student's education takes place both inside and outside the classroom. We aim to provide an environment that supports the growth and development of our students by catering to their social, intellectual, emotional, and spiritual needs. From orientation to job interview skills, volunteer opportunities to multicultural programs, health promotion to residential life, the Division Academic & Student Affairs is here to help students make the most of their university experience.

CAMPUS LIFE

The Department of Campus Life provides a variety of programs and services to students and the University community. Student's academic learning and success is enhanced through their active participation in the co-curricular opportunities offered in areas of leadership development, communication and organizational skills, service, event planning and evaluation techniques. Campus Life collaborates with other departments to coordinate programs and events.

The Department of Campus Life includes the Student Government Association, Black Student Union, Council for Student Organizations (MMC), Student Organizations Council (BBC), Student Programming Council, Sorority and Fraternity Life, Multifaith Council, Homecoming Council, and Panther Power (BBC).
Location: GC 2240, Modesto A. Maidique Campus, (305) 348-2138; WUC 141, Biscayne Bay Campus, (305) 919-5804.

CHILDREN'S CREATIVE LEARNING CENTER

Established in 1975, the Children's Creative Learning Center is an Educational Research Center for Child Development and an AdvancED accredited Early Learning School. The Center is located on the Modesto A. Maidique Campus and offers an educational preschool program for young children.

The essence of the program at the Center is built around verbal communication, enhancing the children's ability to be in touch with their different feelings and to express them verbally. Additionally, the Center's objectives for each child are the development of: self-concept and self-reliance, independent decision making, the ability to confront and resolve problems, respect and consideration for others, social skills and interpersonal relations.

Children between the ages of 2½ through 5 years who have achieved bathroom independence are eligible for programs housed in the CCLC Main building. Children between the ages 2 to 2½ years who may be working toward achieving bathroom independence are eligible for the Center's Toddler program, housed in the Graham Center.

Center enrollment priority is given to children of FIU students. If you are interested in enrolling your child at the Center, it is recommended to place your child on to the waiting list as soon as you are comfortable doing so. Please visit the CCLC building (located on the west side of campus, next to the tennis courts) to inquire about the Center programs, place your child onto the waiting list, and tour the facility. The Center's office hours are 8:30am – 5:00pm and no appointment is necessary for a tour.

For students seeking financial support for child care, the Center has been awarded the Child Care Access Means Parents in Schools (CCAMPIS) Grant from the U.S. Department of Education. Additionally, the Center participates in the Florida Voluntary Pre-Kindergarten (VPK) Program for four-year-old children, Step Up For Students Kindergarten Scholarship, and is a School Readiness Provider.

Further information about the Center's programs, hours and tuition can be found online at http://children.fiu.edu or by calling the Center office at (305) 348-2143.

FRATERNITY AND SORORITY LIFE

Fraternities and sororities contribute to the university by promoting leadership, scholarship, community service and philanthropy, social activities/brotherhood and sisterhood.

The Greek Community at FIU consists of 16 fraternities and 13 sororities. While each organization creates and manages their own activities, each is founded on similar principles of academic excellence, leadership, community service, and lifelong friendship. Joining the fraternity and sorority community provides an opportunity to gain leadership skills through involvement on and off campus and through regional and national volunteer opportunities.

Formal recruitment periods and membership intake processes are held fall or/and spring semesters, depending on the organization and council. For more information, please check our website.
Location: GC 2240, Modesto A. Maidique Campus, (305) 348-2138.
Web site: **Greeks.fiu.edu**.

STUDENT GOVERNMENT ASSOCIATION

The Student Government Association (SGA) 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 Modesto A. Maidique Campus. 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 230, Modesto A. Maidique Campus, (305) 348-2121; WUC 301, Biscayne Bay Campus, (305) 919-5680.

CENTER FOR LEADERSHIP AND SERVICE

The Center for Leadership and Service (CLS) provides students with developmental and experiential opportunities that foster leadership, action, and community engagement. Through leadership education, service-learning, civic engagement, service, and social innovation, students will become active citizens on-campus, in their respective communities, and globally. The vision of the CLS is to develop students for engagement in lifelong leading, service, and learning.

Leadership education is offered through co-curricular (non-credit) programs. Non-credit leadership development programs range from one-hour skill building workshops, to semester-based programs (Academy of Leaders), to Program on Demand workshops All of these programs are interactive and experiential in nature and are offered at a variety of times to accommodate our diverse student population. Programs are developmental in nature, so students can begin with an emerging leader program and progress to more advanced leadership training while at FIU. Consult the department web site for program descriptions and application details, **leadserve.fiu.edu**.

CLS is also the central office for service development, by offering a clearinghouse and resource center for volunteer activities, service-learning, and advocacy for social issues. Two major service projects are sponsored by CLS in the Fall and Spring semesters. Alternative Break (aB) educates students about social issues and encourages them to make a difference by participating in direct service projects in communities throughout the country and abroad. Roarthon is a student-run philanthropy dedicated to raising money for the Children's Miracle Network. Students can serve on the planning committee or participate as dancers in the overnight fundraiser that benefits the Nicklaus Children's Hospital Foundation. Relay for Life is the signature fundraising event for the American Cancer Society. A committee of FIU students organizes the 6-hour walk and thousands participate in the event to celebrate life and provide hope for those touched by this disease. By taking leadership roles in organizing and implementing these projects, students are able to practice and refine their leadership skills.

Students may also take on leadership roles by providing peer education. The LEAD Team is a group of student facilitators that promotes and supports leadership development. The LEAD Team participates as program promoters and department ambassadors, group facilitators, classroom presenters, and consultants to student organizations.

The Center for Leadership and Service is dedicated to developing the leadership capacity and cultivating active citizens to all FIU students.

Location: GC 242 Modesto A. Maidique Campus, (305) 348-6995; WUC 353, Biscayne Bay Campus, (305) 919-5360.

Web site: **leadserve.fiu.edu**.

MULTIFAITH COUNCIL

The Multifaith Council 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 that are non-denominational.

Location: GC 318, Modesto A. Maidique Campus, (305) 348-3902; Biscayne Bay Campus, (305) 919-5247.

DISABILITY RESOURCE CENTER

The American Disabilities Act (ADA) requires institutions to make reasonable accommodations in order to provide students with disabilities an equal opportunity to participate in courses, programs, services, and activities at Florida International University.

The Disability Resource Center (DRC) collaborates with students, faculty, staff, and community members to create diverse learning environments that are usable, equitable, inclusive, and sustainable. The DRC provides FIU students with disabilities the necessary support to successfully complete their education and participate in activities available to all students. Accommodations may include: note takers, extended time on assignments, adaptive equipment/technology, testing accommodations, CART services, ASL Interpreters, and readers/scribes.

For more information about our services, you may visit our website at **drc.fiu.edu**.

If you have a history or diagnosis of disability and plan to utilize academic accommodations, please contact the DRC's MMC or BBC Office using the following information. Modesto A. Maidique Campus: GC 190, (305) 348-3532; Biscayne Bay Campus: WUC 131, (305) 919-5345.

Class Attendance

If a qualified student with a disability believes it may not be possible to abide by the attendance policy due to disability related reasons, the student should contact the Disability Resource Center (DRC) at the beginning of the semester, or as soon as the need arises, to discuss the possibility of the accommodation being initiated.

The DRC may determine that a student's disability entitles the student to an adaptation of the usual course attendance policy. Adaptations of course attendance policies will be determined on an individual, case-by-case basis. Adaptations of the course attendance policy does not mean that unlimited absences will be permitted. Florida International University's Disability Resource Center attempts to make every effort to accommodate students' disability related academic needs. However, neither the university nor an individual faculty member is required to waive essential or fundamental academic requirements of a course regardless of the nature of a student's disability.

Regardless of the adaptation of the course attendance policy, the student is required to meet all of the academic course requirements and to complete all assignments and examinations. It is the student's responsibility to obtain the material and notes from missed classes. The student will be graded according to the criteria stated in the class syllabus.

Students should note that absences for non-disability related reasons will not be excused by the DRC and are only vetted through the professor of the course. When an attendance accommodation is determined to be reasonable, a DRC Access Consultant will work with the faculty to define the parameters of the accommodation.

This does not mean a student may miss class whenever they like.

If a student finds that he or she is not doing well in the class due to extended absences, the student is urged to consider options such as dropping the class, withdrawing from the class or taking an incomplete.

Testing and Exam Proctor Forms:
Students with testing accommodations that will be testing at the DRC must work with professors at the beginning of each semester to complete an Exam Proctor Form as it provides the test proctor with information that is fundamental to the testing process, such as testing conditions, allotted time for tests, and the way in which tests are received at the DRC and delivered back to the professor.

In cases where professors do not have their test dates finalized by the first week of class, an Exam Proctor Form must still be completed and submitted. Changes or additional exam dates can be provided by the professor to the Testing Coordinator as long as it is provided a minimum of **one week before** the scheduled exam date. For more information or to view our forms, please visit drc.fiu.edu

Training

The DRC and Equal Opportunity Programs and Diversity (EOPD) will coordinate the provision of training to academic advisors and faculty members regarding best practices in accommodating students with disabilities.

STUDENT HEALTH SERVICES

Good health is essential to students' success while at the university and throughout their life. Therefore, Student Health Services (SHS) is committed to providing registered students with free or low-cost quality medical care, which will allow them to thrive both academically and personally. Our healthcare centers are located at both the Biscayne Bay (BBC) and Modesto A. Maidique (MMC) campuses to serve our students. The care offered has a strong focus on education and works with students on ways to adopt a healthier lifestyle.

Clinical Services include:

- Care for common illness and injuries
- Behavioral health/Psychiatry
- Dermatology
- Women's health/Gynecology
- Women's health services
- Pre-matriculation and preventive vaccines
- Preventive screenings, EKG's, and Laboratory testing (blood work, urine test, and cultures)
- After hours, holiday, and weekend nurse answer line. MMC (305) 348-2401 opt. 2; BBC (305) 919-5620 opt. 2.

Pharmacy services at MMC include*:

- Over-the-counter (OTC) products and prescription medications at competitive prices.
- Natural and organic products
- Individualized education and counseling on prescription medications and OTC products

*Although a full-service pharmacy is not available at BBC, pre-packaged medications are dispensed by practitioners at that location.

Other services

- Assist students with obtaining University-sponsored student health insurance plans to help offset the cost of services not covered under the health fee.

For more information about us and a complete list of services, visit our website at **http://studenthealth.fiu.edu.**

Location: Student Health Center (near the College of Law), Modesto A. Maidique Campus, (305) 348-2401 ext. 2; Health Care Center (HCC) Building located by parking lot 1-C, Biscayne Bay Campus.

HEALTH PROMOTION SERVICES

Health Promotion Services (HPS) focuses on developing Healthy Panthers through a variety of primary prevention programs offered by the Healthy Living and Health Compliance service units. The main goal for HPS is to engage students, educate them on healthier lifestyle choices and create on-campus experiences that foster healthy living.

The Healthy Living Program (HLP), offers a holistic and preventative approach to health by encouraging FIU students to engage in everyday healthy lifestyle practices! Our on-campus services and online education promote the 7 Dimensions of Wellness: physical, intellectual, occupational, emotional, social, spiritual, and environmental. Services and workshops are offered on a variety of topics such as: stress management, nutrition coaching, sleep hygiene, sexual health, aromatherapy, massage therapy, and acupuncture.

In addition, Health Compliance (HC) services assists students in navigating through the registration process by educating students on pre-matriculation health requirements such as mandatory vaccines and health insurance for international students.

For more information about all the services offered on-campus that assist with personal well-being please visit **go.fiu.edu/healthyliving.**
Location:. HPS MMC Locations: Healthy Living Program: Student Health Center Room 180, (305) 348-2401 ext. 5,
Health Compliance (Student Academic Success Center) (305) 348-2401 ext. 1
HPS BBC Location: Healthy Living Program and Health Compliance (Student Health Center building), (305) 919-5307.

STUDENT MEDIA

Student media at FIU include PatherNow Print, PantherNow, and The Roar radio.

PantherNow Print is an editorially independent publication produced by students and distributed at no cost. PantherNow keeps the University community informed about campus news, events and activities; serves as a forum for opinion and commentary concerning campus related topics; and protects the interests of the University community and its component parts. It is published on Wednesdays during the fall and spring terms, except during holiday breaks. It is also published seven times during the summer term. Students can work on the staff in news and features, photography, and/or advertising. No prior experience is required.

The Roar is FIU's radio station located at 88.1, 95.3 (MMC), and 96.9 (BBC) FM. Its programming is an eclectic mix of the latest music , FIU sports play-by-play, and news. Programming also includes daily specialty

shows that cover the music spectrum. The station operates 24 hours, 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.

PantherNow is a multi-media website that incorporates all of student media. Not only can you read about an event, but you can also listen and watch it with PantherNow's streaming video. The website is updated five days a week. PantherNow accepts advertising.
Location: Panther Press, GC 210, Modesto A. Maidique Campus, (305) 348-2709; WUC 220, Biscayne Bay Campus, (305) 919-4722. WRGP The Roar, GC 319, Modesto A. Maidique Campus, (305) 348-3071; panthernow.com, GC 210, Modesto A. Maidique Campus.

HOUSING AND RESIDENTIAL LIFE

The Department of Housing and Residential Life provides on-campus housing for students on the Modesto A. Maidique Campus. We offer single-gender and gender-inclusive accommodations. FIU does not offer family or married student housing. FIU student housing is designed to provide a comfortable living environment conducive to supporting students' academic success. The facilities are located within walking distance to classrooms, faculty offices, labs, recreation facilities, and other student services. Multiple room types provide a variety of accommodations to meet students' housing needs and budgets.

The campus residential community provides unique opportunities for personal growth and development, leadership experiences through student participation in programming and activities, and developing an appreciation of and sensitivity to differences. Residents have the opportunity to enjoy social and educational events that are sponsored by the Residence Hall Association and Resident Assistants.

On-campus housing rental rates include all utilities, wireless internet, cable television, and streaming channels. Each of the residence halls is staffed with both professional and paraprofessional personnel to ensure the facilities are safe and well maintained. For more information regarding services and accommodations, please visit our web page at **housing.fiu.edu/**.
On-campus housing is available for students taking classes at the Biscayne Bay Campus (BBC). Bayview is a privately-run residence hall at BBC. More information about Bayview is available at **www.bayviewfiu.com/**.
Location: Housing Office, University Park Towers (UPT) 121, Modesto A. Maidique Campus, (305) 348-4190, Fax: (305) 348-4295; e-mail: **housing@fiu.edu**.

MULTICULTURAL PROGRAMS AND SERVICES

Mission: Multicultural Programs and Services (MPAS) celebrates diversity and promotes inclusion by creating a campus community that encourages social responsibility, honors equality, and foster student success.

MPAS offers a wide variety of university and community-wide signature events and programs including a month-long MLK Commemorative Celebration, Mentorship Programs (SSS, LGBTQA, MMI), the Lavender Graduation Ceremony, Excellence Awards Program, Strengths Summit, Social Justice Summit, and the LGBTQA Pride Month activities. In addition, MPAS offers and monitors the following scholarships (fiu.academicworks.com): MPAS Scholars, Golden Drum, MLK Essay Awards, and the Out and Proud.
Location: GC 216, Modesto A. Maidique Campus (305) 348-2436 and WUC 253, Biscayne Bay Campus (305) 919-5817. Website: mpas.fiu.edu.

Social Justice - MPAS defines social justice as the redistribution of power and opportunity to create equity, diversity and civic engagement for marginalized groups in a supportive environment. Through a series of workshops, discussions and events, MPAS engages the FIU student body to critically think and act on social juice issues that are affecting them locally, nationally, and globally.

Student Support Services (SSS), a TRIO program, funded by the U.S. Department of Education is located at MPAS. The program provides opportunities for academic development, assistance with basic college requirements, and motivates students toward the successful completion of their bachelor's degree. The goal of SSSP is to increase the college retention and graduation rates of its participants who are low-income, first generation, and individuals with disabilities. To apply: go.fiu.edu/SSS

LGBTQA Initiatives provide programs and activities to meet the needs of Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Asexual, and Ally (LGBTQA) students at FIU. Programs are offered that create **s**upport, **a**wareness, **v**isibility, and **e**ducation on issues relating to sexual orientation, gender identity, and gender expression. We S.A.V.E our students!

Male Mentoring Initiative (MMI) The goal of the program is to empower our students and foster personal/professional maturity through mentoring and meaningful interactions. We provide various services that addresses the many needs of our male student population while reaffirming masculinity in a positive way. MMI is open to all FIU students.

OFFICE OF THE OMBUDSPERSON

The Ombudsperson 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 that hinder resolving the issue or are causing an inordinate delay. The Ombudsperson may resolve problems through various methods, including, making inquiries or referrals to the appropriate university department for review. The Ombudsperson may be utilized in situations where all areas of appeal have been exhausted or proven unsuccessful.

Location: GC 219, Modesto A. Maidique Campus, (305) 348-2797.

DEAN OF STUDENTS

The Dean of Students, in the Division of Student Affairs, creates a culture of care for students, their families, faculty and staff by providing proactive education, consultation, resources, and response to distressed students or students in crisis. Some students will face obstacles along the path toward their academic goals, such as personal distress, anxiety, depression, family emergencies, health issues and more. There are excellent support services on campus to assist students, with the purpose of getting them back on track toward their goals. The Dean of Students can assist students one-on-one by identifying the appropriate campus resources to best help them.
Location: GC 219, Modesto A. Maidique Campus, (305) 348-2797.

ORIENTATION AND PARENT PROGRAMS

The Office of Orientation and Parent Programs provides resources, services, and programs to all new students and families entering Florida International University. The mandatory 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. New students meet with a Peer Advisor who introduces them to the campus surroundings and provides valuable insight into what it is like to be an FIU student. Students are also given the opportunity to receive their official FIU Student ID/ FIU OneCard, discover the variety of ways to get involved on campus, and learn how to use the online student registration system.

Freshman Orientation and Transfer Advising & Registration Days for transfer students are held prior to the fall, spring, and summer semesters. A Parent and Family Orientation is also offered during each freshman session to introduce family members to FIU and assist them with preparing to meet the challenges of supporting a college student. Information about registering for Orientation is e-mailed to newly admitted undergraduate students prior to the first term of enrollment.

The office also coordinates other large-scale events. Panther Camp, an extended orientation program, allows students to develop relationships with fellow students, FIU faculty, and staff, learn more about FIU traditions, resources, involvement opportunities, and much more. Parent and Family Day is an opportunity for parents and family members to continue their involvement with FIU and to reconnect with their students on campus by attending this spirited event in the fall semester.
Location: GC 189, Modesto A. Maidique Campus and WUC 129, Biscayne Bay Campus, (305) 348-6414.
Web site: **orientation.fiu.edu**.

STUDENT CONDUCT AND CONFLICT RESOLUTION

Student Conduct and Conflict Resolution serves the FIU community by educating members about the Student Code of Conduct and the value of respecting others. Through the student conduct process, we hold students accountable for their behavior in a fair and developmental manner while upholding the rights of the community.

Infringement of an academic nature should be directed to the Vice Provost for Academic Affairs. Complaints that are non-academic should be directed to the Office of Student Conduct and Conflict Resolution.

The Office of Student Conduct and Conflict Resolution:

- Holds students accountable for violations of the Student Code of Conduct by administering the student conduct process.
- Selects and trains the members of the Student Conduct Committee and hearing officers.
- Provides educational programs for faculty, staff, and students regarding the student conduct process; ethics and integrity; conflict resolution; and dealing with disruptive students in the classroom.
- Provides support resources to community member who may be victims of misconduct.
- Provides student conduct record 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).
- Manages 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 FIU Student Handbook for more information regarding the student conduct process and procedure. To report a possible violation of the Code of Conduct or a Student of Concern, visit the SCCR website at **conduct.fiu.edu**. The Office of Student Conduct and Conflict Resolution is located in GC 311 at the Modesto A. Maidique Campus, (305) 348-3939.
Web site: **conduct.fiu.edu**.

UNIVERSITY CENTERS

The University Center on each campus provides vital services to students and the University community. The Graham University Center (GC) at Modesto A. Maidique Campus and the Wolfe University Center (WUC) at Biscayne Bay Campus are the focal points for the University community to meet and interact in an educational and vibrant environment. The Centers' staff coordinate the scheduling of space and assist with the production of student and university sponsored events.

As the hub of University life, these centers house the offices of Student Government Association (SGA); Campus Life; Student Programming Council (SPC); Council of Student Organizations (CSO); Student Organization Council (SOC); and Office of Sorority and Fraternity Life.

Graham Center

The Graham Center building has offices, retail stores, food outlets, academic classrooms and event venues. The offices that offer student support services are the Office of the Vice President for Student Affairs, Ombudsperson Office, Campus Life, Center for Leadership and Service, Disability Resource Center, Multi-faith Council, Office of Multicultural Programs and

Services, Office of Orientation and Parent Programs, Counseling and Psychological Services, Student Conduct and Conflict Resolution, Student Media, Upward Bound and Pre-College Programs, and Women's Center. Panther Press student newspaper and The Roar student radio station (WRGP) keep offices and production rooms at the Graham Center.

The Graham Center also offers the following services: event planning, audiovisual/multi-media support, state-of-the-art computer labs, Lost and Found, ATMs, locker rentals, notary public service, vending machines, and Kaplan Test Preparation classes. Additionally, GC offers event facilities such as: meeting rooms, ballrooms, and auditoriums for lectures, banquets, receptions, and weddings. The 23-classroom wing -- located on the second floor and interconnecting with the Barnes & Noble café – has a large lounge ideal for individual and group studying. University community can enjoy entertainment and the arts by visiting the Student Art Gallery and Piano Lounge, and the Porter Davis Game Room.

The GC mini-mall offers a variety of food locations: The Fresh Food Company serves breakfast, lunch and dinner in an all-you-care-to-eat style. Other offerings include Chili's Too, Faculty Club, Recharge-U convenience store, Jamba Juice, Pollo Tropical, Subway, Burger King, Almazar, Sushi Maki, Einstein Bros. Bagels, Bustelo Café and Sergio's Cuban Café & Grill. Other retail venues include: Barnes and Noble Bookstore (with Starbucks Café), Santi's Hair and Nail Salon, Golden Touch Haircuts & Shaves, Panther's Dry Cleaners, Panther TECH store and Ricoh@FIU (Copy Center, packing and shipping).

The administrative offices of the Graham Center are located in GC 1210, at the Modesto A. Maidique Campus, The main office number is (305) 348-2297 and the web site is **grahamcenter.fiu.edu**.

Wolfe University Center

The Wolfe University Center (WUC) is located at the heart of FIU's Biscayne Bay Campus. It is home to the 300-seat Mary Ann Wolfe Theater, houses a state-of-the-art computer lounge, five large meeting rooms, and a multi-purpose ballroom. A multi-purpose dining and catering facility, the Wellness and Recreation Center, and several comfortable study lounges are also provided in the facility. A recent renovation to Panther Square, the Center's lobby and student programmatic space, creates a high-tech destination on campus where students can study, connect with others and host events.

The Center is also host to the Team Ropes Adventure Challenge (TRAC), one of the most complete and professional team-building training programs in South Florida. TRAC is an experiential education program that focuses on human development and group dynamics. Participants will learn new skills through a series of adventure-based activities that provide training in leadership, teambuilding development, communication, and problem solving skills.

Center tenants include Student Affairs departments for Disability Resource Center, Multicultural Programs and Services, Health Promotion Services and Counseling and Psychological Services. University support offices include the University Credit Union, the FIU One Card Office/Wells Fargo, Ricoh @ FIU (copy center, packing and shipping), vending machines, ATM, Lost and Found, Career and Talent Development, and International Student and Scholar Services. The administrative offices of the Wolfe University Center are located in WUC 325 at Biscayne Bay Campus, (305) 919-5800 and web site is **wuc.fiu.edu**.

The Barnes and Noble University Bookstore is located on the first floor at both University Centers.

Location: GC 2200, Modesto A. Maidique Campus, (305) 348-1506; WUC 130, Biscayne Bay Campus, (305) 919-5359.

WOMEN'S CENTER

The Women's Center at FIU provides numerous programs and services to support FIU students in their personal, academic, and professional development. The Women's Center collaborates and coordinates with other university departments and student organizations to meet the needs and enhance the lives of our diverse female population. While our programs and services focus on women, they are open to the entire community and include confidential referrals, leadership, and volunteer opportunities. We educate and advocate for systemic changes that will improve the lives of everyone on campus.

Our curriculum includes the following programs:

- Women in STEM Living Learning Community partnership with Housing & Residential Life
- Sisterhood Retreat (Women's Empowerment Weekend)
- Women Who Lead Conference
- Workshops and Discussion Series (also available by request)
- National Love Your Body Day events
- International Day for the Elimination of Violence Against Women
- Sexual Assault Awareness Month events including Take Back the Night
- FIU Gender Equity Coalition (FIUGE) student organization
- National Organization for Women (NOW) student organization
- Generation Action student organization
- UN Women (USNC-UN Women) student organization

Location: GC 212, Modesto A. Maidique Campus, (305) 348-1506; WUC 353, Biscayne Bay Campus, (305) 919-5359.

Web site: **women.fiu.edu**.

COUNSELING AND PSYCHOLOGICAL SERVICES

Counseling and Psychological Services (CAPS) provides a variety of services and resources designed to help currently registered FIU students achieve and maintain optimum mental health. Therapists, utilizing the short-term psychotherapy approach, assist students in developing effective coping skills and decision-making abilities; developing effective communication skills; and identifying and managing daily stressors. All therapeutic services are confidential and can be utilized either in person or online, depending on the type of service desired.

CAPS services include:

- Individual, group, and couples therapy for issues such as: anxiety, depression, stress, grief, and interpersonal and relationship problems
- In-person screenings for substance abuse and eating disorders/body image issues

- Psycho-educational and Neuropsychological testing
- Biofeedback
- Crisis intervention
- Psychiatric services

CAPS online programs include:

- Workshops for time management, anger management, and stress management
- Screenings for anxiety, depression, eating disorders, and bipolar disorder
- TAO – a therapy assisted online program for anxiety reduction and overcoming depression
- Teletherpay and telepsychiatry appointments for distance services

CAPS/ VEP Outreach Programming

Throughout the year, the staff at CAPS participates in campus-wide outreach activities designed to increase student awareness about mental health and services provided at the center. In addition, CAPS/VEP sponsor a series of workshops to enhance students' personal and academic skills, and collaborates with other departments at FIU by co-sponsoring events. CAPS/VEP outreach events are a great way to learn, be entertained, have fun, and make new friends.

Location: GC 211_Modesto A. Maidique Campus, (305) 348-CAPS (2277); WUC 320, Biscayne Bay Campus, (305) 919-5305.

Web site: **caps.fiu.edu**

Victim services may also be accessed through a 24-hour crisis hotline: (305) 348-2277.

Web site: **vep.fiu.edu**

CAPS Victim Empowerment Program (VEP)

VEP services are free of charge and confidential.

VEP services include:

- Crisis Support and assistance in accessing community and University resources, and helping students understand the different options available to them during or after experiencing actual or threatened abuse or violence. This information is also available to students who may want resources for someone they know.
- Help with issues related to relationship abuse, sexual assault, stalking, assault and battery, homicide of friend or relative, hate crimes, harassment, and re-emergence of problems as a result of a past abuse such as childhood sexual abuse.

Other VEP services available (if desired by student):

- Safety planning
- Understanding and navigating the criminal justice system
- Assistance in making police reports (if desired)
- Petitioning the court for an injunction for protection ("restraining order")
- Finding legal assistance
- Finding emergency safe shelter
- Communicating with professors and/or other parties as requested by the victim
- Help with university administrative procedures
- Student conduct proceedings
- Escort to appointments, hearings, and medical facilities
- Help with other solutions that may be necessary

Location/Contact: SHS 270, MMC, (305) 348-2277, BBC by appointment. After hours urgent help: 305-348-2277

Additional information and resources available at **vep.fiu.edu**.

WELLNESS & RECREATION SERVICES

Recreational sports programs and fitness facilities are available for Florida International University students, faculty, staff and alumni through the Wellness and Recreation Centers at MMC and BBC. Funding for these services is primarily through student fees allocated by the FIU Student Government Association (SGA).

A variety of Intramural (IM) Sports are offered on each campus, including men's, women's and co-rec leagues in sports such as flag football, basketball, volleyball, softball and soccer, and tournaments for sports like racquetball, tennis, and table tennis. Individuals looking for a team are encouraged to register as "free agents". Registration for Intramural Sports can be initiated via the web on the Wellness and Recreation Center website (see URL below).

The newly remodeled 120,000+ square foot MMC Wellness and Recreation Center (WRC) is equipped with state-of-the-art exercise and cardiovascular fitness equipment. In addition to free weights, the center provides resistance and selectorized equipment, steppers, upright and recumbent bicycles, treadmills, rowers, and ellipticals. Two basketball gyms, locker rooms and a Pro Shop are also available. The WRC is located west of the Student Health Services Complex near Parkview Hall.

Over 75 PantherFIT group fitness classes per week are scheduled in the WRC. Free group exercise classes are offered throughout the year including: Hardbodies, Pilates, Ultimate Abs, and Zumba®, as well as specialty classes such as Yoga, Group Cycling, and Capoeira. Fitness orientations, body composition evaluations, and personal training are also featured. Non-credit fitness workshops and American Heart Assoc. (AHA)/CPR/AED certifications are offered.

The Wellness and Recreation Center - BBC is located on the first floor of the Wolfe University Center (WUC), Room 160. The 70,000 square foot Center which includes an aquatic training facility, home to FIU's four-time Conference USA Women Swimming and Diving Champions. The WRC – BBC features 21 cardiovascular machines with a TV/Video Village, locker rooms and showers and state of the are LifeFitness selectorized, and Hammer Strength fitness equipment. Additionally, there is a Group Exercise aerobics studio with ballet bars. The WRC – BBC hosts Cardio vascular group exercise classes include Yoga, Hip Hop Dance, Belly Dancing, Body Sculpting, Dance Aerobics, Cross-Fit and Zumba®. Free massages are offered on Mondays. Additionally, the Wellness & Recreation - BBC offers Kayaking, Nighttime Kayaking and Stand-up Paddle Board excursions from our Outdoor X program. Make sure to stop in and participate in our complimentary Bike Share program available to all of our student participants.

The two campuses offer other facilities for recreational use. The Tennis Centers on the BBC campus offers lighted courts, and tennis lessons are available. The BBC

Aquatic Center and MMC Panther Hall Pool provide on-campus swimming opportunities. Student Learn To Swim Programs are available at the BBC Aquatic Center and we have the student club of the year, Poseidon's Panthers. Additionally, water polo classes, triathlon training and Masters Swimming classes are offered weekly at the BBC Aquatic Center. At MMC, students have free access to nearby Tamiami Pool during the week from noon-3:00pm. At MMC, the WRC houses two indoor racquetball courts and one squash court available on a reservation basis. A current, activated Panther OneCard ID is required for access to all recreation facilities and programs.

Other areas of interest include adventure recreation programs (offering outdoor experiential education trips in and out-of-state), sport clubs, the Lose It Weight Loss Program, and special events.

Both Wellness and Recreation offices provide student employment opportunities as sports officials, Membership Assistants, Facility Attendants, Building Supervisors, Lifeguards, group fitness instructors, and personal trainers. MMC is home to the FIU Bike Shop for repair services and retail sales.

Location:
Wellness and Recreation Center – MMC desks: (305) 348-2575 or 305-348-2951
Wellness and Recreation Center – BBC: (305) 919-5678
WRC – MMC Membership Desk: (305) 348-2951
MMC Panther Hall Pool: (305) 348-1895
BBC Aquatic Center: (305) 919-4549
IM Sports: (305) 348-1054 (MMC), (305) 919-4595 (BBC)
Tennis Center: (305) 348-6327 (MMC), (305) 919-4595 (BBC)
MMC Racquetball reservations: (305) 348-2900
Bike Shop: (305) 348-4880
Web sites: **recreation.fiu.edu and bbcrec.fiu.edu**.

STUDENT FOOD PANTRY

The Student Food Pantry is available to all currently enrolled students located at both the Modesto A. Maidique Campus (MMC) and the Biscayne Bay Campus (BBC). The purpose of the pantries is to serve FIU students in need. No proof of need is required. Students can access the Pantry weekly taking up to 10 pounds of food each week. The BBC Student Food Pantry is located in WUC 307 and is run by Healthy Living Program. The MMC Student Food Pantry is located in GC 319 and is overseen by the Center for Leadership & Service. Both Pantries are donations based. Food donations are supported by students, staff, faculty, student organizations, members of the community. Location: GC 319, Modesto A Maidique Campus, (305) 348-3204; WUC 307, Biscayne Bay Campus;
Website: emergencystudentaid.fiu.edu

Intercollegiate Athletics

FIU Athletics has been a program of tremendous growth since its inception over 40 years ago. FIU is a member of the National Collegiate Athletic Association (NCAA), and is a member of Conference USA for 17 men's and women's athletic programs. At this time, the sport of beach volleyball is a member of the Coastal Collegiate Sports Association Conference as Conference USA currently does not sponsor a championship in the sport of beach volleyball. FIU continues to elevate the athletics program and has won nine Conference USA Championships between 2015-2018 with a 5-Peat of championships in Women's Swimming & Diving. Sports programs and services in Intercollegiate Athletics provide an opportunity for student-athletes to develop their athletic skills and leadership abilities in an educational setting. Much emphasis is placed on the student as a student-athlete to ensure intellectual, emotional and social well-being.

ATHLETICS TEAM MEMBERSHIP

Several of the FIU Athletic teams have won conference championships in recent seasons including women's swimming & diving, golf, baseball, and men's soccer and tennis while many other student-athletes have garnered All-American and other accolades across the sport programs. FIU's intercollegiate sports programs for women include basketball, volleyball, soccer, golf, tennis, track, softball, cross-country, swimming/diving, and beach volleyball. Men's sports include basketball, football, soccer, baseball, track, and cross-country.

ATHLETIC FACILITIES

The Athletic Department utilizes eight facilities that serve as the sites for athletic, educational, and recreational activities.

Phase I of **Ricardo Silva Stadium** was opened in Fall 2008. The stadium features over 20,000 permanent seats, 1,400 club seats, an upper concourse and 19 full-service luxury suites. In addition to the suites the stadium features a **Stadium Club**, which is a multi-purpose room that can be used for various events. The stadium is the home of our intercollegiate football program.

Located in the west end zone bleachers of Ricardo Silva Stadium is the R. Kirk Landon Field House. The **R. Kirk Landon Field House** is a 55,000 sq ft facility that houses the FIU intercollegiate football team, coaches, and all student-athlete weight training facility. The **University Credit Union Box Office** is located at the west entrance to the field house and services FIU sports. It also houses a 12,500 sq ft weight room that accommodates all FIU intercollegiate student-athletes.

The **Ocean Bank Convocation Center (OBCC)** is home to our intercollegiate men's and women's basketball teams as well as our women's volleyball team. It is a multi-purpose facility with a seating capacity for 5,150 and is the venue for our convocation and graduation ceremonies. The main floor can hold four volleyball courts and two basketball courts. The two auxiliary gyms can each hold one basketball court or a volleyball court. Also housed in the OBCC are seven classrooms and eight locker rooms. In 2017, new upper level seating was installed.

The **Baseball Stadium** is the home to our intercollegiate baseball team. The stadium has a seating capacity of 2,200 and offers two luxury suites with a capacity of 20 and 25 both overlooking the field. The Baseball Stadium also has indoor-batting cages located under the first base bleachers and outdoor just outside the left field fence. In 2017, a new Musco lighting system was installed. In 2018, the locker room and team lounge were renovated.

The **FIU Soccer Stadium** is the home of our intercollegiate men's and women's soccer programs. This lighted soccer stadium seats 1,500 and the dimensions of the field span 120 yards in length by 70 yards in width.

The **FIU Tennis Center** has 6 lighted courts and is home to the women's tennis program.

The **FIU Softball Stadium** houses our intercollegiate softball program. The elevated grandstands completed in 2014 has seating for 500. Adjacent to the Felsberg Field are the covered batting cages, and three bullpen areas. A new building was completed in 2018 for the softball team with locker room/lounge, coach's offices, and public restrooms.

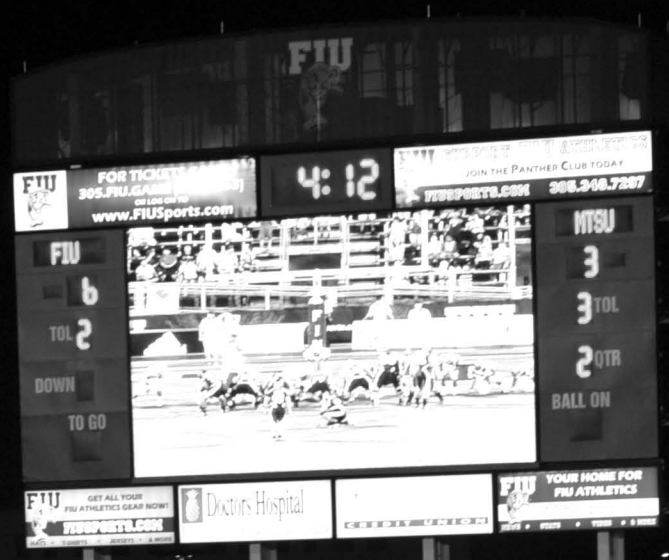
The **FIU Beach Volleyball Courts** were completed in 2012 and are home to our top 9 nationally ranked beach volleyball program.

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

For additional information visit the athletic department's website at **fiusports.com** or call the University Credit Union Box office at 348-4263 (**FIU-GAME**).

STUDENT ATHLETE ACADEMIC CENTER

Under the leadership of Academic & Student Affairs, the Student Athlete Academic Center provides a range of academic support services for student-athletes, including advising, tutoring, and monitoring of academic progress. The Center is located west of the FIU OBCC, at the Modesto A. Maidique Campus, and has hours of operation to meet the needs of the student-athletes. The Center is equipped with computer laboratories, study carrels, and classrooms. It is staffed with advisors, tutors, and learning specialists. The unit works in conjunction with various university academic departments, as well as with other university support units to ensure the academic success of athletes. For information call (305) 348-6412.


FIU
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BALL ON
Doctors Hospital
YOUR HOME FOR FIU ATHLETICS

Continuing Education

FIU's Academic Planning and Accountability-Continuing Education (APA-CE) consists of two major program areas: Credit Programs and Non-credit Programs. Programs offered through APA-CE extend the instructional and academic resources of the university by using innovative approaches including distance education, flexible class scheduling, customized training and off-campus academic programs. Local, state, national, and international communities are served with cost-effective, high quality and distinctive programs and services.

ACADEMIC CREDIT PROGRAMS

APA-CE implements services and resources tied to academic credit courses and programs offered by schools and colleges. These courses and programs can be delivered online, off-campus, and on weekends.

These Continuing Education credit programs provide educational opportunities for working professionals and non-traditional students. In addition, these programs can be customized to meet employee training needs at the worksite.

For more information on Continuing Education Credit Programs, please visit **https://continue.fiu.edu**

NON-CREDIT PROGRAMS

APA-CE develops and implements non-credit programs and is the official granting authority at FIU of general Continuing Education Units (CEUs). These non-credit programs maximize opportunities for lifelong learning and professional development to meet the business needs of the local, national, and international community. APA-CE's non-credit programs are customized. Utilizing a variety of formats, these programs can be offered with flexible schedules by experts in the field thus adding quantifiable value to organizations and the workforce.

For more information on Continuing Education Non-Credit Programs, please visit **https://continue.fiu.edu**

FIU ONLINE

FIU Online offers online academic credit courses and degree programs for traditional students, professionals, and adult learners. For more information, please visit https://fiuonline.fiu.edu. The undergraduate bachelor's programs include:

- Asian Studies
- Biology
- Biology: Allied Health Profession Track
- Biology: Bioentrepreneur Track
- Biology: Health Policy, Environmental Policy, and Pre-Law Track
- Biology: Science Communication Track
- Business Administration: Finance
- Business Administration: Human Resource Management
- Business Administration: International Business
- Business Administration: Logistics and Supply Chain Management
- Business Administration: Management
- Business Administration: Marketing
- Communication Arts: Organizational Communication Studies Track
- Computer Engineering
- Computer Engineering and Engineering Management (Combined Bachelor/Master)
- Computer Science
- Crime Science
- Criminal Justice
- Criminal Justice (Combined Bachelor/Master)
- Early Childhood Education: Early Childhood Development Track
- Economics
- Electrical Engineering
- Electrical Engineering and Engineering Management (Combined Bachelor/Master)
- English
- Health Services Administration
- History
- Hospitality Management
- Hospitality Management: Event Management
- Hospitality Management: Hotel/Lodging Management
- Hospitality Management: Restaurant/ Food Service Management
- Hospitality Management: Travel and Tourism Management
- Hospitality Management (Combined Bachelor/Master)
- Information Technology
- Information Technology and Engineering Management (Combined Bachelor/Master)
- Interdisciplinary Studies
- International Relations
- Internet of Things
- Latin America and Caribbean Studies
- Nursing: RN to BSN Program
- Political Science
- Psychology
- Public Administration
- Public Relations, Advertising and Applied Communication
- Recreation and Sports Management: Recreation and Sport Management Track
- Recreation and Sports Management: Pre-Recreational Therapy/Adaptive Track
- Recreation and Sports Management: Recreational Therapy Track (Combined Bachelor/Master)
- Religious Studies
- Sociology/Anthropology: Anthropology Track
- Sociology/Anthropology: Sociology Track
- Spanish
- Sustainability and the Environment
- Women's and Gender Studies

FIU Online' s Continuing and Professional (CPE) team also offers many courses and programs in a wide variety of disciplines teaching professionals the skills needed to grow in their careers. Learn more by visiting **http://cpe.fiu.edu**.

FIU Online also offers undergraduate professional certificates. For details and course requirements visit https://fiuonline.fiu.edu

Academic Planning and Accountability-Dual Enrollment (APA-DE)

DUAL ENROLLMENT

The APA-DE program is the enrollment of an eligible secondary student or home education student in a post-secondary course creditable toward high school completion and an associate or baccalaureate degree. A dual enrollment secondary student is a student who is enrolled in grades six through 12 who would be able to meet eligibility criteria for participation in the Dual Enrollment program. As an acceleration mechanism, Dual Enrollment is available online, on-campus at FIU, and at school locations. For more information about Dual Enrollment, please visit https://dualenrollment.fiu.edu/fiu/

Undergraduate Admissions

Florida International University encourages and accepts freshman (FTIC) and transfer applications without regard to gender, physical handicap, cultural, racial, religious, ethnic background, or association.

APPLICATION PROCESS

Students interested in applying can do so using the instructions below:

Application Online

The admissions application to FIU is only available online at **http://admissions.fiu.edu**. A $30.00 non-refundable fee (U.S. dollar) will be charged for the application. Applicants may pay the $30 application fee by credit card or e-check when applying or mail a check, money order, or fee waiver (College Board/ACT) to P.O. Box 659003, Miami, FL 33265-9003.

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.

Undergraduate Admission Deadlines and Priority Dates

Admission to FIU is selective and space is limited for each term. Applications and supporting applicant materials received after the priority deadline will be considered if space is available.

Freshman Priority Application Dates

Summer:	March 15
Fall:	March 15
Spring:	December 1

Transfer Priority Application Dates

Summer A/C	April 1
Summer B	June 1
Fall:	July 15
Spring:	December 1

Admissions Tuition Deposit

An admissions deposit of $200 is required of all admitted applicants to secure their place in the class and is applied to the student's tuition. The deposit is considered a pre-payment on tuition and is non-refundable in accordance with the FIU Board of Trustees regulations. If a student chooses not to enroll after submitting the deposit, it is forfeited and administered in accordance with the applicable Board of Governors' regulations or law.

Freshman Deposit Deadline

Summer:	May 1st
Fall:	May 1st
Spring:	December 15th

Transfer Deposit Deadline

Summer:	May 1st
Fall:	August 1th
Spring:	December 15th

FRESHMAN APPLICANTS

In addition to the application, the following credentials are required:

1. Official secondary school transcripts and appropriate test scores: SAT or the ACT. All official transcripts, test scores, and any other required credentials must be received directly from the issuing agencies, through electronic platforms or mailed to P.O. Box 659003, Miami, FL. 33265-9003. It is the applicant's responsibility to initiate the request for credentials to the issuing agencies and to assure their receipt by the Office of Admissions. All scores and transcripts submitted to the Office of Admissions become the property of FIU.
2. Proof of graduation from an accredited secondary school must be submitted before the decision is final.
3. High School diplomas accepted for undergraduate degree-seeking admission to FIU must be completed at a secondary institution accredited by a regional accrediting body or at an institution accredited by a national accrediting agency recognized by the United States Department of Education.
4. Eighteen academic units in college preparatory courses are required as follows:

English	4
Mathematics	4
Natural Science	3
Social Science	3
Foreign Languages[1]	2
Academic Electives[2]	2

[1]Two units in the same foreign language are required. [2]Academic Electives are from the fields of mathematics, English, natural science, social science, and a foreign language. The academic grade point average will be computed only on the units listed above. Grades in honors courses, International Baccalaureate (IB), Association of International Credential Evaluators, Inc. (AICE), Dual Enrollment, and Advanced Placement (AP) courses will be given additional weight.

Admission to FIU is selective and freshman admission decisions are made based on the student's strong academic preparation. Competition for placement in the freshman class includes a review of all academic credentials and a completed file. Students may be offered an alternate term of entry; be placed into an exploratory major; and/or be limited to the number of credit hours they can complete each term should they not meet criteria for the term for which they originally applied. Students may also be invited to submit additional documentation to be reviewed through a holistic process for an admissions decision. Students seeking a holistic review will be required to submit an essay and meet deadline dates associated with the holistic review process. Applicants are encouraged to complete the MyMajorMatch assessment to match their interest with FIU majors, find an appropriate major, and explore possible careers.

Students who apply to majors in Architecture, Theatre, Art, and Music must be admitted to the appropriate exploratory major prior to receiving the approval of the respective department through an audition or portfolio submission. Students should contact the specific department for audition dates and portfolio instructions. Applicants who audition prior to receiving an admission decision from the University are not guaranteed admission to FIU and the decision for admission is made by the Office of Admissions.

Students who are denied admissions to FIU may request an additional review of their admissions

application if improved academic information such as a new transcript with a higher grade point average or new test reports with a higher score are received. Students seeking further review of a denial decision or who are seeking alternative admission can submit such requests to the Admissions Petition and Appeals Committee. The admissions committee will not overturn a denial decision made by an academic department or reverse transfer credit equivalency decisions made by academic advisors or faculty.

Admission Petition and Appeals Committee

The Admission Petition and Appeals Committee reviews requests for appeals from those undergraduate applicants who have been denied admission to the university; excluding (a) those who have been denied by a department with a limited access program, unless the student is petitioning under a new major, or (b) those who have been denied by the Department of Conduct and Conflict Resolution. The committee consists of faculty, staff and administrators who review cases and determine a student's potential for success at FIU. Students requesting an appeal or additional review of their admissions status must submit the following:

- A written statement from the student which includes:
  - o The student's goals, educational and/or professional objectives.
  - o An explanation of past academic performance.
  - o Information and/or circumstances that may have affected past academic performance.
  - o Any other information the student wishes to have considered.
- At least one signed letter of recommendation from individuals who know of and can attest to the student's academic ability and/or potential such as teacher, counselor, mentor, tutor, academic or career advisor, former employer, etc. Such letter(s) should not be a "form" letter, but directly address any deficiencies in the student's academic history.
- Any new standardized test scores and updated academic transcripts or grades if applicable.

All supporting documents must be sent or delivered to the Office of Admissions at the address; or uploaded per instruction; and arrive at least 72 hours in advance of the next available admissions committee meeting. The dates for the committee's meetings are posted on the Undergraduate Admissions website at **http://admissions.fiu.edu**.

Students will be informed of the committee's decision within two business days of its meeting. Please note: appeal review requests can only come from the applicant.

Statements and all materials should be sent to:

Office of Admissions
C/O Admission Appeals
11200 S.W. 8th Street (MMC), PC 140
Miami, FL 33199

or

AdmissionsCommittee@fiu.edu

Alternative Admission Review

The Admission Petition and Appeals Committee and Director of University Admissions will consider requests for holistic review of admissions applicants from undergraduate applicants who seek alternative admission according to Florida Board of Governors Regulations 6.002 (2)(b) and 6.004 (4)(a). The FIU Board of Trustees established Regulation FIU-402 related to student admissions which allows for other factors such as the applicant's creativity, talent, and character to be considered in addition to academic ability. Students should follow the same directions stated above for Admission Appeals.

TRANSFER APPLICANTS

Degree seeking applicants with fewer than 30 transferrable semester hours must meet the same requirements as beginning freshmen applicants. Applicants with more than 30 transferrable semester hours must have a 2.0 GPA, be in good standing at their prior institution and have successfully completed at least one college-level English and one college level math class with a "C" or higher.

Applicants who receive an Associate in Arts (A.A.) degree from a Florida State College or State University in Florida will be considered for admission without restriction except for published University limited access programs or programs with prerequisites which were not met at the State College. We encourage all transfer applicants to apply for admission at least one semester prior to the term they wish to enroll.

Students transferring from independent Florida and out-of-state colleges into the University's upper division must have maintained a minimum 2.0 grade point average using a 4.0 scale (with the exception of some limited access programs) and be in good academic standing at the last institution.

Coursework transferred or accepted for credit toward an undergraduate degree must be completed at an institution accredited as degree-granting by a regional accrediting body or at an institution accredited as degree granting by a national accrediting agency recognized by the United States Department of Education that participates in the statewide course numbering system at the time the coursework was completed. Each academic department reserves the right to determine how transfer credits may be applied to satisfy the specific requirements for the major and/or degree. Students must contact their intended academic department to obtain any additional requirements needed for their program of study.

All applicants must meet the criteria published for limited access programs and should consult the specific college and major for requirements. Please note that exploratory majors are not open to transfer students.

Applicants who meet the above admissions requirements, but have not completed the University's core curriculum requirements, or the prerequisites of their proposed major, may complete this college work at FIU, or at any other accredited institution. Students may also fulfill general education requirements through the College Level Examination Program (CLEP).

Official transcripts from all previous post secondary institutions must be forwarded to the Office of Admissions. Students are responsible for initiating this request directly from the academic institution.

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.

Transfer applicants from the FL public institutions (community/state colleges) are encouraged to visit FLVC.org for additional information regarding the transfer process, including, but not limited to, program graduation requirements, transfer agreements, A.A. transfer evaluation (degree/advising audit), and common prerequisites (Common Prerequisite Manual).

All students seeking admission to the University regardless of whether the student holds an A.A., should have completed two years of credit in one foreign language at the high school level or 8-10 credits in one foreign language at the college level (American Sign Language is acceptable). If a student is admitted without this requirement, the credits must be completed at FIU prior to graduation from the University. If the student has already completed the requirement through an A.A. degree or high school diploma, an official transcript demonstrating completion must be sent to FIU at least one semester prior to graduation.

Students who can demonstrate continuous enrollment in a degree program at a Florida Public University or Florida State College since Fall Term 1989 (continuous enrollment is defined by the state to be the completion of at least one course per academic year) can be exempt from this requirement. Students holding an A.A. degree from a Florida Community College or SUS institution prior to Fall Term 1989 will also be exempt.

Students, who are applying to majors in Theatre and Music, in addition to meeting university academic standards, must meet the approval of the respective department through an audition. Students should contact the department for audition dates.

Admission decisions will not be made before the application is completed and all supporting documents are on file in the Office of Admissions.
Applications are kept on file for one year from the anticipated entrance date.

Admission to the University is a selective process and satisfying the general requirements does not guarantee acceptance.

LIMITED ACCESS PROGRAMS

A limited access program utilizes selective admission to limit program enrollment. Limited access status is justified where student demand exceeds available resources such as faculty, instructional facilities, equipment, or specific accrediting requirements. Criteria for selective admission include indicators of ability, performance, creativity, or talent to complete required work within the program. Florida state college transfer students with Associate in Arts degrees are given equal consideration with FIU students. Admission to such programs is governed by the Articulation Agreement and the Florida Board of Governors' rules. Should a freshman applicant not meet the admissions criteria for the limited access program of interest, they may be placed into the corresponding exploratory major. Please note that exploratory majors are not open to transfer students.

The following current FIU programs have been designated as limited access:

Accounting
Architecture
Business Administration
Communication
Dietetics and Nutrition
Health Services Administration
Music
Nursing
Social Work
Theatre

INTERNATIONAL APPLICANTS

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

Academic Records

Documents in a language other than English must be translated by an official translation agency. 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.

International University-level Transcripts must be original documents issued in a sealed envelope and sent directly from the university. Transcripts not provided in English must be accompanied by an official translation provided by a recognized translation service. International Admissions utilizes AACRAO Edge and other professional credential evaluation resources to provide a course-by-course evaluation and a GPA calculation for all international transcripts.

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.

Proficiency in English

In addition to the general University admissions requirements, foreign applicants must be academically eligible for undergraduate level study in their own country. Applicants from non-English speaking countries, including internationally educated domestic students, must demonstrate proficiency in the English language. The following is a list of acceptable methods for demonstrating English proficiency:

- Attain CEFR B2 Level on recognized academic tests of English language, e.g. TOEFL 80 iBT.
- Undergraduate students meeting the minimum Florida Board of Governors regulation for college readiness scores in the Verbal/Reading and English sections.
- FIU's ELI Level Six: successful completion with passing grades for all content areas;
- Undergraduate students having completed ENC 1101 or its equivalent with passing scores of C or better from a regionally accredited U.S. institution or as part of a signed articulation agreement;
- Applicants from institutions with regional accreditation or other English-speaking countries who hold an undergraduate or graduate degree.
- Students applying to FIU under agreements for admissions with foreign universities may be eligible for a TOEFL waiver under terms of the agreement.

Declaration and Certification of Finances

Upon receipt of the application for admission, the Declaration and Certification of Finances will be emailed to the applicant. It must be completed and returned to the Office of Admissions. A Certificate of Eligibility (Form I-20) will be issued once the applicant has been found admissible to the University, and the student has provided the bank/sponsor letter and the transfer release form (International students that are currently attending another U.S. institution must submit this form).

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

The total funds available for the student for the first academic year 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 along with proof of sufficient funds must be received by the Office of Admissions two months prior to the anticipated entry date. Refer to the Cost and Residency information page on the admissions website at **http://admissions.fiu.edu** for more information regarding cost of attendance. International students who are married should plan on an additional $6,000 in costs to cover the living expenses of a spouse. Additionally, 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 on F status may select alternate coverage provided it meets the state requirements for minimal coverage. A copy of these requirements is available at the University Health Services Department website at **http://healthservices.fiu.edu/insurance/Pages/Mandatory_Insurance.aspx**. Students are advised not to purchase insurance policies prior to arrival without verifying that the policies meet FIU/State University System (SUS) requirements. Students in J status are required by the United States Information Agency to maintain health insurance coverage for themselves and their dependents for the full length of their program. Florida International University requires students on J status sponsored by FIU to purchase the University approved medical insurance plan for themselves and their dependents. Compliance with the insurance regulation is required prior to registration.

Priority Deadlines for International Admissions Consideration

Due to the additional processing time required for international students, application and supporting documents should be submitted as early as possible. We recommend the following time frames - February 1st if you are applying for the summer semester, April 1st if you are applying for the fall semester, and November 1st if you are applying for the spring semester. Deadlines to specific programs and to be considered for scholarships may vary so please visit **http://admissions.fiu.edu** for additional information and dates.

If the application and supporting documents are not received within the appropriate time, the application for admissions will cancelled. Applications are good for one year.

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 semester and maintain full-time enrollment. Full-time enrollment is a minimum of twelve credit hours per semester, six credit hours during summer A/B is fulltime. Please refer to the section on Student Fees and Student Accounts for more information.

SCHOLARSHIPS

FIU recognizes both domestic and international students who are academically, artistically, and athletically talented and encourages them to apply. The University considers and awards several full and partial scholarships to domestics and international applicants.
See website for detailed scholarship information, https://admissions.fiu.edu/cost-and-aid/scholarships/index.htm.

RESIDENCY INFORMATION

Final determination of residency for tuition purposes is not a requirement for admission to the University; however the Residency Declaration on the admission application and submission of the required supporting documentation are required in order to complete the admissions record for each student admitted to FIU. Students not completing these requirements will not be permitted to register for classes until they accurately declare their residency in Florida or agree to the terms under non-Florida residency. Please refer to the Residency Information contained under University Undergraduate Rules and Regulations.

University Undergraduate Rules and Regulations

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.
Freshmen - Students who have earned fewer than 30 semester hours.
Sophomores - Students who have earned at least 30 semester hours but fewer than 60 semester hours.
Juniors - Students who have earned at least 60 semester hours but fewer than 90 semester hours.
Seniors - Students who have earned 90 or more semester hours but who have not earned a baccalaureate degree.

Non-Degree Seeking Students

Non-degree students may be either affiliated with a college or school or unaffiliated in their status. Unaffiliated students are limited to taking a total of fifteen credits at the University. Affiliated students must be approved by the appropriate college or school and must meet its specific requirements.

The following regulations apply to non-degree seeking students:

1. All non-degree seeking students must complete the online application; and Florida residency declaration if qualified under FS 1009.21 and FBOG Regulation 7.005.
2. A $30.00 non-refundable application fee (U.S. dollars) made payable to Florida International University.
3. 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 students.
4. Registration is permitted on a space-available basis. Non-degree seeking students may not register during the official registration period for degree-seeking students.
5. No more than 15 undergraduate 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.
6. Immigration regulations prevent most foreign nationals from enrolling without being admitted into a formal degree or certificate program, depending on the type of visa that they have. International students should contact the **Office of International Student and Scholar Services** for further information.

Affiliated Students

Students applying for affiliated status as non-degree seeking students must be approved by the appropriate dean in accordance with criteria approved by that College or School's Faculty Curriculum Committee. The form and instructions are available at https://onestop.fiu.edu/.

Transient Students

This category includes students who are fully admitted and are actively pursuing a degree at regionally accredited Florida public college or university and wish to take courses at FIU for a semester. Such students need to present evidence of their status from their home institution each semester before they will be allowed to register.

If the student is enrolled at a Florida public institution, the student may apply as a transient student through https://www.floridashines.org/. Any student who is enrolled at a Florida private or any out-of-state educational institution may apply as a non-degree seeking student.

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. Some certificate programs are eligible for financial aid and others are not: students should check with the financial aid office regarding this.

COLLEGE/MAJOR CLASSIFICATION

Degree-seeking students are classified according to the college or school and major of their degree program; and when applicable, to the college or school and major of their second major.

ACADEMIC DEGREE REQUIREMENTS

Bachelor's Degree

The University will confer the bachelor degree when all degree requirements have been met. To initiate the degree certification process, students should apply for graduation through the MyFIU Self-Service portal (http://my.fiu.edu) by the deadline in the academic calendar. If an application for graduation is denied, it will be automatically reevaluated each semester until all degree requirements have been met. This will continue until such time that the student has been inactive for three consecutive terms. The University may initiate the degree certification process without an application if it has been determined that all degree requirements have been met.

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

1. Recommended by the faculty of the college or the school awarding the degree.
2. Certified by the dean of the college or the school that all requirements of the degree being sought have been completed.
3. Completion of a minimum of 120 semester hours in acceptable coursework.
4. Completion of the last 30 credit hours at the University. Exceptions (normally not to exceed six hours) may be made in advance by the appropriate dean. In no case may the number of credits awarded by FIU be fewer than 25% of the total number of credits required for the degree program.
5. Completion of the University Core Curriculum.

6. Earned a cumulative GPA of 2.0 or higher at the University (or the minimum cumulative GPA requirement for a specific program if applicable.
7. Earned the grade requirements for major, University Core Curriculum Courses, and course sequences established by the appropriate College or School.
8. Completion of 8-10 sequential credits in one foreign language (American Sign Language is acceptable). Students who entered the University with a foreign language requirement deficiency, regardless of whether the student holds an A.A. degree, must complete 8-10 sequential credits in one foreign language. Transfer credit acceptable to the requirement and exemption by CLEP examination is available. Students who have successfully completed two years of high school foreign language study in one language are considered to have met the requirement.

Students who can demonstrate continuous enrollment in a degree program at a SUS institution or Florida Community College since Fall Term 1989 (continuous enrollment is defined by the state to be the completion of at least one course per year) will be exempt from the foreign language requirement. Also exempt are students holding an A.A. degree from a Florida Community College or SUS institution prior to Fall Term 1989.

Two Bachelor's Degrees

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

1. Requirements for two majors have been completed as certified by the appropriate academic units.
2. A minimum of 30 appropriate semester hours in addition to the requirements of one degree has been earned

A graduate from an accredited four-year institution who applies for admission to work toward a second bachelor degree must meet the requirements of the major department which shall include (but is not limited to) a minimum of 30 semester hours of coursework.

Two Majors for a Bachelor's degree

Students may request to carry a second major and work to fulfill the requirements of both concurrently. Students requesting the addition of a second major should work closely with their advisors to plan the courses to avoid extending their time to graduation. Upon successful completion of the requirements of two majors, the student will be awarded one degree and a notation denoting both majors will be entered on the transcript. A request for a second major via a Change of Program Plan Form must be completed and turned into the appropriate academic unit for approval. This form can be downloaded from the Forms section at **http://onestop.fiu.edu**.

Once students have earned 90 credit hours, any changes to student degree programs, majors, minors, or academic tracks that extend time required to complete degrees or result in excess credit hours will require written approval from the College Dean.

Minors and Certificate Programs

Students requesting the addition of a minor or certificate should work closely with their advisors to plan the courses to avoid extending their time to graduation. Students who have completed an approved minor as part of their bachelor's degree program will have this notation as a part of the degree comment on their transcript. A request to declare a minor via an A Change of Program Plan Form must be completed and turned into the appropriate academic unit for approval. This form can be downloaded from the Forms section at **http://onestop.fiu.edu**.

Students who have completed an approved certificate program will have an appropriate notation placed on their transcript. A request for admission into an undergraduate certificate via an Undergraduate Certificate Application must be completed and turned into the appropriate academic unit for approval. This form can be downloaded from the Forms section at **http://onestop.fiu.edu**. Once students have earned 90 credit hours, any changes to student degree programs, majors, minors, or academic tracks that extend time required to complete degrees or result in excess credit hours will require written approval from the College Dean.

Associate of Arts

Students who satisfactorily complete 60 semester hours of acceptable college work with an overall GPA of 2.0 or higher, fulfill the University Core Curriculum requirements, the Civic Literacy requirement, the foreign language (FLENT/FLEX) requirement, and complete at least 20 credit hours in residence at the University may apply for the Associate of Arts degree through Academic and Career Success

Students who transfer in 41 or more credits are not eligible for the degree. The Associate of Arts degree will not be awarded on completion of the baccalaureate degree. A notation will appear on the student's transcript, but no diploma will be issued.

DEGREE PROGRESSION AND MANDATORY DEGREE CHECKS

Using various platforms, the University provides all students with semester by semester academic plans based on the program requirements for their majors. The colleges designed these plans to support students as they pursue timely graduation. Many of our programs have explicitly stated academic progress requirements (Panther Success Markers and Milestones) specific to freshmen, sophomore, junior, and senior years; these requirements may include minimum GPA criteria, maximum course attempts, courses which must be completed before students reach specified class levels, etc. Through various strategies which may include outreach efforts and registration holds, the University will ensure that students who do not meet these progress requirements seek support from their academic advisors to develop plans that result in timely graduation. The University requires students to meet with their academic advisors before the end of the term in which they will earn 90 cumulative credit hours to conduct preliminary degree checks and develop plans that will determine the manner in which students will complete unfulfilled degree requirements. Once students and advisors complete these preliminary degree checks, any changes to student degree programs, majors, minors, or academic tracks that may have an impact on time required to complete degrees or counts of excess credit hours will require written approval from the College Dean. Please note that students who have declared dual degree or double majors as part of their program plans and do not

complete the requirements of these program plans will not be eligible for refunds of excess credit hour surcharges associated with incomplete portions of their program plans.

SUMMER ENROLLMENT REQUIREMENT

All students entering FIU or any university within the State University System (SUS) of Florida with fewer than 60 credit hours are required to earn at least nine credit hours prior to graduation by attending one or more summer terms at a university in the SUS.

ACADEMIC DEFINITION

Program and Course Regulations

Credit Hour

The term semester credit hour as used at the university shall mean 50 minutes of classroom instruction, or the equivalent, each week for an entire academic term.

Major

An integral part of the bachelor'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 bachelor's degree. Prerequisite course requirements should be considered in selecting elective courses. Students should refer to their academic program requirements concerning electives.

Minor Program

A minor program is an arrangement of courses that enables students to develop some degree of expertise in one area of study. A minor is awarded upon completion of the bachelor's degree but is not interdisciplinary in nature.

Certificate Program

A certificate program is a combination of courses with a common base or interest selected from one or more academic disciplines and so arranged as to form an area of academic concentration. Three types of certificates are awarded: academic, professional, and continuing studies.

Change of College/School or Major

A fully admitted undergraduate student may change majors, provided he or she meets the entrance requirements of the new program and is approved by that program's academic department, by submitting Change of Program Plan Form. The form and instructions are available online at **http://onestop.fiu.edu**.

EXCESS CREDIT SURCHARGE

All students who entered a postsecondary undergraduate program at any institution of higher education for the first time in Fall 2009 or thereafter are subject to **Florida Statute 1009.286.** This statute governs the number of credits a student can take before being assessed excess credit surcharges. Excess Credit threshold and the Excess Credit surcharges vary based on the student's first-time-in-college admission term.

Effective Fall semester 2009, all undergraduate students who enter or transfer to Florida International University between Fall 2009 and Summer 2011 may be subject to the new statute [1009.286f.s.] that governs the number of credits a student can take before being assessed an excess credit surcharge. Students can accumulate up to 120% of credits towards their degree by paying normal tuition and fees. This is equivalent to 144 hours for students in a 120-hour degree program. After the 120% mark, students are subject to an additional surcharge equal to 50% of the tuition rate for each credit hour enrolled.

Effective Fall semester 2011, all undergraduate students who enter or transfer to Florida International University between Fall 2011 and Summer 2012 may be subject to an adjustment in the statute [1009.286f.s.] that governs the number of credits a student can take before being assessed an excess credit surcharge. Students can accumulate up to 115% of credits towards their degree by paying normal tuition and fees. This is equivalent to 138 hours for students in a 120-hour degree program. After the 115% mark, students are subject to an additional surcharge equal to 100% of the tuition rate for each credit hour enrolled.

Effective Fall semester 2012, all undergraduate students who enter or transfer to Florida International University between Fall 2012 and Spring 2019 may be subject to an adjustment in the based on statute [1009.286f.s.] that governs the number of credits a student can take before being assessed an excess credit surcharge. Students can accumulate up to 110% of credits towards their degree by paying normal tuition and fees. This is equivalent to 132 hours for students in a 120-hour degree program. After the 110% mark, students are subject to an additional surcharge equal to 100% of the tuition rate for each credit hour enrolled.

Effective Summer 2019 and thereafter, all undergraduate students who enter or transfer to Florida International University for Summer 2019 and thereafter may be subject to an adjustment in the statute [1009.286f.s.] that governs the number of credits a student can take before being assessed an excess credit surcharge. Students can accumulate up to 120% of credits towards their degree by paying normal tuition and fees. This is equivalent to 144 hours for students in a 120-hour degree program. After the 120% mark, students are subject to an additional surcharge equal to 100% of the tuition rate for each credit hour enrolled.

It is important that students communicate with their undergraduate or academic advisor in order to stay on track towards graduation and to avoid excess credit surcharges that may have financial repercussions. Please be aware that courses in which students receive grades of DR, W, WA, WI, IN and F can count towards excess credit calculations.

Additional information regarding excess credits and related surcharges can be found **http://onestop.fiu.edu**.

REGISTRATION

Students should verify dates and registration information with OneStop: Student Academic Success Center (SASC),

Modesto A. Maidique Campus, (305) 348-7000; ACI-100, BBC Enrollment Center, (305) 348-7000; Room 3002, FIU at I-75, (954) 438-8600 or visit **http://onestop.fiu.edu**.

All degree seeking students 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). 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-served basis; for degree-seeking students. 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.

Registration Access

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 the **MyFIU Self-Service portal** (**http://my.fiu.edu**). Students must use their PantherSoft ID and password in order to utilize the system.

New students must reset their passwords at **http://myaccounts.fiu.edu** in order to access their FIU accounts. Current students experiencing difficulties with accessing their FIU accounts may reset their passwords at **http://myaccounts.fiu.edu**.

IMMUNIZATION

As a prerequisite to registration, Florida International University requires all students to comply with the following immunization policy regulations from the Florida Board of Governors regarding measles, mumps, rubella, meningitis and hepatitis B immunity:

1. **Measles, Mumps, Rubella:**
   All students born after December 31, 1956, must present documented proof of immunity to measles (Rubeola) and German measles (Rubella), as described below:
   Acceptable Proof of Immunity consists of:
   a. Proof of two (2) vaccinations (doses) of MMR (Measles/Mumps/Rubella) received at least 28 days apart or two doses of measles and one Rubella
      - Vaccinations must have been received after your first birthday
      - Vaccinations must have been received in 1969 or later
   b. Proof of immunity by way of a blood test lab result (Measles and Rubella Titer)
   c. A written statement from a physician (M.D. or D.O. only) documenting a diagnosis of measles (Rubeola). Must include date of diagnosis, be signed by the physician and be on his/her official stationery. This is acceptable for measles only and does not apply to Rubella

   Exemptions:
   Students will be exempt from the pre-registration immunization requirement for measles, mumps, and rubella, only if they meet any one of the following three criteria:
   1. Students born before January 1, 1957.
   2. Medical Exemption: To claim a medical exemption, a letter must be provided from the student's doctor, signed on his/her stationery, stating the medical reason(s) why the student is not able to receive the measles and/or Rubella vaccine(s) and for how long – a permanent or temporary medical condition warranting exemption.
   3. Religious Exemption: For details on how to claim religious exemption, please visit the **Student Health Services** website.

   To prevent delays in the ability to register for classes, all of the above documents requesting medical or religious exemptions must be received by the Student Health Services at least four weeks prior to registration.

   Temporary Deferments:
   Temporary deferments are acceptable for the following conditions:

   1. Documented pregnancy or fertility treatment
   2. Documentation of breastfeeding
   3. Documented illness

   Deferment status requests must be submitted to the Student Health Services at least four weeks prior to registration and the request must be signed by a physician, nurse practitioner or registered nurse and be on his/her official stationery.

2. **Meningitis and Hepatitis B:**
   All students must present documented proof of vaccination/immunity to meningococcal meningitis and hepatitis B as described below:
   Acceptable Proof of Immunity consists of:
   a. Proof of one dose of meningitis vaccine and a total of three doses of hepatitis B vaccines
   b. Proof of immunity by way of a blood test lab result (applicable to hepatitis B only)
   c. A written statement from a physician (M.D. or D.O. only) documenting a diagnosis of hepatitis B. Must include date of diagnosis, be signed by the physician and be on his/her official stationery. This is acceptable for hepatitis B only and does not apply to meningococcal meningitis

   Exemptions:
   Students declining to receive vaccination for meningitis and/or hepatitis B must present a signed waiver of liability acknowledging that they have received and read information pertaining to the disease and despite knowledge of the risks have decided to waive receiving the vaccine. These waivers can be accepted and viewed on my.fiu.edu under the "Student Center" and "Student Health Portal" tabs. NOTE: A parent or legal guardian must sign the waiver for any minor under the age of 18. Parents or legal guardians may contact Student Health Services or obtain the form by visiting the **https://studentaffairs.fiu.edu/health-and-fitness/student-health/** website.

Acceptable Forms of Documentation:

The following documents are acceptable proof of immunity, provided that the dates are acceptable and the documents are signed and stamped by the health care provider:

- Health Department Records
- Childhood Immunization Records
- School Immunization Records
- Military Service Records
- Laboratory test results demonstrating immunity to the disease

Can't Find Your Immunization Documents?

If the student is certain they have received all of the required or recommended doses of measles and/or Rubella and/or hepatitis B vaccine in the past but cannot obtain written documentation of the actual dates, a blood antibody titer test is recommended to determine immunity to these viral diseases. If students must register and cannot wait for the test results, they can safely receive an MMR vaccine prior to the registration process and a second dose after 28 days--assuming there are no medical contraindications to receiving the vaccine(s) as determined by the physician.

Where can I get immunized?

MMR, meningitis, and hepatitis B vaccines are available for a nominal charge at the FIU University Health Services clinics at both the Modesto A. Maidique Campus and Biscayne Bay Campus. For further information and additional locations, visit the **Student Health Services** website.

LATE REGISTRATION FEE

Any student, degree-seeking or non-degree seeking, who initiates registration during the Drop/Add period 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 (i.e., 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. If the tuition fee has already been paid, the student may be eligible for a refund that will be generated by the Student Financials Office and processed accordingly. To qualify for most need-based financial aid, undergraduate students must be enrolled in a minimum of six credit hours in a semester. Once Financial Aid disburses for a term and prior to the end of the Drop/Add period, students who receive financial aid will not be able to drop below six credit hours via the registration self-service portal. Students who must drop below half-time status after receiving aid, must meet with a member of the One Stop Enrollment Services staff before the end of the Drop/Add period.

Students are responsible for their own enrollment and for adhering to all published deadlines for enrollment activity.

LATE DROPS

Courses officially dropped after the Drop/Add period and through the eleventh 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 grade of 'DR' (dropped). The student is financially liable for all dropped courses. Before withdrawing from the institution (i.e. dropping all courses with DR grades), financial aid students should refer to the "Return of Financial Aid Policy" section of this catalog. *Non-attendance or non-payment will not constitute a drop.*

PETITION TO DROP/WITHDRAW

A student may submit a petition for an exception to an enrollment deadline for a late drop by submitting a completed petition form to OneStop. A drop after the deadline will be approved only in the following exceptional circumstances:

1. Death of a student or immediate family member (parent, spouse, child, sibling, or grandparents). Death certificate and documentation establishing relationship are required.
2. Call to active military service. Copy of orders required.
3. Illness of student of such severity or duration to preclude completion of courses. Confirmation by a physician required.

We will consider petitions and appeals for late drops/withdrawals within six months of the end of the term in which the course was taken. In extraordinary circumstances, we can review exceptional requests for late drops beyond the six month limit. However, in addition to the supporting documentation required for a completed petition, we require documented rationale that warrants an exception to the six month deadline. Because we may need to seek additional guidance from Student Health Services, Veterans' Affairs administrators, or other departments, we require six to eight weeks to provide students with decisions concerning late drops/withdrawals for courses taken more than six months prior to the submission of the petition.

WITHDRAWAL FROM THE UNIVERSITY

A currently registered student can withdraw from the University only during the first eleven weeks of the semester. In the summer semester, withdrawal deadlines will be adjusted accordingly. A Student Withdrawal Form must be completed and submitted to OneStop. *Non-attendance or non-payment will not constitute a withdrawal.* (Refer to the Academic Calendar for the deadline dates.)

The transcript of a student who drops all classes 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 generated by the Student Financials Office and processed accordingly. If a student officially 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 eleventh week of the term will reflect a 'WI' for each course.

The transcript of a student who stops attending the University without officially withdrawing from the University will reflect an 'F0' grade for each course.

RETURN OF FINANCIAL AID POLICY

Federal regulations mandate that the Financial Aid Office comply with the Return to Title IV Funds policy in which any student who drops all courses or officially withdraws before completing 60% attendance for the semester or does not earn at least one credit with a grade of "D-" or higher, may be liable to repay a portion of the Title IV aid that was disbursed. Title IV funds include the following financial aid programs: Pell, SEOG, Perkins Loan, Subsidized and Unsubsidized Stafford Loans, and PLUS Loans. The amount of the return is based on formulas established by the U.S. Department of Education. For additional information regarding the Return of Financial Aid Policy view the complete policy at **http://onestop.fiu.edu**.

GRADING SYSTEM

Grade		Points Per Credit Hour
A		4.00
A-		3.67
B+		3.33
B		3.00
B-		2.67
C+		2.33
C		2.00
D		1.00
F	Failure	0.00
F0	Failure based on non-attendance	0.00
P	Satisfactory (Pass)	N/A
EM	Credit by Departmental Examination	N/A
IN	Incomplete*	N/A
AU	Audit	N/A
W	Withdrew from Course	N/A
WA	Administratively Withdrawn	N/A
WI	Withdrew from the University	N/A
+	National/International Student Exchange	N/A
U	Unsatisfactory	N/A
S	Satisfactory	N/A
DR	Dropped Course	N/A
NC	No Credit Earned	N/A
NG	No Grade Assigned by Instructor (system generated)	N/A

*An incomplete grade (IN) is a temporary grade. If a student has not met the terms and conditions associated with the incomplete grade within two semesters of the grade's assignment, then the IN will become an F (or failing) grade.

HOW TO CALCULATE A GRADE-POINT-AVERAGE (GPA)

Grade Point Average (GPA) is calculated for all students. GPAs are calculated only for grades earned at FIU. There are two types of GPAs: Semester and Cumulative. The semester GPA is calculated using the courses taken in that semester. The cumulative GPA is a summary of all FIU courses taken over a student's career. Remember, when a student's career changes (i.e., undergraduate to graduate), the GPA calculation begins anew. Transfer course grades are not included in any GPA calculations. To calculate a GPA, one must know the course grade, the course credits or semester hours associated with that course, and the values associated with each grade assigned. See the **Grading System** list above for **"Points Per Credit Hour"** values.

To calculate a GPA, first multiply the number of course credits/semester hours for each course by the grade point values associated with the grade received in that course. Then add all of those totals together and divide that sum by the total number of course credits/semester hours. For a semester GPA use all regularly graded courses in that semester (plus P/F courses in which an F or U was earned), and for the cumulative GPA use all courses. Do not average semester GPAs in order to calculate the cumulative GPA.

Note: All GPAs are rounded to two decimal points.
Note: On the Grading System list above, some grades will not affect GPA, such as "P" (Satisfactory), "IN" (Incomplete) or "DR" (Dropped). Thus, do not include the credits for such graded courses in the calculation.

Here is an example of semester GPA calculation:

Calculating a Semester GPA

Course	Grade	Course Credits Attempted	Points Per Credit Hour	Points Per Course
ENC 1101	B	3.0 x	3.00 =	9.00
MAC 1147	B+	4.0 x	3.33 =	13.32
BSC 2010	A-	3.0 x	3.67 =	11.01
BSC 2010L	A	1.0 x	4.00 =	4.00
AMH 2041	C	3.0 x	2.00 =	6.00
ARH 2050	F	3.0 x	0.00 =	0.00
Total		17		43.33
Semester GPA			43.33 divided by 17 = 2.548	

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 (if designated by a dept.) 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 Drop/Add period (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 to be audited. Once the course is registered for as 'Audit', the grading option cannot be changed. Tuition and fees are the same whether the student is taking the course for credit or for audit.

INCOMPLETE GRADE

A grade of incomplete (IN) 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 longer than two consecutive semesters (including Summer semester) after the initial taking of the course or it will automatically default to an "F" grade. The student must not register again for the course to make up the incomplete. There is no extension to the two consecutive semester deadline.

REPEATED COURSES

Students may repeat courses in which they received a grade of "W," "DR", U," "D," or "F". Both the original and repeat grades will be used in the computation of GPA, unless the student applies for grade forgiveness, but credit for only one attempt will apply towards graduation. All attempts and grades will remain on the student academic record/transcript. Students may not re-enroll in courses for which they have received a grade of "C" or higher without permission from their academic advisor. Students may repeat courses which are specifically designated as repeatable for credit. Repeatable courses may be taken up to the maximum number of times or hours as stated in the course description and/or university catalog. Course enrollment beyond these limits may not count toward the student's earned hours.

FORGIVENESS POLICY

The Forgiveness Policy is a method by which students may repeat a limited number of courses, provided the grade earned is less than a "C" 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 Forgiveness Policy Form with the Office of the Registrar. The form should be completed and submitted once the student has repeated the course and grades are posted. There is no time limit on the use of the forgiveness policy for grades; however, the forgiveness policy cannot be used once a degree is 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', 'NC', or 'EM'.
- The student receives a lower grade than their initial attempt.

Repeated courses will be appropriately designated with a transcript comment.

Undergraduate students may use the forgiveness policy a maximum of three times for the purpose of improving their GPA. The same course (prefix and number) may be repeated up to three times or the student may use the three opportunities to apply to three different courses. Only the final grade for the three courses repeated under the forgiveness policy will be counted in computing the student's GPA. In order for a course to be considered as repeated and adjusted in the GPA, the course must be the same course with identical course prefix and course number and must be repeated at the University. Students who have used their three options under the forgiveness policy may still repeat courses; however, both the original grade and any additional grades received through repetitions of the course will be used in computing the 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 towards graduation. Students must check with the appropriate academic department to determine whether there are additional restrictions on repeating courses.

Repeated courses may be subject to the Repeat Course Surcharge. Students should refer to the Tuition and Fees section of the Undergraduate Course Catalog for more information on the Repeat Course Surcharge Fee.

DEPARTMENTAL PROFICIENCY EXAMINATION

Departmental Proficiency Examination is only available for courses that do not have CLEP equivalent. Awarding departmental credit by examination is the prerogative of each academic unit. To receive credit by examination a student must be a regular degree-seeking student and register for the exam at the testing center. Once the student is awarded credit for the exam, an EM (examination) grade will be recorded on the transcript but will not be used in the calculation of the GPA. Departmental Proficiency Examinations cannot be used for a course previously attempted.

CHANGE OR CORRECTION OF GRADES

Once submitted, end-of-semester grades (except incompletes, which default at the end of two consecutive terms) are final. They are subject to change only through a Change of Grade process to correct an error in computation or transcription, or where part of the student's work has been unintentionally overlooked.

FINAL WEEK OF THE SEMESTER

During the final week of the semester, classes meet for an extended period of time for various instructional purposes such as: final exams, lectures, group projects, and/or individual presentations.

FINAL GRADES

Final grades are available through the **MyFIU Self-Service portal** (**http://my.fiu.edu**).

DEAN'S LIST

Any fully admitted undergraduate student who earns a semester average of 3.5 or higher on nine or more semester credit hours of coursework for which grade points are earned, is placed on the semester Dean's List. This achievement is noted on the student's permanent academic record (transcript).

ACADEMIC HONORS

Summa Cum Laude
To graduate Summa Cum Laude, a student must have earned a cumulative FIU GPA of 3.90 and higher.

Magna Cum Laude
To graduate Magna Cum Laude, a student must have earned a cumulative FIU GPA of 3.70 - 3.899.

Cum Laude
To graduate Cum Laude, a student must have earned a cumulative FIU GPA of 3.50 - 3.699.

To graduate with the above honors, the student must have completed a minimum of 40 semester hours of coursework at FIU for which grade points (Pass/Fail does not apply) are earned at the university.

ACADEMIC WARNING, PROBATION, AND DISMISSAL

Warning

An undergraduate student whose cumulative GPA falls below a 2.0 will be placed on warning, indicating academic difficulty.

Probation

An undergraduate student on warning whose cumulative GPA remains below 2.0 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

An undergraduate student on probation whose cumulative and semester GPAs fall below a 2.0 will automatically be dismissed from his/her program and the University. An undergraduate student will not be dismissed prior to attempting a minimum of 20 semester hours of coursework. The dismissal from the University is for a minimum of one year. After one year, the student may apply for re-admission (see Re-admission) to the University in the same or different program, or register as a non-degree seeking student.

A student who has been dismissed from the University under this policy will have ten working days to submit and appeal for Academic Reinstatement. The appeal for Academic Reinstatement is the formal method through which a student can appeal the dismissal decision. In order for a student's appeal to be considered complete, the following documentation must be submitted to OneStop:

1. ***Personal Statement*** describing the circumstances that led to the student's lack of academic progress; this statement must also include a statement describing a change of conditions that will facilitate improved academic performance.
2. ***Academic Plan*** signed by the student's academic advisor. The plan describes the academic steps suggested by the advisor to facilitate improvement in the student's academic performance.
3. ***Academic Agreement*** signed by the student's College/School Dean or the Dean's designee (usually the student's Department Chair); the College/School Dean or designee is responsible for approving or denying the reinstatement appeal.
4. ***Supporting Documentation*** is required for financial aid recipients; this documentation should support any claims or assertions made the student's Personal Statement.

If approved, the Academic Reinstatement specifies the term for which the student has been reinstated and (if applicable) limitations on the number of credit hours in which a student can enroll; please note that the student must enroll during the term specified in the reinstatement decision. Dismissed students reinstated to the university are placed on academic probation.

RE-ADMISSION

An admitted degree-seeking student who has not enrolled in any course at the University for three (3) or more consecutive terms, excluding military withdrawals, will be required to apply for re-admission. The student must meet the University and program regulations in effect at the time of re-admission. Students must contact the Office of Undergraduate Admissions to apply for re-admission. Students must apply for readmission through the **Undergraduate Admissions** website.

UNDERGRADUATE ACADEMIC AMNESTY

FIU undergraduate students who apply for re-admission (with a prior cumulative GPA below a 2.0) and have not been enrolled in any university or college for at least six calendar years may apply for academic amnesty. If re-admitted, students will begin with a new grade point average of 0.0. No grades previously earned will be included in the University grade point average, however, credit for previous University courses, in which a grade of "C" or better was earned may be applied toward a degree, subject to determination by the College of the student's major. All prior courses attempted and grades received will remain on the student's transcript. Admitted or re-admitted students may not petition for any retroactive change in their academic record utilizing this policy. Students applying for academic amnesty to a limited access program must meet the admission criteria of that program. Students must follow the regular re-admission application process and complete the amnesty form for consideration to be determined by the student's academic dean. Re-admission applications and academic amnesty applications may be obtained on the **Undergraduate Admissions** website.

UNDERGRADUATE ACADEMIC SALVAGE

FIU undergraduate students who are academically dismissed from the University or who have a cumulative GPA below a 2.0, and who subsequently receive an Associate of Arts degree from another Florida public institution of higher learning may apply for academic salvage. If re-admitted, students will begin with a new FIU grade point average of 0.0. Students re-admitted under academic salvage will be credited with a maximum of 60 semester credit hours. Students must follow the regular re-admission application process and complete the Academic Salvage form for consideration by the student's academic dean. Re-admission applications and academic salvage applications may be obtained on the **Undergraduate Admissions** website.

STUDENT RECORDS

Florida International University assures the confidentiality of student educational records in accordance with State University System rules and 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. Students in some degree programs may be subject to background

checks and/or drug testing prior to eligibility for internships or practicums. All currently enrolled and former students have the right to review their records to determine their content and accuracy.

RELEASE OF STUDENT INFORMATION FROM EDUCATION RECORDS (FERPA ANNUAL NOTICE)

The disclosure or publication of student information is governed by policies of Florida International University and the Florida Board of Education of the State University System of Florida within the framework of State and Federal Laws, including the Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99).

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 that can be disclosed and in access to that information, are allowed within the regulations of the Family Educational Rights and Privacy Act. The University may disclose information pertaining to the student to a parent/legal guardian as long as the parent/legal guardian submit both the FERPA form in which part B is filled out and signed along with proof that the child is a dependent.

Florida International University discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted as its agent to provide a service instead of using University employees or officials (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the University. Upon request, the University also discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

The University may disclose, without consent, "directory," or public, information such as a student's name, address, telephone number, date and place of birth, honors and awards, and dates of attendance. However, students are allowed to request that the school not disclose their directory information.

Florida International University considers the following to be directory information items:

1. name, local and permanent address, and telephone number(s);
2. date and place of birth;
3. student 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 photographic image.

In order to prevent access to or release of Directory Information, students must request non-disclosure through their **MyFIU Self-Service portal** (**http://my.fiu.edu**) website 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) should 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
Modesto A. Maidique Campus - PC 130
Miami, Florida 33199
E-mail: **Register@fiu.edu**

PANTHER ID

The University has implemented an identification system-Panther ID. This identification number is the primary identification number for all students. Applicants and current students can retrieve this number by going to the **MyFIU Self-Service portal** (**http://my.fiu.edu**) website.

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 calculation starts again.

Students must request their transcript online. The transcript will not be released if the student has a University financial liability and/or a defaulted student loan. Other holds may prevent the release of official transcripts. Students should contact the department who assigned the hold if clarification is needed. The University may charge a fee up to $10.00 per transcript.

CLASS ATTENDANCE

The university expects students to attend their classes in order to create an effective learning environment in which to master course content and satisfy performance objectives and learning outcomes as outlined by instructors.

Instructors may establish specific class attendance requirements and may consider attendance and participation in class in evaluating student performance.

In general, instructors must excuse students from classes due to their military obligations, jury duty, religious days, illness, disability accommodations as approved by The Disability Resource Center, serious family emergencies and/or participation in official university activities, i.e., athletic events, artistic performances, curricular activities. Instructors must afford students a reasonable

amount of time to complete course work and/or assignments missed during their approved absence.

Only registered students appearing on an official course roster may attend a class at the university. During the first week of class, instructors must inform students of any special requirements and articulate any penalties, including a failing grade that may result for non-attendance. This information should be clearly stated in the course syllabus.

FIRST TWO WEEKS ATTENDANCE REQUIREMENT

In addition to our general expectation that students attend their classes, we require students to attend the initial sessions of all classes in which they are registered. If a student fails to attend initial class sessions, then the University may drop that student from the class. Please note that students are still accountable for all aspects of their enrollments; students maintain responsibility for verifying all course drops and associated fee adjustments.

POLICY STATEMENT WITH REFERENCE TO RELIGIOUS HOLYDAYS

A faculty member who wishes to observe a religious holy day shall make arrangements to have another instructor teach 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 at the beginning of the semester, 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 Veteran and Military 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 "The Tower" at the center of the Modesto A. Maidique Campus; and in ACI-100, Biscayne Bay Campus.

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

	Training Status
Full time	12 Credits
3/4 time	9 Credits
1/2 time	6 Credits
Less than 1/2 time	5 Credits

Rate of Payments/Number of Dependents

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

For additional information regarding other Veterans Educational Programs, contact the Office of Veteran and Military Affairs at "The Tower" on the Modesto A. Maidique Campus, (305) 348-2838.

ENROLLMENT CERTIFICATION

The Office of the Registrar is responsible for certification of student enrollment. Certification of enrollment cannot be processed if the student has a financial liability. Enrollment certifications for a current semester can only be done after the drop/add period ends.

Enrollment certification can be obtained through the **MyFIU Self-Service portal** (**http://my.fiu.edu**) or in person at OneStop (SASC, 1st floor, Modesto A. Maidique Campus), BBC Enrollment Center (ACI-100, Biscayne Bay Campus).

ENROLLMENT STATUS

Undergraduate:

Full time: 12 credits or more.
Half time: 6 - 11 credits.
Less than half time: 5 credits or less.

Enrollment status is based on the number of credit hours attempted during a semester. If a full time student drops or withdrawals from courses and his or her resulting attempted credit hours for a semester drops below 12, then the resulting enrollment status will be less than full-time. If an enrollment action taken during a semester results in a student attempting fewer than six credit hours, then resulting enrollment status will be less than half-time. Please note that academic loads for financial aid purposes are based on Federal regulations and may be different than these enrollment status definitions.

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 for tuition purposes.

To qualify as a Florida Resident for tuition purposes, the student or the parent/legal guardian of a dependent student, must:

1. Have established a legal residence in this State and have maintained that legal residence for 12 consecutive 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 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).

2. Students claiming to be independent must meet one of the following:
   a) The student is 24 years of age or older by the first day of classes of the term for which residency status is sought; if student is under the age of 24, they must demonstrate earned income, through income tax forms, of a minimum of more than half of the cost of attendance for a student not living with parents in the prior year;
   b) The student is married;
   c) The student has children who receive more than half their support from the student;
   d) The student has other dependents who live with and receive more than half of their support from the student;
   e) The student is a Veteran of the United States Armed Forces or is currently serving on active duty in the United States Armed Forces for purposes other than training;
   f) Both of the student's parents are deceased or the student is or was (until age 18) a ward/dependent of the court;
   g) The student is working on a master's or doctoral degree during the term for which residency status is sought;
   h) The student is classified as an independent by the financial aid office at the institution.
3. Submit (or in the case of a dependent student, the parent must submit) written or electronic verification that includes two or more of the following documents (no single piece of evidence shall be conclusive). Please not that all residency documentation must be submitted by the first day of the semester for which Florida residency is being sought; late documentation will be considered for the following academic term.
   a) The documents must include at least one of the following:
      i. A Florida voter's registration card.
      ii. A Florida driver license.
      iii. A State of Florida Identification card.
      iv. A Florida vehicle registration.
      v. Proof of a permanent home in Florida which is occupied as a primary residency by the student or the student's parent.
      vi. Proof of a homestead exemption in Florida.
      vii. A dependent student who attended a Florida high school for a minimum of two (2) academic years immediately preceding the student's initial enrollment in an institution of higher education and graduated from a Florida high school or earned a Florida General Education Development (GED) within the last twelve (12) months may use the high school transcript or GED certificate as evidence of Florida residency. The student must present at least one (1) additional document identified in sections 1009.21(3)(c)1. or 1009.21(3)(c)2., evidencing their parent's legal residency in Florida.
      viii. Proof of permanent full-time employment in Florida (at least 30 hours per week for a 12 month period).
   b) The documents may include one or more of the following:
      i. A declaration of domicile in Florida; if a declaration of domicile, pursuant to section 222.17, Florida Statutes, is being used as one of the documents to establish residency for tuition purposes, the date an applicant shall be deemed as establishing residency for tuition purposes shall be twelve (12) months hence from the date that the Clerk of Circuit Court notes the declaration was sworn and subscribed to the Clerk. Nothing in this subsection shall prevent the use of additional documentation as evidence that legal residency was established by other means pursuant to section 1009.21(3)(c), as of a date earlier than that established by the declaration of domicile.
      ii. A Florida professional or occupational license.
      iii. Florida incorporation.
      iv. A document evidencing family ties in Florida.
      v. Proof of membership in a Florida-based Charitable or professional organization.
      vi. Any other documentation that supports the student's request for resident status, including, but not limited to, utility bills and proof of 12 consecutive months of payments; a lease agreement and proof of 12 consecutive months of payments; or an official state, federal, or court document evidencing legal ties to Florida.
4. No contrary evidence establishing residency elsewhere.
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 twelve (12) months.
6. A non-United States citizen may be eligible to establish residency for tuition purposes if evidence is presented verifying that the student has legal status in the United States, has met the residency requirements of section 1009.21, and the person is one of the following:
   a) A foreign national in a nonimmigrant visa classification that grants the person the legal ability to establish and maintain a bona fide domicile in the United States.
      i. The following visa categories grant the person the legal ability to establish and maintain a bona fide domicile in the United States: A, E, G, H-1B, H-1C, I, K, L, N, NATO 1-7, O-1, R, S, T, U, and V.
      ii. The following visa categories do not grant the person the legal ability to establish and maintain a bona fide domicile in the United States: B, C, D, F, H-2, H-3, M, P, Q, and TN. J visa holders are not eligible to establish residency for tuition purposes except as provided in section 1009.21(10).
   b) A permanent resident alien, parolee, asylee, Cuban-Haitian entrant, or other legal alien granted an indefinite stay in the United States.
   c) Pursuant to section 1009.21(2)(d), a dependent student who is a U.S. citizen may not be denied classification as a resident for tuition purposes based solely upon the immigration status of the student's parent.

OUT-OF-STATE NON-RESIDENT-FOR-TUITION-PURPOSES RECLASSIFICATION TO IN-STATE RESIDENT-FOR-TUITION-PURPOSES

To qualify as a resident for tuition purposes:
A student who is classified as a nonresident for tuition purposes may become eligible for reclassification as a resident for tuition purposes by presenting a minimum of three (3) documents identified in sections 1009.21(3)(c)1. or 1009.21(3)(c)2., that convincingly demonstrate the establishment of permanent legal residence in Florida other than for the sole purpose of pursuing a postsecondary education. Documentation must demonstrate that the student or, if the student is a dependent, their parent has maintained legal residence in Florida for at least twelve (12) consecutive months immediately prior to the first day of classes for the term for which residency reclassification is sought except as otherwise provided in section 1009.21(6).

For more information on the residency reclassification process, please visit https://onestop.fiu.edu/.

To request reclassification of resident status:

a) If a person who is a dependent child and his or her parent move to this state while such child is a high school student and the child graduates from a high school in this state, the child may become eligible for reclassification as a resident for tuition purposes when the parent submits evidence that the parent qualifies for permanent residency.
b) If a person who is a dependent child and his or her parent move to this state after such child graduates from high school, the child may become eligible for reclassification as a resident for tuition purposes after the parent submits evidence that he or she has established legal residence in the state and has maintained legal residence in the state for at least 12 consecutive months.
c) A person who is classified as a nonresident for tuition purposes and who marries a legal resident of the state or marries a person who becomes a legal resident of the state may, upon becoming a legal resident of the state, become eligible for reclassification as a resident for tuition purposes upon submitting evidence of his or her own legal residency in the state, evidence of his or her marriage to a person who is a legal resident of the state, and evidence of the spouse's legal residence in the state for at least 12 consecutive months immediately preceding the application for reclassification.

Appealing the Denial of Residency Reclassification

A student may once appeal the denial of a request to be reclassified from out-of-state status to in-state status for tuition purposes. The student will need to meet with a manager-level staff in the Office of the Registrar to discuss the decision and their options. The appeal must be provided in writing with accompanying documentation that might support reconsideration of the original decision. A committee will meet to review the appeal and its accompanying documentation. The committee will make a determination in the case and will notify the student in writing of its final decision within sixty days of the meeting.

TERM COURSES 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.

COLLECTION AND USAGE OF SOCIAL SECURITY NUMBERS

In accordance with Florida law, the University collects social security numbers from its students for the following reasons:

- For use in processing admission applications for purposes of identification and verification of student records;
- For use in administering federal and state programs/loans, including verification of eligibility. These programs include, but are not limited to:
    - Financial Aid and other related loan programs;
    - Scholarship Programs, including Bright Futures; and
    - Veterans Administration benefits for qualified students
- For use in complying with IRS Reporting Requirements pertaining to the Hope Scholarship Credit and the Lifetime Learning Credit provided under federal legislation;
- For use in preparing Student Enrollment Reports required to be submitted to the National Student Loan Data System under Federal Law;
- For use in providing official student transcripts to authorized third parties (i.e. educational institutions and employers upon receipt of required releases) for student identification purposes;
- For enrollment verification and eligibility for health insurance coverage, auto insurance coverage, and benefits, as requested by students.
- For submitting reports to the Florida Board of Governors as required.

Please note that this is only a listing of the collection and use of social security numbers by the University in the admissions, registration and financial aid areas. All students are advised that social security numbers are confidential and may only be released in accordance with applicable law.

Tuition and Fees

FEES

Registration and tuition fees are established by the Board of Trustees as required by the Florida Legislature. These fees are subject to change without notice. As of Fall 2017, the authorized fees are:

PER CREDIT HOUR TUITION AND FEES FOR UNDERGRADUATE STUDENTS

	Florida Resident	Non-Florida Resident
Undergraduate	$205.57[a]	$618.87[b]
Per Semester Fees		
Intercollegiate Athletics	$10.00	$10.00
Student Health Services	$93.69	$93.69
Transportation Access[c]	$90.70	$90.70

[a] This amount includes $48.21 per credit fees.
[b] This amount includes $67.89 per credit fees.
[c] Transportation Access is $84.58 in the Summer term. Fall/Spring = $90.70; including the sales tax.

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.

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**.

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 credit hours of tuition and fees per term. Summer sessions A, B, and C are considered one term. State employees who register for more than six hours 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 Student Financials 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. 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, 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 and once per academic year thereafter.

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 given 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 online through the MyFIU portal (**https://my.fiu.edu**) or at the Student Financials Office at Modesto A. Maidique Campus, SASC 101, or at Biscayne Bay Campus ACI 140. The on-line payment system accepts credit card payments of AMEX, DISCOVER and MASTERCARD and VISA. Note: There is a 2% non-refundable fee for paying with credit card. Check payments may also be done through the on-line system without a fee. The University is not responsible for cash sent through the mail. *Please take into consideration delivery and processing time when mailing your payment. The Student financials Office is not responsible for any delayed or misdirected mail by the U.S. Postal Service or Campus Mail Services.*
Failure to pay fees by the established deadlines will result in a late payment fee and may cause you to be dropped from all courses. See *Fee Liability* below.

Payment Plan

The payment plan will allow students to pay their current term's tuition and fees in installments. The first/initial installment of your total tuition and fees must be paid by the Last Day to Pay and the remaining balance will be due by the established installment due dates by the established deadlines. There is a $15.00 service charge to sign up for the plan. Enrollment to the Payment Plan can be accomplished by going to the MyFIU portal (**https://my.fiu.edu**) and selecting "Payment Plan" in the Finances section. Installments not paid on time will be subject to the late payment fee.

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

Students utilizing the Florida Prepaid Tuition Plan must pay their portion of the student fees not covered by the plan by the published last day to pay fees. You may opt out of Florida Prepaid each term by filing out an opt-out form with the Student Financials office before the last day to pay.

FINANCIAL AID RECIPIENTS

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. If your financial aid awards do not cover full tuition & fees you must pay the difference between your financial aid awards (less Federal Work Study) and your final fee as posted.

Students can view their "Anticipated Aid" online through **my.fiu.edu**.

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 for the term may be canceled.

REINSTATEMENT OF CLASSES

Appeals for reinstatement of registration for classes dropped for fiscal reasons must be filed in writing on the prescribed form with the Student Financials 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.

CHECKS

The University will accept personal checks for amounts due to the University. These checks must be in the exact amount due only. The Student Financials 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. If a check is returned from an on-line payment, returned check fines will also be charged as per the amounts indicated above.

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

REFUNDS

Refunds will be processed and issued to all students whose fee accounts show an overpayment after the last day to pay fees. Refunds will be issued via direct deposit. Direct deposit information can be entered on line in the Finances section (add a direct deposit link) of the MyFIU portal (**https://my.fiu.edu**). If direct deposit information is not provided, the refund will be issued in the form of a check and will be mailed. 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, the refund will be held until an arrangement to pay the prior balance has been made.

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 add/drop period for each semester.

Appeals for tuition refunds must be submitted in writing to the Office of the Registrar within 6 months after the end of the term for which the refund is requested. There are no exceptions to this policy. Refunds for financial aid recipients will be determined based on the "Return of Title IV Policy". Please refer to "the award terms and condition booklet" for specific details.

REPEAT COURSE TUITION CHARGES

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 the same 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 of dropped course.

- Graduate level courses (courses at 5000 level or above).
- Effective Summer 2000, students who withdraw or fail a class due to extenuating circumstances and financial hardships may be granted an exception only once for each class.
- 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.

EXCESS CREDIT SURCHARGE

Effective Fall term 2009 and thereafter, all undergraduate students who enter or transfer to Florida International University are subject to Florida Statute 1009.286, excess credit surcharge. This statute governs the number of credits a student can take before being assessed excess credit surcharges. **Excess Credit threshold and the Excess Credit surcharges vary based on the student's first-time-in-college admission term.** It is important that students communicate with their undergraduate or academic advisor in order to stay on track towards graduation and to avoid excess credit surcharges that may have financial repercussions. Please be aware that courses in which students receive grades of DR, W, WA, WI, IN and F can count towards excess credit calculations. For more detailed information go to the Excess Credit Surcharge under **University Undergraduate Rules and Regulations.**

Additional information regarding excess credits and related surcharges can be found **http://onestop.fiu.edu**.

PAST DUE ACCOUNTS

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

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.

PARKING RULES AND REGULATIONS

All persons who park vehicles on the university's campuses must 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.

Transportation Access Fee

All enrolled students will pay a Transportation Access Fee each semester. The fee will appear on the Student Fee Schedule.

Students may request their parking decal online at **http://parking.fiu.edu** or at the Department of Parking and Transportation offices located in the PG5 Market Station at Modesto A. Maidique Campus or in the Wolfe University Center, Room 353 at the Biscayne Bay Campus. They will need to bring the current vehicle registration when obtaining their decal at the office. 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. A duplicate decal will be issued upon request for an additional charge. This decal is valid only for the vehicle under which it is registered. Duplicate decals are available to persons who have obtained an original decal for the current academic year. The duplicate decals are for additionally owned vehicles and for situations where the original decal must be replaced due to an accident, maintenance, 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 indicated semester(s) only. This housing sticker should be affixed to the left or right side of their current student decal.

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.

Towing and Impoundment

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

Rules and Regulations Pamphlets

A copy of the University Parking Rules and Regulations is available online at **http://parking.fiu.edu** and at the Department of Parking and Transportation offices located in the PG5 Market Station at Modesto A. Maidique Campus or in the Wolfe University Center at Biscayne Bay Campus. It is the responsibility of each student to become familiar and comply with the University's parking and traffic rules and regulations.

LIBRARY FINES

Per book per library hour	$ .25
Maximum fine per book	$10.00
Lost book fine	$100.00

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

Financial Aid

WHAT IS FINANCIAL AID?

Financial aid is a source of financial support provided by federal, state and local governments, universities, community organizations, and private corporations 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 that do not have to be repaid.
- Scholarships are non-repayable awards based on either on merit, special talent and/or financial need.
- Student employment allows students to earn money toward their education by working part-time while attending school.
- Student loans are available to students and/or their parents at low **interest rates** (Federal Direct Loans).

APPLYING FOR ASSISTANCE

The Free Application for Federal Student Aid (FAFSA) is the form used annually to apply for most types of financial assistance. FIU's school code **009635** is required when completing the FAFSA. Applications for financial assistance are available annually on October 1st for the following academic year which begins in August. FIU's annual priority deadline is **March 1st.** Applications completed after this deadline will be processed in order of completion.

The FAFSA is available on the Web:

- FAFSA web filers will require a FSA ID (Federal Student Aid ID) to be used in lieu of student and parent signatures. Therefore, both student and parent will need to apply for a FSA ID. To obtain a FSA ID go to **https://fsaid.ed.gov/npas/index.htm**.
- Next to complete the FAFSA electronically on the Web, the web site address is: **http://www.fafsa.gov**.
- Using the Panther ID, students may check the "TO DO LIST" for any documentation required for file completion through **my.fiu.edu**.

ADMISSIONS

To be eligible for financial aid, students must be admitted to a degree-seeking program. However, students should not wait until they are admitted to apply for assistance. Summer admits must file a FAFSA for the current academic year and the next academic year, (Summer 2019 admits file a 2018-2019 FAFSA and a 2019-2020 FAFSA).

SUMMER ASSISTANCE

To receive Summer assistance for 2019, the 2018-2019 FAFSA must be on file. Summer awards are automatically posted as long as there are no pending documents required and the student meets the preliminary review of **Satisfactory Academic Progress** (SAP) for Summer and the following academic year.

TRANSFER STUDENT PROCEDURES

Financial aid cannot be transferred from one post-secondary institution to another during the academic year. Students planning to transfer in mid-year should complete the FAFSA using both their current institution and Florida International University **Federal School Code 009635** to ensure consideration for all applicable financial assistance.

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;
- be enrolled at least half-time in an eligible program of study (a minimum of six undergraduate credits)
- Maintain Satisfactory Academic Progress and
- not be in default on a loan, or owe a repayment on Title IV aid received at any institution;

Additional requirements may apply depending on the aid programs awarded.

ENROLLMENT REQUIREMENTS

To qualify for most financial assistance, students must meet the following basic enrollment requirements:

- Meet the minimum enrollment requirements for each aid program awarded, (see **onestop.fiu.edu**);
- Enroll for courses applicable to the students' chosen eligible program (Courses NOT applicable may not count toward minimum enrollment requirements for aid programs.)

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 toward their educational expenses, which is the expected family contribution (EFC). Need analysis is a federally mandated formula that measures, in an equitable and systematic way, how much students and their families can afford to pay toward their 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 ability.

Cost of attendance minus EFC = Financial need

VIEWING YOUR FINANCIAL AID

Students can view application status and awards using their Panther ID through **my.fiu.edu**.

AWARDING PROCEDURES

Award decisions for newly admitted students who complete their financial aid application will be issued annually by mid February with an Early Estimated Award Notice. A financial aid package may consist of a combination of grants, loans, and student employment.

All awards are offered based on full time enrollment. Full time enrollment for Undergraduate students is 12 credits. Awards are then adjusted, if applicable, to actual enrollment after the drop/add period for each semester (Fall/Spring/Summer). Other sources of assistance such as merit awards and private and institutional scholarships will be taken into consideration when preparing the award. Award decisions for returning students who meet the **March 1st** priority deadline should expect to receive an award decision by July*.

*The Financial Aid Office reviews Spring grades to determine if **Satisfactory Academic Progress** has been met before an award determination is made for the summer and following academic year for all returning students.

RETURN OF FINANCIAL AID POLICY

Federal regulations mandate that the Financial Aid Office comply with the Return to Title IV Funds (R2T4) regulations. Any student who ceases attendance in a scheduled period of enrollment before completing 60% of the period of enrollment may be liable to repay all or a portion of the Title IV aid disbursed. A student who does not earn at least one credit with a D- or higher may be liable to repay all or a portion of the Title IV aid that was disbursed. Grades that affect Return to Title IV Funds are F, F0, IN, DR, W, WA, WI. Title IV funds include the following financial aid programs: Pell Grant, SEOG, Subsidized and Unsubsidized Stafford Loans, TEACH Grant, and PLUS Loans. The amount of the return is based on formulas established by the U.S. Department of Education. For additional information regarding the Financial Aid Return to Title IV Policy view the complete policy located on the OneStop webpage.

FINANCIAL AID SERVICES

- ***Log on to Your FIU Panther Mail Today!*** FIU does most of its business electronically, including informing you of your Financial Aid Award Notice which provides you with your academic year awards. Initial financial aid correspondence is mailed to your local address. Thereafter, communications are sent electronically to your FIU Panther Mail. You are responsible for keeping your Email address up to date. You may use the "Self-Service Personal Profile" located on **my.fiu.edu** to update your local information. To update other addresses (e.g. permanent), you must visit OneStop.
- ***Financial Aid Counseling:*** OneStop representatives are available on a walk-in basis to assist students with special inquiries, technical questions and exceptions.
- ***Web Access:*** Students may obtain information on the status of their application at **my.fiu.edu**.
- ***LIVE CHAT:*** Students can communicate on-line with Financial Aid representatives through PANTHERCHAT available through the OneStop webpage at: **onestop.fiu.edu**.
- ***Financial Aid e-forms:*** Requested financial aid forms can be obtained and e-forms Guides are available for your review.

For additional information, contact the OneStop Enrollment Services Office by telephone at (305) 348-7000 or by visiting at Modesto A. Maidique Campus, Student Academic Success Center or Enrollment Services at the Biscayne Bay Campus, ACI 100.

General Information

HUMAN RESOURCES

The Division of Human Resources provides human resource management services for all faculty and staff in the academic and administrative areas including student employees, research and graduate assistants, college work study and temporary employees on all campuses. The division comprises the following areas: HR Administration, Talent Acquisition and Management, Compensation & Benefits Administration, Employee and Labor Relations, Payroll, Employee Records, HR Management Systems, Talent Management and Development, Inclusion, Diversity, Equity, and Access (IDEA) Office, Employee Assistance Programs, Human Resources Relations, and Human Resources (Herbert Wertheim College of Medicine). This office partners with the Office of Faculty and Global Affairs to host an annual orientation for new faculty. Additionally, it is through this office that new employees participate in the New Employee Experience (NEE) to gain knowledge of FIU's past, present, and future for their individual career success and institutional impact. On-campus jobs are provided for students, offering work experience and skill development. Five levels, ranging from entry level to apprenticeship are coordinated through FIU Career Ready. Additionally, full-time entry-level positions are available for recent graduates, supported by the student and alumni employment team.

The Modesto A. Maidique Campus (MMC) office is located in PC 224, (305) 348-2181. The Biscayne Bay Campus (BBC) office is located in LIB 322, (305) 919-5545. For additional information, visit the Division of Human Resources website at: **http://hr.fiu.edu**.

INCLUSION, DIVERSITY, EQUITY, AND ACCESS (IDEA) OFFICE

Florida International University is committed to equal opportunity and diversity for all students, faculty, staff, visitors and applicants for employment. IDEA (formerly known as Equal Opportunity Programs and Diversity (EOPD) is responsible for the development, implementation and monitoring of diversity, equity and affirmative action programs, policies and procedures to ensure equal employment without regard to age, color, disability, marital status, national or ethnic origin, political affiliation, race, religion, sex (including pregnancy), sexual orientation, veteran status or gender information. This is accomplished by various programs, goals and initiatives:

- The University's Affirmative Action Plan for Women and Minorities, and for Individuals with Disabilities and Veterans and the Florida Equity Accountability Plan;
- American with Disabilities Act (ADA)
- Diversity Initiatives
- External Partnerships
- Minority Scholarships
- Position Vacancy Announcements/Hiring Recruitment
- Internal and External investigations
- Training

The office is located on the MMC campus in PC 321, (305) 348-2785. For additional information, visit the Inclusion, Diversity, Equity, and Access (IDEA) Office website at: https://hr.fiu.edu/employees-affiliates/employee-concerns/.

INDIVIDUALS WITH DISABILITIES

The American Disabilities Act (ADA) provides that no qualified individual with a disability shall be denied access to or participation in programs, services, and activities at Florida International University. This act applies to all aspects of campus activities, including employment, student programming and services. Students seeking accommodations must register with the Disability Resource Center (DRC) at **drc@fiu.edu** or by using the information below.
DRC's MMC or BBC Office using the information below. Modesto A. Maidique Campus: GC 190, (305) 348-3532; Biscayne Bay Campus: WUC 131, (305) 919-5345.

Filing a Complaint: It is the policy and practice of Florida International University to comply fully with the requirements of the Americans With Disabilities Act of 1990 (ADA), Section 504 of the Rehabilitation Act and all other federal and State laws and regulations prohibiting discrimination on the basis of disability. Complaints of disability discrimination, harassment, or retaliation must be filed with the Inclusion, Diversity, Equity, and Access (IDEA) Office within 120 calendar days of the incident(s). IDEA is responsible for investigating discrimination and/or harassment complaints/allegations.

If you wish to learn more about your ADA rights, the University's policies against discrimination and sexual harassment as well as the process for filing a formal complaint contact the Inclusion, Diversity, Equity, and Access (IDEA) Office in PC 321; (305) 348-2785 or on the IDEA website: https://hr.fiu.edu/employees-affiliates/employee-concerns/

SEXUAL AND UNLAWFUL HARASSMENT POLICY

All members of the University Community are entitled to study and work in an environment free of discrimination and harassment. Florida International University's equal opportunity policy prohibits discrimination against students and employees on the basis of their race, color, age, disability, sex (including sexual harassment), religion, marital status, national origin, sexual orientation, gender identity, or gender expression.

Sexual harassment is unlawful under Title IX of the 1972 Education Amendments, Title VII of the Civil Rights Act of 1964, and the Florida Civil Rights Act. As a matter of University policy, sexual or other unlawful harassment occurring in the course of any University activity, whether on or off campus is prohibited.

Harassment on the basis of race, color, age, disability, sex (including sexual harassment), religion, marital status, national origin, sexual orientation, gender identity, gender expression, or any other protected status under federal, state or local law, ordinance or regulation applicable to the University, is a violation of FIU's policy.

Any such harassment of any individual in the course of any University-administered program, job or activity is prohibited and shall not be tolerated. The University shall take prompt and effective corrective action to address

unlawful harassment, including, where appropriate, dismissal or expulsion. The policy explicitly applies to University students, faculty, staff, administrators, independent contractors and all other individuals engaged in University activities. Individuals who know of harassment, or believe that they have been harassed in violation of this policy, are encouraged to utilize the University complaint procedures.

FIU takes all matters of Harassment including Sexual Harassment, Sexual Assault and Sexual Violence seriously. In accordance with Title IX regulations, the University has designated Shirlyon McWhorter, Director of Inclusion, Diversity, Equity, and Access (IDEA) Office as the University's Title IX Coordinator responsible for overseeing FIU's Title IX compliance effort. Julie Berg, Sr. Associate Athletic Director (Athletics) is designated as FIU's Title IX Deputy Coordinator.

Reporting Harassment: Students, faculty, staff, visitors, independent contractors and all other individuals engaged in University activities are encouraged to report any conduct of which they have direct knowledge and which they in good faith believe constitutes harassment in violation of this policy. Managers have a legal duty to report any conduct of which they have direct knowledge, and which they in good faith believe constitutes harassment in violation of this policy. If you have concerns or need to report an incident of sexual misconduct, please contact Shirlyon McWhorter, Title IX Coordinator, at (305) 348-2785 or smcwhort@fiu.edu, or The Office of Student Conduct at (305) 348-3939 or conduct@fiu.edu

Retaliation Is Prohibited: An individual's good-faith filing of or pursuing a complaint under this policy or otherwise reporting, complaining, assisting or cooperating in good faith with a complaint of harassment shall not be the basis for any adverse University decision regarding the student, employment or other status of any student, faculty member, staff member, administrator, independent contractor or other individual engaged in University activities. Such retaliation is forbidden by this policy.

Confidentiality: Every reasonable effort shall be made to protect the privacy of the complainant, the accused, and witnesses in the investigation and resolution process, subject to the need to conduct a full and impartial investigation, remedy violations, monitor compliance, and administer this policy.

Any employee, applicant, or student who believes that he or she may be a victim of unlawful discrimination may file a complaint with the Inclusion, Diversity, Equity, and Access (IDEA) Office, PC 321 Modesto A. Maidique Campus, (305) 348-2785.

UNIVERSITY POLICE DEPARTMENT

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (Clery Act)

All postsecondary institutions, both public and private, that participate in federal Title IV student aid programs are required to comply with the *Clery Act* regulations. Although *Clery Act* compliance is an institutional responsibility, full compliance is a campus wide effort, and concerns all members of the Community. Policy statements must be developed and crime reports must be collected from a wide variety of campus security authorities.

These authorities include, but are not limited to: Police; Non–police security staff responsible for monitoring campus property; individuals and offices to which crimes should be reported; and Officials of the University with significant responsibility for student and campus activities.

- The University Police Department publishes an annual Campus Security Report every year by October 1st containing three years of campus crime statistics and specific campus security information including university policy statements.
- Disclose crime statistics for the FIU campuses and areas immediately adjacent to the campus and certain non-campus facilities and other remote university properties. The statistics must be gathered from police or security, local law enforcement and from other university officials such as deans, directors and department heads, who have significant responsibility for student and campus activities. The crime statistics may be found on the University Police website listed below
- Timely Warning: The Clery Act requires you to alert the campus community to certain crimes in a manner that is timely and will aid in the prevention of similar crimes. The intent of a warning regarding a criminal incident(s) is to enable people to protect themselves. This means that a warning should be issued as soon as pertinent information is available. The warning will contain information about the type of criminal incident that has occurred, although you can provide additional information as it becomes available.
- Emergency Notification: Under the Clery Act, every institution is required to immediately notify the campus community upon confirmation of a significant emergency or dangerous situation occurring on the campus that involves an immediate threat to the health or safety of students or employees. An "immediate" threat as used here includes an imminent or impending threat. The notifications may be sent via email, text, and the university telephone system.
- The University Police Department is responsible for preparing and distributing the Campus Security Report. The University Police Department works with local police departments and all university departments to compile the information contained in the annual report.

The University Police Department encourages the FIU community to pick up a copy of the Campus Security Report as a guide for safe practices on and off campus. You may obtain a copy at the University Police Department.

The Campus Security Report is also available electronically on the University Police website (**http://police.fiu.edu**).

(U.S. Department of Education, 2011)

INTERNATIONAL STUDENT AND SCHOLAR SERVICES

The International Student and Scholar Services (ISSS) office provides comprehensive assistance to international students, faculty, and researchers in non-immigrant status (F or J visas). The staff provides advising services on immigration, cultural personal, social, and financial concerns at both the Modesto A. Maidique (MMC) and Biscayne Bay Campus (BBC).

ISSS ensures institutional compliance with the federal agency requirements for the Department of Homeland Security (DHS) in reporting and tracking our international students.

In addition, the department also serves as a liaison to academic and administrative departments throughout the University.

All new and/or international transfer students MUST attend a MANDATORY welcome session before the start of their first semester and MUST complete a virtual immigration check-in process within the first week of the start of classes. The ISSS also offers social and cultural programs to assist students in adapting more effectively to the University community and their new life in the United States. 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 great Miami community.

ISSS is located in the Student Academic Success Center (SASC), Room 230, Modesto A. Maidique Campus, (305) 348-2421; and WUC 363, Biscayne Bay Campus, (305) 919-5813.

For additional information visit our website at: **https://globalaffairs.fiu.edu/isss/**.

OFFICE OF STUDY ABROAD

The Office of Study Abroad provides students with numerous opportunities to earn academic credit while traveling outside of the United States either led by a faculty member on FIU study abroad programs or independently in the International Student Exchange program. Duration varies from a few weeks to a semester or even an academic year abroad.

Students participating in the ISE Program will pay FIU tuition and fees and, with pre-approval from their department, will receive transfer credit for the courses taken abroad. Grades earned on the ISE programs will not be averaged into the FIU GPA. In order to be eligible for the ISE Program, students must be in good academic standing and conduct standing with a minimum 3.0 GPA.

FIU Study Abroad programs are typically offered during the summer, although some programs are offered during the fall, Spring and Winter session terms. The programs are designed and led by FIU faculty. Students participating in these programs will pay FIU tuition and fees in addition to a program fee for the cost of the program abroad. Grades earned on these programs will be averaged into the FIU GPA as these are FIU credit-bearing courses. For participation in FIU faculty-led study abroad programs, students must have a GPA above a 2.0 (good academic standing) and good conduct standing.

The Office of Study Abroad will also assist you in preparing for an academic credit-bearing internship abroad, and direct enrollment at accredited foreign institutions and applying for study abroad scholarships, specifically the Boren scholarship, the CLS scholarship, the Fund for Educational Abroad scholarships, the Gilman scholarship, and the US Student Fulbright program.

For more information about studying abroad, please contact the Office of Study Abroad, located at the Modesto A. Maidique Campus, Student Academic Success Center (SASC), Room 230, at: (305) 348-1913; or email us at **edabroad@fiu.edu**, For additional information, please visit our website: **http://studyabroad.fiu.edu/**.

STUDENT ACCESS AND SUCCESS

The Office of Student Access and Success, develops partnerships with community and local educational agencies and acts as liaison with private and public agencies and organizations. It houses pre-collegiate programs and facilitates college access programs that support academic success among underrepresented and special student populations.

Location: SASC 205, Modesto A. Maidique Campus, (305) 348-3445.

The TRIO Pre-Collegiate Programs provide academic enrichment, career planning, financial aid guidance, and scholarship opportunities to promising underrepresented students at the middle and high school levels. The programs also expose students to the University environment through residential and non-residential programs and assists in facilitating the transition to college. In partnership with Miami-Dade County Public Schools, the following programs are offered on both campuses: College Reach Out, College Board Expanded Opportunity; Partners in Progress; and the National Achievers Society (FEF South Florida Center of Excellence).

Location: GC 331, Modesto A. Maidique Campus, (305) 348-1742.

UPWARD BOUND

The Upward Bound pre-collegiate program is a federally funded project designed to prepare underserved high school students for college. Upward Bound provides participants with supplemental instruction in academic areas, counseling, life skills training, financial aid, and a summer residential experience. The target high schools are Miami Carol City, Miami Northwestern, Miami Central, William H. Turner Technical Arts, and Miami Southridge.

Location: GC 331, Modesto A. Maidique Campus, (305) 348-1742.

Educational Talent Search

Educational Talent Search is a federal initiative to serve disadvantaged middle and high school students who need support to complete high school and to gain entry into a post secondary institution. The program provides services and activities that address the personal, academic, career, and cultural needs of each participant.

Location: AC1 394, Biscayne Bay Campus, (305) 919-4223.

Upward Bound Math and Science

The focus of the Upward Bound Math and Science program at FIU is to prepare low income potential first generation students to enter careers in biomedical science and engineering. To that end, the FIU UBMS provides academic and enrichment services in mathematics and the sciences that will ensure successful completion of their high school education and the eventual matriculation and graduation from a post-secondary institution of higher education. As a supplement to their academics, the UBMS program provides a wide range of services and activities that are of a personal, career, and cultural nature. The program has year-round and summer components. The target high schools are North Miami, Booker T.

Washington, Miami Central, Miami Northwestern, Miami Norland, and Miami Carol City.
Location: WUC 257, Biscayne Bay (305) 919-4045.

College Access Programs

College Access Programs are designed as pathways for undergraduate education. These programs provide college access to students from historically under-represented groups and special populations. SAS connects students with services and tools such as tutoring, career planning, advising, workshops and goal setting to help them succeed academically, maintain financial aid eligibility, and graduate on-time.

Ronald E. McNair Post Baccalaureate Achievement Program

The TRIO McNair Program is a federally funded project. The purpose of the McNair Program is to assist low-income, first-generation college and/or under-represented minority college students to make the transition from their baccalaureate to doctoral studies. Participants have the opportunity to conduct scholarly research under the supervision of a faculty mentor from the Sciences, Engineer, and/or Mathematics Departments.
Location: SASC 205, Modesto A. Maidique Campus, (305) 348-3445.

Fostering Panther Pride

Fostering Panther Pride (FPP) program offers tailored academic and support services to students identified as formerly in foster care or homeless. The primary goal of FPP is to assist former foster care youth and homeless students in their transition to FIU, their retention and graduation, and their pursuit of securing employment or graduate studies upon receiving their bachelor's degree.
Location: SASC 205, Modesto A. Maidique Campus, (305) 348-3445.

Golden Scholars Summer Bridge Program

The Golden Scholars bridge program is an alternative admissions program for under-represented students. Priority is given to first-generation students and City of Miami high school seniors. Students selected to be Golden Scholars will participate in an intensive six-week residential summer bridge program that offers academic preparation, individualized advising, and personal attention from faculty and staff. Upon successful completion of the bridge program, students will matriculate into the fall term as fully-admitted FIU students. Location: SASC 205, Modesto A. Maidique Campus, (305) 348-3445.

STUDENT COMPLAINTS

Florida International University supports the rights of students to file complaints and grievances, and appeal judicial outcomes and other University decisions concerning students in an environment free of fear, retaliation, or other adverse consequences.

The Student Handbook directs students to procedures for filing student grievances on academic and non-academic matters, for appealing student misconduct charges, and for lodging specific complaints, including discrimination or harassment, and appealing those decisions. Information on the grievance policy and procedures can also be found on the Integrity Website.

Complaint Procedures to Oversight Agencies

Procedures are available to allow students to file complaints with the Florida State University System Board of Governors as well as the regional accrediting agency, The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

The Florida Board of Governors (BOG) has grievance procedures in place for students seeking to file a complaint. However, students are encouraged to resolve university concerns by contacting the campus office responsible for the area relevant to the complaint. Further, if dissatisfied with the response, the student may contact the relevant area supervisor, director, department chair, or dean at FIU for resolution.

There are a number of venues for making a complaint to the BOG. The BOG Website provides information regarding filing a complaint.

The Southern Association of Colleges and Schools Commission on Colleges complaint procedure states: "SACSCOC expects individuals to attempt to resolve the issues through all means available to the complaint, including following the institution's own published grievance procedures before submitting a complaint to SACSCOC". The SACSCOC website provides information for filing a SACSCOC complaint. SACSCOC Website


Venus
Vina
Musica

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Chief Audit Executive, Internal Audit **Trevor Williams**

ACADEMIC AFFAIRS

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Associate Provost, Women Equity & Diversity **Suzanna M. Rose**
Associate Vice Provost, University Planning & Finance **Barbara Manzano**
Chief of Academic Administration **Howard Holness**

COLLEGES & SCHOOLS

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Dean, College of Business **Joanne Li**
Dean, College of Communication, Architecture + The Arts **Brian Schriner**
Dean, College of Engineering and Computing **John L. Volakis**
Dean, College of Law **Antony Page**
Dean, Nicole Wertheim College of Nursing and Health Sciences **Ora Strickland**
Dean, Herbert Wertheim College of Medicine **Robert Sackstein**
Dean, Honors College **Juan Carlos Espinosa**
Dean, Robert Stempel College of Public Health & Social Work **Tomás Guilarte**
Interim Dean, Chaplin School of Hospitality & Tourism Management **Michael Cheng**
Dean, Steven J. Green School of International and Public Affairs **John F. Stack, Jr.**
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ACADEMIC AND CAREER SUCCESS

Associate Provost, Academic Career & Success **Valerie Johnsen**
Assistant Vice President **Charlie Andrews**

UNIVERSITY GRADUATE SCHOOL

Dean **Andrés Gil**
Associate Dean **Lidia Kos**

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Senior Vice President for Health Affairs and Dean, Herbert Wertheim College of Medicine **Robert Sackstein**
Dean, Nicole Wertheim College of Nursing and Health Sciences **Ora Strickland**
Dean, Robert Stempel College of Public Health & Social Work **Tomás Guilarte**
Dean, College of Engineering and Computing **John L. Volakis**
Executive Director, School of Integrated Science & Humanity **Walter Van Hamme**

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Associate Vice President **Luis P. Salas**
Associate Vice President **Tonja Moore**
Associate Vice President **Lidia Kos**

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Associate Vice President, Academic Planning & Accountability **Susan P. Himburg**
Associate Vice President, Student Health and Wellness **Brenezza DeParre Garcia**
Associate Vice President, Auxiliary Operations **Joseph Paulick**
Assistant Vice President **Bridgette Cram**
Assistant Vice President, Biscayne Bay Campus **Anthony DeSantis**
Assistant Vice President, Administrative Affairs **Matilda Gramling**
Interim Ombudsperson **Sofia Trelles**

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University Registrar **Dulce Beltran**
Assistant Vice President, Transfer & Transition

Services **Janie Valdes**

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Vice President & CIO **Robert Grillo**
Assistant Vice President, CIARA/AMPATH **Julio Ibarra**

ENGAGEMENT

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Assistant Vice President **Caryn Lavernia**

FIU AT I-75 (BROWARD)

Director **Marisa Salazar**

ADMINISTRATION & INSTITUTIONAL DEVELOPMENT

VP Regional Academic Locations & Institutional Development **Pablo Ortiz**
Assistant Vice Provost, Biscayne Bay Campus **Michael Hearon**

BUSINESS & FINANCE

OFFICE OF FINANCE & ADMINISTRATION

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Associate Vice President, Business & Finance **Aime Martinez**
Associate Vice President, Facilities Management **John Cal**
Associate Vice President & Controller **Katherine Brophy**
Assistant Vice President, Financial Planning **Diane Lee-Singh**
Assistant Vice President, Disaster Management & Emergency Operations **Ruben Almaguer**
Assistant Vice President, FIU Foundation, Inc. **Milagros Garcia Chica**
University Treasurer **Benjamin Powell Jarrell**
Chief, University Police **Alexander Casas**

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Vice President **El Pagnier K. Hudson**
Assistant Vice President, Operations, Compliance, & Systems **Carlos A. Flores**
Director, Equal Opportunity Program & Diversity, Title IX Coordinator **Shirlyon McWhorter**

EXTERNAL RELATIONS

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Vice President **Terry Witherell**
Associate Vice President **Dania Rivero**

UNIVERSITY ADVANCEMENT

Sr. Vice President & President & CEO, The FIU Foundation, Inc. **Howard Lipman**
Associate Vice President & Exec. Director, Alumni Association **Duane Wiles**
Associate Vice President, Development **George Corton**
Assistant Vice President, FIU Foundation, Inc. **Vacant**
Assistant Vice President, Development **Vacant**
Assistant Vice President, Development **Laura Padron**

GOVERNMENTAL RELATIONS

Vice President, Governmental Relations **Michelle L. Palacio**
Assistant Vice President, Health Policy and Governmental Affairs **Lynne Shaw**
Assistant Vice President, Federal Relations **Carlos A. Becerra**

INTERCOLLEGIATE ATHLETICS

Executive Director, Sports & Entertainment **Pete Garcia**
Senior Associate Athletic Director **Julie Berg**
Senior Associate Athletic Director, Chief Operating Officer **Heath Glick**
Senior Associate Athletic Director, Compliance **Jessica Reo**
Senior Associate Athletic Director, Development **Mercy Dorta**
Senior Associate Athletic Director, Facilities & Operations **Drew Auguste**
Senior Associate Athletic Director, External Relations **Alex Kelley**

GENERAL COUNSEL

General Counsel **Carlos B. Castillo**
Associate General Counsel **Wendy Vargas**
Associate General Counsel **Iris A. Elijah**

Academic Units

College of Arts, Sciences and Education
MMC (305) 348-2864
BBC (305) 919-5859
FIU @ I-75 (954) 439-8600
Email: casedean@fiu.edu
http://cas.fiu.edu

School of Education and Human Development
MMC
STEM Transformation Institute:
(305) 348-3425
Teaching and Learning:
(305) 348-2723
FIU at I-75 (305) 438-8600
http://education.fiu.edu

School of Environment, Arts and Society
BBC (305) 919-6000
BBC Email: seas@fiu.edu
seas.fiu.edu

School of Integrated Science and Humanity
MMC (305) 348-4232
Email: sish@fiu.edu
http://sish.fiu.edu

College of Business
MMC (305) 348-2751
BBC (305) 919-5870
FIU at I-75 (954) 438-8600
Downtown on Brickell (305) 779-7977
Email: cobquestions@fiu.edu
http://business.fiu.edu

Tibor and Sheila Hollo School of Real Estate
FIU Downtown on Brickell (305) 779-7898
http://business.fiu.edu/realestate/index.cfm

R. Kirk Landon School of Business
MMC (305) 348-0051
Email: cobquestions@fiu.edu
http://business.fiu.edu/landon/

School of Accounting
MMC (305) 348-2581
Email: soacct@fiu.edu
http://business.fiu.edu/soa/index.cfm

College of Communication, Architecture + The Arts
MMC (305) 348-7500
Email: carta@fiu.edu
http://carta.fiu.edu

School of Communication and Journalism
BBC (305) 919-5625
Email: scj@fiu.edu
https://scj.fiu.edu/

School of Music
MMC (305) 348-2896
Email: music@fiu.edu
http://carta.fiu.edu/music/

College of Engineering and Computing
MMC (305) 348-2522
FIU at I-75 (954) 438-8600
http://cec.fiu.edu

School of Computing and Information Sciences
MMC (305) 348-2744
Email: undergrad-info@cis.fiu.edu
http://www.cis.fiu.edu

Moss School of Construction, Infrastructure and Sustainability
MMC (305) 348-3172
Email: cminfo@eng.fiu.edu
http://ohlsc.fiu.edu

School of Universal Computing, Construction and Engineering Education
MMC (305) 348-6950
https://succeed.fiu.edu/

College of Law
MMC (305) 348-8006
Email: lawadmit@fiu.edu
http://law.fiu.edu/

Herbert Wertheim College of Medicine
MMC (305) 348-0570
Email: med.admissions@fiu.edu
http://medicine.fiu.edu

Nicole Wertheim College of Nursing and Health Sciences
MMC (305) 348-7703
BBC (305) 919-4421
http://cnhs.fiu.edu

Robert Stempel College of Public Health and Social Work
MMC (305) 348-4903
Email: stempelinfo@fiu.edu
http://stempel.fiu.edu

School of Social Work
MMC (305) 348-3881
Email: sowpracticum@fiu.edu
http://stempel.fiu.edu/academics/social-work/index.html

Chaplin School of Hospitality and Tourism Management
BBC (305) 919-4500
Email: hospitality@fiu.edu
http://hospitality.fiu.edu

Steven J. Green School of International and Public Affairs
MMC (305) 348-7266
Email: international@fiu.edu
http://sipa.fiu.edu/

The Honors College
MMC (305)348-4100
BBC (305) 919-5597

Email: **honors@fiu.edu**
http://honors.fiu.edu/

Academic and Career Success
MMC (305) 348-9951
BBC (305) 919-5754
Email: acs@fiu.edu
http://undergrad.fiu.edu

University Libraries
MMC (305) 348-2451
BBC (305) 919-5718
http://library.fiu.edu

Museums

Jewish Museum of Florida, Miami Beach
(305) 672-5044
http://jmof.fiu.edu

The Patricia & Phillip Frost Art Museum
MMC (305) 348-2890
Email: **artinfo@fiu.edu**
https://frost.fiu.edu/

The Wolfsonian, Miami Beach
(305) 531-1001
Email: **info@thewolf.fiu.edu**
http://www.wolfsonian.org/

Select Support Services

ACADEMIC ADVISING
https://acs.fiu.edu/offices-services/advising

ADMISSIONS
http://admissions.fiu.edu
http://onestop.fiu.edu
MMC & BBC (305) 348-7000
FIU at I-75 (954) 438-8600

ATHLETICS
http://www.fiusports.com
MMC (305) 348-2756

BOOKSTORE
https://fiu.bncollege.com
MMC (305) 348-2691
BBC (305) 919-5580

STUDENT FINANCIALS
http://finance.fiu.edu/controller/QL_Student.html
MMC (305) 348-2126
BBC (305) 919-5540

CAMPUS LIFE
https://studentaffairs.fiu.edu/get-involved/campus-life/
MMC (305) 348-2138
BBC (305) 919-5804

CAMPUS RECREATION
https://studentaffairs.fiu.edu/health-and-fitness/recreation/mmc/
MMC (305) 348-2575
BBC (305) 919-5678

CAREER AND TALENT DEVELOPMENT
https://career.fiu.edu
MMC (305) 348-2423
BBC (305) 919-5770

UNIVERSITY LEARNING CENTER
http://learningcenter.fiu.edu
MMC (305) 348-2441
BBC (305) 9194044

CENTER FOR EXCELLENCE IN WRITING
http://writingcenter.fiu.edu
MMC (305) 348-6634
BBC (305) 919-4036

COUNSELING AND PSYCHOLOGICAL SERVICES CENTER
https://studentaffairs.fiu.edu/health-and-fitness/counseling-and-psychological-services/
MMC (305) 348-2277
BBC (305) 919-5305

FINANCIAL AID
https://onestop.fiu.edu/finances/
MMC (305) 348-7000
BBC (305) 919-5750

GRADUATION
https://onestop.fiu.edu/student-records-myfiu/graduation-diplomas/apply-for-graduation/
MMC (305) 348-2341
BBC (305) 919-5750

HOUSING AND RESIDENTIAL LIFE
http://www.housing.fiu.edu/
MMC (305) 348-4190

JEWISH MUSEUM OF FLORIDA – FIU
http://jmof.fiu.edu/
(305) 672-5044

LIBRARY
http://library.fiu.edu/
MMC (305) 348-2451
BBC (305) 919-5718
Broward (954) 438-8600

PARKING SUSTAINABILITY AND TRANSPORTATION
http://parking.fiu.edu/
MMC (305) 348-3615
BBC (305) 919-5558

PATRICIA AND PHILLIP FROST ART MUSEUM
http://thefrost.fiu.edu
MMC (305) 348-2890

UNIVERSITY POLICE DEPARTEMENT
http://police.fiu.edu/
MMC (305) 348-2626
BBC (305) 919-5559

ONESTOP – ADMISSION, REGISTRATION, FIANANCIAL SERVICES
http://onestop.fiu.edu/
MMC (305) 348-7000
BBC (305) 919-5750
FIU at I-75 (954) 438-8600

RICOH@FIU (copy center, packing, and shipping)
https://shop.fiu.edu/retail-services/ricoh/
MMC (305) 348-7426
BBC (305) 919-4444

STUDENT GOVERNMENT ASSOCIATION
https://studentaffairs.fiu.edu/get-involved/student-government-association/
MMC (305) 348-2121
BBC (305) 919-5680

STUDENT HEALTH SERVICES
https://studentaffairs.fiu.edu/health-and-fitness/student-health/
MMC (305) 348- 2401
BBC (305) 919-5680

UNIVERSITY CREDIT UNION
http://www.ucumiami.org/
MMC (786) 425-5000
BBC (786) 425-5000

UNIVERSITY TESTING CENTER
http://testing.fiu.edu
MMC (305) 348-2441
BBC (305) 919-4043

VETERAN AND MILITARY OFFICE
https://studentaffairs.fiu.edu/campus-services/veteran-and-military-affairs/index.php
MMC (305) 348-2838

VICTIM EMPOWERMENT PROGRAM
http://advocacy.fiu.edu
MMC (305) 348-2277

WOLFSONIAN MUSEUM– FIU
http://www.wolfsonian.org
1001 Washington Avenue
Miami Beach, Florida 33139
(305) 531-1001

WOMEN'S CENTER
http://studentaffairs.fiu.edu/get-involved/womens-center/
MMC (305) 348-1506
BBC (305) 919-5359


At the
Graham
Center
FLORIDA INTERNATIONAL UNIVERSITY
BOOKST

Centers and Institutes

Applied Research Center
https://arc.fiu.edu/

Biomolecular Sciences Institute
https://bsi.fiu.edu/

Center for Advanced Technology and Education
cate.fiu.edu/

Center for Children and Families
https://ccf.fiu.edu/

Center for Cyber Infrastructure Education and Research for Trust and Assurance
http://cyber.cs.fiu.edu/

Center for Diversity in Engineering and Computing
https://cec.fiu.edu/resources/students/cd-sec/

Center for Internet Augmented Research and Assessment
http://www.ciara.fiu.edu

Center for Labor Research and Studies
http://labor.fiu.edu/

Center for Leadership
https://lead.fiu.edu/

Center for the Administration of Justice
http://caj.fiu.edu/

Center for the Humanities in an Urban Environment
https://humanities.fiu.edu/index.html

Center for the Study of Matter at Extreme Conditions
http://cesmec.fiu.edu/

Center for Research on U.S. Latino HIV/AIDS and Drug Abuse (CRUSADA)
http://crusada.fiu.edu/index.cfm

Center for Women's and Gender Studies
http://womenstudies.fiu.edu/

Cuban Research Institute
http://cri.fiu.edu/

Engineering Manufacturing Center
https://cec.fiu.edu/

English Language Institute
http://www.eli.fiu.edu/

Eugenio Pino Global Entrepreneurship Center
http://business.fiu.edu/entrepreneurship/pino.cfm

FIU Community-Based Research Institute
https://cbri.fiu.edu/

FIU STEM Transformation Institute
http://stem.fiu.edu

Florida - Caribbean Institute
http://lacc.fiu.edu/academics/financial/fci

Florida Extreme Events Institute
http://digitalcommons.fiu.edu/drr/

Florida - Mexico Institute
http://lacc.fiu.edu/academics/financial/fmi

High Performance Database Research Center
http://hpdrc.cs.fiu.edu

Institute of NeuroImmune Pharmacology
https://medicine.fiu.edu/about/departments/immunology/institute-of-neuroimmune-pharmacology/index.html

Institute of Water and Environment
https://inwe.fiu.edu/

International Center for Tropical Botany
https://ictb.fiu.edu

International Forensic Research Institute
http://ifri.fiu.edu/

International Hurricane Research Center
http://www.ihrc.fiu.edu/

Jack D. Gordon Institute for Public Policy & Citizenship Studies
http://gordoninstitute.fiu.edu

Jerome Bain Real Estate Institute
http://business.fiu.edu/Jerome-bain/index.cfm

Kimberly Green Latin American and Caribbean Center
http://lacc.fiu.edu/

Lehman Center for Transportation Research
http://lctr.eng.fiu.edu

Metropolitan Center
http://metropolitan.fiu.edu/

Ryder Center for Supply Chain Management
http://business.fiu.edu/ryder/index.cfm

Sea Level Solutions Center
http://slsc.fiu.edu

Southeast Environmental Research Center
http://sercweb.fiu.edu/

Telecommunications and Information Technology Institute
http://www.it2.fiu.edu/

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 (SCNS). This numbering system is used by all public postsecondary institutions in Florida and by participating nonpublic institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions. Students and administrators can use the online SCNS to obtain course descriptions and specific information about course transfer between participating Florida institutions. This information is at the SCNS website at **http://scns.fldoe.org**.

Each participating institution controls the title, credit, and content of its own courses and recommends 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 a meaning in the SCNS. The listing of prefixes and associated courses is referred to as the "SCNS taxonomy." Descriptions of the content of courses are referred to as "statewide course profiles."

THE COURSE PREFIX

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or subcategory 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 to identify the course.

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 participating institutions that offer the course, with a few exceptions, as listed below in *Exceptions to the General Rule for Equivalency*.

For example, a freshman composition skills course is offered by 84 different public and nonpublic postsecondary institutions. Each institution uses "ENC_101" to identify its freshman composition skills course. The level code is the first digit and represents the year in which students normally take the course at a specific institution. In the SCNS taxonomy, "ENC" means "English Composition," the century digit "1" represents "Freshman Composition," the decade digit "0" represents "Freshman Composition Skills," and the unit digit "1" represents "Freshman Composition Skills I."

In the sciences and certain 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 that has the same prefix and course number but 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 equivalent to one offered by the receiving institution. Equivalencies are established by the same prefix and last three digits and comparable faculty credentials at both institutions. For example, ENC 1101 is offered at a community college. The same course is offered at a state university as ENC 2101. A student who has successfully completed ENC 1101 at a Florida College System institution is guaranteed to receive transfer credit for ENC 2101 at the state university if the student transfers. The student cannot be required to take ENC 2101 again since ENC 1101 is equivalent to ENC 2101. 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 the native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed that have not been designated as equivalent. **NOTE**: Credit generated at institutions on the quarter-term system may not transfer the equivalent number of credits to institutions on the semester-term system. For example, 4.0 quarter hours often transfers as 2.67 semester hours.

AUTHORITY FOR ACCEPTANCE OF EQUIVALENT COURSES

Section 1007.24(7), Florida Statutes, states:

Any student who transfers among postsecondary institutions that are fully accredited by a regional or national accrediting agency recognized by the United States Department of Education and that participate in the statewide course numbering system shall be awarded credit by the receiving institution for courses satisfactorily completed by the student at the previous institutions. Credit shall be awarded if the courses are judged by the appropriate statewide course numbering system faculty committees representing school districts, public postsecondary educational institutions, and participating nonpublic postsecondary educational institutions to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or nonpublic control of the previous institution. The Department of Education shall ensure that credits to be accepted by a receiving institution are generated in courses for which the faculty possess credentials that are comparable to those required by the accrediting association of the receiving institution. The award of credit may be limited to courses that are entered in the statewide course numbering system. Credits awarded pursuant to this subsection shall satisfy institutional requirements on the same basis as credits awarded to native students.

EXCEPTIONS TO THE GENERAL RULE FOR EQUIVALENCY

Since the initial implementation of the SCNS, specific disciplines or types of courses have been excepted from the guarantee of transfer for equivalent courses. These include courses that must be evaluated individually or courses in which the student must be evaluated for mastery of skill and technique. The following courses are exceptions to the general rule for course equivalencies and may not transfer. Transferability is at the discretion of the receiving institution.

A. Courses not offered by the receiving institution.
B. For courses at nonregionally accredited institutions, courses offered prior to the established transfer date of the course in question.
C. Courses in the _900-999 series are not automatically transferable, and must be evaluated individually. These include such courses as Special Topics, Internships, Apprenticeships, Practica, Study Abroad, Theses and Dissertations.
D. Applied academics for adult education courses.
E. Graduate courses.
F. Internships, apprenticeships, practica, clinical experiences and study abroad courses with numbers other than those ranging from 900-999.
G. Applied courses in the performing arts (Art, Dance, Interior Design, Music, and Theatre) and skills courses in Criminal Justice (academy certificate courses) are not guaranteed as transferable. These courses need evidence of achievement (e.g., portfolio, audition, interview, etc.).

COURSES AT NONREGIONALLY ACCREDITED INSTITUTIONS

The SCNS makes available on its home page (**http://scns.fldoe.org**) a report entitled "Courses at Nonregionally Accredited Institutions" that contains a comprehensive listing of all nonpublic institution courses in the SCNS inventory, as well as each course's transfer level and transfer effective date. This report is updated monthly.

Questions about the SCNS and appeals regarding course credit transfer decisions should be directed to **Dr. Janie Valdes, Assistant Vice President, Undergraduate Education** or the Florida Department of Education, Office of Articulation, 1401 Turlington Building, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling the SCNS office at (850) 245-0427 or at **http://scns.fldoe.org**.

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 an inventory of course numbers by course type.

		Undergraduate		Graduate		
Course Type	**Course Number**	**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.**

College of Arts, Sciences and Education

Dean **Michael R. Heithaus**
Associate Dean, Undergraduate Studies **Maricel Cigales**
Associate Dean, Graduate Studies **Maureen A. Donnelly**
Associate Dean, Research **Rita Teutonico**
Director of Liberal Studies **Wanda Raiford**
Associate Director of Liberal Studies **Grenville Draper**
Assistant Dean, Accreditation and Assessment **Deborah J. Hasson**
Senior Associate Dean, School of Environment, Arts, and Society **Heather Russell**
Senior Associate Dean, School of Integrated Science and Humanity **Walter Van Hamme**
Senior Associate Dean, School of Education and Human Development **Laura Dinehart**

As the heart of a leading public research university, the College of Arts, Sciences and Education plays a vital role in the intellectual, cultural and civic life of local, national and international communities. The College provides an educational foundation that prepares FIU students to be successful and engaged citizens in a global society. The College generates extensive scholarship that yields new knowledge, shapes how we teach and learn, and contributes to a more complete understanding of the world.

The College offers courses for all students at the University, from those taken to fulfill the requirements of the University's Core Curriculum to required and elective courses for students who seek degrees from both the College and the University's other colleges and schools. Many professional degree programs require courses in specific Arts and Sciences disciplines; these needs are carefully addressed. The College's mission goes beyond offering introductory and service courses; it's students by explore the full implications of the arts and sciences disciplines in historical and contemporary society. High quality undergraduate degree programs educate students in the fundamentals of each discipline. Graduate programs provide in-depth training for the best students and allow faculty members the opportunity to teach at the frontiers of their fields. Rigorous academic research, scholarship, and creative activity are integral components of faculty activities in all disciplines and are the heart of graduate education.

Characteristically, the liberal arts endeavor is to synthesize. Thus, in addition to traditional degree programs, the College coordinates special areas and interests through a number of certificate and interdisciplinary degree programs.

The College is composed of 10 departments and several interdisciplinary programs housed in three schools: School of Education and Human Development, School of Environment, Arts, and Society (SEAS) and School of Integrated Science and Humanity (SISH).

Undergraduate Programs

The College offers departmental programs of study leading to Bachelor's degrees in Biochemistry, Biological Sciences, Chemistry, Earth Sciences, English, Environmental Studies, Geosciences, Marine Biology, Mathematical Sciences, Mathematics Education, Philosophy, Physics, Psychology, Statistics, and Sustainability and The Environment. The College also offers interdisciplinary programs leading to Bachelor's degrees in interdisciplinary studies, liberal studies, and women's and gender studies.

Minor programs of study are offered in Astronomy, Biology, Chemistry, English, Environmental Studies, Geology, Humanities, Marine Biology, Mathematical Sciences, Mathematics, Meteorology, Philosophy, Physics, Psychology, And Statistics.

Certificate Programs

Students can earn through the College certificates in the following: Actuarial Studies, Agroecology, Biodiversity Conservation and Management, Coastal and Marine Affairs, Comparative Immunology, Environmental Studies, Exile Studies, Film Studies, Forensic Science, Law, Ethics and Society, Linguistics Studies, Undergraduate Post-Baccalaureate Premedical, Professional and Public Writing, Queer Studies, and Women's and Gender Studies.

Admission Requirements

Applicants must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the College.

All students are encouraged to seek advising as early as possible in the department/program of their choice, even if they have not yet been admitted into that major.

Admission Requirements for Teacher Preparation Programs

All students in the secondary education majors in the College of Arts, Sciences and Education are required to have a minimum overall GPA of 2.5 for all lower division/transfer course work. In addition, these students are required to pass the FTCE General Knowledge exam.

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 understands and has met the requirements.

College Requirements for a Baccalaureate Degree

Candidates to the Bachelor's degree must satisfy individual departmental requirements, and the following College requirements, in addition to the University-wide requirements listed elsewhere:

1. A minimum of 120 semester hours in acceptable coursework is required.
2. At least half of the upper division credits in any major must have been taken in at FIU.
3. In the last 60 semester hours of enrollment, students must earn nine semester hours of elective credits through coursework outside the major, six of which

are to be taken outside the department sponsoring the program.
4. Students must earn a grade of "C" or higher in all courses required for the major. A grade of "C-" or lower is not acceptable in any required course.
5. Of the total number of hours submitted for graduation, a minimum of 45 semester hours must be in upper division courses.
6. One- and two-credit physical activity courses (with the prefixes PEL, PEM, PEN) cannot be included as part of the hours needed for graduation except for the Physical Education program.

Additional College Requirements for Teacher Preparation Programs

Student Teaching and Fingerprint Requirements

State of Florida Certification requires all applicants to be fingerprinted and checked by state and local law enforcement agencies. Local public and private schools and systems may also require similar security procedures for field placements, student teaching and/or internships. Students with a CHR (criminal history record) should be prepared to promptly provide documentation of adjudication in order to facilitate review and determination of eligibility for placement in the district or school requested. Details regarding specific district requirements, deadlines and documentation are available in ZEB 130, Office of Field Experiences.

Given the unique nature of the teaching profession requiring mastery of cognitive skills, demonstration of appropriate interpersonal skills, and professional behavior, the faculty retains the right to "counsel out" of the program and/or to not recommend for internship placement any student whose level of interpersonal competence and professional behavior is considered incompatible with that required for effective functioning as a teacher.

For all Teacher Prep and Counseling Field Experiences

Online information and the student teaching application is available at **http://education.fiu.edu**. Online submission deadline for Fall placement is due February 1; for Spring placements the deadline is September 15. A set of hard copies is due to ZEB 220 for Fall placements by March 1; for Spring placements by October 1.

Students are required to take and pass the GK, Professional Education (PEd), and appropriate Subject Area Exam (SAE) before beginning student teaching placement. Students must provide evidence of passing scores on all required exams by the end of the semester immediately preceding the internship.

Graduation Requirements

Students in the secondary education majors must also meet the following graduation requirements: 1) earn a cumulative GPA of 2.5 or higher and 2) grades below a C are not allowed.

All Students graduating from an Initial Teacher Preparation Program must pass prior to graduation the Florida Teacher Certification Exam. (which includes the Professional Education, the Subject Area, the General Knowledge Exams), and demonstrate successful completion of the Florida Educator Accomplished Practices. Students who fail one or more sections of the FTCE will not be cleared for graduation.

College Requirements for a Minor

Students wishing to earn a minor must satisfy individual departmental/program requirements and the following College requirements:

1. At least half of the courses used to fulfill the requirements must have been taken at FIU.
2. Earn a grade of "C" or higher in all courses required for the minor.

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 constituencies and to respond to the mandates of the Florida Board of Education 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.

Phi Beta Kappa

The College of Arts, Sciences and Education is home to the Epsilon chapter of Phi Beta Kappa, the nation's most prestigious honor society. Established in 1776 at the College of William and Mary, this society is exclusively for students majoring in the liberal arts and sciences.

Membership is by invitation not by application. During the semester when students graduate, they are evaluated by the chapter to determine their eligibility. The chapter committee examines not only the student's grade point average, but also the breadth and rigor of coursework in the liberal arts and sciences. In particular, candidates need to demonstrate knowledge of mathematics and of a foreign language.

Students must demonstrate competency in a foreign language or in American Sign Language at the level of the second semester of a college language sequence. (High school courses cannot be used to fulfill this requirement.) This requirement may be met by successfully completing with a grade of 'C' or better: a) the second semester of a two-semester sequence basic language course or b) any second-year or third-year foreign language course. This requirement may also be fulfilled by presenting acceptable scores in the Advanced Placement Exam, the SAT II, the CLEP exam, or other approved instruments. Students should consult their advisors for more specific information.

Exploratory Advising Center

Exploratory Advising is housed within the College of Arts, Sciences & Education. CASE Exploratory Advising offers unique guidance to students who are unsure about their major. Exploratory Advising's goal is to lead students to the right choice during their first year of study at FIU.

There are six different Exploratory tracks based on your area of interest:

1. The **Global and Social Sciences** exploratory area contains majors that are ideal for students who are

interested in pursuing careers in the social sciences such as psychology and education or who are considering studies in law.
2. The **Health Sciences** exploratory area contains majors that are ideal for students who have an interest in pursuing careers in nursing, nutritional counseling, or one of the graduate health profession programs.
3. The **Humanities and Arts** exploratory area contains majors that are ideal for students who are interested in pursuing careers in artistic and creative fields or who are considering studies in law.
4. The **Biological and Environmental Sciences** exploratory area contains majors that are ideal for students who have an interest in pursuing careers in medicine or who are considering studies in earth or environmental studies.
5. The **Administration and Management** exploratory area contains majors that are ideal for students who are interested in pursuing careers in business or managerial positions in different professions ranging from the hospitality industry and health care industry to careers in the public and nonpublic sectors.
6. The **Physical Science and Engineering** exploratory area contains majors that are ideal for students who have an interest in pursuing engineering and computing fields or who are considering studies in chemistry, physics, or mathematics.

Two exploratory courses, Discover Your Major (SLS 1402) and Major and Career Exploration (SLS 3407) have been developed to aid students in the decision-making process for selecting an appropriate major.

Exploratory students work with their assigned exploratory advisor to select a major within the first year. Exploratory advisors monitor student progress and ensure students are taking courses that will prepare them to successfully transition to a degree-awarding major. A selection of major hold is placed on a student's account once they've earned 30 credits. At this milestone, students must select an appropriate major aligned with their academic performance and professional goals.

Interdisciplinary Courses

The College of Arts, Sciences and Education has several interdisciplinary programs which are not based in a specific academic department. The courses offered by these programs therefore are not found in the departmental listings in the Catalog. For this reason, they are included here.

Courses that meet the University's Global Learning requirement are identified as GL.

IDS 3913 McNair Research Experience (3). Flagship Course for the FIU McNair scholars. The primary purpose of this course is to prepare scholars to successfully complete a research project and apply to graduate school.

IDS 4175 Experimental Arts (1-3). The study and creation of Experimental Performance artworks, involving a variety of media (media/sound, movement, visual arts, etc.). The evolution of performance art in the 20th century analyzed and discussed and new works are created by the students in the class. Prerequisite: Permission of the instructor.

IDS 5176 Experimental Arts (1-3). The study and creation of Experimental Artworks, involving media/sound, movement, visual art, etc. Students from different disciplines in the Arts have the opportunity to collaborate together and create new works. Prerequisite: Permission of the instructor.

ISC 1000 Great Ideas in Science (3). An introduction to the great ideas in science. Targeted to the non-science major. Study of the scientific method, origin of the universe, origin of life, evolution, among other topics. Corequisite: ISC 1000L.

ISC 1000L Great Ideas in Science Lab (1). An introduction to the great ideas in science. Targeted to the non-science major. Study of the scientific method, origin of the universe, origin of life, evolution, among other topics.

ISC 3523 Research Methods (3). Students use tools that scientists use to solve scientific problems and develop insight into processes involved in scientific discovery. Focus on research methods for prospective science teachers. Prerequisites: SMT 2661, SMT 2662.

ISC 4947 Entrepreneurial Science Internship (1-20). Internship in a faculty laboratory with emphasis on finding commercial applications of the laboratory's ongoing research. May be repeated. Prerequisite: ENT 4113.

ISS 3240 World Prospects and Issues (3). This course examines, from a multidisciplinary point of view, specific global issues such as food, population, and arms control. The issues discussed may change from one semester to the next.

ISS 4165 Sustainable Communities Seminar (3). Explores theories and aspects of sustainable communities, and considers the concept in comparative-historical, local global, and critical perspective. Prerequisite: Permission of the instructor.

ISS 4234 Cultural Expressions of the Americas (3). This interdisciplinary course focuses on national, cultural, and racial identities, as well as the performance of race and gender, as expressed in cultural productions of the Americas.

ISS 4235 The Cultural Body in the Americas: Critical Issues in Intercultural Understanding (3). With a team taught interdisciplinary approach this course explores the diverse symbols, hierarchies, and meanings invoked through culturally constructed human bodies and body movement in the Americas.

ISS 5166 Sustainable Communities Seminar (3). Explores theories and aspects of sustainable communities, and considers the concept in comparative-historical, local global, and critical perspective. Prerequisite: Permission of the instructor.

ISS 5237 Latin American and Caribbean Cultural Expressions (3). This interdisciplinary course develops an interdisciplinary approach to the study of national, cultural, and racial identities, as expressed in cultural productions of the Latin America and the Caribbean.

ISS 5238 The Imaged Body: The Case of the Americas (3). With a team-taught interdisciplinary approach this course explores how identity, power and hierarchy are invoked and represented through the human body and body movement in the region of the Americas.

LIS 2005 Information and Internet Research (3). Development of research skills as they apply to using both academic libraries and internet. Includes critical thinking skills in relation to the use and application of information.

SLS 1501 First Year Experience (1). A review of basic skills and competencies necessary to college success including time management, study skills, and academic policies/procedures. Includes mandated information.

SLS 1510 Strategies for Success (1-3). Improve students' academic and personal development in the areas of learning strategies, study skills, time management, problem solving, goal setting, and how to use resources effectively.

School of Education and Human Development

Senior Associate Dean **Laura Dinehart**
Director, Clinical Experiences **Judith Cohen**
Director, Academic Advising **Jacqueline Diaz**

The School of Education and Human Development (SEHD) at Florida International University is one in which candidates, faculty, and staff embrace the shared experiences of a diverse, international, professional-learning community. The College, therefore, strives to facilitate diverse learning environments where knowledge becomes the means to foster goal attainment for all those involved in the learning process. This process necessitates the highest ethical standards, while emphasizing inquiry as the means-ends connection to enhancing reflective intelligence in a changing social, political, cultural and technological world.

The School of Education and Human Development is charged to prepare professionals who have the knowledge, abilities, and dispositions to facilitate and enhance learning and development within diverse settings. Consequently, the College promotes and facilitates the discovery, development, documentation, assessment, and dissemination of knowledge related to teaching and learning by developing professional partnerships in the larger community that foster significant educational, social, economic and political change. Our mission supports:

- Programs that reflect curricula that reflect sound theory and best practice.
- Highly qualified and diverse students and graduates.
- Highly qualified and diverse faculty active in teaching, research and service.
- Effective and ethical 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 and impact at local, state, national and international levels.
- Continuous improvement of the College.

The School 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 three core outcomes central to the vision faculty have of professional educators graduating from the College's programs: stewards of the discipline, reflective inquirers, and mindful educators.

The College, housed in the Sanford L. Ziff Education Building (ZEB) at Florida International University—Modesto A. Maidique Campus, is accredited by the National Council for the Accreditation of Teacher Education, the Florida Department of Education, and the State University System.

To support its mission, the School is organized into three departments:

- Counseling, Recreation and School Psychology
- Educational Policy Studies
- Teaching and Learning

Bachelor of Science degree programs are offered in the following specialties:

Early Childhood Education with ESOL Endorsement
  Early Childhood Development Track
Elementary Education (ESOL and Reading Endorsements)
Recreation and Sport Management
  Recreation and Sport Management Track
  Parks Management Track
  Pre-Recreational Therapy/Adaptive Recreation Track
  Recreational Therapy Track
Physical Education
  Physical Education K-12
  Sport and Fitness Studies Track
Exceptional Student Education with ESOL and Reading Endorsements

The following secondary education programs are offered in collaboration with the College of Arts, Sciences and Education; please refer to the Arts, Sciences and Education section of the catalog for complete information:

English Education
Mathematics Education (FIUteach)
Science Education (FIUteach)
Social Studies Education

Music Education and Art Education are offered in collaboration with the College of Communication, Architecture + The Arts.

Applicants to the School of Education and Human Development programs should carefully examine the choices of major concentrations and program objectives. Because there are occasional revisions of School of Education and Human Development curricula 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 done in the Advising Center. For an appointment call (305) 348-2768 for Modesto A. Maidique Campus; Broward residents may call (954) 355-5622 for the Broward Program. Additional information is available on the FIU website at **www.fiu.edu** and on the School of Education and Human Development website at **http://education.fiu.edu**. Specific program advisement is available by prearranged personal appointment with faculty advisors.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review to serve the needs of the University's various publics and to respond to the mandates of the State University System 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.

Bachelor of Science Programs

Undergraduate students will complete at least 60 semester hours of upper-division credits, including a residency requirement of 30 semester hours prior to graduation at the University. Before formal admission to

the University, a student may be approved to take 15 credits as a non-degree seeking student which, if applicable to the major field of study and approved by an advisor, may be applied to the degree program.

Professional Training Option (PTO) Education Minor

Students must apply for the PTO: Education Minor program in the College Advising Center. Students who complete the entire program will have their transcripts endorsed as having successfully completed the Professional Training Option (PTO).

Education Minor

Students with majors in the following areas, Art, English, Math, Modern Languages, Music, Sciences, and Social Studies can also complete an 18-21 credit minor in education or an alternative certification program that follows the curriculum below:

Education Core (15 credits)

EDF 4604	Cultural and Social Foundations of Education – *GL*	3
EDP 3004/5053	Educational Psychology	3
EDG 3321/5414	Managing Teaching Environments: Instructional Decisions and Classroom Management	3
ESE 4343C/5344	Secondary Classroom Management	3
	or	
EDF 3251	Classroom Management	3
RED 5147	Developmental Reading	3
	or	
RED 4325	Subject Area Reading	3
	or	
RED 5339	Subject Area Reading	3

Special Methods: Subject Area Specific (3-6 credits)

English 6-12/TESOL

LAE 4335/5336C	Special Teaching Lab: English	3

Mathematics

MAE 4330	Teaching and Learning Secondary Mathematics	3

Physics/Chemistry/Biology

SCE 4330	Secondary Science Teaching Methods	3

Social Studies

SSE 4384	Special Teaching Lab: Social Studies	3

French/Spanish

FLE 4314/5142	Methods of Teaching Modern Languages in Elementary School	3
FLE 4375/5371	Methods of Teaching Modern Languages at the Secondary Level	3

Art Education

ARE 4316	Special Teaching Lab: Art K-5	3
ARE 4341	Special Teaching Lab: Art 6-12	3

Music Education

MUE 3340	Elementary Music Methods	3
MUE 4341	Secondary Music Methods	3

Undergraduate Admission Requirements

School of Education and Human Development program standards are intended to insure that students have the breadth and depth of background needed for successful upper-division work in education. All students in initial teacher preparation programs are required to have a minimum overall GPA of 2.5 for all lower division/transfer course work to be admitted to the College. In addition, these students must pass the FTCE General Knowledge exam or the Praxis I.

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 understands and has met the requirements.

Lower Division Curriculum Requirements

Students applying for the college upper division programs must have completed all of the following:

- University Core Requirements
- Foreign Language Requirements
- Common pre-requisites for disciplines (Refer to specific program requirements)

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
EDF 1005	EDFX005
EDF 2085	EDFX085[1]
EME 2040	EMEX040

[1]In addition to EDFX085, a minimum of 6 semester hours with an international or diversity focus is required. Eligible courses will be determined by the community college or university where the student is currently earning the Associate in Arts or baccalaureate degree. Foreign language courses may be used to meet this requirement.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**. Search Program Listing by Alphabetic Order.

Common Prerequisites

EDF 1005	Introduction to Education[1]	3
EDF 2085	Teaching Diverse Populations[1]	3
EME 2040	Introduction to Educational Technology, or acceptable substitute	3

[1]Requires field experience of 15 clock hours outside of class time.

In addition to EDF 2085, students must take six credit hours with an international or diversity focus in lower division. See individual programs for specific major prerequisite courses.

Upper-Division Requirements Professional Studies Core: (9)

Every teacher education student must enroll in the following courses:

EDF 4604	Cultural and Social Foundations of Education – *GL*	3
EDG 3321	Managing Teaching Environments: Instructional Decisions and Classroom Management	3

EDP 3004	Educational Psychology	3

Subsequent special teaching laboratories and courses build on these core courses to extend and refine knowledge skills, and dispositions. All teacher education programs include one semester of student teaching in a public or approved non-public school. Student teaching requires the student to spend the entire school day of a complete semester on site.

Upon the successful completion of all program requirements, the Bachelor of Science degree is awarded. The student is eligible to apply for a State of Florida Teaching Certificate in the field of specialization if the student has completed a School of Education and Human Development State-approved program with a required 2.5 GPA.

Undergraduate Grading Policies

Undergraduate students must have a minimum overall grade point average (GPA) of 2.5 in order to graduate. A grade of C- or less is not acceptable toward graduation in any required program of study course in the School of Education and Human Development, any college/program prerequisite or any Gordon writing/math requirements meeting General Education or lower division core requirements. Furthermore, students will not be approved for student teaching with a grade of 'C-' in any required program of study course or with less than a minimum GPA of 2.5 in their field of specialization. Specific undergraduate programs may have higher grading criteria. Students applying for State of Florida Teacher Certification must present a GPA of 2.5 or higher in their teaching major. Additionally, passing scores on the Florida Teacher Certification Exam (General Knowledge) are required for admission into any Initial Teacher Preparation Program.

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 understands and has met the requirements.

Certification Only Students

Students choosing to pursue course work leading toward State of Florida Teacher Certification (rather than a second degree) are considered Non-Degree Seeking Students and must abide by all policies and limitations set forth for non-degree seeking students. State of Florida certification requirements are considered to be minimum requirements. It may be necessary to register for additional prerequisite courses to enroll in a desired course. Students who register for a course but have not completed the prerequisite course(s) will be administratively dropped from the class.

Fingerprint Requirements and Clinical Experiences

State of Florida Certification requires all applicants to be fingerprinted and checked by state and local law enforcement agencies. Local public and private schools and systems may also require similar security procedures for field placements, student teaching and/or internships. Students with a CHR (criminal history record) should be prepared to promptly provide documentation of adjudication to facilitate review and determination of eligibility for placement in the district or school requested. Details regarding specific district requirements, deadlines and documentation are available in ZEB 130, Office of Clinical Experiences.

Given the unique nature of the teaching profession requiring mastery of cognitive skills, demonstration of appropriate interpersonal skills, and professional behavior, the faculty retains the right to "counsel out" of the program and/or to not recommend for internship placement any student whose level of interpersonal competence and professional behavior is considered incompatible with that required for effective functioning as a teacher. In addition, if a student is asked to leave school during any field placement, s/he will be assigned a second placement. If the student continues to be unsuccessful after the second attempt, s/he will be counseled out of that initial teacher education program.

For all Teacher Prep and Counseling Internship Experiences

Online information regarding the student teaching application is available at **http://education.fiu.edu**. Submission deadline for Fall placement is February 1; Spring placement is June 1.

Students are required to take and pass the Professional Education (PEd) and appropriate Subject Area Exam (SAE) before beginning student teaching placement. Students must provide evidence of passing scores on all required exams by the end of the semester immediately preceding the internship. Students admitted to program using the CLAS or Praxis I examinations must also complete the Florida Teacher Certification Examination: General Knowledge prior to internship.

Graduation Requirements

Cumulative GPA of 2.5 or higher
No grades of C- or less

All Students graduating from an Initial Teacher Preparation Program must pass the Florida Teacher Certification Exam prior to graduation. (This includes the Professional Education, the Subject Area, the General Knowledge Exams), and demonstrate successful completion of the Florida Educator Accomplished Practices. Students who fail one or more sections of the FTCE will not be cleared for graduation.

TaskStream Requirement

Beginning in Fall 2008, all students enrolled in the School of Education and Human Development will be required to subscribe and maintain a TaskStream account throughout their FIU career so that they can generate and maintain a portfolio of their work in the college.

TaskStream is a web-based electronic portfolio application that allows students to upload and share selected work via the World Wide Web. TaskStream also has tools which allow students to create standards-based lesson plans, evaluation rubrics, and entire instructional units. All students are required to upload onto TaskStream critical assignments in courses that serve as artifacts of their demonstration of the College's unit outcomes, Florida Educator Accomplished Practices, and other specialized program standards.

Counseling, Recreation and School Psychology

Adriana G. McEachern, *Interim Chair, Emeritus Associate Professor, Counselor Education*
Hyejin Bang, *Associate Professor, Recreation and Sport Management*
Leonard Bliss, *Emeritus Professor, Educational Research*
Christina Brown-Bochicchio, *Visiting Instructor, Recreation and Sport Management*
Isaac Burt, *Associate Professor, Counselor Education*
Mido Chang, *Professor, Educational Research*
Christopher Cheung, *Clinical Assistant Professor, Counselor Education*
Thomas Cieslak, *Instructor, Recreation and Sport Management*
Maureen C. Kenny, *Professor, Counselor Education*
Garland Jones, *Visiting Instructor, Recreation and Sport Management*
Philip J. Lazarus, *Associate Professor, School Psychology*
Sandra Logan-McKibben, *Clinical Assistant Professor, Counselor Education*
Haiying Long, *Associate Professor, Educational Research*
Lauren Ortega, *Faculty Administrator, Recreational Therapy*
Martha Pelaez-Nogueras, *Professor, Educational Psychology*
Andy V. Pham, *Associate Professor, School Psychology*
Alicia Pola, *Instructor, Recreation and Sport Management*
Alena Prikhidko, *Assistant Professor, Counselor Education*
Valerie E.D. Russell, *Clinical Associate Professor, Counselor Education*
Joanne Sanders-Reio, *Senior Instructor, Educational Psychology*
Tania Santiago-Perez, *Instructor, Recreation and Sport Management*
Nicholas Smith, *Instructor, Recreation and Sport Management*
Melody Whiddon-Willoughby, *Clinical Associate Professor, Educational Psychology*
Robert M. Wolff, *Emeritus Professor, Recreation and Sport Management*

The Department of Counseling, Recreation and School Psychology offers programs and courses for students interested in working in a wide range of organizational, urban/ multicultural/ international contexts of education and training. Academic preparation focuses on such areas as research/evaluation, counselor education, school psychology, recreation therapy and recreation and sport management. In addition, the department provides the core undergraduate and graduate curricula in the psychological foundations of education and research, measurement, and evaluation. The department offers master's degrees in counselor education and recreation and sports management, the specialist degree in school psychology, and the bachelor's degree in Recreation and Sport Management. Department faculty are recognized as national/international scholars, exemplify outstanding teaching practices, and are committed to taking a leadership role in the provision of professional services and the process of community engagement. The Department faculty are worlds ahead in their commitment to serving and maximizing student learning, engaging in the discovery and dissemination of new knowledge, and encouraging a creative and innovative spirit among students. Community engagement plays a pivotal role in the programs and sponsored-research projects implemented through the department, where critical problems confronting our communities are identified and addressed.

Lower-Division Common Education

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
EDF 1005	EDFX005
EDF 2085	EDFX085[1]
EME 2040	EMEX040

[1]In addition to EDFX085, a minimum of 6 semester hours with an international or diversity focus is required. Eligible courses will be determined by the community college or university where the student is currently earning the Associate in Arts or baccalaureate degree. Foreign language courses may be used to meet this requirement.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites (Teacher Preparation Programs)

EDF 1005	Introduction to Education[1]	3
EDF 2085	Teaching Diverse Populations[1]	3
EME 2040	Introduction to Educational Technology or acceptable substitute	3

[1]Requires field experience of 15 clock hours outside of class time.

In addition to EDF 2085, students must take six credit hours with an international or diversity focus in lower division. See individual programs for specific major prerequisite courses.

Field Experience

Some courses offered by the department may require observation and participation in selected schools and other community settings. The course descriptions identify the courses which require in school classroom experiences guided by the directing classroom teacher and a School of Education faculty member.

All stated admission requirements are to be considered minimums. 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.

Graduation Requirements

In the School of Education, all undergraduate students are required to meet the following requirements before they can graduate from their respective teacher education programs.

1. An overall GPA of 2.5
2. Successful demonstration of all the Florida Educator Accomplished Practices – pre-professional level
3. Passing scores on the three tests that make up the Florida Teacher Certification Exam.

Recreation Management Certificate Program

This is a professional certification program, which does not require an interdisciplinary relationship. However, given the interdisciplinary nature of the Recreation Management program, students will have exposure to various fields of study (e.g., marketing, strategic planning, management, human resource management, law & liability, etc.). This certificate program is open to non-degree-seeking students only.

Courses and Requirements: (18)

LEI 3402	Program Development in Recreation and Sports	3
LEI 3524	Human Resource Management	3
LEI 3542	Principles of Parks, Recreation and Sports Management	3
LEI 3630	Care, Maintenance and Design	3
LEI 3800	Liability and Law in Leisure, Recreation and Sports	3
LEI 4560	Leisure Service Marketing	3

Bachelor of Science in Recreation and Sport Management

Degree Program Hours: 120

The Recreation and Sport Management undergraduate curriculum offers professional preparation programs designed to prepare students for employment in park, recreation, sport management, healthcare or recreational therapy delivery systems. The program is oriented towards direct services, supervisory, and management employment opportunities. A student may elect to gain competencies in the following tracks: Parks Management, Recreation and Sport Management, Pre-Recreational Therapy/Adaptive Recreation or Recreational Therapy in the BS/MS Combined Degree (RT4+1).

Lower Division Preparation

To qualify for admission into the program, students must meet all published admission requirements which include: program prerequisites, General Education/Gordon Rule, GPA = 2.0.
*The RT 4+1 track requires a 3.2 overall GPA.

Required Core Courses for all Tracks: (21-36)

LEI 3001	Leisure and Recreation in America	3
LEI 3707	Inclusive Recreation Services – *GL*	3
LEI 3542	Principles of Parks, Recreation and Sport Management	3
LEI 3800	Liability and Law in Leisure, Recreation & Sports	3
ACG 3024	Introduction to Accounting for Managers and Investors	3
	or	3
PAD 4223	Public Sector Budgeting	3

Pre-Recreational Therapy/Adaptive Recreation students and Recreational Therapy (RT 4+1) students are not required to take ACG 3024 or PAD 4223

*LEI 4940	Internship I	3-9
**LEI 4941	Internship II	3-12

Pre-Recreational Therapy/Adaptive Recreation students and Recreational therapy (RT 4+1) students are not required to take 6 credits of LEI 4940.
****The students in the Pre-Recreational Therapy/Adaptive Recreation track are not required to take LEI 4941.***
*****The students in the RT 4+1 track are required to take 12 credits of LEI 4941 under the supervision of a full time Certified Therapeutic Recreation Specialist (CTRS) in the last semester of senior year.***

Recreation and Sport Management Track: (27)

LEI 3402	Program Development in Recreation and Sports	3
LEI 3524	Human Resource Management in Parks and Recreation	3
LEI 3630	Care, Maintenance and Design	3
LEI 4560	Leisure Services Marketing	3
LEI 4590	Seminar in Parks, Recreation and Sport Management	3
MAR 3023	Introduction to Marketing – GL	3
PET 4251	Sociology of Sport	3
Advisor approved electives		6

Parks Management Track: (27)

LEI 3402	Program Development in Recreation and Sports	3
LEI 3630	Care, Maintenance and Design	3
Two Environmental Science Courses and Labs[1]		6-8
Two Environmental Social Science Courses[1]		6
Two Environmental Electives[1]		6
Advisor approved electives		1-3

[1]the above six courses qualify you for an Environmental Studies Certificate.

Pre-Recreational Therapy/Adaptive Recreation Track: (36)

LEI 3703	Introduction to Recreational Therapy	3
LEI 3723L	Recreational Therapy Facilitation Techniques and Modalities Lab	1
LEI 3723L	Recreational Therapy Facilitation Techniques and Modalities Lab	1
LEI 3723L	Recreational Therapy Facilitation Techniques and Modalities Lab	1

(Students are required to take three different 1-credit lab courses)

LEI 4724	Recreational Therapy Facilitation Techniques	3
LEI 4711	Client Assessment, Documentation, and Evaluation in Recreational Therapy	3
CLP 4146	Psychopathology	3
HSC 3537	Medical Terminology	3

Minor or Elective Options for Pre-Recreational Therapy/Adaptive Recreation Track

Advisor- approved minor and/or electives	18

Required Prerequisites for Pre-Recreational Therapy/Adaptive Recreation Track:

Human Growth and Development	3

Anatomy*	3
Anatomy lab*	1
Physiology*	3

The students in the track can meet the prerequisite of both anatomy and physiology with:

Combined Anatomy and Physiology course	3
Combined Anatomy and Physiology lab	3

Recreational Therapy Track in the BS/MS Combined Degree (RT 4+1) (18):

LEI 3703	Introduction to Recreational Therapy	3
LEI 3723L	Recreational Therapy Facilitation Techniques and Modalities Lab	1
LEI 3723L	Recreational Therapy Facilitation Techniques and Modalities Lab	1
LEI 3723L	Recreational Therapy Facilitation Techniques and Modalities Lab	1

(Students are required to take three different 1-credit lab courses)

LEI 4724	Recreational Therapy Facilitation Techniques	3
LEI 4711	Client Assessment, Documentation, and Evaluation in Recreational Therapy	3
CLP 4146	Psychopathology	3
HSC 3537	Medical Terminology	3

Required Prerequisites for Recreational Therapy in the BS/MS Combined Degree (RT 4+1) Track:

Human Growth and Development	3
Anatomy*	3
Anatomy lab*	1
Physiology*	3

The students in the track can meet the prerequisite of both anatomy and physiology with:

Combined Anatomy and Physiology course	3
Combined Anatomy and Physiology lab	3

Combined BS/MS in Recreation and Sport Management: Recreational (RT 4+1) Therapy Track

To be considered for admission to the combined Bachelor's/Master's degree program, student must have completed 75-90 credits in the Bachelor's degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the students starts the last 30 credits of the Bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their Bachelor's degree program. Upon conferral of the Bachelor's degree, students will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog may be applied toward both degrees.

Admission Requirements

1. Current enrollment in the Bachelor's degree program in Recreation and Sport Management, Pre-Recreational Therapy/Adaptive Recreation Track.
2. Completed at least 90 credits of coursework.
3. Current GPA of 3.2 or higher.
4. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.5 on the IELTS is required.

General Requirements

The FIU Bachelor's degree in Recreation and Sport Management, Recreational Therapy Track, must be awarded before the Master's degree.

Degree Program: (33)

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 Planning	3
	or	
PET 5256	Sociology of Sport	3
EDF 5481	Foundations of Educational Research	3

***RT 4+1 & RT MS students are not required to take LEI 5595**

Required Courses: (18)

LEI 6726	Trends, Issues, and Managerial Aspects of Recreational Therapy	3
LEI 5716	Program Planning in Recreational Therapy	3
LEI 6816	Advanced Recreational Therapy Facilitation Techniques	3
LEI 6725	Administrative Aspects of Therapeutic Recreation	3
EDF 6472	Research Methods in Education: Introduction to Data Analysis	3
	or	
An approved graduate level research course		3
Advised Elective		3

Options to complete the degree:

Thesis Option: (3-6)

LEI 6970	Thesis: Therapeutic Recreation	3-6

Non-Thesis Option: (3-6)

LEI 5907	Directed Study in Parks and Recreation Management	3-6

Total Hours **30-33**

Overlap

Nine (9) of the credits (LEI 6726, LEI 5716, LEI 6816) taken during their senior year will be graduate level courses in RT and will transfer into the master's degree program.

*Although the BS/MS 4+1 program is a combined degree track, students accepted into this program may discontinue their education upon completion of the B.S. degree.

Teaching and Learning

Maria L. Fernandez, *Chair, co-Director, FIUteach, and Associate Professor, Mathematics Education*
Andrea Adelman, *Instructor, Early Childhood Education*
Patricia Barbetta, *Associate Professor, Special Education*
Kyle Bennett, *Associate Professor, Special Education*
Charles Bleiker, *Associate Professor, Early Childhood Education*
James Burns, *Assistant Professor, Curriculum and Instruction*
Rebecca C. Christ, *Assistant Professor, Social Studies Education*
Elizabeth Cramer, *Professor, Special Education*
Emily Dare, *Assistant Professor, Science Education*
Michelle Cumming, *Assistant Professor, Special Education*
Charmaine DeFrancesco, *Associate Professor, Physical Education, Kinesiology and Exercise Science*
Laura Dinehart, *Senior Associate Dean, School of Education and Human Development and Associate Professor, Early Childhood Education*
Remy Dou, *Assistant Professor, Science Education*
Eric Dwyer, *Associate Professor, TESOL and Modern Language Education*
Joshua Ellis, *Assistant Professor, Science Education*
Joyce C. Fine, *Associate Professor, Literacy Education*
Daniela Fenu Foerch, *Senior Instructor, Early Childhood Education*
Uma Gadge, *Assistant Professor, Mathematics Education*
Liana Gonzalez, *Senior Instructor, Special Education*
Zahra Hazari, *Professor, Science Education*
Flavia Iuspa, *Instructor and Director of International Initiatives*
Jason Kostrna, *Assistant Professor, Physical Education, Kinesiology, and Exercise Science*
Barbara King, *Associate Professor, Mathematics Education*
Arturo Leyva Pizano, *Clinical Assistant Professor, Exercise Physiology, Kinesiology, and Exercise Science*
Teresa Lucas, *University Instructor, TESOL and Modern Language Education*
Jacqueline Lynch, *Associate Professor, Literacy Education*
Keisha McIntyre-McCullough, *Clinical Assistant Professor, English Education and Curriculum & Instruction*
Jennifer Mirabal, *Instructor, Early Childhood Education*
Sarah A. Mathews, *Associate Professor, Social Studies Education*
Melanie Morales, *Instructor, Special Education*
Aixa Perez-Prado, *Senior Instructor, TESOL and Modern Language Education*
Ryan Pontier, *Visiting Assistant Professor, TESOL and Modern Language Education*
Michael Perlett, *Instructor, Physical Education, Kinesiology, and Exercise Science*
William M. Ritzi, *Senior Instructor, Art Education*
Helen Robbins, *Senior Instructor, Literacy Education*
Angela Salmon, *Associate Professor, Early Childhood Education*
Alfred E. Simpson, *Instructor, Physical Education, Kinesiology and Exercise Science*
Kathleen G. Sparrow, *Visiting Instructor, Science Education*
M. O. Thirunarayanan, *Associate Professor, Learning Technologies*
Maria V. Tsalikis, *Senior Instructor, Literacy Education*
Megan Turner, *Instructor, Physical Education, Kinesiology, and Exercise Science*
Lynn Yribarren, *Senior Instructor, Literacy Education*

General Program Information

The Department of Teaching and Learning offers programs that meet the academic needs of teaching professionals throughout their careers. State of Florida teacher certification requirements are met for most programs leading to a Bachelor of Science degree in a variety of content areas. Programs are designed to bridge the theory to practice gap by engaging students in field experiences in schools and other environments. Undergraduate programs culminate with a one-semester student teaching experience.

The Department of Teaching and Learning offers undergraduate programs leading to the Bachelor of Science degree in art education, early childhood education, elementary education, physical education, exceptional student education, and selected secondary school subject areas of specialization. Some secondary education programs are offered through the College of Arts, Sciences and Education and the College of Communication, Architecture + The Arts in collaboration with the School of Education and Human Development. State of Florida certification requirements are met for all programs preparing early childhood, elementary, secondary (6-12) teachers and K-12 teachers in art education, physical education, and special education. All teacher preparation programs are accredited by the Council for the Accreditation of Educator Preparation (CAPE) and approved by the State of Florida Department of Education.

The department is strongly committed to field experiences completed concurrently with courses throughout the respective programs and through Student Teaching or Apprentice Teaching. The department is also committed to the generation and application of knowledge through research and service to the community.

Undergraduate initial teacher preparation programs are as follows:

Early Childhood Education:
Prekindergarten/Primary Education: Age 3 to Grade 3 (ESOL Endorsement)

Elementary Education: (Grades K-6 with ESOL and Reading Endorsements)

General Education: Grades K - 12
Physical Education
Exceptional Student Education (ESOL and Reading Endorsements)

Secondary Education: Grades 6-12
The following programs are offered in collaboration with other departments in the College of Arts, Sciences and Education; please refer to the Arts, Sciences and Education section of the catalog for complete information:

English Education (Grades 6-12) Department of English (English Education—BA)

Mathematics Education (Grades 6-12) –**FIUteach**
Department of Mathematics and Statistics (Mathematics Education-BA)
Science Education (Grades 6-12)—**FIUteach**
Department of Biological Sciences (Biology Education-BS)
Department of Chemistry and Biochemistry (Chemistry Education-BA)
Department of Physics (Physics Education-BS or BA)
Department of Earth and Environment (Earth Science Education-BA)
Social Studies Education (Grades 6-12)
Department of Politics & International Relations (Political Science with Social Studies Education-BA)
Department of Global & Sociocultural Studies (Geography with Social Studies Education-BA)
Department of History (History with Social Science Education-BA)

Art Education and Music Education are offered in collaboration with the College of Communication, Architecture + The Arts. Upon admission to the University and to the School, each student is assigned an advisor in the selected teaching field. Upon successful completion of the work specified in the program of study, the student is awarded the Bachelor of Science Degree with a major in a specified subject matter area or level of schooling and is eligible for regular teacher certification in the State of Florida.

Admission Requirements: Undergraduate Initial Teacher Preparation Programs

To qualify for admission to the programs, undergraduate candidates must have met all the lower division requirements including: 60 credit hours of lower-division courses, all general education requirements, lower-division GPA of 2.5 or higher, and achieve the competencies of the Florida Teacher Certification Exam (FTCE): General Knowledge (GK) Exam. All students must pass the GK exam and be admitted to their program by the end of the semester they successfully complete 72 credit hours.
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.

Clinical Experiences

Many courses offered by the Department of Teaching and Learning require observation and participation in selected schools. The course descriptions identify the courses which require in-school classroom experiences guided by the directing classroom teacher and a School of Education and Human Development faculty member.

The student teaching assignments are fulfilled in designated schools. This experience is full-time for one semester. Permission to student-teach is contingent upon successful completion of all other requirements specified in the program of study. Students may be assigned to do their student teaching during either the Fall or Spring semesters of their senior year. There is no student teaching during the Summer semester.

Application for student teaching is the responsibility of the student. Information can be obtained on line at the web address: **https://education.fiu.edu/academics/clinical-experiences/index.html**.
Students must come in person to the Office of Clinical Experiences in ZEB 130 to be registered and be provided necessary documentation. Deadline dates are June 1 for Spring student teaching and February 1 for Fall placement.

All stated admission requirements are to be considered minimums. 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.

Fingerprint Requirements and Clinical Experiences

State of Florida Certification requires all applicants to be fingerprinted and checked by state and local law enforcement agencies. Local public and private schools and systems may also require similar security procedures for field placements, student teaching and/or internships. Students with a CHR (criminal history record) should be prepared to promptly provide documentation of adjudication in order to facilitate review and determination of eligibility for placement in the district or school requested. Details regarding specific district requirements, deadlines and documentation are available in ZEB 130, Office of Clinical Experiences.

Students are required to take and pass the FTCE: Professional Education (PEd) and appropriate FTCE: Subject Area Exam (SAE) before beginning student teaching placement. Students must provide evidence of passing scores on all required exams by the end of the semester immediately preceding the internship. Students admitted to program using the CLAS or Praxis I examinations must also complete the Florida Teacher Certification Examination: General Knowledge prior to internship.

Graduation Requirements

In the School of Education and Human Development, all undergraduate students in initial certification programs are required to meet the following before they can graduate from their respective teacher education programs.

1. An overall GPA of 2.5
2. Successful demonstration of all the Florida Educator Accomplished Practices (FEAPS)- pre-professional level
3. Passing scores on the three tests that make up the Florida Teacher Certification Exam: General Knowledge, Subject Area, and Professional Knowledge.

For students who passed the CLAST prior to July 1, 2002. The General Knowledge Test will not be required.
All admission and graduation information described above pertains to students entering all of the initial teacher preparation programs that follow.

Other Programs:

Early Childhood Education: Early Childhood Development Track Program (not a Teacher preparation program),

Elementary Education: Career Development Track (Not a Teacher preparation program), Physical Education: Sport & Fitness Studies Track Education Minor and Alternative Certification (not a degree program); Exceptional Student Education: Special Education, Educational Foundations, and Policy Track (not a Teacher preparation program).

Bachelor of Science in Early Childhood Education: (Prekindergarten/Primary Education: Age 3 through Grade 3 & ESOL Endorsement)

Degree Track Hours: 120

The Bachelor of Science in early childhood education with ESOL endorsement is an initial teacher preparation program designed to educate future teachers of students from prek-3 to grade 3. The program is designed to provide students with general knowledge of teaching and pedagogical practices, as well as specific knowledge relevant to working in the early childhood education field.

Lower Division: (60)

See the general information section, admission and graduation requirements, and new general education requirements (45 hours).

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
EDF 1005	EDFX005
EDF 2085	EDFX085[1]
EME 2040	EMEX040

[1]In addition to EDFX085, a minimum of 6 semester hours with an international or diversity focus is required. Eligible courses will be determined by the community college or university where the student is currently earning the Associate in Arts or baccalaureate degree. Foreign language courses may be used to meet this requirement.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org.** Search Program Listing by Alphabetic Order.

Common Prerequisites

EDF 1005	Introduction to Education[1]	3
EDF 2085	Teaching Diverse Populations[1]	3
EME 2040	Introduction to Educational Technology, or acceptable substitute	3

[1]Requires field experience of 15 clock hours outside of class time.

In addition to EDF 2085, students must take six credit hours with an international or diversity focus in lower division. All required courses must be completed with a grade of "C" or higher.

Upper Division Program: (60)

Minimal acceptable grade is a "C"

Foundations: 9 hours

EEC 3751	Collaborative Approaches to Self-Regulation, Empathy and Problem Solving	
EDF 4604	Cultural and Social Foundations of Education – *GL*	3
EDP 3004	Educational Psychology	3

Early Childhood Core: 3 hours

EEC 4250	Early Childhood Curriculum	3

Teaching Methods & Curriculum: 21 hours

ARE 3313	Content and Methods of Teaching Elementary Art (ECE)	3
MAE 4310	Content and Methods of Teaching Elementary Math	3
SCE 4310	Content and Methods of Teaching Elementary Science	3
EEX 3070	Teaching Students with Exceptionalities in Inclusive Settings	3
EEC 3613	Assessments of Young Children	3
HLP 3722	Content and Methods of Teaching Elem Health, PE (ECE)	3
SSE 4118	Social Studies and Foundations in Early Childhood Education – *GL*	3

Language & Literacy: 12 hours

LAE 4405	Children's Literature – *GL*	3
RED 4100	Emergent Literacy	3
RED 4110	Content and Methods of Teaching Literacy in Schools	3
RED 4150	Content and Methods of Teaching Beginning Literacy	3

TESOL: 6 hours

TSL 3080	ESOL Issues: Principles & Practices I – *GL*	3
TSL 4081	ESOL Issues: Principles & Practices II – *GL*	3

Student Teaching/Internship: 9 hours

EEC 4943	Student Teaching Internship	9

All courses must be taken prior to student teaching course EEC 4943.

Bachelor of Science in Elementary Education (Grades K-6 with ESOL and Reading Endorsements)

Degree Program Hours: 120

Lower Division: (60)

Admission Requirements

- A minimum lower-division GPA of 2.5 or better on a 4.0 scale;
- Either 60 credit hours of lower division coursework or an AA degree from an accredited institution;
- A passing score on the Florida Teacher
- Certification Exam (FTCE) – General Knowledge exam;
- All students must pass the GK Exam and be admitted to their program by the end of the semester they successfully complete 72 credit hours.

Common Prerequisite Courses and

Equivalencies

FIU Course(s)	Equivalent Course(s)
EDF 1005	EDFX005
EDF 2085	EDFX085[1]
EME 2040	EMEX040

[1]In addition to EDFX085, a minimum of 6 semester hours with an international or diversity focus is required. Eligible courses will be determined by the community college or university where the student is currently earning the Associate in Arts or baccalaureate degree. Foreign language courses may be used to meet this requirement.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, See Common Prerequisite Manual.

Common Prerequisites

EDF 1005	Introduction to Education[1]	3
EDF 2085	Teaching Diverse Populations[1]	3
EME 2040	Introduction to Educational Technology, or acceptable substitute	3

[1]Requires field experience of 15 clock hours outside of class time.

[2]EDG 1992:Test Preparedness-FTCE GK Exam Preparation Course 1. The course registration for EDG 1992 is required unless the student has passed all four sections of the GK by 72 credit hours. If the student has not passed all four sections by 72 credit hours, the student must take the 1-credit course, pay lab fee, complete all required assignments, register and take the FTCE Exam. Students who do not pass the FTCE Exam by the completion of 90 credit hours may be counseled out of the program.

In addition to EDF 2085, students must take six credit hours with an international or diversity focus in lower division. All required courses must be completed with a grade of "C" or higher.

Upper Division Program: (60)

Minimum acceptable grade is "C"

EDG 3321	Managing Teaching Environments: Instructional Decisions and Classroom Management	3
EDP 3004	Educational Psychology	3
EEX 3070	Teaching Students with Exceptionalities in Inclusive Settings	3
RED 3313	Language & Literacy Development	3
ARE 3313	Content and Methods of Teaching Elementary Art*	3
RED 4150	Content and Methods of Teaching Beginning Literacy*	3
SCE 4310	Content and Methods of Teaching Elementary Science*	3
TSL 3080	ESOL Issues: Principles & Practices I* - *GL*	3
HLP 3722	Content and Methods of Teaching Elementary Health and Physical Education*	3
MAE 4310	Content and Methods of Teaching Elementary Mathematics*	3
RED 4311	Content and Methods of Teaching Intermediate Literacy*	3
SCE 4311	Advanced Content and Methods of Teaching Elementary Science	3
MAE 4312	Advanced Content and Methods of Teaching Elementary Mathematics	3
SSE 4312	Content and Methods of Teaching Elementary Social Studies*	3
RED 4110	Content and Methods of Teaching Literacy in Schools**	3
TSL 4081	ESOL Issues: Principles & Practices II* - *GL*	3

These two courses must be taken together in the final semester. All other courses are prerequisites.

EDE 4943	Student Teaching Internship	12

*All courses marked with asterisks have a co-requisite of field work (hours) distributed throughout the term. Other courses may also have field requirements.

These courses must be taken in the following sequence: RED 3313, RED 4150, RED 4311, RED 4100. RED 4110 meets in selected schools.

*TSL 3080 is a prerequisite for TSL 4081. **These courses are not offered in summer terms**.

All courses must be taken prior to student teaching EDE 4936.

Bachelor of Science in Physical Education: Grades K-12 (120)

This program is designed for individuals who wish to become certified to teach physical education in the elementary and middle, and secondary schools. Upon successful completion of the program and the requirements specified by the Florida Department of Education, degree recipients are eligible for regular teacher certification in the State of Florida.

Lower Division Program Requirements:

Anatomy and Physiology I with Lab	3-4
Skills and Practices Courses in Physical Activities	4-5
Conditioning, Fitness and Wellness	3

Lower-Division Common Education Prerequisites:

EDF 1005	Introduction to Education[1]	3
EDF 2085	Teaching Diverse Populations[1]	3
EME 2040	Introduction to Educational Technology, or acceptable substitute	3

[1]Requires field experience of 15 clock hours outside of class time.

In addition to EDF 2085, students must take six credit hours with an international diversity focus in lower division. All required courses must be completed with a grade of 'C' or higher.

Upper Division Program: (60)

Professional Education: (15)

EDF 4604	Cultural and Social Foundations of Education – *GL*	3
EDG 3321	Managing Teaching Environments: Instructional Decisions and Classroom Management	3
EDP 3004	Educational Psychology	3

RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Strategies for Content Teachers	3

Subject Matter Specialization: (45)

HLP 3722	Content and Methods of Teaching Elementary Health and Physical Education	3
PET 3310	Kinesiology	3
APK 3110	Exercise Physiology	3
PET 3640	Adapted Physical Education	3
PET 4510	Evaluation in Kinesiology	3
PEO 4001	Principles and Practices of Coaching	3
PET 4622	Athletic Injuries	3
PET 4050	Motor Learning and Development	3
PET 4442	Physical Education in the Secondary School	3
PEP 4102	Applied Concepts of Fitness and Health	3
PET 4401	Administration of Fitness Operations	3
PET 4929	Student Teaching Seminar	3
PET 4945	Student Teaching Grades 6-12 (or PET 4944 or PET 4943)	9

Applications for student teaching are due in the office of the Office of Clinical Experiences by June 1 for Spring semester placement, and by February 1 for Fall semester placement.

Bachelor of Science in Exceptional Student Education (ESE) with English Speakers of Other Languages (ESOL) Endorsement and Reading Endorsement

Degree Program Hours: 120

The undergraduate ESE program utilizes a field-centered preparation model leading to approval for State of Florida Certification in Exceptional Student Education with ESOL Endorsement and Reading Endorsement.

We offer a rigorous program that prepares teachers of students with disabilities in K-12 settings with coursework and field experiences that focus on the necessary skills to assess, plan, teach, and evaluate the education of students with high-incidence disabilities, including those who are ESOL. Students are prepared to teach learners with high-incidence disabilities from ages 5-22.

This initial teacher preparation program will prepare teachers who will demonstrate the following competencies in coursework and K-12 school settings to effectively educate students with high-incidence disabilities, including those who are ESOL.

1. Participating in consultation and implementation with the general education teacher to provide special education services for students with disabilities.
2. Developing and implementing appropriate individual educational plans to meet the needs of student.
3. Effecting appropriate instruction for children with exceptionalities in the least restrictive environment.
4. Managing and maintaining a safe classroom environment and appropriate student behavior.
5. Planning for inclusion and collaboration with parents and other education personnel.
6. Effectively planning for students with disabilities from culturally and linguistically diverse backgrounds.
7. Providing appropriate literacy assessment and remediation in all aspects of reading and language arts for culturally linguistically diverse exceptional students.

Diagnostic-prescriptive teaching and management skills are to be demonstrated with students with high-incidence disabilities who range in age from 5 to 22 years old, and who represent multicultural, multilingual backgrounds. The Florida Education of Speakers of Other Languages (ESOL) competencies are met throughout program coursework. The Reading Endorsement competencies are addressed and assessed in four program courses and with corresponding field experiences.

Admission Requirements

- A minimum lower-division GPA of 2.5 or better on a 4.0 scale;
- Either 60 credit hours of lower division coursework or an AA degree from an accredited institution;
- A passing score on the Florida Teacher Certification Exam (FTCE) – General Knowledge exam.
- Students may be admitted in the Fall or Spring Semester.
- All students must pass the GK Exam and be admitted to their program by the end of the semester they successfully complete 72 credit hours.
- Must meet the following lower division requirements

The undergraduate ESE program is offered in a sequence. Although, there is some flexibility in the schedule, the core ESE courses must be taken as a cohort in a sequential schedule. In addition, senior block (the semester prior to student teaching) and student teaching are offered ONLY at Fall and Spring semesters. It is **imperative** that students work closely with their advisors to take courses in the appropriate sequence. Faculty will advise students on special education program course sequence prior to official acceptance. Please consult an ESE advisor for additional information.

Graduation Requirements

In addition to University graduation requirements, ESE Program graduation requirements include successful demonstration of the Florida Educator Accomplished Practices, GPA 2.5 or above and passing scores on all three sections of the Florida Teacher Certification Exam (General Knowledge, Professional Education, and Subject Area Exam ESE K-12).

Exceptional Student Education (60)

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
EDF 1005	EDFX005
EDF 2085	EDFX085[2]
EME 2040	EMEX040

[2]In addition to EDFX085, a minimum of 6 semester hours with an international or diversity focus is required. Eligible courses will be determined by the community college or university where the student is currently earning the Associate in Arts or baccalaureate degree. Foreign language courses may be used to meet this requirement.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, See Common Prerequisite Manual.

Common Prerequisites

EDF 1005	Introduction to Education[3]	3
EDF 2085	Teaching Diverse Populations[3]	3
EME 2040	Introduction to Educational Technology, or acceptable substitute	3
[1]EDG 1001	Test Preparedness-FTCE GK Exam Preparation Course	1

[3]Requires field experience of 15 clock hours outside of class time.

In addition to EDF 2085, students must take six credit hours with an international or diversity focus in lower division. All required courses must be completed with a grade of "C" or higher.

[1]The course registration for EDG 1992 is required unless the student has passed all four sections of the GK by 72 credit hours. If the student has not passed all four sections by 72 credit hours, the student must take the 1-credit course, pay lab fee, complete all required assignments, register and take the FTCE Exam. Students who do not pass the FTCE Exam by the completion of 90 credit hours may be counseled out of the program.

Upper Division: Professional Studies Common Core

EDP 3004	Educational Psychology	3

Upper Division: Program Content Courses

EEX 3012	Educational Needs of Students with Exceptionalities*	3
EEX 3066	Instructional Practices in Exceptional Student Education I	3
EEX 3221	Assessment of Students with Exceptionalities	3
EEX 3764	Instructional and Assistive Technology in Special Education	3
EEX 3070	Teaching Students with Exceptionalities in Inclusive Settings*	3
EEX 4601	Behavioral Approaches to Learning and Classroom Management I	3
MAE 4310	Teaching Elementary Math*	3
RED 4150	Teaching Beginning Literacy*	3
SPA 3000	Acquisition of Speech and Language Skills	3
TSL 3080	ESOL Issues: Principles and Practices I* – *GL*	3

Students must be admitted ESE Initial Teacher Education Program prior to registering for the following courses:

RED 4311	Content and Methods of Teaching Intermediate Literacy*	3
TSL 4081	ESOL Issues: Principles and Practices II* – *GL*	3
EEX 3280	Personal Foundations and Transitional Services for Individuals with Disabilities*	3
EEX 4240	Literacy Instruction in Special Education Settings**[4]	3
EEX 4067	Instructional Practices in Exceptional Student Education II**[4]	3

Students must have passed the FTCE Professional Education and ESE K-12 Subject Area Examinations prior to registering for the following courses:

EEX 4861	Student Teaching	12

*May have required field hours

**May have up to 60 hours each of supervised practicum in a school setting

Note[4]: EEX 4067 and EEX 4240 are corequisites. These two classes have field hours that may require up to 120 hours of field experience in total. These hours must be completed at the school setting. Eligibility to enroll in Student Teaching EEX 4861, is contingent upon satisfactory completion of all requirements specified in the program, which includes being fully admitted to the ESE Program AND passing scores on FTCE Professional Education and ESE K-12 Subject Area Examinations. Student Teaching applications must be submitted to the Office of Clinical Experiences by the date indicated preceding the Student Teaching semester: February 1st for Fall placement and June 1st for Spring placements. **Please confirm this due date with the Office of Clinical Experience**. The due dates are subject to change.

All stated admission requirements are to be considered minimal. 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. Given the unique nature of the teaching profession requiring mastery of cognitive skills, demonstration of appropriate interpersonal skills, and professional behavior, the faculty retains the right to "counsel out" of the program and/or to not recommend for internship placement any student whose level of interpersonal competence and professional behavior is considered incompatible with that required for effective functioning as a teacher. In addition, if a student is asked to leave a school during any field placement, s/he will be assigned a second attempt, s/he will be considered out of that initial teacher education program.

Non-Teacher Certification Programs

Bachelor of Science (B.S.) in Early Childhood Education

Early Childhood Development Track

Degree Program Hours: 120

The Early Childhood Development Track focuses on understanding of learning and development during the early childhood years. Students will learn about the cognitive, language, and social/emotional development of young children within the context of family and community studies. Students will also learn about general and early education practices and curricula. *(NOTE: This track does not result in a teacher certification.)*

Admission Requirements

In order to be admitted into the Early Childhood Development Track, students must (a) have 60 semester hours or an A.A. degree from a FL public institution, (b) have a minimum 2.5 GPA, and (c) meet the general requirements of Florida International University.

Upper Division Program: (60)

The Early Childhood Development Track requires students to take a total of 60 upper division credit hours in professional education and early childhood development.

A. Professional Education Courses: (30 hours)

1. Foundations (12 hours)

EDG 3321	Managing Teaching Environments: Instructional Decisions and Classroom Management	3
EDP 3004	Educational Psychology	3
EDF 3251	Classroom Management	3
EDF 4604	Cultural and Social Foundations of Education – *GL*	3

2. Teaching Methods and Curriculum (min 9 hours)

Choose three (3) advisor-approved teaching methods and curriculum courses, such as

ARE 3313	Content and Methods of Teaching Elementary Art	3
EEX 3070	Teaching Students with Exceptionalities in Inclusive Settings	3
HLP 3722	Content and Methods of Teaching Elem Health and Physical Education	3
MAE 4310	Content and Methods of Teaching Elementary Math	3
SCE 4310	Content and Methods of Teaching Elementary Science	3
TSL 3080	ESOL Principles and Practices I – *GL*	3

3. Early Childhood Education (min 9 hours)

Select three (3) advisor-approved early childhood education courses, such as

EEC 3204	Issues in Early Childhood Education	3
EEC 4005	Early Childhood Educational Programs	3
EEC 4250	Early Childhood Curriculum	3
LAE 4405	Children's Literature – *GL*	3

B. Early Development Courses (21 hours)

1. Child Development (min 9 hours)

EDP 3273	Child Development	3

Select two additional advisor-approved child development courses, such as

EDP 4274	Early Social and Emotional Development	3
EDP 4275	Assessment, Evaluation, and Diagnosis of the Young Child	3

2. Family & Community Studies (min 6 hours)

Select two (2) advisor-approved courses in family and community studies, such as

EEC 3400	Family Literacy and the Young Child – *GL*	3
EEC 3403	Special Needs of Children and their Families	3
EEC 3408	Community and the Young Child	3

3. Literacy/Language/Reading Development (min 6 hours)

Select two (2) advisor-approved literacy/language/reading development courses, such as

RED 3313	Language and Literacy Development	3
RED 4100	Emergent Literacy	3
RED 4150	Teaching Beginning Literacy	3

C. Elective Courses: (9 hours)

Select up to three (3) advisor-approved elective courses in the area of early childhood learning and development. Elective courses may be used to take additional courses in any of the areas listed above.

Bachelor of Science (B.S.) in Early Childhood Education

Early Childhood Development Track – Fully Online Program

Degree Program Hours: 120

The Early Childhood Development Track focuses on understanding of learning and development during the early childhood years. Students will learn about the cognitive, language, and social/emotional development of young children within the context of family and community studies. Students will also learn about general and early education practices and curricula. *(NOTE: This track does not result in a teacher certification.)*

Admission Requirements

In order to be admitted into the Early Childhood Development Track, students must (a) have 60 semester hours or an A.A. degree from a FL public institution, (b) have a minimum 2.5 GPA, and (c) meet the general requirements of Florida International University.

Upper Division Program: (60)

The Early Childhood Development Track requires students to take a total of 60 upper division credit hours in professional education and early childhood development.

A. Professional Education Courses: (30 hours)

1. Foundations (12 hours)

EDG 3321	Managing Teaching Environments: Instructional Decisions and Classroom Management	3
EDP 3004	Educational Psychology	3
EDF 3251	Classroom Management	3
EDF 4604	Cultural and Social Foundations of Education – *GL*	3

2. Teaching Methods and Curriculum (min 9 hours)

Choose three (3) advisor-approved teaching methods and curriculum courses, such as

ARE 3313	Content and Methods of Teaching Elementary Art	3
EEX 3070	Teaching Students with Exceptionalities in Inclusive Settings	3
TSL 3080	ESOL Principles and Practices I – *GL*	3

3. Early Childhood Education (min 9 hours)

Select three (3) advisor-approved early childhood education courses, such as

EEC 3204	Issues in Early Childhood Education	3
EEC 4005	Early Childhood Educational Programs	3
LAE 4405	Children's Literature – *GL*	3

B. Early Development Courses (21 hours)

1. Child Development (min 9 hours)

EDP 3273	Child Development	3
EDP 4274	Early Social and Emotional Development	3
EDP 4275	Assessment, Evaluation, and Diagnosis of the Young Child	3

2. Family & Community Studies (min 6 hours)

Select two (2) advisor-approved courses in family and community studies, such as

EEC 3403	Special Needs of Children and their Families	3
EEC 3408	Community and the Young Child	3

3. Literacy/Language/Reading Development (min 6 hours)

Select two (2) advisor-approved literacy/language/reading development courses, such as

RED 3313	Language and Literacy Development	3
EEC 3400	Family Literacy and the Young Child – *GL*	3

C. Elective Courses: (9 hours)

EDF 3521	Education in History	3
EEC 4211	Integrated Math and Science in Early Childhood	3
EEC 3315	Play and the Development of Social Competence	3

Bachelor of Science in Elementary Education: Career Development Track

Degree Program Hours: 120

The Elementary Education: Career Development track prepares students for employment in professions that depend on an education background but that do not require teacher certification. Students aspiring to work with adults, government agencies and policy making, business, private school settings, or with nonprofit organizations may consider this track for their professional preparation. The new track offers several courses with teacher preparation elements, including field school placements with the purpose of including a broad elementary education professional development. The current Teacher Certification Track (program) progresses much deeper and extensive in Teacher Education, including more advanced field school internship and practicum experiences.

(NOTE: This track does not result in teacher certification.)

Admission Requirements:

To be admitted into the Elementary Education: Career Development Track students must meet elementary education lower division program course prerequisites, have 60 semester hours or an A.A. degree from a FL public institution, and meet the general requirements of Florida International University.

Upper Division Program: (60)

The Elementary Education: Career Development Track requires students to take upper division credit hours in professional, education, and foundations courses.

- Minimum acceptable grade is "C" in non-elective courses
- All students must meet fingerprinting clearance requirements from the Field Experience Office

36 Credits Required CORE:

CORE A (required)

EDP 3004	Educational Psychology	3
EDG 3321	Creating and Managing Teaching Environments: Instructional Decision and Classroom Management Environments	3
RED 3313	Language and Literacy Development	3
EEX 3070	Teaching Students with Exceptionalities in Inclusive Settings	3

CORE B (required)

TSL 3080	ESOL Issues: Principles and Practice I*	3
SCE 4310	Content and Methods of Teaching Elementary Science*	3
RED 4150	Content and Methods of Teaching Beginning Literacy*	3
MAE 4310	Content and Methods of Teaching Elementary Mathematics*	3

CORE C (required)

IDS 3333	Diversity of Meaning, Language Culture, and Gender	3
EDF 4604	Cultural and Social Foundations Of Education	3
SSE 4380	Developing a Global Perspective —GL	3
SSE 4312	Content and Methods of Teaching Social Studies*	3

Advisor approved electives: (24)

All electives must be approved by an advisor prior to enrollment. Students who do not meet lower division course prerequisites requirements must sign course program requirements.

Students may take courses such as:

ARH 2000	Exploring Art	3
ART 2600C	Digital Drawing	3
ARE 3313	Content and Methods of Teaching Elementary Art*	3
ART 1201C	2D Design	3
ART 1203C	3D Design	3
ART 2300C	Beginning Drawing	3
ART 2400C	Beginning Printmaking	3
ART 2602C	Digital Imaging	3
ART 2750C	Beginning Ceramics	3
ARH 2050	Art History Survey I	3
ARG 2051	Art History Survey II	3
GRA 2100C	Introduction to Graphic Design	3
GRA 2151C	Illustration	3
PGY 2110C	Beginning Color Photography	3
PGY 2401C	Beginning Photography	3
PGY 2800C	Beginning Digital Photography	3
HLP 3722	Content and Methods of Teaching Elementary Health and PE*	3
PEO 4001	Principles and Practices of Coaching	3
PET 3310	Kinesiology	3
PET 4094	Advanced Concepts in Strength and Conditioning	3
PET 4554	Comprehensive Conditioning of Elite Athletes	3
EEC 4231	Developing Learning Processes in Early Childhood: An Italian Perspective	6
EEC 3315	Play and the Development of Social Competence	3
PAD 3003	Introduction to Public Administration	3
EEX 3012	Educational Needs of Students Exceptionalities*	3
EEX 3066	Instructional Practices in Exceptional Student Education*	3
EEX 3070	Teaching Students with Exceptionalities in Inclusive Settings	3
EEX 4601	Behavioral Approaches to Learning and	

	Classroom Management	3
EEX 3764	Instructional and Assistive Technology in Special Education	3
EDF 4780	Teacher and the Law	3
EDF 4490	Understanding Educational Research	3
COP 1000	Introduction to Programming	3
COP 2250	Java Programming	3
COP 3804	Intermediate Java	3
IDC 1000	Computer Science for All	3
CGS 2060	Introduction to Micro Computer Applications	3
CGS 3095	Technology in Global Arena	3
IDC 4010C	Elementary School Children	4
IDC 4011C	Computer Science Education for Middle School Children	4
IDC 4012C	Computer Science Education for High School Children	4

* All courses marked with asterisks have a corequisite of field work (hours) distributed throughout the term. Other courses may also have field requirements. These courses must be taken in the following sequence: RED 3313, RED 4150. *TSL 3080 is not offered in summer terms.

Bachelor of Science in Physical Education: Sport and Fitness Studies Track

The undergraduate sport and fitness studies track prepares individuals for positions in physical activity and fitness settings. These areas typically include but are not limited to coaching, directing fitness activities, administering youth and senior activity programs, and serving special needs populations. The core program emphasizes the development of the knowledge, skills and dispositions of students to succeed in physical activity and exercise settings that are non-school based. Program electives allow students to pursue and develop areas of interest. *(NOTE: This track does not result in a teacher certification.)*

Lower Division Preparation

To qualify for admission into the program, students must meet all School of Education and Human Development published admission requirements which include: program prerequisites, Core Curriculum requirements, have 60 semester hours or an A.A. degree from a FL public institution, and 2.5 GPA.

Upper Division Program: 60 (or 61)

Required Core Courses: 48 (or 49) credits

PEM 4103	Advanced Personal Training	3
PEO 4001	Principles of Coaching	3
PEP 4102	Applied Concepts of Fitness	3
PET 3020	Foundations of Physical Education	3
PET 3640	Adapted Physical Education	3
PET 3310	Kinesiology	3
APK 3110	Exercise Physiology	3
PET 4050	Motor Learning and Develop	3
	or	
PET 4207	Considerations in Youth Sports	3
APK 4400	Sport Psychology	3
PET 4251	Sociology of Sport	3
PET 4401	Administration of Fitness Operations	3
PET 4510	Evaluation in Kinesiology	3
PET 4622	Athletic Injuries	3
PET 4929	Senior Seminar in PE	3
PET 4946	Sport and Fitness Internship	9

Advisor approved electives: (12)

All electives must be approved by an advisor prior to enrollment.

Bachelor of Science in Exceptional Student Education (ESE): Special Education, Educational Foundations, and Policy Track

Degree Program Hours: 120 credit hours

The Special Education, Educational Foundations, and Policy Track focuses on exposing students to individuals with special needs. Students will learn about the specific cognitive, language, and social/emotional developmental needs for individuals with disabilities. Students will also learn about general and early educational practices and curricula. Students will select cognates within the track that will provide strategic planning for advanced degrees in areas that serve individuals with special education, including Board Certified Assistant Behavior Analyst (BCaBA), policy advocacy, law, business, health services, mental health and public administration. **(NOTE: This track does not result in a teacher certification.)**

Degree Requirements:

- Have 60 semester hours and have completed the University Core/General Education Requirements or have an A.A. degree from a FL public institution,
- Must have a grade of C or better in all non-elective courses
- Must complete fingerprinting requirements through Office of Clinical Experiences
- Meet the general requirements of Florida International University

Upper Division credits 60

Foundation of Special Education courses (min 15 hours):

EEX 3012	Educational Needs of Students with Exceptionalities*	3
EEX 3066	Instructional Practices in Exceptional Student Ed*	3
EEX 3070	Teaching Students with Exceptionalities in Inclusive Settings*	3
EEX 3764	Instructional and Assistive Technology in Special Education	3
EEX 4601	Behavioral Approaches to Learning and Classroom Management I	3

Foundations Professional Education Courses (min 15 hours):

EDP 3004	Educational Psychology	3
EDG 3321	Managing Teaching Environments: Instructional Decisions and Classroom Management	3
EDF 3251	Classroom Management	3
EDF 3430	Measurement and Evaluation in the Classroom	3
EDF 4604	Cultural and Social Foundations of Education	3
EDF 4980	Understanding Educational Research	3

EDF 4780	Teacher and the Law	3
EEX 3221	Assessment of Students with Exceptionalities	3
ESE 4322C	Secondary Classroom Management	3

Content, Methods, and Curriculum (min 9 hours):
Choose three (3) advisor- approved teach methods and curriculum courses, such as:

MAE 4310	Content and Methods of Teaching Elementary Math*	3
SCE 4310	Content and Methods of Teaching Elementary Science*	3
SSE 4312	Teaching Elementary Social Studies	3
STA 3145	Statistics for the Health Professions	3
TSL 3080	ESOL Principles and Practices I —GL*	3
SPA 3000	Foundations of Speech, Language, and Literacy Skills	3
	Or	
RED 3313	Language and Literacy Development	3
RED 4150	Content and Methods of Teaching Beginning Literacy **	3

* = *Courses marked may have required field hours which will require compliance with the Jessica Lunsford Act. Information about these requirements can be obtained from the Office of Clinical Experiences.*

** *SPA 3000 OR RED 3313 are pre-requisites for RED 4150.*

Family & Community Studies (min 3 hours):
Select one (1) advisor approved course in family and community studies, such as:

EEC 3403	Special Needs of Children and their Families	3
EDP 3273	Child Development	3
LEI 3707	Inclusive Recreation Services	3

Social Sciences/Agents of change (min 3 hours):
Select one (1) advisor-approved courses in social sciences, such as:

SSE 4380	Developing a Global Perspective —GL	3
WST 3106	Introduction to Global Educational Foundations — GL	3
WST 4931	Women in Leadership	3
IDS 3333	Diversity of Meaning, Language Culture, and Gender	3
SOW 4932	Current Topics in Social Work: Service Learning: Social Change and Cont. Social Issues	3

Writing and Communication in and across disciplines (min 3 hours):

ENC 3213	Professional and Technical Writing	3
ENC 3354	Writing as Social Action	3
ENC 4331	Writing, Rhetoric, and Community	3
PAD 3438	Communication Skills for Policy and Management	3
PAD 4046	Values, Ethics, and Conflict Resolution	3
PAD 4414	Personnel Skills for Administrators	3

Psychology (min 3 hours):
Select one (1) advisor- approved courses in psychology, such as,

CLP 4134	Childhood Psychopathology	3
CLP 4146	Abnormal Psychology	3
DEP 3404	Psychology of Adulthood	3

Board Certified Assistant Behavior Analyst Credential (min 15 hours):** The undergraduate behavior analysis Verified Course Sequence (VCS) needed to fulfill the coursework requirements for taking the Board Certified Associate Behavior Analyst (BCaBA) exam consists of the course below. This course sequence meets Behavior Analyst Certification Board ® (BACB®) 2015 requirements for certification under the BACB 4th Edition Task List.

**Students who choose this option will apply their nine (9) credits of Electives, three (3) credits of Psychology, and three (3) credits requirement for Family and Community Studies, Social Sciences or Writing and Communication in order to be able to complete their program within 120 hours.

EAB 3002	Introduction to the Experimental Analysis of Behavior	3

Prerequisites: PSY 2012
Note: This is a prerequisite course for the remaining courses and may not be taken concurrently with any other course in the sequence.

EAB 4794	Principles and Theories of Behavior Modification	3
EAB 4798	Single Case Research Methods	3
EAB 3764	Application of Behavior Analysis to Child Behavior Problems	3
PSY 4931	Senior Seminar in Behavior Analysis	3

*More information about the Board Certified Assistant Behavior Analyst Credential can be found at https://psychology.fiu.edu/undergraduate-programs/advising/advising-sheets/updated-behavior-analysis-approved-course-sequence.pdf

Elective courses (9 hours): Select up to three (3) advisor-approved elective courses in special education, foundations, and/or policy. Elective courses may be used to take additional courses in any of the areas listed above.

Professional Training Option (PTO) Education Minor

Students must apply for the PTO: Education Minor program in the School Advising Center. Students who complete the entire program will have their transcripts endorsed as having successfully completed the Professional Training Option (PTO).

Education Minor

Students with majors in the following areas, Art, English, Math, Modern Languages, Music, Sciences, and Social Studies may complete an 18-21 credit minor in education or an alternative certification program that follows the curriculum below:
(NOTE: Some of the courses may be taken at the undergraduate or graduate level depending on the student's educational career goals.)

Education Core: (15 credits)

EDF 4604	Cultural and Social Foundations of Education – *GL*	3
EDP 3004/5053	Educational Psychology	3
EDG 3321/5414	Managing Teaching Environments: Instructional Decisions and Classroom Management	3
ESE 4343C/5344	Secondary Classroom Management	3
	or	
EDF 3251	Classroom Management	3
RED 5147	Developmental Reading	3
	or	

RED 4325	Subject Area Reading	3
	or	
RED 5339	Subject Area Reading	3

Special Methods: Subject Area Specific (3-6 credits)

English 6-12/TESOL

LAE 4335/5336C	Special Teaching Lab: English	3

Mathematics

MAE 4330	Teaching and Learning Secondary Mathematics	4

Earth Science/Physics/Chemistry/Biology

SCE 4330	Secondary Science Teaching Methods	3

Social Studies

SSE 4384	Special Teaching Lab: Social Studies	3

French/Spanish

FLE 4314/5142	Methods of Teaching Modern Languages in Elementary School	3
FLE 4375/5371	Methods of Teaching Modern Languages at the Secondary Level	3

Art Education

ARE 4316	Special Teaching Lab: Art K-5	3
ARE 4341	Special Teaching Lab: Art 6-12	3

Music Education

MUE 3340	Elementary Music Methods	3
MUE 4341	Secondary Music Methods	3

Course Descriptions

Definition of Prefixes

ADE - Adult Education; APK-Applied Kinesiology; CHD - Child Development; DAE - Dance Education; EBD - Education: Emotional/Behavioral Disorders; ECT - Education: Career/Technical; EDE - Education: Elementary; EDF - Education: Foundations; EDG - Education: General; EDP - Education: Psychology; EDS - Education: Supervision; EEC - Education: Early Childhood; EEX - Education: Exceptional Child, Core Competencies; 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; HHD - Housing; HLP - Health, Leisure, and Physical Education; HME - Home Management Equipment; HOE - Health Occupations Education; LAE - Language Arts and English Education; LEI - Leisure; MAE - Mathematics Education; MHS-Mental Health Services; MUE - Music Education; PEL - Physical Education; PEN-Physical Education Activities (Gen): Water, Snow, Ice; PEM - Physical Education Activities; PEO - Physical Education Activities; PEP - Physical Education Activities; PEQ - Physical Education Professional Water; PET - Physical Education Therapy; RED - Reading Education; SCE - Science Education; SDS- Student Development Services; SMT-Science or Mathematics Teaching; SPA-Speech Pathology and Audiology; SSE - Social Studies Education; TSL - TESOL.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering; ALT-alternate years; AR-as required.
Courses that meet the University's Global Learning requirement are identified as GL.

ADE 4274 Organizational Training and Development (3). Describes role of employee training/development in a variety of organizations. History/current trends and issues/future directions noted. Training and development in specific organizations emphasized.

ADE 4384 The Adult Learner (3). Identifies the characteristics and evolving development of adults. Reviews the primary learning theories and analyzes those most applicable for adults as learners.

APK 3110 Exercise Physiology (3). Immediate physiological responses to exercise and the long-term adaptations that occur as a result of training. (F,S,SS)

APK 4112 Advanced Exercise Physiology (3). Provides a detailed examination of the acute and chronic responses to exercise and training. Particular attention is given to responses at the systems and cellular level. Prerequisite: APK 3110.

APK 4400 Sport Psychology (3). Concepts related to the psychological aspects surrounding sport performance will be discussed. Required course in the Undergraduate Sport Management Track. (S)

CHD 3220 Child Development: Infancy and Early Childhood (3). Systematic study of total developmental process in the child from conception through early childhood emphasizing the effects of home and family environment. Includes observational experiences. (AR)

CHD 4210 Middle Childhood and Adolescent Development (3). Extension of the study of developmental patterns of children, with emphasis on physical, intellectual, social, and emotional maturation through adolescence. Analysis of environmental and home influences. (AR)

DAE 3300 Dance in the Elementary, Middle, and Secondary School (3). Includes content and methods for teaching dance in grades K-12. Emphasis on structured multicultural dance forms including folk and square dance, social dance, and line dancing, field experience required. (AR)

DAE 3320 Dance in the Elementary and Middle School (3). The study of the scope, structure, and sequence of the dance program for grades K-8. Emphasis on educational dance and simple forms of folk and square dance. Field and laboratory experiences required. (F)

DAE 3940 Supervised Teaching in Dance (3-9). Practical application in a clinical setting of knowledge acquired in the classroom. Hours may vary.

EBD 4212 Behavioral Approaches to Learning and Classroom Management II (3). Advanced behavior management techniques to include application of theories, crisis intervention, legal issues, and counseling skills. (F)

EBD 4243 Strategies for Teaching Students with Emotional Handicaps (3). Instructional strategies and specialized approaches for teaching emotionally handicaps. Must be taken concurrently with EBD 4244, EBD 4212, and EEX 4833 as 'the senior block' and requires extensive field work. Prerequisite: All junior-level courses. (F,S,SS)

EBD 4244 Curriculum for Teaching Students with Emotional Handicaps (3). Concepts and skills using various curricular models designed for students with emotional handicaps. For program students, this course must be taken concurrently with EBD 4244 and EBD 4212 as the Senior Block. (F)

ECT 3004 Foundations of Vocational Education (3). History of vocational legislation, principles and practices on the national, state, and local levels. (SS)

ECT 3183C Course Planning (3). Knowledge of work analysis, planning, and organizing of vocational content for instruction. (S)

ECT 3367 Testing and Measurements in Vocational Education Subjects (3). Knowledge and skill in developing cognitive, effective and performance standards, tests, and measurements in vocational laboratory settings. Prerequisite: ECT 3183C. (SS)

ECT 3463 Instructional Materials in Vocational Industrial Education (3). Evaluation of existing instructional materials and the planning and development of individualized instructional materials. (S)

ECT 3815C Vocational Education Laboratory Management and Safety (3). Knowledge and skill in analyzing, planning, organizing and controlling laboratory environments and students' safe learning activities. (F)

ECT 4644 Emerging Emphasis in Career Education (3). A knowledge of current trends and issues in reference to developing and integrating career education into current elementary and secondary educational programs. (AR)

ECT 4693 Technical Applications in Occupational Areas (3). The incorporation of new technical knowledge and skills of an occupational area into existing vocational education courses of study. Prerequisite: ECT 4946. (F)

ECT 4905 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)

ECT 4920 Group Training and Development (3). Knowledge and skills necessary to design, prepare, conduct, and evaluate group training and development programs. Prerequisite: Permission of the instructor. (S, alt)

ECT 4931 Special Topics (1-4). Knowledge of recent developments related to problems, practices, programs, and methodologies in organizational setting. Prerequisite: Permission of the instructor. (AR)

ECT 4940 Professional Problems in Vocational and Technical Education (3). Knowledge of institutional structure, organization, policies, and roles of school personnel, with actual teaching experience in area of specialization. (S)

ECT 4941 Student Teaching: Vocational Industrial Education and Technical Education (9). Utilization of instructional knowledge, attitudes, and skills in a variety of instructional situations in the vocational educational setting. (F,S)

ECT 4946 Field Experience: Technical Updating (3). The identification and acquisition of current technical knowledge and skills in an occupational area. Prerequisite: Vocational certification. (F,S,SS)

ECT 4949 Occupational Experiences (3-9). Occupational skill developed via field based work-experience in industry, business, or a government agency in the occupation in which the student is preparing to teach. (F,S,SS)

ECW 4103 Instructional Strategies and Evaluation in Vocational and Technical Education (3). Knowledge and skill in analyzing, planning, developing, executing and evaluation classroom and laboratory teaching and learning activities. For non-degree certification only. (AR)

ECW 4284 Occupational Safety and Health (OSHA) (3). Knowledge of the history, implications, and applications of the Occupational Safety and Health Act of 1970. For vocational and technical teachers, industrial employees, and management personnel. (AR)

ECW 4310 Planning and Operating HOE Programs (3). An intermediate course that develops an understanding of health occupation education as well as skills and knowledge needed by health care professionals to plan and develop health occupations programs. Approved for "special methods of teaching health occupations education." Prerequisite: ECT 3183C. (AR)

ECW 4311 Special Teaching Lab in HOE Programs (3). An intermediate course that develops knowledge of institutional structure, policies and roles of school personnel combined with field and actual teaching experiences. (AR)

ECW 4312 Instructional Strategies and Evaluation in HOE Programs (3). An intermediate course that focuses on the development of skills and knowledge needed to analyze, plan, develop, execute and evaluate classroom and laboratory teaching and learning activities in health occupations education. Approved for "special methods of teaching health occupations education." Prerequisite ECT 3183C. (AR)

ECW 4564 Teaching Limited English Proficient Students in Vocational Education (3). Knowledge of the history, principles, and practices, as well as skill in analyzing, planning, developing, executing, and evaluating classroom and laboratory teaching and learning activities for limited English proficient students. Meets META requirement. (F)

EDE 3302 Issues in Elementary Education (3). Introduces issues related to elementary school teaching, assessment, management and policy. Part of Block I. (F,S,SS)

EDE 4936 Senior Seminar in Elementary Education (3). Provides discussion of classroom management, discipline, school-community relations, and school law required of undergraduate elementary education majors while student teaching. (F,S)

EDE 4943 Student Teaching Internship (12). Culminating internship experience for Elementary Education majors. Students will assume all responsibilities in classroom; all FEAP and Eleme Ed competencies learned in program will be demonstrated. Prerequisite: Student must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course. (F,S)

EDF 1005 Introduction to Education (3). Introductory survey course designed to review education and teaching in America from multiple perspectives. Required of lower division education majors. Prerequisite to admission in teacher education programs. Field experience required. (F,S,SS)

EDF 2085 Teaching Diverse Populations (3). Introductory course designed to present the theories and realities of teaching diverse populations. Prerequisite to admission in teacher education programs. Field experience required. (F,S,SS)

EDF 2930 Teaching as a Profession (3). An introductory seminar to introduce students to the opportunities available in the teaching profession.

EDF 3251 Classroom Management (3). This course is designed to provide teachers with the understanding, skills, and dispositions for successful classroom management. (F,S,SS)

EDF 3430 Measurement and Evaluation in the Classroom (3). Basic concepts in educational measurement, utilizing measurement in instruction, construction of teacher-made tests and other classroom assessments, portfolio and performance assessment, interpretation of standardized test scores. Required in all Teacher Ed Programs.

EDF 3515 Philosophical and Historical Foundations of Education (3). Initial experience in professional and pedagogical studies for persons preparing for PK-12 classrooms as well as other school personnel. Special attention will be given to the exploration of, and the implications for, educational praxis. Field experience required. (F,S,SS)

EDF 3521 Education in History (3). An examination of the concepts of childhood, and process of social initiation in differing historical America contexts. This course examines the transformation of the American public school system as it reflects the social, political and economic character of the development of the nation from 1620 to the present. Students will read commentaries and primary sources and explore and consider the relationships between education and national policies. Satisfies the Societies and Identities requirement of the University Core Curriculum. Corequisite: EDP 3004.

EDF 4490C Understanding Educational Research (3). Evaluation and utilization of research results, evaluating the appropriateness of research design, sampling, measurement, data collection/analysis, and inferences for answering research questions.

EDF 4604 Cultural and Social Foundations of Education – *GL* (3). Examines the cultural and social realities of teaching and learning in the U.S. Questions of class, race, ethnicity, gender and language are discussed in relation to effective school, teacher, and student performance. (F,S,SS)

EDF 4780 The Teacher and the Law (3). Analysis of legal rights and responsibilities in the classroom, laws related to liability, contract, records, discipline, due process, handicapped, and schools. (AR)

EDF 4782 Education Law, Policy and Social Justice Issues (3). This course reviews significant educational laws, court cases and policies that effect teaching and learning in today's schools.

EDF 4953 Art Education Abroad in France – *GL* (3-6). Development of international and cross-cultural understandings of educational philosophies and systems through planned travel and study abroad.

EDF 4954 Art Education Abroad in China – *GL* (3-6). Development of international and cross-cultural understandings of educational philosophies and systems through planned travel and study abroad.

EDG 1001 Test Preparedness – FTCE GK Exam Preparation Course (1). A review of basic skills and competencies necessary to pass the Florida Teacher Certification GK Exam. Required if student has not passed GK within 72 credits. Education Majors Only; Lab Fee.

EDG 1700 Introduction to Multicultural Education: Making Choices (3). Designed to introduce prospective teachers to the terms, concepts, elements, purposes, and objectives of multicultural education programs. Corequisite: EDF 2930. (AR)

EDG 3321 Managing Teaching Environments: Instructional Decisions and Classroom Management (3). Includes instructional decisions, classroom management, assessment and ethics, supportive of students' thinking and individual differences.

EDG 3321L General Instructional Decision-Making Laboratory (3). Lab builds on theory and work class concepts through video simulations, feedback, field work, and interaction. Corequisite: EDG 3321. (F,S,SS)

EDG 3322 General Teaching Lab II: Multicultural Education (3). Enables students to work effectively in multi-cultural and multi-ethnic communities through the examination of self, the development of human relations and communication skills, and the examination of today's complex urban multicultural society.

EDG 4702 Educational Psychology of Multicultural Students (3). Introduction to principles and procedures utilized in teaching students from multicultural communities. Prerequisite: EDP 3004. Corequisite: EDG 4703. (AR)

EDG 4703 Educational Psychology Supervised Field Experience with Multicultural Students (3). Demonstration of competencies learned throughout study program in educational psychology of multicultural students. Prerequisite: Associate degree of equivalent. (AR)

EDP 3004 Educational Psychology (3). Application of principles for understanding individual differences, learning, adjustment, classroom environments, and assessment to instructional and educational issues. Challenges of diversity and teacher effectiveness are addressed. Field experience required. (F,S,SS)

EDP 3273 Child Development (3). Examination of child growth and development from conception to age of 8.

EDP 4274 Early Social and Emotional Development (3). Personality, social and emotional development in early childhood.

EDP 4275 Assessment, Evaluation, and Diagnosis of the Young Child (3). Intellectual, emotional and personality assessment of young children.

EEC 3204 Issues in Early Childhood Education (3). Introduces issues related to schooling of children age three through grade 3. This course has a field component. Students should apply to Office of Clinical Experiences of SOE to be placed in a school.

EEC 3242 Art in Early Childhood Education (3). This course introduces the early childhood educator to the principles of art and aesthetics and shows how they are essential to making early learning meaningful and engaging.

EEC 3315 Play and the Development of Social Competence (3). To examine the role of play behaviors as they relate to social competence and academic development in the early years.

EEC 3400 Family Literacy and the Young Child – *GL* (3). This course focuses on involving parents of young children in the development of early literacy skills from local, national, and international perspectives. When parents begin to speak early to their children, read to them, and create literacy rich environment, children develop better literacy.

EEC 3403 Special Needs of Children and their Families (3). Focus on understanding family problems, children's behavior and intervention methods.

EEC 3408 Communities, Families and Young Children (3). This course will focus on the varying cultural contexts of young children and the influences these environmental elements have on child development.

EEC 3613 Assessing Young Children (3). This course is designed to expose students to the methods and instruments used to assess all young children in the early childhood years of life and to use this data to differentiate instruction.

EEC 3751 Collaborative Approaches to Self-Regulation, Empathy and Problem Solving (3). This course explores various frameworks for understanding typical and challenging behaviors in young children, key factors contributing to these behaviors and methods to create healthy relationships.

EEC 4005 Early Childhood Education Programs (3). Philosophy and theories of early childhood education programs; physical, emotional, social and cognitive development. Provides strategies for working with parents and evaluating programs. This course has a field component. Students should apply to Office of Clinical Experiences Office of SOE to be placed in a school.

EEC 4211 Integrated Math and Science in Early Childhood (3). This course prepares pre-service teachers to understand developmentally appropriate practices in Math and Science for young children and apply them to real-world integrated settings.

EEC 4231 Developing Learning Processes in Early Childhood: An Italian Perspective (6). This course focuses on early childhood practices through an Italian perspective. Emphasis on learning processes guiding curriculum and instruction in early childhood settings. No prerequisite

EEC 4250 Curriculum and Instruction in Early Childhood Education (3). Knowledge of curriculum and instructional skills in kindergarten and primary grades. This course has a field component. Students should apply to Office of Clinical Experiences Office of SOE to be placed in a school. Prerequisite: Students must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course.

EEC 4266 Curriculum Programs-Infancy (3). Comprehensive knowledge of curricula and educational programs for infants and toddlers. (AR)

EEC 4267 Curriculum Programs-Preschooler (3). Comprehensive knowledge of curricula and educational programs for preschoolers. (AR)

EEC 4301 Trends in Early Childhood Education (3). Knowledge of critical issues; skill in assessing programs; application of child development principles to study of young children. (AR)

EEC 4524 Development and Administration of Early Childhood Programs (3). Knowledge and skills to prepare administrators of programs for young children. Prerequisite: Background in Early Childhood Education. (AR)

EEC 4704 The Education and Development of Young Children (3). Knowledge of infant, toddler and young child's physical, intellectual, social and emotional development and educational enhancement. (AR)

EEC 4943 Student Teaching (9). Required of undergraduate early childhood majors as culmination of program. Provides experience in a prekindergarten, kindergarten or in the primary grades in an elementary school where student assumes all teaching responsibilities for a minimum of ten weeks. Prerequisite: Successful completion of all program requirements. (F,S)

EEX 3012 Educational Needs of Students with Exceptionalities (3). Significant concepts in relation to the educational needs of students with exceptionalities. Field experience required.

EEX 3066 Instructional Practices in Exceptional Student Education I (3). This course includes the theoretical basis and principles of appropriate instructional practices and techniques for students with mild disabilities, IEP planning, and curriculum development. Prerequisites: EEX 3070 OR EEX 3012. (F,SS)

EEX 3070 Teaching Students with Exceptionalities in Inclusive Settings (3). Focuses on the foundations of inclusive education, characteristics of students with disabilities, instructional strategies, and collaboration among educators and parents. 10 field hours required. (F,S,SS)

EEX 3221 Assessment of Students with Exceptionalities (3). Basic assessment concepts and application to appropriate test selection, administration, scoring, and interpretation. Informal and formal techniques employed for purposes of gathering data for instructional planning. Prerequisite: EEX 3070. Lab fee required. (F,S)

EEX 3231C Assessments of Infants and Young Children with Disabilities (3). This course will familiarize students to methods and instruments to assess infants and young children with disabilities. Students learn to use assessment data to plan interventions and instruction.

EEX 3280 Foundations, Programming and Transition Services for Individuals with Disabilities (3). Conditions that affect learning for students with moderate to severe disabilities, curriculum, transition and skills to function independently in postsecondary education. Field hours. Prerequisites: EEX 3066, Student must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course.

EEX 3764 Instructional and Assistive Technology in Special Education (3). Provides teachers of students with disabilities instructional and assistive technology skills that enhance student learning and increase access to the general education curriculum. Prerequisite or Corequisite: EEX 3070 or EEX3012.

EEX 4050 Nature and Needs of Students with Mild Disabilities (3). History, etiology, characteristics, assessment and treatment of students with mild retardation, emotional handicaps and learning disabilities. Emphasis on theory, research and concepts related to curriculum, K-12. (F,S,SS)

EEX 4067 Instructional Practices in Exceptional Student Education II (3). This course includes the principles and practical application of effective instructional practices and strategies for students with mild disabilities and a 60-hour required practicum. Prerequisites: EEX 3066, Student must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course. Corequisite: EEX 4240. (F,S)

EEX 4070 Children with Exceptionalities in Inclusive Settings (3). Characteristics of students with mild disabilities and techniques of identifying, assessing, managing and instructing them in general education settings. (F)

EEX 4094 Nature and Needs of Students with Autism Spectrum Disorders (3). This course is designed to meet the following state requirements related to the education of students with ASD: Nature of autism and Field-based experience with students with autism (20 hours).

EEX 4240 Literacy Instruction in Special Education Settings (3). This course provides a theoretical and practical framework for issues related to teaching literacy to K-12 students in Special Education settings during coursework and the required 60 hour practicum. Prerequisites: Students must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course, RED 4311. Corequisite: EEX 4067. (F,S)

EEX 4291 Instructional Strategies and Assessment for Students with Autism Spectrum Disorders (3). Students will become familiar with current formal and informal assessments used in diagnosis and instructional planning, and educational strategies for students with ASD.

EEX 4601 Behavioral Approaches to Learning and Classroom Management I (3). Introductory course in applied behavior analysis for those planning to teach students with exceptionalities. Provides concepts and skills necessary for application of operant conditioning principles. Prerequisite or Corequisite: EEX 3070 or EEX 3012. (F,SS)

EEX 4603 Positive Behavior Supports for Students with Autism Spectrum Disorders (3). Students will develop an understanding, skills, and dispositions needed to develop and implement positive behavior support plans and to design behavioral management techniques for students with ASD.

EEX 4761 Assistive Technology and Communication Systems for Students with Autism Disorders (3). Explore research and strategies used in integrating technology in classroom and develop strategies and procedures for appropriate alternative/augumentative communication systems for students with autism.

EEX 4833 Practicum in Special Education (1). The practicum in Special Education provides opportunity for an intensive and integrated experience in the classroom under the close supervision of master teachers and university personnel. (F,S) *120 hours of field experience required.

EEX 4861 Student Teaching (12). Culminating internship experience for special education majors. Students will assume all responsibilities in classroom and all FEAP and ESE competencies learned in program will be demonstrated. Prerequisite: Student must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course.

EEX 4905 Directed Study in Special Education (1-6). Concepts or competencies contracted between an undergraduate student and faculty member in accordance with the student's individual needs. (F,S,SS)

EEX 4936 Student Teaching Seminar in Special Education (3). Seminar required of students enrolled in the Bachelor's and Modified Master's programs in Special Education. The purpose is to support, encourage and guide students through the transition from 'learning how to teach' to independent teaching. Prerequisite: All program courses. Corequisites: EEX 4861 and EEX 6862. (F,S)

ELD 4144 Strategies for Teaching Students with Learning Disabilities (3). Instructional strategies and specialized approaches to teaching students with learning disabilities. For program students, the course must be taken concurrently with ELD 4230, EBD 4212, and EEX 4810 as the senior block, and requires extensive field work. (F,S)

ELD 4230 Curriculum for Teaching Students with Learning Disabilities (3). Designed to familiarize students with the terminology, characteristics, curriculum models, specialized curriculum, and instructional materials for students with learning disabilities. Field experiences required. Must be taken concurrently with Senior Block with ELD 4144 and EBD 4212. (F)

EME 2040 Introduction to Educational Technology (3). Introduction to the use of educational technology. Examination of productivity tools, interactive multimedia, communications, educational software, instructional applications and ethical, legal, social, and professional issues.

EME 3402 Computers for Teachers (3). An introductory course focusing on instructional uses of computers in precollege education. Designed to provide skills in using computers as a classroom tool. (F,S,SS)

EME 4103 Production and Use of Audio/Visual Media (3). Knowledge and skill in selecting and producing audiovisual media. Emphasis is placed on student production of audio and visual materials and equipment use. (AR)

EMR 4221 Curriculum for Teaching Students with Mental Retardation (3). Significant concepts and skills needed for educational planning, programming and placement decisions for students with mental retardation during school years. Field experiences required. Must be taken concurrently in Senior Block with EMR 4362 and EBD 4212. (F)

EMR 4362 Strategies for Teaching Students with Mental Retardation (3). Familiarizes students with the instructional strategies and specialized approaches for teaching the mentally retarded. Must be taken concurrently with EMR 4221, EBD 4212, and EEX 4833, as the Senior Block. Requires extensive field work. (F,S,SS)

ESE 4322C Secondary Classroom Management (3). Provides students with the theoretical and practical approaches for dealing with the problems of classroom management within the goals, materials, and teaching strategies that form secondary classrooms.

EVT 4502 Introduction to Vocational Special Needs Education (3). Knowledge of historical developments, legislation, instructional strategies, and program alternatives required to instruct special needs students in vocationally related environments. (S)

EVT 4942C Internship: Training and Development (3). Knowledge and skills in training and development in non-public school settings. Prerequisites: Admission to Organizational Training Certificate Program and permission of the instructor. (F,S,SS)

EVT 4990C Credit by Examination (3-9). Technical knowledge and skills in an occupational area such as trade, industry, health and technology, as certified by recognized professional examinations such as the National Occupational Competency Test. Credits cannot be used in lieu of upper division professional program courses. (AR)

FAD 3253 Parenting (3). Overview of changing concepts of parenthood and childhood. Explores contemporary issues concerning parenting with emphasis on maximizing human potential of parents and children. Open to non-majors. Recommended prerequisite: DEP 2001. (AR)

FAD 4340 Family Development: Adulthood and Aging (3). Extension of the study of developmental patterns with emphasis on physical, intellectual, social, and emotional influences with particular emphasis on the family and/or family substitute. Graduate students will have additional requirements. (AR)

FLE 4151 Bilingual School Curriculum and Organization (3). Development of a theoretical understanding of the nature of bilingualism, a rationale for bilingual education, and a set of principles and skills for organizing, bilingual-bicultural curriculum experiences in the elementary school. Prerequisite: EDG 3321. (AR)

FLE 4314 Methods of Teaching Foreign Languages in the Elementary School (3). Development of instructional skills, techniques and strategies for teaching modern languages in the elementary school. (F)

FLE 4375 Methods of Teaching Modern Language at the Secondary Level (3). Development of instructional skills, techniques, and strategies for teaching modern languages in the junior and senior high school. Prerequisite: EDG 3321. Field experience required. Minimum prerequisite or corequisite of 14 hours in subject matter specialization. (F)

FLE 4871 Teaching Spanish to Speakers of Spanish (3). Development of understandings and teaching skills needed in presenting integrated non-official language arts programs which would consider factors of languages and cultures in contrast. Prerequisites: EDG 3321 and Spanish proficiency. (AR)

FLE 4872 Teaching Spanish as a Second Language (3). Development of instructional skills, techniques, and strategies for teaching Spanish to non-native speakers of Spanish in the elementary school. Prerequisites: EDG 3321 and Spanish proficiency. (AR)

FLE 4942 Student Teaching (9). Supervised teaching in a junior or senior high school. Prerequisites: EDG 3321, RED 4325, appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program. (S)

HEE 3302 Curriculum Development in Vocational Home Economics (3). Development, adaptation, and evaluation of curriculum for vocational home economics content in a variety of educational settings. Subject to approval of the instructor. (F)

HEE 4104 Instruction in Vocational Home Economics (3). Application of educational principles, practices, and techniques to the teaching of vocational home economics in varied educational settings. Subject to approval of the instructor. (F)

HEE 4941 Student Teaching in Home Economics (9). Utilization of instructional knowledge, attitudes, and skills in vocational home economics instructional settings. Prerequisites: HEE 3302, HEE 4104, HEE 4944. (S)

HEE 4944 Special Teaching Laboratory: Home Economics (3). Acquisition of knowledge of educational institutions, and utilization of planning tools and teaching skills within areas of home economics in selected educational settings. Prerequisites: HEE 3302, HEE 4104. (S)

HHD 4420 Home Furnishings and Equipment (4). Principles involved in the construction, selection, operation, and care of furnishings and equipment and their relationship to their environmental use. (AR)

HLP 3722 Content and Methods of Teaching Elementary Health and Physical Education (3). Provide content and methods needed to understand and teach health and physical education to elementary students of diverse backgrounds. (F,S,SS)

HME 4230 Management of Personal and Family Resources (3). Application of management principles to personal and family decisions including human and nonhuman resources. Opportunity for community observation of management decisions made by persons of various ethnic groups and/or life styles and an analysis of the effect of these decisions on family relationships and personal success. (AR)

LAE 3334 Classroom Management in the Middle/Secondary English Classrooms (1). Designed to provide students with the theoretical and practical principles to deal with the problems of classroom management within the concept of goals, materials, and teaching strategies that form the English language arts. Prerequisites: EDG 3321, and LAE 4335. (F,S)

LAE 3360 Managing the Secondary Language Arts Classroom (3). This course will teach the pre-service educators how to manage a secondary language arts classroom including safety issues, state statutes, and procedures for optimizing the learning environment.

LAE 4314 Teaching Elementary Language Arts (3). Required of undergraduate el education/special education majors. Provides knowledge and skill in developing communication enhancement through language arts activities. Prerequisite: EDG 3321.

LAE 4335 Special Teaching Laboratory English (3). Development of instructional skills, techniques, and strategies for teaching English in the middle school and senior high school. Prerequisite: EDG 3321. Field experience required. Prerequisite of 21 hours required in English courses beyond lower division English prerequisites for this program. Requires 2-4 hours/week field work. (F)

LAE 4367 Navigating Theory and Practice in the Secondary ELA Classroom (3). This course will allow advanced undergraduate students to merge their learning in English and Education in order to prepare for their subject area exam and practice their learning in the field. Prerequisite: LAE 4464, LAE 4335, five LIT 3000/4000 level courses

LAE 4405 Children's Literature – *GL* (3). Focuses on the exploration of children's literature and its integration into the early childhood curriculum from a global perspective. (F,SS)

LAE 4463 Multicultural Perspectives in Teaching Language and Literature for Young Adolescents (3). Designed to provide students with a theoretical and practical basis for teaching and reading multicultural literature in the secondary school. (SS)

LAE 4464 Experiencing Adolescent Literature in the Middle School and Senior High School (3). An examination of the most familiar types of literature found in the middle and secondary school English curriculum today; and the development of strategies for organizing and providing a variety of literary experiences of students who differ in intellectual abilities and literary tastes. (F,SS)

LAE 4851 Teaching English as a Second Language (3). Development of instructional skills, techniques, and strategies for teaching English as a second language in the elementary school. Prerequisites: EDG 3321 and English proficiency. (AR)

LAE 4942 Student Teaching (6). Supervised teaching in a middle school or senior high school. Prerequisites: EDG 3321, RED 4325, appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program. (S)

LEI 2162 Leisure in Your Life (3). Examines the significance of leisure in contemporary life. Topics include work-leisure relationships, the benefits and costs of leisure, and leisure's role in promoting human growth and development.

LEI 3001 Leisure and Recreation in America (3). An introduction to the fundamental concepts of leisure and recreation and their roles in American culture. The class will be structured around a lecture-discussion format. (F)

LEI 3165C Taboo Leisure Habits in American Society (3). Course explores leisure past times that are forbidden by law, custom, or belief. Students will examine the negative aspects of leisure. Ex. Substance abuse, harmful sex, gambling and gang activity.

LEI 3402 Program Development in Recreation & Sports (3). Development of objectives, planning, implementation and administration of recreation and sport programs. (S)

LEI 3524 Human Resource Management in Parks and Recreation (3). After a study of human interaction in a management setting, students will demonstrate competencies necessary for hiring staff, conducting group dynamics and communicating to the public. (S)

LEI 3542 Principles of Parks, Recreation and Sport Management (3). An exploration of the field of recreation, parks, sport, and recreational therapy, including career areas, management responsibilities and supervisory levels and principles and theory. (F)

LEI 3624 Turf Grass Management (3). A practical approach to the care and maintenance of special grasses such as those found on golf courses and other recreational facilities. (AR)

LEI 3630 Care, Maintenance and Design (3). A study of procedures for maintaining outdoor facilities. Students will be expected to display competence in proper maintenance of areas normally found in parks and recreation centers. (F)

LEI 3703 Introduction to Recreational Therapy (3). History, philosophy, and current principles of recreational therapy processes and application. Emphasis will be given to role of recreational therapy services. (F)

LEI 3707 Inclusive Recreation Services – *GL* (3). To provide Recreational Therapy, Parks, Recreation and Sport Management majors with an opportunity to enhance knowledge of the characteristics and leisure needs of individuals with disabilities.

LEI 3723L Recreational Therapy Facilitation Techniques and Modalities Lab (1). Students are required to complete three one-credit lab course for a total of three (3) credits. Provides an in-depth, "hands-on" experience in the area of RT facilitation technique implementation. (S)

LEI 3800 Liability and Law in Leisure, Recreation and Sports (3). Legal issues related to leisure service management including legal foundations, legal liability, land use policy, employment regulations, disability services, and current issues. (S)

LEI 3860C Computer Applications for Recreation and Sport Management (3). Introduction to computer applications useful in Recreation and Sport Management. Includes standard office, internet, and specialized recreation and sport management software.

LEI 4268C Adventure Education (3). Teaches the philosophy, history, application of adventure education; features high and low ropes activities, problem solving, leadership, team-building development, adventure-based curriculum and resources.

LEI 4438 Recreational Sports Programming (3). Principles and practices in recreational sports programming for universities and institutions including intramurals, recreation facilities, budgets, rules, tournaments, liability, and special programs.

LEI 4543 Recreation and Sports Facility Management (3). This course is designed to provide the student with an overview of the concepts and practices involved in managing recreation and sports facilities.

LEI 4560 Leisure Services Marketing (3). Application of service marketing principles and practices to both the public and private leisure service industry to improve both effectiveness and efficiency of operations. (S)

LEI 4590 Seminar in Parks and Recreation Sport Management (3). A discussion of current problems, issues and trends in parks, and sport recreation management, which will help the student develop those competencies necessary to deal with everyday aspects of particular programs. (F)

LEI 4705 Program Planning in Recreational Therapy (3). Principles and practices in planning and implementing programs in recreational therapy settings. Special emphasis will be placed on a systematic approach through problem-solving techniques. Prerequisite: LEI 3703. (S)

LEI 4711 Client Assessment, Documentation, and Evaluation in Recreational Therapy (3). An overview of the theory, concepts and techniques used in client assessment, evaluation and documentation for recreational therapy treatment. Prerequisite: LEI 3703. (S)

LEI 4720 Trends, Issues, and Managerial Aspects of Recreational Therapy (3). An examination of current issues, trends and professionalization and managerial concerns in recreational therapy. Prerequisite: LEI 3703. (F)

LEI 4724 Recreational Therapy Facilitation Techniques (3). Designed to provide an in-depth examination of RT facilitation techniques as they are implemented with individuals with various disabling conditions or limitations. Prerequisite: LEI 3703. (F)

LEI 4813 Orientation to Recreation and Leisure (3). The purpose of this course is to introduce students to a historical overview of recreation and leisure, analyze contemporary theory related to the relationship between work and leisure, examine leisure trends, and examine broad components of leisure education and counseling in the delivery of recreational therapy services. (F)

LEI 4842 Private and Commercial Recreation & Sports Management (3). Identification, development, operation and impact of profit-oriented recreation and sport-related enterprises. (AR)

LEI 4931 Special Topics: Leisure Service Management (1-3). Analyzes and utilizes recent developments related to problems, practices, contemporary issues, practices and methodologies in Leisure Service Management. Permission of the instructor. (F,S,SS)

LEI 4940 Internship I (3-9). An on the job training program designed to enable students to develop those competencies which can only be gained from practical experience. (F,S,SS)

LEI 4941 Internship II (3-12). An on the job training program designed to enable students to develop those competencies which can only be gained from practical experience. Prerequisites: LEI 4940. (F,S,SS)

MAE 3651 Learning Mathematics with Technology (3). Use innovative software and graphing calculators for students to experience learning mathematics with technology. Revisit topics of school mathematics with a problem solving approach. Prerequisites: MAC 2311 (F,S)

MAE 4310 Content and Methods of Teaching Elementary Mathematics (3). Provides content and methods needed to understand and teach all five areas of mathematics to elementary students of diverse backgrounds. Prerequisites: Three courses at college algebra and above. Field work required. (F,S,SS)

MAE 4312 Advanced Content and Methods of Teaching Elementary Mathematics (3). Provides advanced development of knowledge, skills and dispositions necessary to prepare education majors to be effective mathematics teachers of upper elementary grades through middle school grade 6. Prerequisites: Students must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course, MAE 4310.

MAE 4320 Special Teaching Lab: Middle School Mathematics (3). This course is required in the baccalaureate program for those who plan to teach middle school mathematics. It provides the knowledge and skills for functioning in a mathematics classroom. Prerequisites: MAC 2311 STA 3163, MAS 3105, and MAD 2104 or permission of the instructor.

MAE 4330 Teaching and Learning Secondary Mathematics (4). Development of instructional skills, techniques, and strategies for teaching mathematics in the middle school and senior high school. Field experience required. Prerequisites: EDG3321 or EDG 5414 Corequisites: Minimum of 24 hours of in subject matter specialization including, MTG 3212, MAS3105, STA 3163, STA 4321 and MAD2104 or permission of instructor (F)

MAE 4393 Nature of Math and Science (3). Students in this course will consider how the practices, problems, and purposes of math and science are intrinsically social and what that implies about teaching and learning.

MAE 4394 Perspectives on Mathematics and Science Education – *GL* (3). This course will help students to develop understanding of theoretical frameworks and multiple perspectives underpinning mathematics and science education.

MAE 4942 Student Teaching (9). Supervised teaching in a middle school or senior high school. Prerequisites: Appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program. (S)

PEL 1211 Skills and Practice: Softball (2). Designed to develop skills and knowledge of softball. Emphasis is on teaching methods of related physical activities. This course can be used to meet degree requirements for Physical Education and is open to non-majors. (FS)

PEL 1341 Skills and Practice: Tennis (2). Course to include knowledge and instruction of fundamental skills in tennis, rules, techniques, and playing strategy. This course will not count towards graduation except for Physical Education majors.

PEL 1421 Team Handball (1). Students will learn basic skills and teaching strategies involved in the sport of team handball. This course requires students to be physically active.

PEL 1441 Skills and Practice: Racquetball and Tennis (2). Designed to develop skills and knowledge of racquetball and tennis. Emphasis is on teaching methods of these physical activities. This course is a requirement for Physical Education majors and is open to non-majors. (S)

PEL 1511 Skills and Practice: Soccer (2). Presents basic techniques, tactical considerations, and several theoretical aspects of the game. Emphasis is on developing fitness through participation. This course will not count towards graduation except for Physical Education majors.

PEL 2321 Skills and Practice: Volleyball (2). Designed to develop skills and knowledge of volleyball. Emphasis is on volleyball teaching methods. This course is a requirement for Physical Education majors and is open to non-majors. (SS)

PEL 2621 Skills and Practice: Basketball (2). Designed to develop basic skills and knowledge of basketball. Emphasis is on development of skill, participation, fitness, and knowledge of basketball as a recreational activity. This course will not count toward graduation except for Physical Education majors.

PEM 1104 Conditioning for Recreational Sports (1). Sports aerobics and other workout methods will be practiced to improve strength, flexibility, muscular endurance and skill level in various recreational sports. Sports participation will follow the training. Verify graduation with advisor. (F,S,SS)

PEM 1141 Aerobic Fitness (1). Provides students with the skills and knowledge necessary to achieve and maintain a desirable state of aerobic fitness. Verify graduation with advisor. (F,S,SS)

PEM 1404 Aikido (1). The study of the art of Aikido and redirecting forces to achieve their neutralization. An application of similar principles for self-defense.

PEM 1405 Judo Self Defense (1). Students will be taught physical and mental techniques to defend themselves from personal attack. This course is repeatable. Verify graduation credit with advisor. (F,S)

PEM 1441 Karate (1). Basic techniques and advanced applications of karate techniques will be taught. The class goal will be certification in rank levels to qualified students, beginners to advanced. This course is repeatable. Verify graduation credit with advisor. (F,S)

PEM 1461 Fencing (1). The technical art and skill of fencing will be introduced and physically practiced. The skills include but are not limited to lunging, parrying, offensive and defensive actions. This course is repeatable.

PEM 2101 Foundations of Fitness (3). Concepts related to the evaluation, development, and maintenance of fitness, including principles of training, weight control and stress reduction. Verify graduation credit with advisor. (F,S,SS)

PEM 2131 Weight Training (1). Exercise using various strength training equipment to improve muscular endurance, strength, and flexibility. Verify graduation credit with advisor. (F,S,SS)

PEM 3437C Competitive Olympic Judo 1 (3). This course will enable a judo practitioner, yellow/orange belt to obtain the necessary skills and strategies to compete in a local and state level competition. Prerequisite: PEM 1405 (3 credits). Corequisite: PET 3403 Introduction to Martial Arts.

PEM 3438C Competitive Olympic Judo 2 (3). This course will enable a judo practitioner green/blue belt to obtain the necessary skills and strategies to compete in a state and regional level competition. Prerequisites: PEM 3437C, PET 3403.

PEM 4103 Advanced Personal Training (3). This class is designed to prepare students for the National Strength Professionals Associations Certified Conditioning Specialist Examination.

PEN 1121 Beginning Swimming (1). The course will cover the beginning swimming skills as described in the certified American Red Cross beginning swimmers program. This course will not count towards graduation except for Physical Education majors.

PEN 1122 Intermediate Swimming (1). The course will cover the intermediate swimming skills as described in the certified American Red Cross intermediate swimmers program. This course will not count towards graduation except for Physical Education majors. Prerequisites: PEN 1121 or permission of the instructor.

PEN 2113 Life Saving (2). Successful completion of this course will lead to American Red Cross swimming certification in life saving. This course will not count towards graduation except for Physical Education majors. Prerequisite: Completion of intermediate swimming skills.

PEN 2132 Scuba Diving Lab (1). The lab enables divers to acquire and refine the skills needed to increase scuba proficiency. This lab is required for students taking Basic, Advanced, Rescue, or Leadership Scuba Diving. Repeatable. Verify graduation credit with advisor. Prerequisites: PEN 2136, PEN 3137, PEN 3138, or PEN 4135.

PEN 2136 Basic Scuba Diving (2). This course provides students with basic scuba knowledge and skills including diving physiology, underwater skills, safety, preparation and equipment care. Lab required. Verify graduation credit with advisor. Corequisite: PEN 2132.

PEN 2137 Advanced Scuba Diving (3). An advanced course for students with Basic Scuba training and certification. Includes advanced dive safety, underwater navigation, search and rescue techniques, etc. Lab required. Verify graduation credit with advisor. Prerequisite: PEN 2136.

PEN 2138 Scuba Rescue Diving (3). Provides skill and knowledge to prevent and manage diving risks, problems and emergencies. Includes search and rescue, first aid, CPR, oxygen administration. Lab required. Verify graduation credit with advisor. Prerequisites: PEN 2137 or permission of the instructor. Corequisite: PEN 2136L.

PEN 4135 Scuba Diving Leadership (3). Prepares advanced divers for professional roles as divemaster and assistant instructor. Requires teaching, supervision and trip planning. Lab required. Verify graduation credit with advisor. Prerequisites: PEN 2137, PEN 3138.

PEO 3012 Officiating Basketball (3). Students will examine the philosophies, mechanics and rules necessary for officiating basketball, from youth to intercollegiate levels.

PEO 4001 Principles and Practices of Coaching (3). Prepares students to examine the organization, philosophies, and skills necessary for coaching sports in diverse educational environments. (SS)

PEO 4041 Games in the Elementary and Middle School (3). The study of the scope, structure, and sequence of games in Grades K-5. Emphasis on educational games and skill progressions for selected sports. Field experience required. (SS)

PEP 3205 Gymnastics in the Elementary and Middle School (3). The study of the scope, structure, and sequence of the gymnastics program in grades K-5. Emphasis on educational gymnastics and simple formal gymnastics. (S)

PEP 4102 Applied Concepts of Fitness and Health (3). Content and methods for teaching activity/theory classes in which the primary emphasis is the development of fitness. (S)

PEP 4111 Health/Fitness Instruction (3). Knowledge and skills to evaluate one's fitness level and to design exercise and health enhancement programs for healthy individuals.

PEP 4114 Exercise Prescription (3). Knowledge and skills necessary to prescribe and lead exercises for persons with medical limitations especially cardiovascular and related diseases. (S)

PEQ 2115 Water Safety Instructor (2). Successful completion of this course will lead to American Red Cross swimming certification as Water Safety Instructor. This course will not count towards graduation except for Physical Education majors. Prerequisite: Red Cross certification in life saving.

PEQ 2230 Beginning Sailing (1). Designed to develop skills and knowledge of sailing. Emphasis is on actual in water experiences and development of sailing as life time pursuit.

PEQ 2232 Advanced Sailing (1). Designed to further skills and knowledge of sailing. Emphasis is on actual in water experiences and development of sailing as life time pursuit.

PEQ 2250 Beginning Kayaking (1). Designed to develop skills and knowledge of kayaking. Emphasis is on actual in water experiences and development of kayaking as life time pursuit.

PEQ 3126 Adapted Aquatics (2). Develops competencies in adapted aquatic programs and services. May be used for adapted physical education endorsement. (AR)

PET 3020 Foundations of Physical Education (3). Examines the philosophical, historical, sociological and psychological foundations of physical education and sport. (Field experience required). (F)

PET 3310 Kinesiology (3). Students study the anatomical and mechanical principles of movement and apply this knowledge in the analysis of physical education and athletic sport activities. (Includes laboratory class periods.) Prerequisites: ZOO 3731 or ZOO 3733 or PET 3325 or BSC 2085. (F,S,SS)

PET 3325C Anatomy for the Exercise and Sports Sciences (3). The human body will be studied using a body systems approach with emphasis on the organization and structure of the musculoskeletal, nervous, and cardiovascular systems. Corequisite: PET 3325L. (F,SS)

PET 3325L Anatomy for the Exercise and Sports Sciences Lab (1). The structure of the human body will be studied using hands-on experiences in the small group setting using class assignments, figures, models and computer activities. Corequisite: PET 3325C. (F,SS)

PET 3403 Introduction to Martial Arts (3). This course provides an understanding of the differences-similarities of martial arts. The student will have an understanding of its country of origin and its cultural influences on modern society. Corequisites: PEM 1405 and PEM 1XXX.

PET 3640 Adapted Physical Education (3). Knowledge of scientific factors and develop and implement physical education programs for special populations. Laboratory and Field Experience required. (SS)

PET 3730 Physical Education in the Middle School (3). The study of the scope, structure, and sequence of the middle school physical education curriculum. Emphasis on teaching strategies, and curriculum development. Field experience required. (S)

PET 4050 Motor Learning and Development (3). Examination of the developmental aspects of movement and the factors influencing the acquisition and performance of motor skills.

PET 4094 Advanced Concepts in Strength and Conditioning (3). The course is designed to prepare students for the NSCA's Certified Strength and Conditioning Specialist examination.

PET 4207 Considerations in Youth Sports (3). This course investigates and evaluates youth sport programs within the community. The psychological, social and physical development of youth will be of central focus to this course.

PET 4251 Sociology of Sport (3). Basic principles of the sociological bases of sport will be presented and discussed. Required course in the Undergraduate Sport Management track. (SS)

PET 4384 Exercise Test Technology (3). Knowledge and skills required to conduct an ECG monitored graded exercise test. (F)

PET 4401 Administration of Fitness Operations (3). An analysis of the organizational and administrative aspects of interscholastic & intercollegiate physical education and sport programs. (F)

PET 4442 Physical Education in the Secondary School (3). Methods, philosophy, and curriculum for physical education in the urban, culturally diverse secondary school. Field experiences required in addition to class work. (F)

PET 4510 Evaluation in Kinesiology (3). Students will be introduced to methods central to the evaluation of kinesiology. Content includes but is not limited to: motor skill testing, fitness testing, analysis, statistical concepts and norms. (SS)

PET 4550 Evaluation in Exercise Physiology (3). Prepares students to utilize and select or construct appropriate instruments for the assessment of fitness. Prerequisite: APK 3110. (F)

PET 4554 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. Current practices of strength and conditioning coaches will be examined.

PET 4622 Athletic Injuries (3). Students will demonstrate knowledge of the proper care and prevention of athletic injuries through the application of acceptable training techniques. (F,S,SS)

PET 4622L Athletic Injuries Lab (1). The practical skill of athletic injury taping for prevention and management of athletic injuries. Corequisite: PET 4622. (F,S,SS)

PET 4644 Therapeutic Applications of Martial Arts (3). Provides an understanding of the therapeutic applications of Martial Arts for the enhancement of an individual's wellbeing and pro-social behavior. Prerequisites: PET 4711 Teaching Martial Arts, PET 3403 Introduction to Martial Arts, PEM 1405 Judo Self-Defense and PEM 1404 Aikido.

PET 4691 Exercise Testing and Prescription of Special Populations (3). The course prepares a student to test and prescribe exercise programs for selected populations groups.

PET 4929 Senior Seminar in Physical Education (3). Required of undergraduate physical education majors in the K-12 programs while student teaching. Provides discussion of current issues and topics related to teaching physical education. Prerequisite: Successful completion of all program requirements. Corequisites: PET 4945 or PET 4944 or PET 4943 or PET 4946. (F,S)

PET 4940 Practicum in Personal Training (1-15). Supervised clinical experience designed to offer the student experience in graded exercise testing and exercise leadership.

PET 4943 Student Teaching Grades K-12 (9). Supervised teaching in an elementary and high school. Nine weeks of the student teaching experience will be in area of concentration.

PET 4945 Student Teaching: Grades 6-12 (9). Supervised teaching in a middle or secondary school. Corequisite: PET 4929. (F,S)

PET 4946 Sport and Fitness Internship (3-9). Supervised field experience in an approved sport or recreational setting. Prerequisites: Completion of required program and elective courses. (F,S,SS)

RED 3313 Language and Literacy Development (3). Introduces linguistic elements of English, language development, emergent literacy, and their impact on L1 and L2 students. Part of Block I.

RED 4100 Emergent Literacy (3). Focuses on young children's process of constructing meaning through literacy from a variety of disciplinary perspectives (Psychology, Linguistics, Education) and analyzes the significant implications for classroom practices. Prerequisite: RED 3313.

RED 4110 Content and Methods of Teaching Literacy in Schools (3). Provides content and methods needed to understand and teach a quality literacy program that meets the needs of all children. Prerequisites: Students must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course, RED 3313, RED 4150, RED 4311.

RED 4150 Content and Methods of Teaching Beginning Literacy (3). Provides content and methods needed to understand and teach beginning literacy to elementary students of diverse backgrounds and abilities. Prerequisites: RED 3313 or SPA 3000 Field work required. (F,S,SS)

RED 4311 Content and Methods of Teaching Intermediate Literacy (3). Provides content and methods needed to understand and teach transitional literacy to elementary students of diverse backgrounds and abilities. Prerequisites: Students must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course, RED 3313 or SPA 3000, RED 4150.

RED 4325 Subject Area Reading (3). Skills, techniques and strategies for reading in content areas. Field work required. (F,S,SS)

SCE 4194 Perspectives in Science and Math Education – *GL* (3). This course will help students to develop understanding of theoretical frameworks and multiple perspectives underpinning mathematics and science education.

SCE 4310 Content and Methods of Teaching Elementary Science (3). Provides content and methods needed to understand and teach science and technology to elementary students of diverse backgrounds. Prerequisite: Three lower-division science courses, one with a lab. Lab fee required.

SCE 4311 Advanced Content and Methods of Teaching Elementary Science (3). Provides advanced development of knowledge, skills and dispositions necessary to prepare education majors to be effective science teachers of upper elementary grades through middle school grade 6. Prerequisites: Students must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course, SCE 4310. Corequisite: Field School Placement.

SCE 4330 Secondary Science Teaching Methods (3). Development of instructional skills, techniques and strategies for teaching biological and physical sciences in senior high schools. Field experience required. Minimum prerequisite or corequisite of 16-20 hours in subject matter specialization.

SCE 4894 Nature of Math and Science (3). Students in this course will consider how the practices, problems, and purposes of math and science are intrinsically social and the implications of teaching.

SCE 4931 Senior Seminar in Science Education (2). This course will address reflection on teaching; assessing based on established learning theory; and expertise with the legal and ethical standards of secondary schools.

SCE 4944 Student Teaching (6-9). Supervised teaching in a middle school or senior high school. Prerequisites: Appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization. (F,S)

SDS 4340 Career Development (1-3). Topics include career planning and needed skill enhancement, understanding job growth and development, and decision-making about career aspirations. Repeatable.

SMT 2044 Combined STEP 1 & 2: Inquiry-Based Approaches and Lesson Design for Teaching Mathematics and Science (2). Explore teaching in an middle school setting and become familiar with writing and teaching inquiry-based mathematics or science lessons using exemplary resources. Prerequisites: Junior/senior status.

SMT 2661 Step 1: Inquiry Approaches to Teaching Mathematics and Science (1). Students who want to explore teaching careers become familiar with writing and teaching inquiry-based mathematics or science lessons using exemplary resources in an elementary school setting. Prerequisite: Interest in exploring science or mathematics teaching as a career. Prerequisite: Interest in exploring science or mathematics teaching as a career.

SMT 2662 Step 2: Inquiry-Based Lesson Design in Mathematics and Science (1). Students who want to explore teaching careers become familiar with writing and teaching inquiry-based mathematics or science lessons using exemplary resources in an elementary school setting. Prerequisite: SMT 2661. Corequisite: Interest in exploring science or mathematics teaching as a career.

SMT 3100 Knowing and Learning in Mathematics and Science (3). Focus on knowing and learning in secondary mathematics and science as understood from a multi-disciplinary perspective. Students identify theories and employ theories to guide their own practice.

SMT 3931 Learning Assistant Seminar: Evidence-based STEM Instruction (3). Evidence-based instructional theory and practice for undergraduate Learning Assistants. Covers effective pedagogical strategies, collaborative learning, and assessment across the STEM disciplines.

SMT 4301 Classroom Interactions in Mathematics and Science Teaching (3). Focuses on examination of the interplay between teachers, students, and content, and how such interactions enable students to develop deep understanding of the mathematics and science ideas. Prerequisite: SMT 3100.

SMT 4664 Problem-Based Instruction (PBI) in Mathematics and Science (3). Focus on exploring authentic, important, and meaningful questions and developing a PBI science/mathematics unit, employing processes/technologies that scientists, mathematicians, and engineers use. Prerequisite: SMT 4301 or Program permission.

SMT 4943 Learning Assistant Mentor Internship (0). Available for those who have completed LA Intern and LA Advanced Internships and have a recommendation from a faculty member. May be repeated up to 6 semesters. Permission of instructor is required. Prerequisite: SMT4944. Corequisite: Students must be employed as LAs during the semester they registered.

SMT 4944 Advanced Learning Assistant Internship (0). Available to those with 1-3 semesters of LA Intern experience. Serves as LA team leader; works with faculty in weekly LA planning sessions. May be repeated. Permission of instructor required. Prerequisites: SMT4946. Corequisite: Students must be employed as LAs during the semester they registered.

SMT 4946 Learning Assistant Internship (0). LA internship 1-Introductory. Supervised, practical experience in a teaching a college STEM course or laboratory. Permission of instructor is required. May be repeated up to 3 semesters. Prerequisites: PHY 3012, MAE 3893, CHM 3945 and ESC 3050 or SCE 3813. Corequisite: Students must be employed as LAs during the semester they register.

SPA 2612 American Sign Language for Teachers I (4). Introductory training in basic ASL signs and historical and cultural information about the “deaf culture” for teachers. Two hrs/wk of lab required. (AR)

SPA 2613 American Sign Language for Teachers II (4). Intermediate training in ASL signs and additional information about “deaf culture” for teachers. Two hrs/wk of lab required. Prerequisite: SPA 2612. (AR)

SPA 3000 Acquisition of Speech and Language Skills (3). Knowledge of normal acquisition of speech, language, and literacy. Includes overview of major speech/language delays and disorders, plus intervention strategies for teachers and parents.

SSE 3346 Social Science Content and Pedagogy (3). This course introduces students to terminology, concepts, and applications across the disciplines of the social sciences and education.

SSE 3853 Social Science Subject Area Knowledge (3). This course is a content acquisition course designed to help prepare students with the content they need to be successful in upper-level content courses, as well as in a future teaching career

SSE 4118 Social Studies and Foundations in Early Childhood Education – *GL* (3). Develops skills, understandings, and dispositions for teaching social studies to young children from diverse cultural backgrounds. This course has a field component. Students should apply to Office of Clinical Experiences of SOE to be placed in a school. Prerequisite: Students must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course. (S,SS)

SSE 4304 Teaching Early Childhood Social Studies (3). Introduces preservice early childhood teachers to the changing nature of Social Studies within the early childhood curriculum. Prerequisite: Block 3.

SSE 4312 Content and Methods of Teaching Elementary Social Studies (3). Provides content and methods needed to understand and teach Social Studies from a global, multi-ethnic perspective to elementary students of diverse backgrounds.

SSE 4380 Developing a Global Perspective – *GL* (3). Theory, content, and practice. Introduction and utilization of learning materials and teaching strategies in Global Education for K-12. (F,SS)

SSE 4383 Perspectives in Social Science Education (3). This course explores in-depth social science content using various pedagogical methods based on an understanding of the various social science disciplines.

SSE 4384C Special Teaching Laboratory: Social Studies (3). Development of instructional skills, techniques, and strategies for teaching social studies in the middle school and senior high school. F)

SSE 4936 Social Science Education for Reflective Practice (1). Using students' experiences interning in the secondary social studies classroom. This course will help beginning teachers meet the various challenges of a classroom teacher. Prerequisites: SSE 3346, SSE 4383.

SSE 4942 Student Teaching (6). Supervised teaching in a middle school or senior high school. Prerequisites: Appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program. (S)

TSL 3080 ESOL Principles and Practices I – *GL* (3). Introduces issues, principles and practices of TESOL to develop cultural underpinnings that form foundation necessary to meet needs of linguistically diverse students. Prerequisite: Completion of block I. For all elementary, early childhood, special education, and English education majors.

TSL 4081 ESOL Issues: Principles and Practices II – *GL* (3). Provides understandings, skills, and dispositions needed to select, evaluate, and apply TESOL strategies in elementary classrooms. Prerequisites: Students must be program admitted into a School of Education Initial Teacher Education Program prior to registering for this course, TSL 3080. For all elementary, early childhood, special education, and English education majors.

TSL 4140 Curriculum and Materials Development in ESOL (3). Applications of ESOL theories, principles, and current research in the development of curriculum and materials; required for area of concentration in TESOL and for the Florida Add-on ESOL Endorsement. (S)

TSL 4324 ESOL Issues and Strategies for Content Area Teachers – *GL* (3). Analysis, application and adaptation of ESOL methods and materials to enhance instruction for linguistically and culturally diverse students. Fulfills META requirements.

TSL 4340 ESOL Methods for Grades K-12 – *GL* (3). Development of instructional skills, techniques, and strategies for teaching English to non-native speakers in grades K-12. Prerequisite: Students must be admitted into a School of Education Initial Teacher Education Program prior to registering for this course. (F,S)

TSL 4441 Testing and Evaluation in ESOL (3). Develops the knowledge necessary to select, adapt and design assessment instructions and testing techniques appropriate for language minority students in the ESOL classroom.

School of Environment, Arts, and Society (SEAS)

The School of Environment, Arts and Society (SEAS) was launched in the Spring of 2010 in response to the growing need for innovative thinkers and leaders to address the complex environmental and societal challenges of the 21th century. SEAS supports the broad traditional disciplinary work within each of its departments while facilitating interdisciplinary approaches to understand the drivers of these pressing challenges, identify solutions, educate current and future leaders, and inform the public.

As an integral part of the College of Arts, Sciences and Education, SEAS unites faculty and students in the natural and social sciences with those in the humanities. SEAS links environmental thinking and action at every level and provides Worlds Ahead research and education at the BA, MS, and PhD levels in the Departments of Biology, Earth and Environment, and English.

Drawing on Miami's unique coastal, inter-American and cosmopolitan locale, SEAS students and faculty are at the forefront of environmental research and are working to ensure a sustainable future for Florida, the country, and the world. To further its global mission SEAS houses a number of premiere centers and programs including the Institute of Water and Environment, the Tropical Conservation Institute, the International Center for Tropical Botany, the Marine Sciences Program, the Creative Writing Program, the Center for the Humanities in an Urban Environment, and the Agroecology Program.

Biological Sciences

Steven F. Oberbauer, *Professor and Chairperson*
Christopher Baraloto, *Associate Professor and Director, ICTB, FIU Tropics*
M. Alejandro Barbieri, *Professor*
Ana Paula Benaduce, *Instructor*
Bradley C. Bennett, *Professor*
Kevin Boswell, *Associate Professor*
Heather D. Bracken-Grissom, *Associate Professor*
Lisa Brinn, *University Instructor*
Richard P. Brinn, *University Lecturer*
Justin E. Campbell, *Assistant Professor*
Alessandro Catenazzi, *Assistant Professor*
Demian Chapman, *Associate Professor*
Ligia Collado-Vides, *Senior Lecturer*
Laurel S. Collins, *Professor*
Timothy M. Collins, *Professor and Graduate Program Director*
John Cozza, *Senior Instructor*
Todd Crowl, *Professor and Director, Institute of Water & Environment*
Matthew DeGennaro, *Assistant Professor*
Maureen A. Donnelly, *Professor and Associate Dean for Graduate Studies, Colleges of Arts, Sciences and Education*
Sarah Eddy, *Assistant Professor*
Jose Maria Eirin-Lopez, *Associate Professor*
Sian Evans, *Instructor*
James W. Fourqurean, *Professor and Director, CCOR*
Javier Francisco-Ortega, *Professor*
Evelyn E. Gaiser, *Professor and George M. Barley Jr. Endowed Chair of Everglades Research*
Miroslav Gantar, *Senior Instructor*
Sat Gavassa, *Senior Instructor*
John Geiger, *Instructor*
Camila Granados-Cifuentes, *Instructor*
Alastair Harborne, *Assistant Professor*
Michael Heithaus, *Professor and Dean, College of Arts, Sciences and Education*
Lou Kim, *Associate Professor and Director of Undergraduate Studies*
John S. Kominoski, *Associate Professor*
Suzanne Koptur, *Professor*
Lidia Kos, *Professor and Associate Dean, University Graduate School and Associate Vice President, Research and Economic Development*
Marcy Kravec, *Senior Lecturer and Associate Chairperson*
Jun Li, *Associate Professor*
Jessica Liberles, *Assistant Professor*
Sparkle Malone, *Assistant Professor*
Jaime Mayoral, *Instructor Laboratory Coordinator*
Melissa McCartney, *Assistant Professor*
DeEtta K. Mills, *Associate Professor and Director, IFRI*
Fernando G. Noriega, *Professor*
Yannis Papastamatiou, *Assistant Professor*
Thomas R. Pitzer, *University Lecturer Laboratory Coordinator*
Jennifer H. Richards, *Professor*
Mauricio Rodriguez-Lanetty, *Associate Professor*
Diego Salazar, *Assistant Professor*
Helena Schmidtmayerova, *Senior Instructor*
Laura Serbus, *Assistant Professor*
Paul R. Sharp, *Senior Instructor*
Philip K. Stoddard, *Professor*
Jamie Theobald, *Associate Professor*
Joel C. Trexler, *Professor and Marine Sciences Program Director*
Tiffany Troxler, *Associate Director, SLSC*
Maureen Walter, *University Lecturer*
Jeffrey D. Wells, *Associate Professor*
Yuying Zhang, *Associate Professor*

Bachelor of Arts in Biological Sciences

Degree Program Hours: 120

Courses Required for the Degree
Lower Division Program

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
BSC 2010, BSC 2010L	BSCX010/X010L or BSCX010C or BSCX040/X040L or PCBX011C
BSC 2011, BSC 2011L	BSCX011/X011L or BSCX011C or BSCX041/X041L or
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX045C or CHMX040 and CHMX041
CHM 1046, CHM 1046L	CHMX046/X046L or CHMX046C
PHY 2053	PHYX053
MAC 1147 or MAC 1140, MAC 1114	MACX147 or MACX114, MACX140
STA 2122	STAX023 or STAX024 or STAX321** or STA 3193 or MAC X234

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**. Search Program Listing by Alphabetic Order.

Required Courses
Courses Required for the Degree:

BSC 1005	Essentials of Biology: The Big Picture	3
BCH 2020	Foundations of Biochemistry	3
BSC 2300	Biological Organization: The Size and Scale of Life	3

OTHER DEGREE REQUIREMENTS: 60 credits

Upper Division Core Requirements – 10 credits

PCB 3043	Ecology	3
PCB 3063	Genetics	3
PCB 4674	Evolution	3
BSC 4931	Senior Seminar	1

Upper Division Biology Electives – 21 credits

Students must complete 7 lecture courses from the acceptable Upper Division Biology Electives maintained by the Biology Department. One lecture course must be chosen in each of the following areas:

A. Ecology
B. Organismal Diversity
C. Physiology/Biochemistry
D. Structure/Development

The remaining 4 lecture courses may be chosen at the student's discretion from courses in any of the distribution areas (the distribution area is designated by the letter in brackets after the course description). The following courses are not allowed as Biology Electives: Essentials of Biology: The Big Picture (BSC 1005), Foundations of Biochemistry (BCH 2020), Biological Organization: The Size and Scale of Life (BSC 2300), Student Research Labs (BSC 3915, 4914, and 6916); Workshop Biology Labs (BSC 5928, PCB 5238, BSC 6926, etc.); Cooperative Education credits (BSC 3949); Biology of Women (BSC 3027); Research Methods in Biological Sciences (BSC 3910); and courses for non-science majors (BOT 1010, PCB 2061, PCB 2099, MCB 2000, BSC 2023, EVR 3013, OCB 2003, and OCE 3014).

Biology Laboratory Requirements – 3 credits

3 Upper Division Labs

Track Specific Courses – 18 credits

Six courses in the specified track must be completed.

Allied Health Profession Track

ANT 3462	Medical Anthropology	3
ANT4480	Anthropological Approaches to Global Health	3
APK 3110	Exercise Physiology	3
CLP 4146	Abnormal Psychology	3
DEP 2000	Human Growth and Development: Introductory Developmental Psychology	3
ECO 4504	Intro to Public Finance	3
HIS 4492	History of U.S. Health Policy	3
PAD 3034	Policy Development and Implementation	3
PCB 3703	Human Physiology I	3
PCB 3703L	Human Physiology I Lab	1
POS 3424	The Legislative Process	3
HSC 3537	Medical Terminology	3
HSC 3549	Clinical Physiology for Health Professionals	3
HSC 4553	Fundamentals of Pathology	3
HUN 2202	Principles of Nutrition	3
PET 3310	Kinesiology	3
PSY 2012	Introductory Psychology	3
ZOO 3731	Human Anatomy	3
ZOO 3731L	Human Anatomy Demonstration	1

Health Policy, Environmental Policy and Pre-Law Track

AMH 3630	Environmental History of the United States	3
CJL 3512	The Courts	3
CJL 4064	Criminal Justice and the Constitution	3
COM 4462	Conflict Management	3
ECP 3302	Introduction to Environmental Economics	3
ENC 3311	Advanced Writing and Research	3
ENC 3354	Writing as Social Action	3
ENC 3371	Rhetorical Theory and Practice	3
ENC 4331	Writing, Rhetoric, and Community	3
ENC 4930	Special Topics in Composition	3
GEO 4354	Geography of the Global Food System	3
INR 4350	International Environmental Politics (IP)	3
PAD 3034	Policy Development and Implementation - GL	3
PHI 2100	Introduction to Logic	3
PHI 2103	Critical Thinking	3
PHI 4130	Symbolic Logic	3
POS 3283	The Judicial Process	3
POS 3603	Constitutional Law: Powers	3
POS 3604	Constitutional Law: Limitations	3
POS 4784	Analytic Writing in Political Science	3
REL 3492	Earth Ethics	3
SPC 3230	Rhetorical Communication: A Theory of Civil Discourse	3
SPC 3540	Persuasion	3

Science Communication Track

COM 3110	Business and Professional Communication	3
ENC 3213	Professional and Technical Writing	3
ENC 3311	Advanced Writing and Research	3
ENC 3363	Writing About the Environment	3
ENC 3416	Writing and New Media	3
ENC 4241	Scientific Writing	3
ENC 4260	Advanced Professional Writing	3
ENC 4357	How To Go Public	3
IDS 3309	How We Know What We Know – *GL*	3
MMC 3121	Writing Fundamentals for Communicators	3
MMC 3650	Media and Sustainability	3
MMC 4936	Special Topics	3
JOU 3314	Environmental Journalism: Communicating Environmental Issues in South Florida	3

Bioentrepreneur Track

ACG 3024	Introduction to Accounting for Managers and Investors (AC)	3
FIN 3005	Introduction to Business Finance	3
ISM 3012	Introduction to Decision and Information Systems (IS)	3
MAN 3022	Introduction to Management	3
MAR 3024	Marketing Fundamentals (ME)	3

Choose one of the following:

COM 3110	Business and Professional Communication	3
HAS 3111	Introduction to Health Services Systems	3

General Electives – 8 credits

Eight additional credits must be completed.
(Students transferring with 60 or more credits, including those who have completed an Associate of Arts degree, will take BCH 2XXX and BSC 2300 as part of the elective credits, and will be exempt from the BSC 1005 requirement.)

Bachelor of Science in Biological Sciences

Degree Program Hours: 120

Courses Required for the Degree
Lower Division Program

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
BSC 2010, BSC 2010L	BSCX010/X010L or BSCX010C or BSCX040/X040L or PCBX011C
BSC 2011, BSC 2011L	BSCX011/X011L or BSCX011C or BSCX041/X041L or
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX045C or CHMX040 and CHMX041
CHM 1046, CHM 1046L	CHMX046/X046L or CHMX046C
CHM 2210, CHM 2210L	CHMX210/X210L or CHMX210C
CHM 2211, CHM 2211L	CHMX211/X211L or CHMX211C
PHY 2048, PHY 2048L	PHYX048/X048L or PHY053/X053L
PHY 2049, PHY 2049L	PHYX049/X049L or PHY054/X054L
MAC 2311	MACX311 or MACX233* or MACX253 or MACX281 or MACX241
MAC 2312 or	MACX312 or MACX282 or MACX234
STA 2122 and STA 3123	STAX023 or STAX024 or STAX321**

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**. Search Program Listing by Alphabetic Order.

Common Prerequisites

A grade of "C" or better required

BSC 2010	**General Biology I**
BSC 2010L	**General Biology I Lab**
BSC 2011	**General Biology II**
BSC 2011L	**General Biology II Lab**
CHM 1045	**General Chemistry I**
CHM 1045L	**General Chemistry I Lab**
CHM 1046	**General Chemistry II**
CHM 1046L	**General Chemistry II Lab**
CHM 2210	**Organic Chemistry I[1]**
CHM 2210L	**Organic Chemistry I Lab[1]**
CHM 2211	**Organic Chemistry II[1]**
CHM 2211L	**Organic Chemistry II Lab[1]**
PHY 2048	**Physics with Calculus I[1,2]**
PHY 2048L	**General Physics Lab I[1,2]**
PHY 2049	**Physics with Calculus II[1,2]**
PHY 2049L	**General Physics Lab II[1,2]**
MAC 2311	**Calculus I[3]**
MAC 2312	**Calculus II[3]**
OR	
STA 2122	**Stats for Behav Scien I[3]**
STA 3123	**Stats for Behav Scien II[3]**

[1]Organic chemistry sequence or physics sequence must be taken at the Lower Division.
[2]Physics without Calculus I and II and corresponding labs can be substituted (PHY 2053 and PHY 2054).
[3]Calculus I and Calculus II must be taken in the Lower Division. If Statistics I is taken, it must be taken in the Lower Division.
*FIU does not accept MAC 2233 (Calculus for Business) as a substitute for MAC 2311 (Calculus I).
**Calculus I and Statistics I alone are not sufficient to meet the requirements for the degree. STA 3111 and STA 3112 may be substituted for STA 2122 and STA 3123.

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Upper Division Program

Required Courses

1.	PCB 3043	Ecology	3
2.	PCB 3063	Genetics	3
3.	PCB 4023	Cell Biology	3
4.	PCB 4674	Evolution	3
5.	BSC 4931	Senior Seminar	1
6.	Distribution Requirement		12

One additional lecture course in each of the following areas:

A. Ecology
B. Organismal Diversity
C. Physiology/Biochemistry
D. Structure/Development

(If a course satisfies the distribution requirement, the letter of the area that it satisfies is in brackets after the course description).

7. Biology Electives[1] 2 lecture courses 6
8. Laboratory Requirement[2] (Four Labs, regardless of credits per lab) 4
9. Electives outside major 9
10. A minimum of 48 credits must be earned in Upper Division courses.

[1]Two upper division lecture courses (3000-level and above) to be chosen in consultation with a faculty advisor. The following courses are not allowed as Biology Electives: Essentials of Biology: The Big Picture (BSC 1005), Foundations of Biochemistry (BCH 2020), Biological Organization: The Size and Scale of Life (BSC 2300), Student Research Labs (BSC 3915, 4914, and 6916); Workshop Biology Labs (BSC 5928, PCB 5238, BSC 6926, etc.); Cooperative Education credits (BSC 3949); Biology of Women (BSC 3027); Research Methods in Biological Sciences (BSC 3910); and courses for non-science majors (BOT 1010, PCB 2061, PCB 2099, MCB 2000, BSC 2023, EVR 3013, OCB 2003, and OCE 3014).

[2]Laboratory requirement is met with any four upper division Biology labs offered with the required course or courses that meet the distribution or Biology elective requirements.

Students interested in teacher certification should contact the School of Education at (305) 348-2768.

Bachelor of Science in Biological Sciences: Quantifying Biology in the Classroom (QBIC) Track

Degree Program Hours: 120

Courses Required for the Degree
Lower Division Program

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
BSC 2010, BSC 2010L	BSCX010/X010L or BSCX010C or BSCX040/X040L or PCBX011C
BSC 2011, BSC 2011L	BSCX011/X011L or BSCX011C or BSCX041/X041L or
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX045C or CHMX040 and CHMX041
CHM 1046, CHM 1046L	CHMX046/X046L or CHMX046C
CHM 2210, CHM 2210L	CHMX210/X210L or CHMX210C
CHM 2211, CHM 2211L	CHMX211/X211L or CHMX211C
PHY 2048, PHY 2048L	PHYX048/X048L or PHY053/X053L
PHY 2049, PHY 2049L	PHYX049/X049L or PHY054/X054L
MAC 2311	MACX311 or MACX233 or MACX253 or MACX081 or MACX241
MAC 2312 or STA 2122 and STA 3123	MACX312 or MACX282 or MACX234 or STAX023 or STAX024 or STAX321

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

A grade of "C" or better required

BSC 2010	**General Biology I**
BSC 2010L	**General Biology I Lab**
BSC 2011	**General Biology II**
BSC 2011L	**General Biology II Lab**
CHM 1045	**General Chemistry I**
CHM 1045L	**General Chemistry I Lab**
CHM 1046	**General Chemistry II**
CHM 1046L	**General Chemistry II Lab**
CHM 2210	**Organic Chemistry I[1]**
CHM 2210L	**Organic Chemistry I Lab[1]**
CHM 2211	**Organic Chemistry II[1]**
CHM 2211L	**Organic Chemistry II Lab[1]**
PHY 2048	**Physics with Calculus I[1]**
PHY 2048L	**General Physics Lab I[1]**
PHY 2049	**Physics with Calculus II[1]**
PHY 2049L	**General Physics Lab II[1]**
MAC 2311	**Calculus I**
MAC 2312	**Calculus II**

[1]Organic chemistry sequence or physics sequence must be taken at the Lower Division.

QBIC Prerequisites

BSC 2921	**QBIC Journal Club I**	**1**
BSC 2922	**QBIC Journal Club II**	**1**
STA 3193	**Statistics for Biology I[2]**	**3**
STA 3194	**Statistics for Biology II[2]**	**3**

[2]Statistics I and II are upper division but taken during the Sophomore Year and coordinated with Ecology and Genetics labs.

For consideration for QBIC track admission entering freshman must have >3.3 GPA (unweighted), >1750 SAT with MATH >600, have completed Precalculus Math (or Algebra and Trigonometry) and have an interest in pursuing graduate studies (MD, DVM, DDS, PhD, MD/PhD). Transfer and continuing FIU students can apply on a space available basis if they have maintained >3.3 GPA in college-level work and have completed Calculus I with a grade above 'B-'. QBIC students are required to maintain cumulative GPA above 3.0.

Upper Division Program

Required Courses

1.	PCB 3043	Ecology	3
2.	PCB 3063	Genetics	3
3.	PCB 4023	Cell Biology	3
4.	PCB 4674	Evolution	3
5.	BSC 4927	QBIC Science Café	1
6.	Distribution Requirement[1]		12

One additional lecture course in each of the following areas:

A. Ecology
B. Organismal Diversity
C. Physiology/Biochemistry
D. Structure/Development
(If a course satisfies the distribution requirement, the letter of the area that it satisfies is in brackets after the course description).

7. QBIC Required Corequisites

BSC 3923	QBIC Ecology Journal Club[1]	1
BSC 3924	QBIC Genetics Journal Club[1]	1
BSC 4925	QBIC Cell Biology Journal Club[1]	1
BSC 4926	QBIC Evolution Journal Club[1]	1

8. Biology Electives[1] 1 lecture courses 3

9. Laboratory Requirement[2]
(QBIC sections of PCB 3043L, PCB 3063L, PCB 4023L, and another lab accompanying an upper division lecture elective of choice) 4

10. Electives outside major 9
(Modeling+Simulation and Higher Math courses are recommended)

11. A minimum of 48 credits must be earned in Upper Division courses.

[1]Lecture courses (3000-level and above) to be chosen in consultation with a faculty advisor. Journal Club courses count as one elective and are corequisites to PCB 3043, PCB 3063, PCB 4023 and PCB 4674. The following courses are not allowed as Biology Electives: Essentials of Biology: The Big Picture (BSC 1005), Foundations of Biochemistry (BCH 2020), Biological Organization: The Size and Scale of Life (BSC 2300), Student Research Labs (BSC 3915, 4914, and 6916); Workshop Biology Labs (BSC 5928, PCB 5238, BSC 6926, etc.); Cooperative Education credits (BSC 3949); Biology of Women (BSC 3027); Research Methods in Biological Sciences (BSC 3910); and courses for non-science majors (BOT 1010, PCB 2061, PCB 2099, MCB 2000, EVR 3013, OCB 2003, and OCE 3014).
[2]Laboratory requirement is met with any four upper division Biology labs offered with the required courses, courses that meet the distribution or Biology elective requirements.

Special Programs

Bachelor of Science in Marine Biology

Admission to the Program

Students wishing to pursue the BS in Marine Biology must meet the same entry requirements as identified for admission to the BS in Biological Sciences.

Marine Biology Program activities and upper-division coursework will be concentrated at the Biscayne Bay Campus, although some course requirements may be met elsewhere at FIU.

Continuity in academic advisement is an objective in this specialized degree program. Students in the BS Marine Biology Program will be advised by a dedicated Marine Biology Advising Office. Faculty in Biological Sciences, including Marine Biology faculty, also are available to provide academic and career advice for students in the Marine Biology Program.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
BSC 2010, BSC 2010L	BSCX010/X010L or BSCX010C or BSCX040/X040L or PCBX011C
BSC 2011, BSC 2011L	BSCX011/X011L or BSCX011C or BSCX041/X041L or
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX045C or CHMX040 and CHMX041
CHM 1046, CHM 1046L	CHMX046/X046L or CHMX046C
CHM 2210, CHM 2210L	CHMX210/X210L or CHMX210C[1]
CHM 2211, CHM 2211L	CHMX211/X211L or CHMX211C1
PHY 2048, PHY 2048L	PHYX048/X048L or PHY053/X053L
PHY 2049, PHY 2049L	PHYX049/X049L or PHY054/X054L
MAC 2311	MACX311 or MACX233 or MACX253 or MACX081 or MACX241
MAC 2312 or STA 2122 and STA 3123	MACX312 or MACX282 or MACX234 or STAX023 or STAX024 or STAX321**

Courses Required for the Degree Lower Division Program

The lower Division component of the Marine Biology Bachelor of Science is similar to that of the BS in Biological Sciences, in which common prerequisites in Biological Sciences, Chemistry[1], Physics, Calculus, and Statistics must be met. All requirements for completion of the lower division in Biological Sciences apply to the BS in Marine Biology, including the grade of "C" or better in required courses, the lower division physics, calculus, and statistics requirements, options, and acceptable substitutions.

[1] Organic chemistry sequence may be fulfilled by taking CHM 2210, CHM 2210L (lecture **and** lab) **and** CHM 2211, CHM 2211L (lecture **and** lab)
or
CHM 2200, CHM 2200L (Survey of Organic Chemistry lecture **and** lab) **and**
CHM3120, CHM3120L (Introduction to Analytical Chemistry lecture **and** lab) **and**
CHS 4600 Marine Chemistry

Other Degree Requirements

All freshman and first-year transfer students entering the Marine Biology major are required to complete a one-semester course introducing the degree program[2]

[2]OCB 1930 Marine Biology at FIU

Upper Division Program

The upper-division requirements for the BS in Marine Biology include a selection of six common requirements, one required laboratory, and a choice of four marine electives, including selections from among the physical sciences. The Marine Biology Distribution Requirement provides for disciplinary breadth in Marine Biology electives.

Common Requirements

PCB 3043	Ecology	3
PCB 3063	Genetics	3
PCB 4674	Evolution	3
OCB 3043	Marine Biology and Oceanography	3
OCB 3043L	Marine Biology and Oceanography Lab	1
OCP 3002	Physical Oceanography	3
BSC 4931	Senior Seminar	1

Upper-Division Electives

Students are required to choose at least 15 credits spread among the following four areas. At least 1 class per area (A,B,C,D) needs to be taken plus one additional class from any of the four categories for a total of 15 credits. Requirement (A): Biology and Physiology of Marine Organisms; Requirement (B): Marine Ecology and Conservation Biology; Requirement (C): Field Marine

Biology Experience; Requirement (D): Marine Molecular Biology:

(A) Biology and Physiology of Marine Organisms
1. Invertebrate Zoology ZOO 3250C (4)
2. Marine Botany BOT 4402C (4); Phycology BOT 4404 (3)
3. Biology of Marine Mammals OCB 4303 (3)
4. Marine Microbial Ecology OCB 4632 (3)
5. Fish Biology ZOO 4454 (3)
6. Animal Physiology PCB 4723 (3) or Comparative Physiology PCB 4724 (3) or Physiological and Behavioral Ecology of Marine Animals PCB 4776 (3)

(B) Marine Ecology and Conservation Biology
1. Coastal Marine Conservation OCB 4070 (3)
2. Coral Reef Biology OCB 3264
3. Marine Community Ecology OCB 4633 (3)
4. Fisheries Science OCB 4711 (3)
5. Marine Protected Areas PCB 4467C (4)

(C) Field Marine Biology Experience
1. Field Methods in Marine Ecology OCB 4104C (4)
2. Biological Oceanography at Sea I or II OCB 4004 (3) or OCB 4005C (4)
3. Scientific Diving BSC 4437C* (3) (*does not count as a lab).
4. Student Research Lab I BSC 3915 (3) Independent study with a Marine Biology faculty member, requires permission of Marine Biology Director
5. Honors Research Lab BSC 4970 (3), requires permission of Marine Biology Director

(A) Marine Molecular Biology
1. Cell Biology PCB 4023 (3)
2. Molecular Biology PCB 4524 (3)
3. Bioinformatics for Biologists BSC 4434 (3)
4. Immunology PCB 4233 (3)
5. Population Genetics PCB 4553 (3)

Laboratory Requirement

The student is required to take OCB 3043L Marine Biology and Oceanography Lab, plus 3 laboratories of upper division required or elective courses.

Bachelor of Science with Honors in Biology or Marine Biology

Admission to the Program

1. Permission of the department. Application should be made by letter to the Honors Committee from the applicant after completion of two semesters at the University and prior to two semesters before graduation. The letter should state the intended research problem and be countersigned by the Thesis Committee (advisor and mentor).
2. A minimum GPA of 3.5 in biology, chemistry, physics, geology, and mathematics courses.

Graduation Requirements

1. A minimum GPA of 3.5 in biology, chemistry, physics, geology, and mathematics courses.
2. Completion of the BS requirements in Biology or Marine Biology, and Honors Research Lab (BSC 4915L, 1 to 3 credits, and Honors Thesis (BSC 4970, 3 credits).
3. Completion of Honors research in collaboration with a two-person Honors Committee, consisting of the honors advisor and one other member. The honors advisor must be a tenured or tenure-earning member of the department. The research results must be written in the form of an honors thesis and approved by the Honors Committee.
4. Deposit two completed approved copies of the Honors Thesis with the Department's Office: one copy to be kept in the department and the other to be deposited in the Library.
5. Presentation of the results of the Honors Research in a departmental seminar.

Bachelor of Science in Biological Sciences: Biology Education Major (FIUteach)

This program prepares students interested in biology careers and certification to teach biology. Additional science and/or mathematic certifications at the secondary level may be added (below). Students are encouraged to contact the FIUteach program (**FIUteach.fiu.edu**) for opportunities to try out teaching at no cost. Interested students are encouraged to contact the department, the FIUteach program, or the secondary science advisor for additional details and certification requirements.

Additional coursework in science and/or mathematics is required to prepare for certification in additional subject areas. Students must contact the FIUteach program or the secondary science advisor for details and requirements.

Admission to the Program

To qualify for admission to the program, undergraduate candidates must have met all of the lower division requirements including: 60 credit hours of lower-division courses, all general education requirements, lower division GPA of 2.5 higher, and achieve the competencies of the FTCE General Knowledge Exam (GK). All students must pass the GK Exam by the time they reach 72 credit hours in their program of study. 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.

Lower Division Requirements

Common Prerequisites

A grade of "C" or better required

BSC 2010	**General Biology I**
BSC 2010L	**General Biology I Lab**
BSC 2011	**General Biology II**
BSC 2011L	**General Biology II Lab**
CHM 1045	**General Chemistry I**
CHM 1045L	**General Chemistry I Lab**

CHM 1046	**General Chemistry II**
CHM 1046L	**General Chemistry II Lab**
CHM 2210	**Organic Chemistry I[1]**
CHM 2210L	**Organic Chemistry I Lab[1]**
CHM 2211	**Organic Chemistry II[1]**
CHM 2211L	**Organic Chemistry II Lab[1]**
PHY 2048	**Physics with Calculus I[1,2]**
PHY 2048L	**General Physics Lab I[1,2]**
PHY 2049	**Physics with Calculus II[1,2]**
PHY 2049L	**General Physics Lab II[1,2]**

MAC 2311	**Calculus I[3]**
MAC 2312	**Calculus II[3]**
	OR
STA 2122	**Stats for Behav Scien I[3]**
STA 3123	**Stats for Behav Scien II[3]**

[1]Organic Chemistry sequence or Physics sequence must be taken at the Lower Division.
[2]Physics without Calculus I and II (PHY 2053 and PHY 2054) can be substituted Physics with Calculus I and II.
[3]Calculus I and II must be taken at the lower division. If Statistics I is taken it must be taken at the lower division. Both Statistics I and II are required to replace Calculus II only. STA 3111 and STA 3112 may be substituted for STA 2122 and STA 3123.

Additional Lower Division Courses: (2 credits)

SMT 2661	Step 1: Inquiry Approaches to Teaching Mathematics and Science	1
SMT 2662	Step 2: Inquiry-Based Lesson Design in Mathematics and Science	1
	or	
SMT 2044	Combined STEP 1 & 2: Inquiry-Based Approaches and Lesson Design for Teaching Mathematics and Science	2

Upper Division Biology Education Program

Required Courses

PCB 3043	Ecology	3
PCB 3063	Genetics	3
PCB 4023	Cell Biology	3
PCB 4674	Evolution	3
BSC 4931	Senior Seminar	1

Biology Education Upper Division Electives

Select one course each of the following areas:

A.	Ecology	3
B.	Organismal Diversity	3
C.	Physiology/Biochemistry	3
D.	Structure/Development	3

(If a course satisfies the distribution requirement, the letter of the area it satisfies is in brackets after the course description)

Biology Laboratory Requirement

One Upper Division Lab		1

Education Requirements

BSC 3910	Research Methods in Biological Sciences	3
SMT 3100	Knowing and Learning in Mathematics and Science	3
SMT 4301	Classroom Interactions in Mathematics and Science Teaching	3
SMT 4664	Problem-Based Instruction (PBI) in Mathematics and Science	3
SCE 4194	Perspectives in Science and Math Education – *GL*	3
SCE 4944	Student Teaching	6
RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Strategies for Content Area Teachers – *GL*	3

Minor in Biology

Required Courses

BSC 2010 and BSC 2011 with labs, and one upper division course (3000-level or above) in three of the following areas: A. Ecology, B. Organismal Diversity, C. Physiology/Biochemistry, or D. Structure/Development.

One of these elective courses must be at the 4000-level or higher and one must include a lab. Total upper division biology credits must number 10 or more. Grades of 'C' or better are required for all courses and labs. The following courses do not count as electives: Student Research Labs (BSC 3915, 4914, and 6916), Workshop Biology Labs (BSC 5928, PCB 5238, BSC 6926, etc.); Cooperative Education credits (BSC 3949), and any course for non-science majors (e.g., BOT 1010, PCB 2061, PCB 2099, MCB 2000, BSC 2023, EVR 3013, OCB 2003, and OCE 3014).

Minor in Marine Biology

Required Courses

Students must complete, with a grade of "C" or better, BSC 2010 and BSC 2011 with labs, OCB 3043 Marine Biology and Oceanography and OCB 3043L, and at least two courses from among the selection of upper-division Marine Electives that meet the BS in Marine Biology requirement.

Pre-Medical, Dental, Optometry, and Veterinary Curricula

Students who have fulfilled the requirements for the BS in Biology will also have satisfied the course requirements for admission to the above mentioned professional schools. Some professional schools may have additional course requirements. Interested students should consult the Pre-Medical Advisor for arranging a curriculum to enhance their potential to gain admission.

Course Descriptions

Note: Laboratories should be taken concurrently with or subsequent to lectures. Students should register for each separately.

Definition of Prefixes

BCH - Biochemistry; BOT - Botany; BSC - Biological Science; ENY - Entomology; IDS-Interdisciplinary Studies; MCB - Microbiology; OCB - Oceanography (Biological); PCB - Process Biology; SCE - Science Education; ZOO – Zoology

Courses that meet the University's Global Learning requirement are identified as GL.

BCH 2020 Foundations of Biochemistry (3). An introduction to the fundamentals of biochemistry which explores the interactions of macromolecules in cells and their environment, and the metabolic pathways that govern life. Prerequisites: BSC 2010, CHM 1045

BCH 3033 General Biochemistry (3). BCH 3033L Biochemistry Lab (1). Chemistry of proteins, lipids, carbohydrates, and nucleic acids; principles of enzymology, metabolism, and bioenergetics. Prerequisites (Lecture): CHM 2211 and BSC 2010. Prerequisite or Corequisite: BCH 3033 [C]

BCH 5040 Introduction to Biochemical Research (3). Analysis of biochemical data and experimental design. Prerequisite: Graduate standing.

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 research. Prerequisites: BCH 3033 and BCH 3033L, PCB 4524 and PCB 4524L or graduate status.

BOT 1010 Introductory Botany (3). BOT 1010L Introductory Botany Lab (1). A history of mankind's study and use of plants, and a survey of plants of economic importance. Includes lab. No science prerequisite. (Lab fees assessed)

BOT 3014 Plant Life Histories (3). BOT 3014L Plant Life Histories Laboratory (1). Plant form, function, and reproduction: the lives of algae, fungi, bryophytes, ferns, gymnosperms, and flowering plants. This course is designed for majors and certificate students. Prerequisite (Lecture): BSC 2011. Prerequisite or Corequisite: (lab) BOT 3014 [B]

BOT 3154 Local Flora (3). BOT 3154L Local Flora Lab (1). Introduction to the taxonomy and ecology of common native, cultivated, and exotic plant species in southern Florida. Laboratory observation of the gross features of vascular plants and practice in the use of keys for identification. Basic ecology of principal plant communities of Southern Florida. Field trips. Prerequisites (Lecture): BOT 1010 or BSC 2011. Corequisite (Lab): BOT 3154 Concurrent registration in lecture and lab courses. [B]

BOT 3353 Morphology of Vascular Plants (3). BOT 3353L Morphology of Vascular Plants Lab (1). Origin and evolution of plants, especially vascular plants of tropical origin. Analysis of vascular plant anatomy and morphology, emphasizing the underlying principles of plant construction. Prerequisites (Lecture): A course in General Biology or permission of the instructor. Prerequisite or Corequisite (Lab): BOT 3353. [D]

BOT 3434 Mycology (3). BOT 3434L Mycology Lab (1). An introduction to the taxonomy, genetics, and physiology of fungi with special emphasis on commercially important fungi and plant and animal pathogenic fungi. Prerequisites (Lecture): BSC 2010, BSC 2011. Prerequisites or Corequisite: BOT 3434 [B]

BOT 3663 Tropical Botany (3). BOT 3663L Tropical Botany Lab (1). How environmental factors affect the distribution of vegetation, and the morphology and physiology of plants in the tropics. Emphasis on tropical plants of economic importance. Prerequisites (Lecture): BSC 2011 or equivalent. Prerequisites or Corequisites: BOT 3663. [B]

BOT 3810 Economic Botany (3). The origins, domestication and uses of economically important plants. Prerequisites: BSC 2011 or BOT 1010. [B]

BOT 4401 Plant Conservation Biology (3). Overview of the causes and consequences of local and global-scale human disturbances on plant diversity, including evaluation of strategies to mitigate these impacts. Prerequisite: PCB 3043. [A]

BOT 4402C Marine Botany (3-4). Introduction to the taxonomy, biology of seaweeds, seagrass and mangroves, including species identification in the field and lab. Prerequisites: BSC 2011 or equivalent. [B]

BOT 4404 Phycology (3). BOT 4404L Phycology Lab (1). The biology of marine and freshwater algae, with an emphasis on structure, function, reproduction, classification, and ecology. Prerequisites (Lecture): BSC 2010, BSC 2011. Prerequisites or Corequisites: BOT 4404. [B]

BOT 4503 Plant Physiology (3). Plant growth and metabolism in relationship to environment. Photobiology, nutrient relations, transport, and hormones in relation to plant development and function. Prerequisites: BSC 2010, BSC 2010L, BSC 2011, CHM 2210. [C]

BOT 4503L Plant Physiology Lab (1). Plant growth and metabolism in relationship to environment. Photobiology, nutrient relations, transport, and hormones in relation to plant development and function. Prerequisite or Corequisite: BOT 4503. [C]

BOT 4601 General Plant Ecology – *GL* (3). BOT 4601L General Plant Ecology Lab (1). An examination of the ecology of plants at the individual, population, and community levels. Prerequisites (Lecture): PCB 3043 or permission of the instructor. Prerequisite or Corequisite: BOT 4601. [A]

BOT 4684 Taxonomy of Tropical Plants (3). BOT 4684L Taxonomy of Tropical Plants Lab (1). Introduction to higher plant taxonomy, including nomenclature, modern systems of angiosperm classification, and angiosperm evolution. Emphasis on identification of tropical plant families and plants of economic importance. Prerequisites (Lecture): BOT 3154 or BOT 3663 or permission of the instructor. Prerequisites or Corequisites (Lab): BOT 4684. [B]

BOT 5186C Advanced Marine Botany (3-4). Study of the taxonomy, biology, and ecology of seaweeds, seagrasses, and mangroves including a student research project. Prerequisites: BSC 2011 or equivalent.

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: PCB 3043 or permission of the instructor.

BOT 5304C Workshop in Plant Morphology (2). Techniques to analyze plant form and experience with the diversity plant morphology; field work using the collections at Fairchild Tropical Gardens. Prerequisites: 2 botany courses or permission of the instructor.

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. Prerequisites: BCH 3033 or CHM 4304. [C]

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. [C]

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. [A]

BOT 5605 Plant Ecology (3). BOT 5605L Plant Ecology Lab (1). In-depth study of plant ecology at 3 levels: individual, population, and community. Laboratory and field exercises will examine lecture topics. Prerequisites: PCB 3043 or permission of the instructor. Corequisite: Concurrent registration in lecture and lab courses. [A]

BOT 5615 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 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. [A]

BOT 5648 Workshop on Aquatic Plants (1). Biology and identification of aquatic plants. Prerequisites: Graduate status or permission of the instructor.

BOT 5704 Botanical Terminology, Latin and Nomenclature (2). Course is divided into 3 parts: 1) Botanical Latin and its use; 2) Plant description terminology, and current descriptive standards; and 3) Botanical nomenclature, the ICBN, Phylocode, and others. Prerequisites: BOT 5725C or BSC 5606, or approval of the Advisor.

BOT 5725C 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 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: BSC 2010 and BSC 2011 and PCB 3063.

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 the instructor.

BOT 5728L 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 the 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: BOT 3810, BOT 3663, 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 5817 Field Ethnobotany (1-4). A 4-week field course that introduces students to tropical vegetation and its use by traditional cultures. Topics include tropical botany, diversity, ecology, and the relationship between plants and people. Course may be repeated. Prerequisites: BOT 5816 and BOT 5816L or permission of the instructor.

BOT 5852 Medical Botany (3). An examination of medicinal plants including the biology, chemistry, and pharmacology of botanical remedies, and their effects on human health. Prerequisites: BOT 3810 or BOT 5816 or permission of the instructor.

BOT 5924 Workshop in Tropical Plant Families (3). An introduction to important spermatophyte families, including systematics, ecology, and conservation. Prerequisite: Permission of the instructor. [B]

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: BOT 3154, BOT 3663, or permission of the instructor. [B]

BOT 5928 Workshop on Grasses and Sedges of Southern Florida (1). The systematics, ecology, and identification of South Florida grasses and sedges. Prerequisites: Graduate status or permission of the instructor.

BSC 1005 Essentials of Biology: The Big Picture (3). The class will explore the connections between the core concepts of biology and how they intertwine with economics, culture, history, human health and conservation.

BSC 2010 General Biology I (3). BSC 2010L General Biology I Lab (1). Biomolecules, cells, energy flow, genetics, and physiology. Science background or Biology major recommended. Concurrent registration in both lecture and laboratory is required. Prerequisite or Corequisite (Lab): BSC 2010. (Lab fees assessed)

BSC 2011 General Biology II (3). BSC 2011L General Biology Lab II (1). A survey of organismal biology with emphasis on botany and zoology. Science background or Biology major recommended. Concurrent registration in both lecture and laboratory is required. Prerequisite or Corequisite: BSC 2011L. (Lab fees assessed)

BSC 2023 Human Biology (3). BSC 2023L Human Biology Lab (1). Biological and general scientific principles governing human structure, function, health, and relationship to the planetary environment. For non-science majors. (Lab fees assessed)

BSC 2300 Biological Organization: The Size and Scale of Life (3). An introduction to the extraordinary range of size of cells and organisms, and the interactions of biomolecules that govern and constrain all life. Prerequisites :BSC2010 and CHM1045

BSC 2917 (1). CAChe Discovery 1: Research in Aquatic Ecosystems. Exploration of South Florida's aquatic ecosystems through hands-on research experiences and introduction to career opportunities in science.

BSC 2921 QBIC Journal Club I (1). Topics complement General Biology I Lecture (BSC 2010) and reinforce concepts QBIC students learn in that class through discussion of relevant scientific literature. Corequisite: BSC 2010.

BSC 2922 QBIC Journal Club II (1). Topics complement General Biology II Lecture (BSC 2011) and reinforces concepts QBIC students learn in that class through discussion of relevant scientific literature. Corequisite: BSC 2011.

BSC 3027 Biology of Women (3). Consideration of women's bodies: how they work, how they have been regarded over time, and how biology affects abilities, health, and self-esteem. Course does not count as a biology or marine biology major elective.

BSC 3364 Research in Tropical Ecosystems (3). Biology, Earth Sciences and Environmental Studies faculty describe research in marine and terrestrial ecosystems, geology, conservation and education. Students discuss scientific ideas. [A]

BSC 3392 Science Concept Mapping: Biological Sciences (1). An introduction to the process of concept mapping and its application to the Biological Sciences. Topics include those included in standardized exams such as the MCAT and DAT. Prerequisites: BSC 2010 and BSC 2011.

BSC 3400 Wildlife Conservation, Forensic and Crime Science (3). An interdisciplinary approach to wildlife conservation, critical aspects of conservation strategy as it relates to illegal trafficking and the role of forensics/crime science in its prevention. [B] Prerequisite: BSC2010, BSC2011

BSC 3812 Biology Teacher Examination Preparation (0). A review of the main principles in Biology and the scientific process. Prerequisites: BSC 2010, BSC 2011.

BSC 3905 Biological Sciences Research Internship (0-12). Supervised, practical experience in a professional, laboratory or field setting in which biologists may work. Department permission is required. May be repeated. Prerequisites: Permission from FIU faculty advisor is required.

BSC 3910 Research Methods in Biological Sciences (3). Experimental development and design for future biology teachers. Independent biological sciences experiments are designed, conducted and analyzed. Includes statistical analysis techniques. Prerequisite: SMT 2662.

BSC 3915, 4914 Student Research Lab I and II (1-12). Independent laboratory study in a project or projects of the student's choice. Registration by consultation with instructor. May be repeated for additional credit.

BSC 3923 QBIC Ecology Journal Club (1). A seminar styled course teaching QBIC students how to dissect and analyze complex analytically written scientific articles in Ecology (PCB 3043). Corequisite: PCB 3043.

BSC 3924 QBIC Genetics Journal Club (1). A seminar styled course teaching QBIC students how to dissect and analyze complex analytically written scientific articles in Genetics (PCB 3063). Corequisite: PCB 3063.

BSC 3930 CAChE Discovery 2: Professional Pathways in Aquatic and Environmental Science (1). Explores the options for students to pursue careers and graduate work in STEM fields, through professional development training in resume building and improved written and oral communication skills.

BSC 3941 Biological Sciences Research Internship (0-12). Supervised, practical experience in a professional, laboratory or field setting in which biologists may work. Department permission is required. May be repeated. Prerequisites: Permission from FIU faculty advisor is required.

BSC 3949 Cooperative Education in Biology (1-3). A student majoring in biological sciences may spend several terms employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Co-op Education and major department.

BSC 4205 Topics in Organismal Diversity (3). An intensive study of a topic or topics in organismal diversity not otherwise offered in the curriculum. Prerequisites: BSC 2010, BSC 2010L and BSC 2011, BSC 2011L. [B]

BSC 4303 Biogeography (3). Current issues concerning geographic distribution of plants and animals. Prerequisites: PCB 3043 and PCB 4674. [A]

BSC 4304 Environments of the Past (3). The biogeography, diversity and ecology of ancient life is combined with the study of sediments and stable isotopes to interpret environmental changes of the past at the local to global scale. [A]

BSC 4361 Biodiversity of Tropical Islands (3). Current issues on evolution, diversification and conservation of flora and fauna on tropical islands. Prerequisites: PCB 3063, PCB 3043, and PCB 4674. [A]

BSC 4363 Biodiversity in the Caribbean Basin (3). Current issues on evolution, conservation, and diversification of biota of the Caribbean Basin. Prerequisites: BSC 2010, BSC 2011. [A]

BSC 4401 Principles of Forensic Biology (3). Molecular techniques used in forensic biology and how they, along with genetics, are used to generate a DNA profile in order to aid the administration of justice. Prerequisite: BSC 2010. [D]

BSC 4401L Principles of Forensic Biology Lab (1). Forensic Biology Lab will introduce students to lab techniques and processes that are commonly encountered in Molecular or Forensic labs such as Chain of Custody, Serology and DNA Analysis Prerequisites:PCB3063 Corequisite:BSC4401 or permission of instructor [D].

BSC 4422 Biotechnology: Applications in Industry, Agriculture and Medicine (3). Biological, biochemical, ecological, engineering, entrepreneurial, and ethical aspects of biotechnology in industry, agriculture, and medicine. [D]

BSC 4434 Bioinformatics for Biologists (3). Introduction to bioinformatic resources/methods for biologists. Accessing, searching, retrieving, and analyzing data, including sequence alignment, phylogenetic analysis, and structure prediction. Prerequisites: BSC 2010, BSC 2011, PCB 3063. [B]

BSC 4443 Functional Genomics and Proteomics (3). Introduction to the importance of functional genomics and proteomics in biological research. Prerequisite: PCB 3063. [C]

BSC 4473C Introduction to Scientific Diving (3). Covers all aspects of conducting safe underwater research, including theoretical and practical aspects of diving, diving equipment, and scientific techniques. Prerequisites: OCB 3043+lab or PCB 3043+lab or CHS 4600 or OCE 3014, open water diving certification, permission of the instructor, FIU Diving Medical clearance, pass standardized swim test, at least 18 years old.

BSC 4915L Honors Research (1-3). Laboratory and/or field study in consultation with an Honors Thesis advisor. Prerequisite: Admission into Honors in Biological Sciences Program.

BSC 4925 QBIC Cell Biology Journal Club (1). A seminar styled course teaching QBIC students how to dissect and analyze complex analytically written scientific articles in Cell Biology (PCB 4023).

BSC 4926 QBIC Evolution Journal Club (1). A seminar styled course teaching QBIC students how to dissect and analyze complex analytically written scientific articles in Evolution (PCB 4674).

BSC 4927 QBIC Science Café (1). QBIC students will develop and host their own Science Café to transmit scientific subjects to and engage in a dialog with the general public. Prerequisites: BSC 3923, BSC 3924, BSC 4925, BSC 4926.

BSC 4931 Senior Seminar (1). An exploration of various research works in biological sciences. Oral presentation by the students required. Prerequisite: Senior standing. Prerequisites or Corequisites: PCB 3043, PCB 3063, and PCB 4674, and PCB 4023 or BCH 2020, or OCP 3002.

BSC 4934 Topics in Biology (1-3). An intensive study of a particular topic or limited number of topics not otherwise offered in the curriculum.

BSC 4970 Honors Thesis (3). Writing an Honors Thesis. Prerequisite: BSC 4915L.

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. [A]

BSC 5405C Environmental Instrumentation (3). Theory and techniques for measurement of environmental parameters of interest to field biologist. Prerequisite: Permission of the instructor. [C]

BSC 5406 Forensic Biology (3). Forensic applications of molecular biology including PCR, STR techniques and other laboratory methods and data interpretation. Prerequisite: Graduate status. [D]

BSC 5446 Advanced Functional Genomics and Proteomics (3). Analysis of Modern Strategies to understand fundamental biological aspects using advanced genomics and proteomic approaches. Prerequisites: PCB 3063 or equivalent.

BSC 5459 Advanced Bioinformatics for Biologists (3). Introduction to bioinformatic resources/methods for biology graduate students, accessing, searching, retrieving, and analyzing data, including an in-depth research project. Prerequisites: BSC 2010, BSC 2011, PCB 3063.

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 5927 Workshop: R Programming for Biologists (2). Statistical methods and biological/ecological applications using R programming language. Prerequisites: (Graduate standing in Biology) or (STA 3111 and STA 3112).

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. Prerequisites: Graduate status or permission of the instructor.

BSC 5929 Workshop: Paleoecology of South Florida (2). Sampling, preparation, and identification of diatoms and foraminifera from a freshwater to marine transect, and application of ecology to interpreting past ecosystems.

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 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. Prerequisites: 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.

ENY 1004 General Entomology (3). ENY 1004L Entomology Lab (1). The morphology, systematics, physiology and ecology of the major insect orders, and introduction to basic field procedures. Prerequisite: BSC 2011.

ENY 4060 Entomology (3). ENY 4060L Entomology Laboratory (1). Explorations of the morphology, physiology, behavior and metabolism of insects in the context of their evolutionary, environmental and economic significance. Prerequisites (Lecture): BSC 2010 and BSC 2011, or permission of the instructor. Prerequisite or Corequisite(Lab): ENY 4060. [B]

IDS 3214 Our Coastal Environment from the Bay to the World – *GL* (3). Natural science principles applied to the world's coastal and marine environments, with emphasis on human use of and interaction with those environments, using cases from Florida and around the globe.

MCB 2000 Introductory Microbiology – *GL* (3). MCB 2000L Introductory Micro Lab (1). Basic concepts of microbes as pathogens, food spoilage and fermentative organisms. Microbial relationships to immunology, sanitation, pollution and geochemical cycling. Not applicable for majors in Biological Sciences. (Lab fees assessed)

MCB 3007 Living with Microbes – *GL* (3). Explore the intricate relationship between human and planetary well-being and the microbes that inhabit us, both inside and outside our bodies.

MCB 3020 General Microbiology (3). MCB 3020L General Microbiology Lab (1). Introduction to the principles and techniques of microbiology, genetics, taxonomy, biochemistry and ecology of microorganisms. Prerequisites (Lecture): CHM 2210 and CHM 2211; and BSC 2010 and BSC 2011; or permission of the instructor. Prerequisite of Corequisite: MCB 3020. [B]

MCB 4022 Diversity of Microbes (3). An introduction to the diversity of microbes to include the structural and functions dynamics and interactions as assessed by traditional or genetic methods. Prerequisites: MCB 3020 or instructor's permission. [B]

MCB 4203 Microbial Pathogenicity (3). MCB 4203L Microbial Path Lab (1). Host-parasite relationships: physiology of bacterial, fungal and viral pathogens emphasizing mechanisms of pathogenicity and the host response. Prerequisite (Lecture): MCB 3020. Prerequisite or Corequisite (Lab): MCB 4203 [C]

MCB 4404 Microbial Physiology (3). Introduction to the study of physiological and metabolic activities of microorganisms and processes that affect them. Prerequisites: MCB 3020, MCB 3020L. [C]

MCB 4404L Microbial Physiology Lab (1). Introduction to the study of physiological and metabolic activities of microorganisms and processes that affect them. Prerequisites: MCB 3020, MCB 3020L. Prerequisite or Corequisite: MCB 4404. [C]

MCB 4503 Virology (3). MCB 4503L Virology Lab (1). Principles and methods of study of bacterial, plant, and animal viruses. Molecular aspects of viral development, virus pathogens, and carcinogens. Prerequisites: CHM 2210. [C]

MCB 4603 Microbial Ecology (3). MCB 4603L Microbial Ecology Lab (1). Principles and applications of microbial interactions with the environment: physical, chemical, and biological. Prerequisites: MCB 3020 and MCB 3020L. [A]

MCB 4653 Food Microbiology (3). Public Health microbiology of water and sewage, microbiology of food preparation and spoilage; industrial aspects of microbiology. Prerequisite: MCB 3020. [A]

MCB 4653L Food Microbiology Lab (1). Public Health microbiology of water and sewage, microbiology of food preparation and spoilage; industrial aspects of microbiology. Prerequisites: MCB 3020 and MCB 3020L. [A]

MCB 5116 Microbial Diversity (3). MCB 5116L Microbial Diversity Laboratory (1). Analysis of metabolic and morphological diversity in bacteria in the context of bacterial systematics. Prerequisites: General Microbiology MCB 3020 and Lab MCB 3020L; additional course in microbiology or biochemistry. Corequisite: Concurrent registration in lecture and lab courses. [B]

MCB 5205 Advanced Microbial Pathogenicity (3). Overview of microbial pathogenicity, including interactions with hosts, evolution of pathogens, virulence factors, toxins, antibiotics, and case studies of specific pathogens. Prerequisites: MCB 3020 or permission of the instructor.

MCB 5315C Workshop: Prokaryotic Cloning (2). Description of molecular genetic methods for manipulation of prokaryotic DNA. Prerequisites: PCB 3063; BCH 3033; or CHM 4304 or permission of the instructor.

MCB 5405 Biology of Photosynthetic Bacteria (3). Study of the physiology and ecology of photosynthetic bacteria, including Blue-green algae (cyanobacteria), purple and green bacteria, and Halobacteria. [A]

MCB 5412 Advanced Microbial Physiology (3). Overview of microbial metabolic diversity, including prokaryotic metabolic pathways, stress responses, cell signaling, and metabolic regulation. Prerequisite: Permission of the instructor.

MCB 5453L Workshop: Prokaryotic Cell Signaling (1). Covers chemical signals used by prokaryotes for cell-to cell communications. Prerequisites: MCB 3020 or permission of the instructor.

MCB 5605 Microbial Ecology (3). Principles and applications of microbial interactions with the environment. Current research areas are emphasized. Prerequisite: Graduate Level Standing.

OCB 1930 Marine Biology at FIU (1). Seminar course for freshmen or 1st year transfer students majoring in Marine biology. Topics will include an outline of the major, marine research being done at FIU, and careers in marine biology.

OCB 2003 Introductory Marine Biology – *GL* (3). OCB 2003L Introductory Marine Biology Lab (1). A survey of marine biological environments and zones, including the relationship of the physical and chemical environment to the distribution of marine plants and animals. (Lab fees assessed)

OCB 3043 Marine Biology and Oceanography (3). OCB 3043L Marine Biology and Oceanography Laboratory (1). An ecological approach to the biology of organisms in the marine environment with an emphasis on zonation and adaptation to the physical environment. Intended for biology majors or other science majors. Prerequisites (Lecture): BSC 2010 and BSC 2011. Prerequisites or Corequisites (Lab): OCB 3043 [A]

OCB 3264 Biology of Coral Reefs (3). Biology and ecological relationships of reef plants and animals with emphasis on their role in reef construction or bioerosion; reef constructional environments symbiotic relationships and biogeography. Prerequisites: BSC 2011 or Zoology. Ecology recommended. [A]

OCB 4004 Biological Oceanography at Sea I (3). An overview of current methods applied in biological oceanography including design of and working on research vessels and planning of research cruises. Prerequisite: OCB 3043. [A]

OCB 4005C Biological Oceanography at Sea II (4). Experience in research at sea involving cruise planning, participation in a research cruise, and sample data analysis. Methods oriented lectures/seminars and participation in lab and shipboard work. Prerequisites: OCB 4004 or permission of the instructor. [A]

OCB 4070 Coastal Marine Conservation (3). An overview of the basic subdisciplines - including science, governance, and policy - required for a detailed understanding of the most pressing problems threatening our coastal ecosystems. Prerequisites: OCB 3043 or PCB 3043. [A]

OCB 4104C Field Methods in Marine Ecology (4). Introduction to field and analytical methods applied in marine ecology research focusing on integrating principles of the scientific method, experimental design, data collection and analysis. Prerequisites: OCB 3043 or PCB 3043. [A]

OCB 4303 Biology of Marine Mammals (3). A survey of marine mammals including evolution, systematics, morphology, physiology, behavior, population dynamics, ecology, conservation and theory relevant to these areas of biology. Prerequisites: PCB 3043 or OCB 3043. [B]

OCB 4632 Marine Microbial Ecology (3). Diversity, ecology and physiology of marine viruses, bacteria and protozoa, their role in marine food webs and the biogeochemical cycling of carbon and nutrients, and the significance of microbial food webs for marine productivity. Prerequisites: OCB 3043. [A]

OCB 4633 Marine Community Ecology (3). A survey of the ecological patterns, processes, and interactions in marine environments with an emphasis on the ecology of different ecosystems and interactions among organisms. Prerequisite: PCB 3043. [A]

OCB 4711 Fisheries Science (3). Fundamental theory and techniques of fisheries science, including population dynamics, recruitment, migration, growth, measurement techniques and modeling. Prerequisites: BSC 2010 and BSC 2011. [A]

OCB 5006 Advanced Biological Oceanography at Sea I (3). An in-depth overview and critical discussion of current methods employed in biological oceanography including design of and working on research ships and planning of research cruises. Prerequisite: Permission of the instructor.

OCB 5007C Advanced Biological Oceanography at Sea II (4). A hands-on experience in research at sea involving cruise planning, participation in an offshore cruise on a research vessel, and subsequent sample analysis, data evaluation and research report. Prerequisites: OCB 5006 or permission of the instructor.

OCB 5575L Workshop: Aquatic Flow Cytometry (1). A practical introduction to theories and applications of flow cytometry in the analyses of aquatic microorganisms (bacteria, phytoplankton) and their physiology. Prerequisite: Permission of the instructor.

OCB 5634 Marine Ecology (3). OCB 5634L Marine Ecology Lab (1). Review of processes determining species distribution and abundance in marine ecosystems. Energy flow and trophic relationships examined. Prerequisite: PCB 3043. Corequisite: Concurrent registration in lecture for lab courses. [A]

OCB 5636 Advanced Marine Microbial Ecology (3). Diversity, ecology and physiology of marine viruses, bacteria and protozoa, their role in marine food webs and the biogeochemical cycling of carbon and nutrients, and the significance of microbial food webs for marine productivity. Prerequisites: BSC 2010, BSC 2011, OCB 3043, or graduate standing.

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.

OCB 5715 Advanced Fisheries Science (3). Theory and techniques of fisheries science comprising recruitment, growth, migration, population dynamics, modeling and measurement techniques. Prerequisite: Graduate standing.

PCB 2061 Introductory Genetics (3). PCB 2061L Introductory Genetics Lab (1). Principles of Mendelian and molecular genetics with selected examples of applications such as genetic engineering and twin studies.

PCB 2099 Foundations of Human Physiology (3). PCB 2099L Foundations of Human Physiology Lab (1). Functional survey of the organ systems of the human body. Intended primarily for non-science majors. (Lab fees assessed)

PCB 3043 Ecology (3). PCB 3043L Ecology Lab (1). The basic principles governing the interaction of organism and environment. Trophic structure and energetics, species diversity, evolution of populations, biogeochemical cycles. Prerequisites (Lecture): BSC 2010 and BSC 2011. Prerequisites or Corequisites: PCB 3043 [A]

PCB 3063 Genetics (3). PCB 3063L Genetics Lab (1). Mendelian inheritance and introduction to molecular genetics. Prerequisites (Lecture): BSC 2010. Prerequisite or Corequisite: PCB 3063. [D]

PCB 3241 Biology of Aging (3). Biologic changes that occur in aging with emphasis on underlying regulatory mechanisms, including the aging genome and structural and functional changes in organ systems. Prerequisites: BSC 2010 and BSC 2011. [C]

PCB 3374 Tropical Ecology (3). In-depth survey of tropical climatology, ecological processes characteristic of tropical habitats, and biodiversity and conservation of tropical regions. Prerequisite: PCB 3043. [A]

PCB 3702 Intermediate Human Physiology (3). Functions of the human body and the physio-chemical mechanisms responsible for each organ's function. Prerequisites: BSC 2010 or BSC 2011. [C]

PCB 3702L Intermediate Human Physiology Lab (1). Functions of the human body and the physio-chemical mechanisms responsible for each organ's function. Prerequisite or Corequisite: PCB 3702. [C]

PCB 3703 Human Physiology I (3). PCB 3703L Human Physiology I Lab (1). Basic facts and concepts relating to the physiology of cells and nervous, muscular, and cardiovascular systems, with emphasis on regulatory mechanisms and abnormal physiology. Prerequisite (Lecture): BSC 2010. Prerequisite or Corequisite (Lab): PCB 3703. [C]

PCB 3704 Human Physiology II (3). PCB 3704L Human Physiology II Lab (1). Physiology of respiratory, gastro-intestinal, excretory, endocrine and reproductive systems. Continuation of PCB 3703. Prerequisite (Lecture): BSC 2010. Prerequisite or Corequisite (Lab): PCB 3704. [C]

PCB 3711 Physiological Mechanisms (3). Biophysical and biochemical perspective; Integrative aspects of physiology are de-emphasized to accomplish a detailed, but introductory coverage of mechanisms. [C]

PCB 4023 Cell Biology (3). A structural and molecular analysis of cell function. Prerequisites: PCB 3063 and CHM 1046. [C]

PCB 4023L Cell Biology Lab (1). Fundamentals of cell/histological identification and current techniques used to study cells. Prerequisite or Corequisite: PCB 4023.

PCB 4133 Topics in Structure/Development (3). An intensive study of a particular topic or topics in Structure-Development not otherwise offered in the curriculum. Prerequisites: BSC 2010, BSC 2010L and BSC 2011, BSC 2011L. [D]

PCB 4232 The Biology of Acquired Immune Deficiency Syndrome (AIDS) (3). An overview of Acquired Immune Deficiency Syndrome (AIDS) from biomedical and psychosocial perspectives. Prerequisites: BSC 2010, BSC 2011, CHM 1045, and II CHM 1046. [A]

PCB 4233 Immunology (3). PCB 4233L Immunology Lab (1). Fundamentals of immunology including antibody structure, immunopathology, molecular recognition at cell surfaces and immunological aspects of cancer biology. Prerequisite (Lecture): PCB 3063. Prerequisite or Corequisite (Lab): PCB 4233. [C]

PCB 4234 Biology of Cancer (3). Explore fundamental biology of cancer as a dynamic system governed by evolutionary and ecological principles. Prerequisites: PCB 3063 and PCB 3043. [C]

PCB 4253 Developmental Biology (3). Comprehensive survey of principles of development and critical analysis of methods used to study these problems. Prerequisites: PCB 3063 or BCH 3033. [D]

PCB 4301 Freshwater Ecology (3). PCB 4301L Freshwater Ecology Laboratory (2). Community-level analysis of marshes, lakes and rivers from theoretical and practical viewpoints, emphasizing quantitative description of community structure and function. Prerequisite (Lecture): PCB 3043. Prerequisite or Corequisite (Lab): PCB 4301. [A]

PCB 4373 Amphibian Ecology (3). In-depth survey of the ecology of members of the vertebrate class Amphibia (caecilians, salamanders, and frogs). Prerequisite: PCB 3043. [A]

PCB 4414 Behavioral Ecology (3). Investigation of the adaptive significance of behavior. Synthesis and discussion of literature and theory pertaining to the strategies and tactics organisms use to survive and reproduce. Prerequisite: PCB 3043. [A]

PCB 4442 Community Ecology (3). Dynamic and descriptive community ecology: interactions among >2 species, patterns in species co-occurrences across space and time. Terrestrial, aquatic, and marine examples and applications. Prerequisites: PCB 3043, MAC 2311. [A]

PCB 4452 Introduction to Wetland Ecology and Management (3). Principles of wetland ecology and their application to management of freshwater and estuarine wetlands. Prerequisites: PCB 3043 or permission of the instructor. [A]

PCB 4467C Marine Protected Areas – *GL* (4). Introduction to the theory and methods for the design and management of Marine Protected Areas. Prerequisites: BSC 2010 and BSC 2011. [A]

PCB 4514 Advanced Genetics (3). Advanced level treatment of topics such as meiotic disjunction-uniparental disomy, transcription & splicing -differential splicing, polymorphisms, chromatin organization, horizontal gene transfer, etc. Prerequisite: PCB 3063. [C]

PCB 4524 Molecular Biology (3). PCB 4524L Molecular Biology Lab (1). Advanced nucleic acid and protein biochemistry: biosynthesis of macro-molecules and molecular genetics. Prerequisites (Lecture): PCB 3063, BCH 3033 or CHM 4304. Prerequisite or Corequisite: PCB 4524. [C]

PCB 4553 General Population Genetics – *GL* (3). Analysis of gene and genotype frequencies in theoretical and real populations. Topics include genetic drift, mutation, and selection. Prerequisite: PCB 3063. [A]

PCB 4561 Epigenetics (3). An overview of the mechanisms involved in epigenetic inheritance and their role in reproduction, development, environmental responses and health. Prerequisites: BSC1011, PCB3063 [D]

PCB 4663 General Human Genetics (3). Examination of genetics as it applies to the normal and abnormal human condition. Includes topics such as genetic engineering, cloning, and human evolution. Prerequisite: PCB 3063. [D]

PCB 4673 Evolutionary Ecology (3). PCB 4673L Evolutionary Ecology Lab (1). Adaptation and interaction of plants and animals in natural and disturbed habitats. Prerequisites (Lecture): PCB 3043 and PCB 3063. Prerequisite or Corequisite (Lab): PCB 4673. [A]

PCB 4674 Evolution (3). A study of the synthetic theory of evolution, its historic and experimental justification and the mechanisms of natural selection. Prerequisites: PCB 3063, PCB 3043. [B]

PCB 4676 Human Evolution (3). The evolutionary processes and relationships that have led to the unique biocultural development of the human species. Hominin origins and taxonomy are examined through fossil evidence. Prerequisites: BSC 2011 and PCB 3063. [B]

PCB 4717 Topics in Physiology/Biochemistry (3). An intensive study of a particular topic or topics in Physiology/Biochemistry not otherwise offered in the curriculum. Prerequisites: BSC 2010, BSC 2010L and BSC 2011, BSC 2011L. [C]

PCB 4723 Animal Physiology (3). PCB 4723L Animal Physiology Lab (1). Advanced study of physiological mechanisms employed by animals to maintain function of the organ systems and to interact with the environment. Prerequisites (Lecture): BSC 2010, BSC 2011, and CHM 2211. Prerequisite or Corequisite: PCB 4723. [C]

PCB 4724 Comparative Physiology (3). PCB 4724L Comparative Physiology Lab I (1). Regulation of the internal environment: osmotic gastrointestinal, metabolic, circulatory and respiratory physiology. Prerequisites (Lecture): BSC 2010 and BSC 2011 and CHM 2210. Prerequisite or Corequisite (Lab): PCB 4724. [C]

PCB 4733 Human Systemic Physiology I (3). PCB 4733L Human Systemic Physiology Lab (1). Selected topics in human physiology with emphasis on topics of clinical significance. Prerequisite (Lecture): BSC 2010. Prerequisite or Corequisite (Lab): PCB 4733. [C]

PCB 4734 Human Systemic Physiology II (3). Selected topics in human physiology with emphasis on topics of clinical significance. Prerequisites: BSC 2010. [C]

PCB 4776 Physiological and Behavioral Ecology of Marine Animals (3). An overview of the physiological and behavioral adaptations of marine animals to their environments (C). Prerequisites: BSC2010, BSC2011, and PCB3043.

PCB 4805 Endocrinology (3). Biochemistry, physiology and anatomy of the endocrine systems of vertebrates and invertebrates. Steroid, peptide, and terpenoid hormones which control reproduction, growth, and other parameters. Prerequisites: BSC 2011, CHM 2211, and one physiology course. [C]

PCB 4805L Endocrinology Laboratory (1). A series of lab exercises and experiments designed to supplement lecture material in PCB 4805, and coordinated with that content. Corequisite: PCB 4805.

PCB 4932 Topics in Ecology (3). An intensive study of a particular topic or topic in Ecology not otherwise offered in the curriculum. Prerequisites: BSC 2010, BSC 2010L and BSC 2011, BSC 2011L. [A]

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 the instructor.

PCB 5046 Advanced Plant Conservation Biology (3). Survey of the causes and consequences of anthropogenic disturbances on plant diversity at different spatial scales, including critical evaluation of strategies to mitigate these impacts. Prerequisites: PCB 3043 or graduate status.

PCB 5184 Workshop in Microtechnique (1). Laboratory techniques required for preparation of tissues for light microscopy-histological study. Prerequisites: Graduate status or permission of the instructor.

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. Prerequisites: Graduate status or permission of the instructor.

PCB 5235 Current Topics in Comparative Immunology (1). A weekly seminar/discussion course consisting of research presentations by students, faculty and visiting scientists in the area of comparative immunology. It is recommended for students with a research interest in the comparative study of mammalian and nonmammalian species or using alternative animal models. Prerequisite: 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 5239 Immunophysiology (3). Physiological and endocrine regulation of the vertebrate immune system. Prerequisite: PCB 4233.

PCB 5259 Topics in Developmental Biology (3). Molecular and cellular mechanisms in the development of plants and animals. Prerequisite: Permission of the instructor. [D]

PCB 5307 Limnology (3). PCB 5307L Limnology Lab (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. [A]

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: PCB 3043 and MAC 2311 or permission of the instructor. [A]

PCB 5328 Spatial and Landscape Ecology (3). Ecological processes with spatial components, including neighborhood interactions, foraging, metapopulations, infectious diseases, invasive species, and habitat associations. Prerequisites: PCB 5423. Corequisites: PCB 5443; MAC 2311.

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. [A]

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. Prerequisites: PCB 3043, BCH 3033 or CHM 4304. [C]

PCB 5405 Biochemical Ecology (3). Principles of chemical communication between diverse organisms and the importance of a variety of allelo-chemicals in community structure. Prerequisite: Permission of the instructor.

PCB 5407 Workshop: Microelectrodes in Microbial Ecology (1). Use of microelectrodes to measure chemical micro-environments and biological processes in natural samples. Hands-on experience with O2 and pH electrodes. Prerequisite: Permission of the instructor.

PCB 5415 Advanced Behavioral Ecology (3). In-depth investigation of the adaptive significance of behavior. Synthesis and discussion of literature and theory pertaining to the strategies and tactics organisms use to survive and reproduce. Prerequisites: Graduate status or permission of the instructor.

PCB 5418C Advanced Marine Protected Areas (4). Study of theory and methods for the design and management of Marine Protected Areas including a research project. Prerequisites: BSC 2010 and BSC 2011.

PCB 5423 Advanced Ecology: Populations and Communities (3). Advanced analysis of population and community ecology. Prerequisites: PCB 3043 or permission of the instructor or graduate status. [A]

PCB 5443 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: PCB 3043 or permission of the instructor or graduate status. [A]

PCB 5596 Workshop: In Situ Hybridization (1). Analysis of gene expression by in situ hybridization techniques using whole mount and cry sectioned tissues. Prerequisites: 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: PCB 3063.

PCB 5616 Applied Phylogenetics (3). Methods of phylogenetic analysis with focus on pragmatic applications to ecological and evolutionary studies. Hands-on experience with current computer programs for phylogenetic analysis. Prerequisites: Graduate status or permission of the instructor. [B]

PCB 5665 Human Genetics (3). PCB 5665L Human Genetics Lab (2). Principles and techniques in the analysis of humans and primates. Prerequisites: PCB 3063 and PCB 3063L, or permission of the instructor. Corequisite: Concurrent registration of lecture with lab course. [D]

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 5685 Population Genetics (3). Advanced analysis of gene and genotype frequencies in theoretical populations and analysis of real data. Linkage equilibrium, drift, migration and selection are a few of the topics covered. Prerequisite: PCB 3063. [A]

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. Prerequisites: PCB 3063 and PCB 4674, or permission of the instructor. [A]

PCB 5687 Evolutionary Ecology (3). PCB 5687L Evolutionary Ecology Lab (1). Adaptations and interactions of plants and animals in natural and disturbed habitats. Prerequisite: PCB 3043. [A]

PCB 5725 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: BCH 3033 or CHM 4304. [C]

PCB 5786 Membrane Physiology (3). Chemical and physical properties of the plasma membrane, its biosynthesis and functions in transport and signal transduction. Prerequisites: PHY 2048, PHY 2049, BCH 3033. [C]

PCB 5835 Neurophysiology (3). PCB 5835L Neurophysiology Lab (1). Comparative neurophysiology; physico-chemical mechanisms of resting and action potentials; synaptic transmission; neural coding and integration; sensory-motor function and neurophysiological basis of behavior. Prerequisites: BCH 3033 and MAC 2311. [C]

SCE 3813 Biology Education Seminar (1). theoretical and practical introduction to pedagogical elements such as Cooperative, Inquiry and Problem-Based Learning. Students will learn how to teach biology effectively in the modern classroom. Prerequisite: Permission of the instructor.

ZOO 3021 Comparative Zoology (3). ZOO 3021L Comparative Zoology Lab (3). Characteristics, evolutionary relationships and physiological adaptations of metazoan animal groups from porifera through the chordates. Prerequisites (Lecture): BSC 2010 and BSC 2011 with BSC 2010L and BSC 2011L. Prerequisite or Corequisite: ZOO 3021. [B]

ZOO 3205C Invertebrate Zoology (4). Taxonomy, anatomy, development, physiology and ecology of major invertebrate groups, including terrestrial and aquatic phyla. Prerequisite: BSC 2011. [B]

ZOO 3303 Vertebrate Zoology (3). ZOO 3303L Vertebrate Zoology Lab (1). Systematics, anatomy, physiology, development and ecology of vertebrate animals. Prerequisites (Lecture): BSC 2010 and BSC 2011 with BSC 2010L and BSC 2011L. Prerequisite or Corequisite: ZOO 3303. [B]

ZOO 3327 Human Evolutionary Morphology (3). The major evolutionary adaptations that have led to the unique biocultural characteristics of the human species. Prerequisites: ZOO 3731. [D]

ZOO 3378C Forensic Osteology (4). A detailed examination of the human skeleton revealing such individual traits as sex, age, height, and race in order to assist law enforcement investigation in forensic identifications. Prerequisite: Permission of the instructor.[D]

ZOO 3603 Embryology (3). ZOO 3603L Embryology Lab (1). Animal morphogenesis. Laboratory must be taken with lecture. Prerequisites (Lecture): BSC 2010 and BSC 2011 with BSC 2010L and BSC 2011L. Prerequisite or Corequisite (Lab): ZOO 3603. [D]

ZOO 3713C Comparative Vertebrate Anatomy (4). Study of the structural diversity and classification of vertebrates and the evolution of various organ systems. Dissection of a variety of vertebrate specimens to reveal relationships of the various organ systems. Prerequisites: BSC 2010 and BSC 2011. [D]

ZOO 3731 Human Anatomy (3). ZOO 3731L Human Anatomy Demonstration (1). Survey of organ systems of the human body with major emphasis on the skeletal, muscular, and peripheral nervous system. Guided examination of prosected human cadavers. Prerequisites (Lecture): BSC 2010 or PCB 2099 or BSC 2023 or MCB 2000 or HSC 3549. Prerequisite or Corequisite (Lab): ZOO 3731. Concurrent enrollment in both lecture and laboratory required. [D]

ZOO 3753 Histology (3). ZOO 3753L Histology Lab (1). Microscopic anatomy of cells, tissues and organs. Prerequisites (Lecture): BSC 2010 and CHM 2210 and CHM 2211. Prerequisite or Corequisite (Lab) : ZOO 3753. [D]

ZOO 4114 Principles of Paleobiology (3). Concepts and methods of paleobiology. Covers the nature of fossils, adaptation, systematics, evolutionary trends through time, global origination and extinction, paleoecology and paleobiogeography. Prerequisite: BSC 2011. [B]

ZOO 4234 General Parasitology (3). ZOO 4234L General Parasitology Lab (1). Modern concepts of biology, development, immunology and pathology of animal parasites. Prerequisite: BSC 2010. Corequisite: Concurrent registration of lecture and lab course. [B]

ZOO 4377C Functional Vertebrate Morphology (4). The study of the diversity of anatomical structure in vertebrates and the relationship between form and function. Prerequisites: BSC 2011 and BSC 2011L, or permission of the instructor. [D]

ZOO 4454 Fish Biology (3). Covers the systematics, anatomy, physiology, reproductive biology, and ecology of fish. Prerequisites: BSC 2010, BSC 2011, PCB 3043. [B]

ZOO 4462C Herpetology (4). Study of the biology of reptiles and amphibians with emphasis on the natural history and ecology of local species. Prerequisites: BSC 2010 and BSC 2011 and PCB 3043 or permission of the instructor. [B]

ZOO 4472 Ornithology (3). ZOO 4472L Ornithology Lab (2). Avian systematics, anatomy, physiology, behavior, ecology, evolution, and conservation. Labs teach visual and auditory identification, census techniques, banding, and taping. Field trips alternate Saturdays and at least one overnight weekend field trip. Prerequisites (Lecture): BSC 2010 and BSC 2011. Prerequisite or Corequisite (Lab): ZOO 4472. Concurrent registration of lecture with lab course. [B]

ZOO 4484 Primate Biology (3). ZOO 4484L Primate Biology Field Lab (1). Survey of the natural history of the prosimians, monkeys, and apes with special emphasis on primate anatomy, evolution, ecology, and behavior. Prerequisites (Lecture): BSC 2010 and BSC 2011 or permission of the instructor. Prerequisite or Corequisite (Lab): ZOO 4484. [B]

ZOO 4513 Animal Behavior (3). ZOO 4513L Animal Behavior Laboratory (2). Evolutionary approach to under-standing the diversity of behavioral strategies. Ecological and physiological mechanisms of behavior will be emphasized. Prerequisites (Lecture): BSC 2010, BSC 2011. Prerequisite or Corequisite (Lab): ZOO 4513. [A]

ZOO 4733 Survey of Regional Anatomy (3). ZOO 4733L Survey of Regional Anatomy Lab (2). The regional anatomy of the human body as revealed by dissections, radiographs, models and videos. Prerequisites (Lecture): BSC 2011, BSC 2011L, CHM 1046, CHM 1046L, and PHY 2054 or PHY 2049. Prerequisite or Corequisite: ZOO 4733. (Lab fees assessed) [D]

ZOO 4743C Neuroscience (4). Structure and function of the human nervous system. Dissection and demonstration of human nervous system and various neurophysiology labs. Prerequisites: BSC 2010, BSC 2011, CHM 2211. [D]

ZOO 4744 Neurobiology (3). A comparative overview of the function of the nervous system covering neurons, sensory and motor systems, and the neural basis of behavior. Prerequisites: BSC 2010 and BSC 2011. [C]

ZOO 4781 Sensory Systems in Neurobiology (3). A comparative overview of sensory systems covering environmental stimuli, physical transduction, neural processing, and behavioral responses. Prerequisites: BSC 2010 and BSC 2011. [C]

ZOO 5265 Biology of Crustaceans (3). ZOO 5265L Biology of Crustaceans Laboratory (1). Morphology, physiology, systematics and evolution in crustaceans. [B]

ZOO 5371 Clinical Anatomy of the Trunk and Limbs (3). ZOO 5371L Clinical Anatomy of the Trunk and Limbs Lab (1). A detailed analysis of the anatomical foundations of kinesology and physical rehabilitation. Special emphasis will be placed on the functional anatomy of the trunk, pectoral and pelvic limbs with clinical correlations to the major disorders commonly treated by physical and occupational therapists. Prerequisite: ZOO 3731 or ZOO 4733. Corequisite: ZOO 5371L. [D]

ZOO 5376 Animal Design and Movement (4). Basic biomechanical and behavioral theories of how animals feed and move. Prerequisites: BSC 2010 and BSC 2011, PHY 2053 and PHY 2054. [D]

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. Prerequisites: BSC 2010 and BSC 2011 and PCB 3043, or permission of the instructor. [B]

ZOO 5456 Ichthyology (3). ZOO 5456L Ichthyology Lab (1). Systematics, structure, function, ecology, and evolution of fishes. Prerequisites: BSC 2010, and BSC 2011, and PCB 3043. Corequisite: Concurrent registration of lecture and lab course. [B]

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. Prerequisites: ZOO 3733 and ZOO 3733L or permission of the instructor. [D]

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. Prerequisites: ZOO 4743C or permission of the instructor. [D]

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. Prerequisites: BSC 2010 and BSC 2011, CHM 1045 and CHM 1046 and PHY 2048; graduate standing or permission of the instructor. [C]

ZOO 5785 Advanced Neurobiology (3). An in depth treatment of the nervous system covering molecular and cellular function, sensory and motor systems, and the neural basis of behavior. Prerequisite: Graduate standing.

Earth and Environment

Leonard Scinto, *Associate Professor and Chairperson*
Dean Whitman, *Professor and Associate Chairperson*
Elizabeth Anderson, *Assistant Professor*
William Anderson, *Professor and Associate Vice President, Office of Research and Economic Development*
Mahadev Bhat, *Professor*
Jessica Bolson, *Instructor*
Jesse Blanchard*, Visiting Instructor*
David Bray, *Professor*
Robert Burgman, *Associate Professor*
Laurel Collins, *Professor*
Grenville Draper, *Professor*
Tatiana Gaona-Narvaez, *Instructor*
Stephen Haggerty, *Distinguished Research Professor*
Joel Heinen, *Professor*
Rosemary Hickey-Vargas, *Professor*
Patricia Houle, *Senior Instructor*
Krishnaswamy Jayachandran, *Professor and Graduate Director for PSM in Environmental Policy and Management*
Haiyan Jiang, *Associate Professor*
Amir A. Khoddamzadeh, *Instructor and Undergraduate Program Director*
Stephen P. Leatherman, *Professor*
Hong Liu, *Associate Professor*
Andrew Macfarlane, *Associate Professor*
Florentin Maurrasse, *Professor*
Assefa Melesse, *Professor and Graduate Program Director*
Pallab Mozumder, *Professor*
John Parker, *Emeritus Professor*
Thomas Pliske, *Emeritus Lecturer*
René Price, *Professor*
Kathleen Quardokus Fisher, *Assistant Professor*
Gary Rand, *Emeritus Professor*
Rodolfo Rego, *Senior Instructor*
Jennifer Rehage, *Associate Professor*
James Riach, *Senior Lecturer*
Edward Robinson, *Distinguished Research Associate*
Cara Rockwell, *Research Assistant Professor*
Michael Ross, *Professor*
Kateel Shetty, *Research Scientist*
Neptune Srimal, *University Lecturer*
Michael Sukop, *Professor*
Shimon Wdowinski, *Professor*
Hugh Willoughby, *Distinguished Research Professor*
Keqi Zhang, *Professor*
Ping Zhu, *Professor*

Knowledge of the Earth and its environments is essential for successful stewardship of our home planet. The mission of FIU's Department of Earth and Environment is to be at the forefront of research and education on the dynamic interaction of Earth's systems, the environment, and related societal issues. Programs in the department address understanding and stewardship of the natural Earth. In addition, the department fosters understanding of the planet's bounty, such as water, mineral, energy and agricultural resources. A third area of emphasis is environmental problems, both natural events such as earthquakes, volcanic eruptions and floods, and human-made problems such as oil spills, ecosystem degradation and soil erosion. The Department of Earth and Environment has well-equipped facilities that allow students to understand the Earth and its environments and to prepare for professions with environmental, geoscientific and natural resource orientations.

Geoscience Programs

The Department offers a Bachelor of Sciences degree program in Geosciences with a choice of majors in the Geological Sciences or Atmospheric Sciences. These majors have been designed to prepare students to gain professional credentials such as the State of Florida Professional Geologist certification or the American Meteorological Society certification. A broader based, interdisciplinary Bachelor of Arts program in Earth Sciences is also offered, including a major in Earth Science Education which leads to teacher certification in Florida. Also available are Minors in Geology and Meteorology. A grade of "C" or better is required for all required courses in the major and/or minor.

Bachelor of Science in Geosciences

Degree Program Hours: 120

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
GLY 1010, GLY 1010L or GLY 3039, GLY 3039L	GLYX010C or GLYX010/X010L
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX040 and CHMX041 or CHMX045C
CHM 1046, CHM 1046L	CHMX046/X046L or CHMX046C
MAC 2311	MACX311 or MTHX281
PHY 2048, PHY 2049 or PHY 2053, PHY 2054, PHY2048L, PHY 2049L	PHYX048C[1] and PHYX049C or PHYX048/X048L and PHYX049/X049L or PHYX053C and PHYX054C and XXXXXXX[2]

[1]The choice of Physics sequence depends on the area of Geology specialization.
[2]Historical Geology STRONGLY recommended.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Lower Division Common Prerequisites

ESC 1000	Introduction to Earth Sciences	3
ESC 1000L	Introduction to Earth Sciences Lab	1
or		
GLY 1010	Physical Geology* &	3
GLY 1010L	Physical Geology Lab	1

or

GLY 3039	Environmental Geology &	3
GLY 3039L	Environmental Geology Lab	1

and

CHM 1045	General Chemistry I &	3
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II &	3
CHM 1046L	General Chemistry II Lab	1
MAC 2311	Calculus I	4

and

PHY 2048	Physics with Calculus I **	4

or

PHY 2053	Physics without Calculus I**	4

and

PHY 2049	Physics with Calculus II**	4

or

PHY 2054	Physics Without Calculus II**	4

and

PHY 2048L	General Physics Lab I	1
PHY 2049L	General Physics Lab II	1

**GLY 1010: Physical Geology is strongly recommended for the Geological Sciences Major*
***Physics with Calculus is strongly recommended for the Atmospheric Sciences major*

Courses required for the degree:

MAC 2312	Calculus II	4

Additional Required Lower Division Courses

ISC 1056	First Year Seminar in Earth and Environment	1

For the Geological Sciences Major Only

BSC 2011	General Biology II &	3
BSC 2011L	General Biology II Lab	1

or

GLY 1101	The History of Life &	3
GLY 1101L	The History of Life Laboratory	1

For the Atmospheric Sciences Major Only

MAC 2313	Multivariable Calculus	4
MAP 2302	Differential Equations	3

Upper Division Requirements
Geosciences Essentials (13 credits)

GLY 3112	Earth Through Time*	3
GLY 4822	Introduction to Hydrogeology	3
MET 3003	General Meteorology	3
OCP 3002	Physical Oceanography	3
GLY 4937/ MET 4937	Senior Seminar	1

[*Students may substitute Historical Geology from another institution.]

Geological Sciences Major (25 credits)

1. Complete all courses (with labs as necessary) from List 1 (16 credits)
2. Choose an additional 9 credits or more from List 2, at least three of which must be field experience.

List 1: Major-specific Courses

GLY 3202	Earth Materials	3
GLY 3202L	Earth Materials Lab	1
GLY 4300	Petrology	3
GLY 4300L	Petrology Lab	1
GLY 4400	Structural Geology	3
GLY 4400L	Structural Geology Lab	1
GLY 4511	Stratigraphy	3
GLY 4511L	Stratigraphy Lab	1

List 2: Geo-elective Courses

EVR 4592	Soils and Ecosystems	3
GIS 3043	Introduction to GIS	3
GLY 3034	Natural Disasters	3
GLY 3759	Visualizing Our World With GIS	3
GLY 3760C	Geological Map Analysis	3
GLY 3782	Geology Field Excursion*	3
GLY 4450	Environmental and Exploration Geophysics	3
GLY 4603	Paleobiology	3
GLY 4660	Paleoecology	3
GLY 4730	Marine Geology	3
GLY 4734	Changing Coastlines – *GL*	3
GLY 4791	Field Geology and Geologic Mapping*	3
GLY 4812	Introduction to Ore Deposits	3
GLY 4881	Coastal Hazards – *GL*	3
GLY 4947	Internship in Geoscience	0-6
GLY 4970	Geology Honors Thesis	3
GLY 4989L	Geology Honors Research	1-3
ISC 4940	Undergraduate Research Internship in Earth and Environment	0-6
MET 3103	Planetary Climate Change	3
MET 4300	Severe Weather	3
MET 4304	Introduction to Boundary Laver Meteorology	3
MET 4400	Meteorological Instrumentation & Observations	3
MET 4410	Remote Sensing: Radar and Satellite Meteorology	3
MET 4520L	Practical Forecasting	1
MET 4532	Hurricanes	3
MET 4750	Techniques for Earth System Modeling	3

Any course from List 1 of the Atmosphere Sciences Major or other courses approved by the Program Director may also be used for Geo-electives.

**Field experience course*

Atmospheric Sciences Major (25 credits)

1. Complete all courses (with labs as necessary) from List 1 (16 credits)
2. Choose one course from List 2 (3 credits)
3. Choose one course from List 3 (2 or 3 credits)
4. Choose one or more classes from List 4 to meet the total credits required.

List 1: Major-specific Courses

MET 3502	Synoptic Meteorology	3
MET 3502L	Synoptic Meteorology Lab	1
MET 4301	Dynamic Meteorology I	3
MET 4302	Dynamic Meteorology II	3
MET 4102	Physical Climatology	3
MET 4420	Physical Meteorology	3

List 2: Remote Sensing and Instrumentation Courses

MET 4400	Meteorological Instrumentation & Observations	3
MET 4410	Remote Sensing: Radar and Satellite Meteorology	3

List 3: Additional Weather Forecasting Courses

MET 4300	Severe Weather	3
MET 4520L*	Practical Forecasting*	1

**MET4520L Practical Forecasting must be taken twice to fulfill the requirement of at least 2 credits from List 3.*

List 4: Geo-elective Courses

GIS 3043	Introduction to GIS	3
GLY 3034	Natural Disasters	3
GLY 3759	Visualizing Our World With GIS	3
GLY 3760C	Geological Map Analysis	3
GLY 3782	Geology Field Excursion	3
GLY 4450	Environmental and Exploration Geophysics	3
GLY 4603	Paleobiology	3
GLY 4730	Marine Geology	3
GLY 4734	Changing Coastlines – *GL*	3
GLY 4791	Field Geology and Geologic Mapping	3
GLY 4812	Introduction to Ore Deposits	3
GLY 4881	Coastal Hazards – *GL*	3
ISC 4940	Undergraduate Research Internship on Earth and Environment	0-6
MET 4300	Severe Weather	3
MET 4304	Introduction to Boundary Laver Meteorology	3
MET 4400	Meteorological Instrumentation & Observations	3
MET 4410	Remote Sensing: Radar and Satellite Meteorology	3
MET 4520L	Practical Forecasting*	1
MET 4532	Hurricanes	3
MET 4750	Techniques for Earth System Modeling	3
MET 4912L	Meteorology Honors Research	1-3
MET 4941	Internship in Meteorology	0-3
MET 4970	Meteorology Honors Thesis	1-6

Any course from List 1 of the Geological Sciences Major or other courses approved by the Program Director may also be used for Geo-electives List 4.

Combined BS/MS in Geosciences

The combined BS/MS degree program in Geosciences allows qualified students to earn both the BS in Geosciences and a non-thesis MS in Geosciences in a shorter amount of time than typically required for earning degrees sequentially. The accelerated program is designed for highly qualified undergraduate students in the Department of Earth and Environment.

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75 credit hours including all lower division requirements, have at least 30 credit hours remaining in the program and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

Admission Requirements

1. Current enrollment in the Bachelor of Science program in Geosciences at FIU.
2. Completed at least 75 credits of coursework (including UCC and CLAS), with at least 30 credits remaining.
3. Completion of all lower division required courses for the bachelors degree.
4. Minimum GPA of 3.2.
5. Official GRE scores.
6. Three letters of recommendation.
7. Approval by the Earth and Environment Graduate Committee.

General Requirements

1. Meet the requirements of both the BS and non- thesis MS degree in Geosciences.
2. *Overlap of programs*: Up to 3 courses (9 credits) may be used in satisfying ***both*** the BS and MS degree requirements, which must be at the 5000-level or higher.

Bachelor of Arts in Earth Sciences

Degree Program Hours: 120

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

Common Prerequisite Courses and Equivalencies

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, See Common Prerequisite Manual.

Lower Division Preparation

ESC 1000	Introduction to Earth Sciences	3
ESC 1000L	Introduction to Earth Sciences Lab	1
	or	
GLY 1010	Physical Geology &	3
GLY 1010L	Physical Geology Lab	1
	or	
GLY 3039	Environmental Geology &	3
GLY 3039L	Environmental Geology Lab	1
and		
BSC 2011	General Biology II &	3
BSC 2011L	General Biology Lab II	1
	or	
GLY 1101	History of Life &	3
GLY 1101L	History of Life Lab	1
and		
CHM 1045	General Chemistry I &	3
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II &	3
CHM 1046L	General Chemistry II Lab	1
and		
PHY 2048	Physics with Calculus I	4

	or	
PHY 2053	Physics without Calculus I	4
and		
PHY 2049	Physics with Calculus II	4
	or	
PHY 2054	Physics without Calculus II	4
and		
PHY 2048L	General Physics Lab I	1
PHY 2049L	General Physics Lab II	1
and		
MAC 1114	Trigonometry	3
	or	
MAC 1147	Pre-Calculus Algebra and Trigonometry	4

***And** a choice of one of the following:*

MAC 2311	Calculus I	4
STA 2023	Statistics for Business and Economics	3
STA 2122	Statistics for Behavioral and Social Sciences I	3
STA 3111	Statistics I	3

Additional Required Lower Division Course

ISC 1056	First Year Seminar in Earth and Environment	1

Upper Division Program (32 credits minimum)

List 1: Required (11 credits)

GLY 3112	Earth Through Time*	3
and		
GLY 3202	Earth Materials &	3
GLY 3202L	Earth Materials Lab	1
or		
MET 3502	Synoptic Meteorology &	3
MET 3502L	Synoptic Meteorology Laboratory	1
and		
OCE 3014	Oceanography – *GL*	3
or		
OCP 3002	Physical Oceanography	3
and		
GLY/MET 4937	Senior Seminar	1

[*Students may substitute Historical Geology from another institution.]

and

List 2: THREE of the following (9-12 credits)

GLY 4300	Petrology &	3
GLY 4300L	Petrology Lab	1
GLY 4400	Structural Geology &	3
GLY 4400L	Structural Geology Lab	1
GLY 4511	Stratigraphy &	3
GLY 4511L	Stratigraphy Lab	1
GLY 4822	Introduction to Hydrogeology	3
MET 3003	General Meteorology	3
MET 4102	Physical Climatology	3
MET 4420	Physical Meteorology	3

and

List 3: TWO of the following (6-8 credits)

EVR 3013	Ecology of South Florida &	3
EVR 3013L	Ecology of South Florida Lab	1
EVR 4211	Water Resources &	3
EVR 4211L	Water Resources Lab	1
EVR 4310	Energy Resources	3
EVR 4592	Soils & Ecosystems	3
GEO 3510	Earth Resources – *GL*	3
GLY 3034	Natural Disasters	3
GLY 4881	Coastal Hazards – *GL*	3

and

Additional Courses (6-8 credits)

Students take two approved upper division GLY (excluding GLY 3039), MET or EVR courses.

Earth Science Education Major

This program prepares students interested in Earth Sciences and science for certification to teach at the secondary level. Additional science and/or mathematic certifications at the secondary level may be added (below). Students are encouraged to contact the FIUteach program (**FIUteach.fiu.edu**) for opportunities to try out teaching at no cost. Interested students are encouraged to contact the department, the FIUteach program, or the secondary science advisor for additional details and certification requirements.

Additional coursework in science and or mathematics is required to prepare for certification in additional subject areas. Students must contact the FIUteach program or the secondary science advisor for details and requirements.

To qualify for admission to the program, undergraduate candidates must have met ail the lower division requirements including: 60 credit hours of lower-division courses, all general education requirements, lower division GPA of 2.5 or higher, and achieve the competencies of the FTCE General Knowledge Exam (GK). All students must pass the GK Exam by the time they reach 72 credit hours in their program of study. 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.

Lower Division Preparation

Common Prerequisites as Detailed Under the BA Degree in Earth Sciences

Additional Lower Division Courses (4)

AST 2003	Solar System Astronomy	3
AST 2003L	Solar System Astronomy Lab	1
and		
SMT 2661	Step 1: Inquiry Approaches to Teaching Mathematics and Science	1
SMT 2662	Step 2: Inquiry-Based Lesson Design in Mathematics and Science	1
or		
SMT 2044	Combined STEP 1 & 2: Inquiry-Based Approaches and Lesson Design for Teaching Mathematics and Science	2

Upper Division Program (47 credits minimum)

List 1: Required (14 credits)

GLY 3112	Earth Through Time*	3
GLY 3202	Earth Materials &	3
GLY 3202L	Earth Materials Lab	1
MET 3003	General Meteorology	3

and

OCE 3014	Oceanography – *GL*	3
or		
OCP 3002	Physical Oceanography	3

and

GLY 4937	Senior Seminar	1

[*Students may substitute Historical Geology from another institution.]

and

List 2: ONE of the following (3-4 credits)

GLY 4300	Petrology &	3
GLY 4300L	Petrology Lab	1
GLY 4400	Structural Geology &	3
GLY 4400L	Structural Geology Lab	1
GLY 4511	Stratigraphy &	3
GLY 4511L	Stratigraphy Lab	1
GLY 4822	Introduction to Hydrogeology	3

and

List 3: ONE of the following (3-4 credits)

EVR 3013	Ecology of South Florida &	3
EVR 3013L	Ecology of South Florida Lab	1
EVR 4211	Water Resources &	3
EVR 4211L	Water Resources Lab	1
EVR 4310	Energy Resources	3
EVR 4592	Soils & Ecosystems	3
GEO 3510	Earth Resources – *GL*	3
GLY 3034	Natural Disasters	3
GLY 4881	Coastal Hazards – *GL*	3

and

List 4: Education Courses (27 credits)

ISC 3523	Research Methods	3
RED 4325	Subject Area Reading	3
SCE 4194	Perspectives in Science and Math Education – *GL*	3
SCE 4944	Student Teaching	6
SMT 3100	Knowing and Learning in Mathematics and Science	3
SMT 4301	Classroom Interactions in Mathematics and Science Teaching	3
SMT 4664	Problem-Based Instruction (PBI) in Mathematics and Science	3
TSL 4324	ESOL Issues and Strategies for Content Teachers – *GL*	3

BS/BA Honors Major

The Honors Major in Geosciences/Earth Sciences provides outstanding students with the opportunity to do original research under a faculty sponsor. To graduate with Honors, the student must carry out a research project, write up the project as an Honors Thesis, and present the results of the research in a Departmental seminar.

Admission to the Major

To be admitted to the major a student must have:

- Arranged to be sponsored by a faculty advisor.
- Completed all lower division courses required for the degree program.
- Taken at least 14 hours of Geoscience/Earth Science courses with a GPA of at least 3.5; 6 hours must be at the 3000 level or above.
- An overall GPA of 3.5 or higher in 3000 and 4000 level classes.
- Exceptions to these criteria may be granted in special cases through appeal to the Earth and Environment Undergraduate Committee.

Application to the program is made by submission of the Honors in Geosciences/Earth Sciences Admission Form to the Earth and Environment Undergraduate Committee. This is usually done in the semester before the student intends to begin the Honors thesis research.

Graduation Requirements

- A minimum GPA of 3.5 in courses in 3000 and 4000 level classes.
- Completion of all the B.S. requirements in Geosciences or B.A. requirements in Earth Sciences, including GLY 4989L (Honors Research, 3 credits) and GLY 4970 (Honors Thesis, 3 credits).
- Completion of Honors research in collaboration with Honors supervisor and presentation of a draft of the Honors thesis to the Earth and Environment Undergraduate Committee.
- Deposition of a completed approved copy of the Honors thesis with the Earth and Environment office.

Minor in Geology

The Minor in Geology is a five course sequence intended for students who wish to develop a basic understanding of geology, General Chemistry, CHM 1045L is a prerequisite for GLY 3202.

Required courses (17 credits)

GLY 1010	Physical Geology	3
GLY 1010L	Physical Geology lab	1
or		
GLY 3039	Environmental Geology	3
GLY 3039L	Environmental Geology Lab	1
and		
GLY 1100	Historical Geology	3
GLY 1100L	Historical Geology Lab	1
or		
GLY 1101	The History of Life	3
GLY 1101L	The History of Life Lab	1
and		
GLY 3202	Earth Materials	3
GLY 3202L	Earth Materials Lab	1

and

At least 5 credit hours of approved Earth Sciences/ Geoscience courses (excluding GLY 3039) at the 3000 of 4000 level.

Minor in Meteorology

This minor is intended for science/math/engineering majors who wish to develop an understanding of meteorology. Students from other majors who have math/science background and literacy can also take this minor. Calculus I or Business Calculus, and Physics I are pre- or co-requisites for General Meteorology. The minor consists of at least 16 credits of courses within the Department of Earth Sciences.

Required Courses: (16 credits)

MET 3003	General Meteorology	3
MET 3502	Synoptic Meteorology	3

MET 3502L	Synoptic Meteorology Lab	1
MET 4420	Physical Meteorology	3
	or	
MET 4102	Physical Climatology	3

Plus, any two of the following courses (6+ credits):

MET 3103	Planetary Climate Change	3
MET 4300	Severe Weather	3
MET 4301	Dynamic Meteorology I	3
MET 4302	Dynamic Meteorology II	3
MET 4400	Meteorological Instrumentation and Observations	3
MET 4410	Remote Sensing: Radar and Satellite Meteorology	3
MET 4532	Hurricanes	3
MET 4750	Techniques for Earth System Modeling	3
OCE 3014	Oceanography – *GL*	3
or		
OCP 3002	Physical Oceanography	3

Environmental Studies Programs

The Department offers a Bachelor of Sciences degree program in Environmental Studies with a choice of majors in Agricultural Sciences and another in Natural Resources Sciences. These majors have been designed to provide students with broad academic knowledge and experience to pursue careers in the environmental professions of in sustainable agriculture. The Bachelor of Arts degree in Sustainability and the Environment is an interdisciplinary degree covering the varied aspects of environmental sustainability. Since sustainability encompasses many areas of academic interest, students are encouraged to also pursue appropriate minors and certificates that will complement the B.A. degree. The Department also offers a Minor in Environmental Studies. A grade of "C" or better is required for all required courses in the major and minor as well as for the Undergraduate Certificate in Environmental Studies.

Bachelor of Science in Environmental Studies

Degree Program Hours: 120

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
BSC 2010, BSC 2010L	BSCX010/X010L[1] or BSCX010C[1]
BSC 2011, BSC 2011L	BSCX011/X011L[1] or BSCX011C[1]
CHM 1045, CHM 1045L	CHMX045/X045L[1] or CHMX045C[1]
CHM 1046, CHM 1046L	CHMX046/X046L[1]
GLY 1010, GLY 1010L	GLYX010[1] or GLYX039[1]
EVR 3010 or PHY 2023 or PHY 2053	EVRX010[1] or PHYX023[1] or PHYX053
MAC 1147 or MAC 1105 and MAC1114	MACX132[1] or MACX105 and MACX114
ECO 2023	ECOX023[1]

[1]Requirement or option for FIU program.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, See Common Prerequisite Manual.

Required Courses

Common Prerequisites

BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1
BSC 2011	General Biology II	3
BSC 2011L	General Biology II Lab	1
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1

One of the following lecture and lab sequences:

ESC 1000	Introduction to Earth Sciences	3
ESC 1000L	Introduction to Earth Sciences Lab	1
	or	
GLY 1010	Physical Geology	3
GLY 1010L	Physical Geology Lab	1
	or	
GLY 3039	Environmental Geology	3
GLY 3039L	Environmental Geology Lab	1

One of the following courses:

EVR 3010	Energy Flow in Natural and Man-made Systems	3
	or	
PHY 2023	Survey of General Physics **or**	3
PHY 2048	Physics with Calculus I **or**	4
PHY 2053	Physics without Calculus I **or**	4
MAC 1114	Trigonometry	3
	or	
MAC 1147	Pre-Calculus Algebra and Trigonometry	4

**MAC 1105 or an appropriate score on the ALEKS placement exam is a prerequisite for MAC 1114 or MAC 1147*

Additional Required Lower Division Courses

ISC 1056	First Year Seminar in Earth and Environment	1
ECO 2023	Microeconomics	3

One of the following three courses:

STA 2023	Statistics for Business and Economics	3
STA 2122	Statistics for Behavioral and Social Sciences I	3
STA 3111	Statistics I	3

One of the following three courses:

STA 3112	Statistics II	3
STA 3123	Statistics for Behavioral and Social Sciences II	3
MAC 2311	Calculus I	4

Upper Division Program

Required Courses for Both Majors (11 credits)

EVR 3011	Environmental Resources and Pollution	3
EVR 4211	Water Resources	3
EVR 4211L	Water Resources Lab	1
EVR 3723	Natural Resources Valuation and Economics*	3
	or	
AEB 4131	Farm Economics and Management **	3
	or	
ECP 3302	Introduction to Environmental Economics	3
EVR 4920	Environmental Studies Senior Seminar	1

**EVR 3723 is strongly recommended for the Natural Resource Science Major.*
***AEB 4131 Is strongly recommended for the Agricultural Sciences major.*

Required Courses for Agricultural Sciences Major (26 credits)

AGR 4240	Modern Crop Production	3
HOS 3012	Introduction to Horticulture	3
HOS 3012L	Introduction to Horticulture Lab	1
IPM 4020	Integrated Pest Management	3
EVR 4592	Soils and Ecosystems	3
EVR 4592L	Soils and Ecosystems Lab	1
SWS 4303	Soil Microbiology	3
SWS 4303L	Soil Microbiology Lab	1
AGG 4941	Internship in Agriculture	2
EVR 4272	Agroecology– *GL*	3
EVR 4274	Sustainable Agriculture – *GL*	3

Required Courses for Natural Resources Sciences Major (22 credits minimum)

EVR 4594	Analysis of South Florida Ecosystems	3
EVR 4323	Restoration Ecology and	3
EVR 4323L	Restoration Ecology Lab	1
	and	
EVR 4352	U.S. Environmental Policy	3
	or	
POS 4035	Environmental Politics	3
Two of the following courses:		
EVR 4026	Ecology of Biotic Resources	3
EVR 4401	Conservation Biology	3
EVR 4592	Soils and Ecosystems	3
EVR 4910	Applied Ecology Field Excursion	3
GEO 3510	Earth Resources	3
GIS 3043	Introduction to Geographical Information Systems	3

Additional Upper Division Environmental Courses (6 credits)
Students may choose any two environmentally related courses offered by the Department of Earth and Environment. Other courses from outside the Department may be used if approved by the Program Director.

Bachelor of Arts in Sustainability and the Environment

Degree Program Hours: 120

Lower Division Program

Common Prerequisite Courses and Equivalencies

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, See Common Prerequisite Manual. The Common Prerequisite Manual does not include a sheet for this program.

Lower Division Requirements

IDS 1273	First Year Seminar in Sustainability	1
ECO 2023	Principles of Microeconomics	3
EVR 1001	Introduction to Environmental Science – *GL*	3
EVR 1001L	Introduction to Environmental Science Lab	1
EVR 1017	The Global Environment and Society	3
	or	
IDS 1231	Local and Regional Sustainability	3
MAC 1105	College Algebra	3
And *a choice of one of the following:*		
STA 2023	Statistics for Business and Economics	3
STA 2122	Statistics for Behavioral and Social Sciences I	3
STA 3111	Statistics I	3

Upper Division Program

Required Courses: (37 credits minimum)

Natural Dimensions Courses:

EVR 3010	Energy Flow in Natural and Man-made Systems	3
EVR 3013	Ecology of South Florida	3
EVR 3013L	Ecology of South Florida Lab	1
	or	
EVR 4594	Analysis of South Florida Ecosystems	3
EVR 4596L	Applied Field Ecology	2
And *any two of the following courses:*		
EVR 3011	Environmental Resources and Pollution	3
GEO 3510	Earth Resources – *GL*	3
GIS 3043	Introduction to Geographical Information Systems	3
	or	
GLY 3759	Visualizing Our World With GIS	3

Human Dimensions Courses:

EVR 3723	Natural Resource Valuation and Economics	3
	or	
ECP 3302	Introduction to Environmental Economics	3

EVR 4352	US Environmental Policy	3
	or	
POS 4035	Environmental Politics	3

And *any two of the following courses:*

REL 3492	Earth Ethics – *GL*	3
EVR 4321	Sustainable Resource Development	3
EVR 4411	Human Organization & Ecosystems Management	3
EVR 4415	Population & Environment Issues	3

Media and Communication Courses:

One of the following:

COM 3601	Environmental Communication	3
JOU 3314	Environmental Journalism: Communicating Environmental Issues in South Florida	3
MMC 3650	Media and Sustainability	3
MMC 3303	Global Media and Society – *GL*	3

Sustainability and the Environment Electives (6)

Two three-credit courses offered by the Department of Earth and Environment in any area of sustainability and environment studies, including courses listed above.

Capstone Courses

IDS 4232	Sustainability in Action	3

Combined BS/MS or BA/MS in Environmental Studies

The combined BS/MS or BA/MS degree program in Environmental Studies allows qualified students to earn both the BS in Environmental Studies or the BA in Sustainability and the Environment and a non-thesis MS in Environmental Studies, in a shorter amount of time than typically required for earning degrees sequentially. The accelerated program is designed for highly qualified undergraduate students in the Department of Earth and Environment.

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75 credit hours including al lower division requirements, have at least 30 credit hours remaining in the program and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

Admission Requirements

1. Current enrollment in the Bachelor's Degree Program in Environmental Studies or Sustainability and the Environment at FIU.
2. Completed at least 75 credits of coursework (including UCC and CLAS), with at least 30 credits remaining.
3. Completion of all lower division required courses for the Bachelor's degree.
4. Current GPA of 3.25 or higher.
5. Official GRE scores.
6. Three letters of recommendation.
7. Approval by the Earth and Environment Graduate Committee.

General Requirements

1. Meet the requirements of both the BS in Environmental Studies or BA in Sustainability and the Environment and the non-thesis MS degree in Environmental Studies.
2. Overlap of programs: Up to 3 courses (9 credits) may be used in satisfying **both** the BA/BS and MS degree requirements, which must be at the 5000-level or higher.

Minor in Environmental Studies

The Minor in Environmental Studies consists of a set of five courses that provide students with an introduction to the area of natural resources.

Required Courses

1. Four of the following courses:

EVR 3011	Environmental Resources and Pollution	3
EVR 4026	Ecology of Biotic Resources	3
EVR 4211	Water Resources	3
EVR 4310	Energy Resources	3
EVR 4323	Restoration Ecology	3
EVR 4401	Conservation Biology	3
EVR 4592	Soils and Ecosystems	3

2. One of the following courses:

EVR 4415	Population and Environment Issues	3
EVR 4321	Sustainable Resource Development	3
EVR 4352	US Environmental Policy	3
Total Credits		**15**

Grades of 'C' or better required for all courses. Other Environmental Studies courses offered by the Department of Earth and Environment may be substituted subject to approval of the Undergraduate Program Director.

Course Descriptions

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

Definition of Prefixes

AEB-Agricultural Economics and Business; AGG-Agriculture: General; AGR-Agronomy; ESC-Earth Sciences; EVR-Environmental Studies; EVS-Environmental Science; GEO-Geography: Systematic; GIS-Geography: Information Science; GLY-Geology; HOS-Horticultural Sciences; IDS-Interdisciplinary Studies; IPM-Integrated Pest Management; ISC-Interdisciplinary Science/Natural Science; MET-Meteorology; OCE-Oceanography; OCP-Physical Oceanography; SWS-Soil and Water Sciences

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

Courses that meet the University's Global Learning requirement are identified as GL.

AEB 4131 Farm Economics and Management (3). The application of economic principles to farm management, budgeting techniques, farm financial and risk analysis, and marketing plan. Covers farm management strategies for sustainable farming. Prerequisites: ECO 2023 or equivalent.

AGG 4941 Internship in Agriculture (0-15). Practical experience by working or conducting research at a farm, field, or private or government agency on topics related to food and agriculture with approval of faculty supervisor. May be repeated. (Pass/Fail only). Prerequisites: Permission of the instructor.

AGR 3930 Agriculture Colloquium (1). Promotes general knowledge of agriculture from soil science to agriculture marketing and business. May be repeated with change of content.

AGR 4240 Modern Crop Production (3). Basic of various agronomic crops, how they related to environment, what are the principles of production, management of problems, and the utilization of crops. Prerequisites: BSC 2010, BSC 2011 or permission of the instructor.

AGR 4641 Sustainable Bioenergy (3). Principles and technological approaches of converting biomass from plants, algae, and microorganism to biofuels. Understand factors influencing public acceptance of biofuels. Prerequisites: EVR 1001, BSC 2010, CHM 1045.

AGR 5241 Advance Modern Crop Production (3). An advance course in agronomy applying crop, soil, and environmental sciences in understanding agricultural systems in the world. Includes the concepts of plant, seed, water, soil, tillage, pest, post-harvest, ecophysiology, and sustainable aspects of crop production.

ESC 1000 Introduction to Earth Sciences (3). ESC 1000L Introduction to Earth Sciences Lab (1). Survey of Earth science including earth materials, surface and internal processes, earth history, oceanography and atmospheric science. Students cannot get credit for both this course and GLY 1010 and GLY 1010L.

ESC 3050 Seminar in Earth Science Education (1). Seminar covering theoretical and practical issues encountered in the teaching of Earth Sciences. Students will discuss experience gained as learning assistants. Prerequisites: GLY 1010 and GLY 1010L, GLY 1101 and GLY 1101L and permission of the instructor.

ESC 3930 Topics in Earth Sciences (1-5). Selected topics in the earth sciences.

ESC 4052 Inquiry-Based Learning in the Earth Sciences (3). Important concepts in the Earth Sciences covered using inquiry based learning techniques. Content delivery using laboratory exercises and technology. Prerequisite: Permission of the instructor.

ESC 5005 Earth Science Enrichment Activities for Teachers (1-2). Workshop presenting Earth Science enrichment activities to high school and middle school science teachers.

EVR 1001 Introduction to Environmental Science – *GL* (3). This course emphasizes scientific knowledge in global context about the environment including nutrient cycling, pollution, desertification, climate change, energy, water resources, biodiversity loss. (F,S, SS)

EVR 1001L Introduction to Environmental Science Lab (1). Laboratory analysis and field trips on topics and concepts covered in Introduction to Environmental Sciences. (F,S,SS)

EVR 1017 The Global Environment and Society – *GL* (3). A broad introduction to the impact of social and economic processes on the global environment, including historical and comparative dimensions. (F, S, SS)

EVR 2904 CAChE Discovery 1: Research in Aquatic Ecosystems (1). This is an undergraduate course to explore topics in ecotoxicology and aquatic chemistry and providing students research experience. Part of the NSFCREST-CAChE Program.

EVR 3003 Latin American Environmental Issues (3). An overview of historical and emerging environmental issues in Latin American countries. Themes covered include environmental history, urban pollution, tropical deforestation, and indigenous peoples. (F)

EVR 3010 Energy Flow in Natural and Man-made Systems (3). A course examining energy use and efficiency, nuclear and renewable energy sources, and their environmental impacts. Prerequisites: MAC 1105 or equivalent. (F,S)

EVR 3011 Environmental Resources and Pollution (3). An environmental science course for science majors focusing on human impacts on the environment, especially water and nutrient cycling, resource use and pollution. Prerequisites: MAC 1105 or equivalent, and an introductory science course. (F,S)

EVR 3011L Environmental Science: Pollution Lab (1). Laboratory and field analysis of topics and concepts covered in EVR 3011. Corequisite: EVR 3011. (F,S)

EVR 3013 Ecology of South Florida (3). EVR 3013L Ecology of South Florida Lab (1). A course for non-science majors, offering an introduction to the ecology of South Florida through lectures and a series of field trips into several unique ecosystems, such as the Everglades, hardwood hammocks, and coastal regions. The course also deals with natural resource conservation, wildlife management, endangered species, and wilderness issues. (F,S,SS) Lab Prerequisite or Corequisite: EVR 3013

EVR 3029 The Everglades (3). An interdisciplinary examination of the Everglades system, including natural history, human history, esthetics, and politics/policy of restoration.

EVR 3402 Asian Environmental Issues (3). An overview of emerging environmental issues in Asian countries. Discussion of cultural, economic, and political systems of the region and their influence on the environment.

EVR 3723 Natural Resource Valuation and Economics (3). The market and non-market valuation of natural resources and how their values are used for different

resource allocation decisions. Also covers economic bases of natural resource policies. Prerequisites: ECO 2023 or equivalent.

EVR 3925 CAChE Discovery 2: Professional Pathways in Aquatic and Environmental Science (1). This is an undergraduate course to assist students in developing abilities to become better science communicators and professionals. Part of the NSFCREST-CAChE Program.

EVR 3931 Topics in Environmental Studies (3). An intensive analysis of a current environmental topic. Course may be repeated with change in content.

EVR 3949/EVR 4949 Cooperative Education in Environmental Studies (1-3). One semester of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluations will be required of each student. (F,S,SS)

EVR 4023 Coastal Resource Management (3). An introduction to the basic concepts, principles, and analytical tools used in the management of coastal resources.

EVR 4026 Ecology of Biotic Resources (3). The study of renewable natural resources of the earth's biomes, particularly those of tropical forests, the factors influencing their productivity, conservation, and human use. Prerequisites: BSC 2010 and BSC 2011. (F)

EVR 4112 Climate Change Policy (3). Introduction to policies governing climate change mitigation. Examines the impetus for, specific mechanisms used to implement, and effectiveness of both national and international policies. Prerequisites: EVR 4352 or permission of the instructor.

EVR 4120 Natural Disasters and Society (3). Introduce basic concepts and analytical tools of societal responses in managing natural disasters.

EVR 4211 Water Resources (3). A seminar dealing with various aspects of water use, water pollution problems, chemistry and ecology of South Florida's waters. Ecology is recommended. Prerequisites: CHM 1045 and CHM 1046 or equivalent and general biology. (F)

EVR 4211L Water Resources Lab (1). Laboratory course on procedures currently suitable and widely accepted for physical, chemical, and biological methods in the examination of water. Prerequisite or Corequisite: EVR 4211. (F)

EVR 4231 Air Resources (3). Common air pollutants - their sources and methods of control. Different legislative and administrative approaches will be studied. Prerequisites: CHM 1045 and CHM 1046 or equivalent.

EVR 4272 Agroecology – *GL* (3). Application of ecological principles to farming systems to achieve goals of long term food production without depleting Earth's resources. (F).

EVR 4274 Sustainable Agriculture – *GL* (3). Analysis of sustainability of modern agricultural systems under a variety of ecological economic and cultural settings. Familiarizes students with socioeconomic, urban policy, sustainable agriculture. (S)

EVR 4310 Energy Resources (3). Seminar dealing with power and energy production in modern society, fundamental energy relationships of industrial and domestic processes. Prerequisites: EVR 3010 or PHY 2023 or equivalent.

EVR 4321 Sustainable Resource Development (3). An overview of social, economic and ecological approaches to sustainable resource development. Examines various policies for harmonizing economic growth and environmental sustainability.

EVR 4323 Restoration Ecology (3). Principles and practices of environmental restoration, recreation and enhancement. Examines ecological theory that relates to restoration through case studies from southern Florida. Prerequisites: EVR 3013 or EVR 4594 or PCB 3043 or permission of the instructor. (S)

EVR 4323L Restoration Ecology Lab (1). This lab is to illustrate concepts and applications of ecological restoration theories through visitations to and participations in various ecological restoration sites in South Florida. Prerequisite or Corequisite: EVR 4323. (S)

EVR 4351 U.S. Energy Policy (3). Policies governing the utilization of energy in the U.S. Focuses on the physical, political and social constraints that shape energy policy in this country. Prerequisites: EVR 3010 or permission of the instructor.

EVR 4352 U.S. Environmental Policy (3). Introduction to U.S. environmental policy. Reviews primary U.S. environmental legislation and the role of regulation. (F,S)

EVR 4356 Coastal and Marine Environmental Policy (3). Examine policies that govern the utilization and protection of coastal and marine areas. Focus on the political, social, environmental and economic constraints that shape the policy process. (F)

EVR 4374 Ecology and Management of Invasive Species (3). An overview of the key ecological, social, and management questions surrounding introduced invasive species.

EVR 4401 Conservation Biology (3). Applies modern theory from ecology and population genetics to conservation issues. Topics include population viability studies, reserve design, forms of rarity, and policy issues. Prerequisites: BSC 2010 and BSC 2011.

EVR 4411 Human Organizations and Ecosystem Management (3). Environmental aspects of organizational theory and strategic management in indigenous and other local communities, non-governmental organizations, governments, and the private sector are discussed. Prerequisite: An introductory Environmental Studies course. (F)

EVR 4415 Population and Environment Issues (3). A study of co-evolutionary relationships between humans and their environment and subsequent impacts on human populations across time.

EVR 4434 Sustainable Cities (3). Introduction to the theories, concepts, and current trends relevant to the creation and maintenance of Sustainable Cities. Prerequisite: Junior standing.

EVR 4592 Soils and Ecosystems (3). A review of basic soil science concepts; analyses of basic physical and chemical properties of soils, emphasizing soils in South Florida ecosystems. Prerequisites: BSC 2010 and CHM 1045, or permission of the instructor.

EVR 4592L Soils and Ecosystems Lab (1). Laboratory exercises provide soil characterization techniques used in soil science and complement the lectures by carrying out experiments illustrating soil science concepts, soil formation, soil properties, and soil nutrients cycling. Corequisite: EVR 4592.

EVR 4594 Analysis of South Florida Ecosystems (3). In-depth study, using case study approach of the major ecosystems of South Florida, the environmental issues facing them, and the management strategies employed to sustain their natural resources. Prerequisites: BSC 2011, BSC 2011L. (F,S)

EVR 4596L Applied Field Ecology (2). Introduction to basic methodologies of applied field ecological research; builds ability to identify major plant and animal species and community assemblages in South Florida. Prerequisites: BSC 2011, BSC 2011L. (F,S)

EVR 4869L Environmental Problem Solving Lab (2). Provides first-hand experience in solving environmental problems (problem definition, study design, data collection, analysis & reporting). Includes use of case study, social survey, computer modeling and GIS techniques. Prerequisites: STA 3111, ECO 2023, EVR 3010, and EVR 3011, or permission of the instructor. (F)

EVR 4905 Research and Independent Study (VAR). Student develops and carries out research project with guidance from professor. Permission of the instructor.

EVR 4910 Applied Ecology Field Excursion (3). A hands-on learning experience in how ecosystems and their characteristic plant and animal species function. Involves a multi-day field excursion to a landscape of ecological and management interest. Prerequisite: BSC 2011 and BSC 2011L or permission of instruction.

EVR 4920 Environmental Studies Senior Seminar (1). Seminar includes discussions of environmental careers, preparation of research proposal or paper and attendance at talks given by experts in environmental topics. Prerequisite: Permission of instructor. (F,S)

EVR 4924 Environmental Education (3). Principles and methods of teaching sustainable living, personal and institutional, emphasizing S. Florida, using reading, discussion, projects and visits to local EE programs.

EVR 4934 Special Topics (1-3). Advanced undergraduate level course dealing with selected environmental topics. Course may be repeated with change in content. (F,S)

EVR 4941 Internship in Environmental Studies (0-6). Direct experience working in areas of environment or sustainability in government, industry, non-profit or research with approval of Faculty supervisor. May be repeated for credit. (Graded Pass/Fail) Prerequisites: Permission of the instructor.

EVR 5006 Environmental Science and Sustainability (3). Introductory environmental science course for graduate students in environmental studies and other disciplines. Emphasizes physical sciences and applications to environmental issues. (F)

EVR 5044 Advanced GIS and Environmental Data Analysis (3). Explores project planning, geospatial database design and implementation of analytical and display methods in GIS for organizing, querying, analyzing and presenting spatial data. Prerequisites: One of the following: EVR 5050, CGN 4321, CGN 5320, INR 4931, URS 6930.

EVR 5061 South Florida Ecology: Field Studies (3). Introduction to ecology of South Florida. Series of field trips to unique ecosystems (Everglades, hard-wood hammocks, coastal regions). No science background required. Intended for teachers. Not intended for Environmental Studies graduate students. (F,S)

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.

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.

EVR 5069 Wetland Ecology and Management (3). Principles of ecology and management as applied to freshwater and estuarine wetlands. Prerequisites: Undergraduate degree in science, or PCB 3043, or permission of the instructor.

EVR 5122 Natural Disasters and Social Vulnerability (3). Natural Disasters and Social Vulnerability course will introduce basic concepts and analytical tools of societal responses in managing natural disasters.

EVR 5219 Water Resources Assessment (3). Elements of hydrological cycle, hydrological processes and water resources assessment with emphasis on surface and groundwater water quantity and quality evaluation is central to the course.

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. Prerequisites: EVS 3360 or EVR 4231.

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. Prerequisites: Graduate standing or permission of the instructor. (S)

EVR 5332 Integrated Solutions for Water in Environment and Development (3). Examines the theory and practice of integrated water resources management, focusing on science, policy, and socioeconomic themes evaluated through case studies from different regions of the world. Emphasis given to environmental elements.

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. (F)

EVR 5360 Protected Area Management (3). Explores historical, ecological, legal and socioeconomic aspects of the management of natural areas using examples worldwide. Prerequisite: Graduate standing in Environmental Studies or permission of instructor

EVR 5375 Advanced Restoration Ecology (3). Restoration planning, endangered species reintroduction, disturbed land reclamation, ecosystem restoration, challenges of climate change on ecological restoration. Prerequisite: One course or more in ecology.

EVR 5376 Advanced Ecology and Management of Invasive Species (3). An in depth study of the key ecological, social, and management questions surrounding introduced invasive species.

EVR 5406 Endangered Species Policy and Management (3). Exploration of the history of the U.S. Endangered Species Act, and its implementation and effectiveness through the listing and recovery planning processes. Prerequisite: Graduate standing in Environmental Studies or Biology, or permission of instructor.

EVR 5409 Advanced Conservation Biology (3). Exploration of modern applications of ecology, genetics and evolutionary biology in the conservation biology. Policy aspects of biological conservation are also discussed. Prerequisites: BSC 2010 and BSC 2011.

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. (F,S)

EVR 5936 Topics in Environmental Studies (3). An analysis of several current environmental topics. Recommended for primary and secondary school teachers.

EVS 4164 Applied Environmental Geology (3). EVS 4164L Applied Environmental Geology Lab (1). A survey of the geological and geographical factors critical to man's attempt to contend with the natural processes. Construction problems, sewers, waste disposal, dams, ground water, and terrain evaluation in relation to the nature of the underlying substratum. Principles illustrated from South Florida and the Caribbean region in particular. Study of the geological factors involved in future development and growth of these areas, and conservation methods in relation to the geology of these areas. Prerequisites: GLY 1010, GEO 2200, and a sound background in mathematics, physics, and chemistry. Laboratory must be taken concurrently with the course. (S in alternate years)

GEO 2200 Physical Geography (3). GEO 2200L Physical Geography Lab (1). Survey of the physical environment relevant to studies in regional geography and earth sciences. Natural evolution of landforms, and the interacting processes responsible for these features. Environmental modification and deterioration caused by human interaction. Effects of these changes: socioeconomic impact and geographic problems. Case studies illustrated from South Florida and the Caribbean region. (F in alternate years.)

GEO 3510 Earth Resources – *GL* (3). Geological occurrence, extraction and uses of mineral and energy resources, and associated global environmental, economic, social and political problems through time. (F,S,SS)

GEO 3510L Earth Resources Laboratory (1). Introduction to minerals and rocks used by society. Case studies of geologic, environmental and economic aspects of resource extraction and use. Corequisite: GEO 3510.

GIS 3043 Introduction to Geographical Information Systems (3). Introduction to GIS concepts and software such as ArcView. Topics include: cartographic basics, spatial datasets, attributes, map production, spatial statistics and analysis, and obtaining GIS data. (F,S,SS)

GIS 5050 Environmental GIS (3). Concepts of GIS, database design and management, advanced spatial analysis and modeling, uncertainty, error, and sensitivity in GIS. Focus on GIS project design, execution and presentation using AroGIS. Prerequisite: Permission of the instructor.

GLY 1010 Physical Geology (3). GLY 1010L Physical Geology Lab (1). Survey of Geology including Earth materials and structure, internal processes, surface processes, groundwater and climate change. Students cannot receive credit for both this course and ESC 1000 and ESC 1000L. (Lab fees assessed) (F,S,SS)

GLY 1037 Environmental Hydrology for High School Students (1). Environmental issues surrounding the natural occurrence and human use of surface water and groundwater in South Florida. Includes field trips to local sites of hydrologic/environmental significance.

GLY 1100 Historical Geology (3). GLY 1100L Historical Geology Lab (1). An introduction to the geological history of the earth and the geological time scale. Evolution of animals and plants. Prerequisites: GLY 1010 or GLY 3039 or equivalent. Lecture and lab must be taken concurrently. (S)

GLY 1101 The History of Life (3). GLY 1101L The History of Life Laboratory (1). Interaction of biological and geological principles and processes, history and ecology of past life, and major events such as the marine invasion of land, mass extinctions, and the Ice Age. (F,S)

GLY 2072 Earth's Climate and Global Change (3). Introduction to Earth's climate and the variations of climate through geological and historical time. Emphasis is placed on the importance of the interactions of Earth's crust, atmosphere, biosphere and oceans in affecting the planet's climate. (F in alternate years)

GLY 2072L Earth's Climate and Global Change Lab (1). Practical analysis of the important factors affecting Earth's Climate. Analysis of historical and geological records of climate change. Corequisite: GLY 2072. (F in alternate years)

GLY 3034 Natural Disasters (3). A geological look at catastrophic events including earthquakes, volcanoes, tsunamis, mass movements, hurricanes, floods, and desertification. Emphasis on the geologic setting in which these natural disasters take place. Special attention will be given to compare similar disasters in the geologic past. Prerequisite: Physical science at the high school level. (F,S,SS)

GLY 3039 Environmental Geology (3). GLY 3039L Environmental Geology Lab (1). The composition and structure of the earth, the internal and external forces acting upon it and the resulting surface features. Case studies and general principles illustrated from South Florida and the Caribbean. Field trips expected. No prerequisites. (F,S,SS)

GLY 3103 Dinosaurs (3). Survey of the different groups of dinosaurs. Dinosaur biology, geology, and the history of their discovery to further understanding of their life histories, environments, and the causes of their extinction.

GLY 3103L Dinosaurs Laboratory (1). Survey of the different groups of dinosaurs. Laboratory study of dinosaur bones, prints and eggs to further our understanding of their life histories, environments, and the causes of their extinction. Corequisite: GLY 3103.

GLY 3112 Earth through Time (3). Evolution of the Earth through its 4600 million year history, the fossil record and the geologic time scale. Major geologic events of the past and their effects on organic evolution. (S)

GLY 3153 Workshop in South Florida and Caribbean Geology (2). Workshop on the geology of South Florida and the Caribbean for science majors. Includes field trips in South Florida. Prerequisite: Permission of the instructor.

GLY 3157 Elements of Caribbean Geology (3). A survey of the geology of the Caribbean and neighboring regions in view of current data and modern concepts of global tectonics. The course summarizes the important points of Caribbean and Central American geology in their relation to mineral and energy resources; natural environmental disasters, especially seismic zones; agriculture; and the geologic potential for future development and industrialization. (S in alternate years)

GLY 3202 Earth Materials (3). Physical and chemical properties of minerals and mineral assemblages, such as rocks and soils. Processes of mineral formation. Prerequisites: ESC 1000 or GLY 1010 or GLY 3039 or permission of the instructor and CHM 1045. Corequisite: GLY 3202L. (F)

GLY 3202L Earth Materials Lab (1). Physical and chemical properties of minerals, rocks and soils with emphasis on identification. Application of macroscopic methods, X-ray diffraction, polarized light microscopy, in situ and bulk chemical analysis. Prerequisite or Corequisite: GLY 3202. (F)

GLY 3220 Optical Mineralogy (3). GLY 3220L Optical Mineralogy Lab (1). Principles and use of the petrographic microscope. Optical properties of isotropic, uniaxial and biaxial minerals. Prerequisites: GLY 3202 or equivalent. Laboratory must be taken concurrently with course.

GLY 3630 Research in Tropical Environments (3). Earth Sciences, Biology and Environmental Studies faculty describe research in marine and terrestrial ecosystems, geology, conservation and education. Students discuss scientific articles.

GLY 3751 Introduction to Mineral Science (2). Workshop introducing properties and uses of minerals, and techniques used to investigate minerals. Prerequisites: One of the following: BSC 2010, CHM 1045, PHY 2053, GLY 1010. (SS)

GLY 3754 Remote Sensing in the Earth Sciences (3). Remote sensing methods for the exploration and investigation of geologic processes and earth resources; airphoto interpretation, processing and analysis of multiband digital satellite imagery; GIS. Prerequisites: GLY 1010 or permission of the instructor. (F)

GLY 3759 Visualizing Our World With GIS (3). Visualization of geospatial data in the Earth Sciences with Geographic Information Systems. Topics include natural hazards, distribution of water, mineral, and energy resources, and urban sprawl. (SS)

GLY 3760C Geological Map Analysis (3). Laboratory course dealing with analysis of geological maps and sections; theory and method of interpretation of surface outcrops on maps. Properties of simple geological structures. Recommended to be taken prior to GLY 4400 and GLY 4791. Prerequisites: Trigonometry, Introduction to Earth Science or equivalent (e.g. MAC 2132, GLY 3039 or equivalents). (F)

GLY 3782 Geology Field Excursion (3). A one to three-week field excursion in a region of interest to demonstrate the occurrence, appearance and processes of various geological phenomena. Course may be repeated. Prerequisites: ESC 1000 or GLY 1010 or GLY 3039 or permission of the instructor. (F,S,SS)

GLY 3820 Applied Hydrogeology of South Florida (2). Workshop introducing hydrogeology of South Florida, and

laboratory and field techniques used to study groundwater. Prerequisites: One of the following: BSC 2010, CHM 1045, PHY 2053, GLY 1010.

GLY 3881 Environmental Geology Field Methods (3). Introduction to commonly used field methods in environmental geology including site evaluation, bore-hole geophysical and hydrogeological techniques, and topographic map skills. Prerequisites: GLY 1010 or GLY 3039.

GLY 3882 Environmental Geology Florida Keys Workshop (2). Workshop introducing environmental geology of the Florida Keys, Bay-Island-Reef transect. Prerequisites: One of the following: BSC 2010, CHM 1045, PHY 2053, GLY 1010, or equivalent. (SS)

GLY 3949/GLY 4949 Cooperative Education in Geology (1-3). One semester of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluations will be required for each student. (F,S,SS)

GLY 4036 Earth Sciences and Society (3). Explores the new directions of Earth Science studies and examines how they can enhance society's ability to make wise decisions on resource development, waste disposal, natural hazards. Prerequisites: GLY 1010 or GLY 3039.

GLY 4281C Introduction to SEM with EDS Analysis (3). Introduction to imaging and microanalysis of materials using SEM including EDS and XRF. Prerequisite: Permission of instructor

GLY 4300 Petrology (3). Origin, composition and classification of igneous, sedimentary, and metamorphic rocks. Observational, theoretical, and experimental studies of rocks. Prerequisite: GLY 3202. (S)

GLY 4300L Petrology Lab (1). Identification of rocks using macroscopic and microscopic techniques. Application of electron microprobe. Prerequisite or Corequisite: GLY 4300. (S)

GLY 4400 Structural Geology (3). GLY 4400L Structural Geology Lab (1). Faults, folds, fractures and other rock structures; their description and representation on maps and diagrams; mechanics of their formation. Prerequisites: ESC 1000 or GLY 1010 or GLY 3039 and MAC 1114 or MAC 1147. (F)

GLY 4450 Environmental and Exploration Geophysics (3). Introduction to geophysical methods used in exploration and environmental geophysics. Seismic methods; potential fields; electrical and EM methods; ground penetrating radar; geophysical well logging. Prerequisites: MAC 2312; PHY 2049 or 2054; or permission of the instructor. (S)

GLY 4511 Stratigraphy (3). Stratigraphic principles applied to interpreting the rock record. Sediments, depositional environments and dynamics in the sedimentary record. Stratigraphic correlation and the development of the Geologic Time Scale. Prerequisite: GLY 3202. (F)

GLY 4511L Stratigraphy Lab (1). Laboratory analysis of rock facies and index fossils used in the interpretation of the geologic record. Prerequisite or Corequisite: GLY 4511. (F)

GLY 4551 Sedimentology (3). GLY 4551L Sedimentology Lab (1). Sedimentary processes in the geological cycles, as illustrated in recent environments. Different groups of sedimentary rocks. Primary and secondary sedimentary structures. Physicochemical properties and diagenetic processes. Analytical techniques applied to modern sedi-mentology of both loose and lithified sediments. Prerequisites: Introduction to Earth Science or equivalent; Earth Materials and Stratigraphy and a sound background in mathematics and chemistry. Laboratory must be taken concurrently with course. (S)

GLY 4603 Paleobiology (3). Development of life as traced through the fossil record. Survey of the main groups of animals commonly found as fossils. Theories of evolution and extinction. Study of the major fossil groups used in biostratigraphic zonation, and as paleoecologic indicators. Prerequisites: GLY 1010, or GLY 3039, or BSC 2010, or permission of the instructor.

GLY 4603L Paleobiology Lab (1). Development of life as traced through the fossil record. Survey of the main groups of animals commonly found as fossils. Theories of evolution and extinction. Study of the major fossil groups used in biostratigraphic zonation, and as paleoecologic indicators. Prerequisites: GLY 1010, BSC 2010, or permission of the instructor.

GLY 4660 Paleoecology (3). Fossils, sedimentary rocks, taphonomy, and stable isotopes of oxygen and carbon are applied to interpreting local environmental changes and regional to global climate changes of the past.

GLY 4730 Marine Geology (3). Origin of ocean floor physiographic provinces and modern theories concerning the evolution of Earth's ocean basins. Characteristics and distribution of marine sediments and their interpretation. Prerequisites: ESC 1000 or GLY 1010 or GLY 3039 or OCE 3014 or OCP 3002 or permission of the instructor.

GLY 4734 Changing Coastlines – *GL* (3). Focus on the physical processes that cause erosion and shape our coastlines and the consequences for human development and habitation of this dynamic landscape.

GLY 4791 Field Geology and Geologic Mapping (3-6). A three-to six-week field instruction and practice in methods of constructing stratigraphic sections, structural cross sections and geologic mapping using topographic base maps, aerial photos, and surveying equipment. Prerequisites: GLY 4511 and GLY 4511L, GLY 4400 and GLY 4400L. (SS)

GLY 4812 Introduction to Ore Deposits (3). Major classes of metal deposits, their geologic settings and genetic theories, and case studies of great deposits. Environmental, economic and legal aspects of metal extraction, processing and use. Prerequisites: GLY 1010, GLY 1010L or GLY 3039, GLY 3039L. (S)

GLY 4822 Introduction to Hydrogeology (3). Principles of groundwater flow, determination of aquifer properties, geologic factors influencing groundwater flow and quality, legal/regulatory framework for hydrogeology.

Prerequisites: PHY 2048 or PHY 2053, CHM 1045, MAC 2311, or permission of the instructor. (S)

GLY 4822L Introduction to Hydrogeology Lab (1). Principles of groundwater flow, determination of aquifer properties, geologic factors influencing ground water flow and quality. Prerequisites: CHM 1045, GLY 1010, PHY 2053, MAC 2311, or equivalent. Corequisite: GLY 4822.

GLY 4823 Florida Geologic and Hydrologic Systems (3). Survey of geological formations of Florida and their relationship to hydrologic and mineral resources. Sedimentary facies in relation to their hydrologic properties. Prerequisites: GLY 4822 and GLY 4511 or permission of the instructor.

GLY 4881 Coastal Hazards – *GL* (3). Focus on the processes responsible for tsunamis, storm surges, coastal erosion, land subsidence, sea level rise, etc. and their mitigation.

GLY 4910, GLY 4911 Undergraduate Research in Geology (VAR). Individual research under the supervision of a professor in the student's field of specialization or interest. Subject may deal with laboratory work, field, and/or bibliographical work. Field research in the Caribbean is encouraged. Variable credit to a maximum of 10 credits. Permission of the student's advisor is required. (F,S,SS)

GLY 4937 Senior Seminar in Geological Sciences (1). Geosciences topics are researched, presented and discussed by students. Students develop knowledge of current research trends and written and verbal science communication skills. Prerequisites: Permission of instructor.

GLY 4947 Internship in Geoscience (0-6). Practical geological, geophysical, or hydrological work experience at local companies, non-profits, or government agencies supervised by a faculty member. May be repeated for credit. (Pass/Fail Only) Prerequisite: Permission of Instructor.

GLY 4970 Geology Honors Thesis (3). Preparation of honors thesis and research seminar. Prerequisite: GLY 4989L.

GLY 4989L Geology Honors Research (1-3). Laboratory and/or field study in consultation with a faculty advisor. Prerequisite: Admission into Geology honors major.

GLY 5021 Earth Sciences for Teachers (3). Study of geological materials and processes, as covered in Introduction to Earth Science, but at a higher level and with additional assignments. Prerequisite: Permission of the instructor. (F,S,SS)

GLY 5060 Planet Earth: Dynamic Earth (1). Essentials of metamorphism, rock rheology, seismology, plate tectonics, plate boundaries, plate movement, continental rifting and evolution of mountain belts.

GLY 5107 Planet Earth: Evolving Earth (1). Essentials of lithostratigraphy, biostratigraphy, geologic time scale, modern sedimentological processes, sedimentary rocks, evolution and extinction events, paleoenvironments and paleoclimates.

GLY 5108 Paleoenvironments (3). Sedimentary environments, paleoecology of fossils, skeletal minerology, marine paleoenvironmental changes, global patterns of change through time. Prerequisite: Permission of the instructor.

GLY 5158 Florida Geology (3). Detailed lithostratigraphic and biostratigraphic analyses of Southeast Florida and their relationship to tectonics, paleoclimates. Prerequisites: GLY 4511 and GLY 4511L. (S in alternate years)

GLY 5159 Planet Earth: South Florida (1). Geology, water resources and geologic environments of South Florida.

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 4822 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: Introduction to Earth Science and General Chemistry. (F in alternate years)

GLY 5266 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 permission of the instructor.

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 5286 Research Instrumentation and Techniques in Geology (3). Survey of techniques and instrumentation used in geological research, including computing and data handling. Prerequisites: 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. Prerequisites: Graduate standing or permission of the instructor. Corequisite: GLY 5286. (F)

GLY 5287C Scanning Electron Microscopy with EDS Analysis (3). Imaging and microanalysis of materials using SEM including EDS. Prerequisite: Permission of the instructor.

GLY 5288C Electron Microprobe Microanalysis with EDS Analysis (3). Imaging and analysis or geological and other materials using electron microprobe with EDS analysis. Prerequisite: Permission of the instructor.

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. Prerequisites: GLY 5246 or permission of the instructor.

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) (F)

GLY 5329 Planet Earth: Solid Earth (1). Essentials of the formation and evolution of the crust mantle and core of the earth. Composition and physical properties. Generation of magmas, their geochemistry.

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 in alternate years)

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. Prerequisites: 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 2313, 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, 4300, 3202 or permission of the instructor. (S)

GLY 5457 Geophysical Data Analysis (3). Computer analysis and modeling of geophysical data and digital images. Statistical description of data, linear inverse theory, digital signal and image processing. Computer exercises with MATLAB. Prerequisites: GLY 4450, MAP 2302, MAS 3105, PHY 2048, PHY 2049 or permission of the instructor. Corequisite: GLY 5457L. (S)

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 2048, PHY 2049, MAC 2311, MAC 2312, MAP 2302. (S)

GLY 5475 Exploration Geophysics (3). New in depth review of geophysical methods used in exploration and environmental geophysics. Digital data processing; Seismic methods; potential fields; electrical and EM methods; ground penetrating radar. Prerequisites: MAC 2312, PHY 2049 or PHY 2054.

GLY 5495 Seminar in Geophysics (2). Detailed investigation of current geophysical techniques, including topics on instrument design. Prerequisites: GLY 5457 or permission of the instructor. (F/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. (F/S)

GLY 5518 Advanced Stratigraphy (3). Principles of stratigraphy and the geologic time scale applied to the sedimentary rock record, to determine dynamics of sedimentation, depositional environments and correlation. Prerequisite: Permission of the instructor. Corequisite: GLY 5518L.

GLY 5518L Advanced Stratigraphy Laboratory (1). Training in laboratory techniques to analyze sedimentary rocks for depositional reconstruction and correlation. Prerequisite: Permission of the instructor. Corequisite: GLY 5518.

GLY 5593 Topics in Paleoclimatology (3). Broad concepts in paleoclimatology are reviewed and discussed. Topics include climate models, Quaternary climates, dating and pre-Quaternary climates. Prerequisite: Permission of the instructor.

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)

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 4603 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. Prerequisites: GLY 4603 or permission of the instructor. (F)

GLY 5627 Workshop: Microfossil Paleoenvironments (2). Recent foraminifera and diatoms are sampled, prepared and identified from marine to freshwater facies. Taxon distributions are used to interpret paleoenvironments.

GLY 5628 Radiogenic Isotope Methods (3). Theory and practice of radiogenic isotope ratio measuring techniques. Use of class-100 clean room facilities, and introduction to

thermal ionization mass spectrometry. Prerequisite: General Chemistry.

GLY 5655 Topics in Paleobiology (1-3). Various concepts in paleobiology are reviewed and discussed, based on readings of the literature, including journal articles and books. Prerequisite: Permission of the instructor.

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 5736 Marine Geology and Geochemistry (3). Examination of ocean floor provinces and the evolution of Earth's ocean basins. Interpretation of the distribution and geophysical and geochemical characteristics of seafloor basalt and sediments. Prerequisite: Permission of the instructor.

GLY 5737 Coastal Processes and Environments (3). Focus on the physical processes that cause erosion and shape our coastlines and the consequences for human development and habitation of this dynamic landscape. Prerequisite: Permission of the instructor.

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 permission of the 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 (1-6). 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 4300 and CHM 1046. (F/S)

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. (F)

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. Prerequisites: 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. Prerequisite: GLY 5827. (S)

GLY 5834 Field Hydrogeology (3). Field methods in hydrogeology. Drilling, logging, wells, data loggers, hydraulic conductivity/transmissivity measurements, purging, field chemistry parameter measurements, sampling methods. Prerequisites: GLY 4822 or permission of the instructor.

GLY 5835 Introduction to Lattice Boltzmann Methods (3). The course will provide an introduction to Lattice Boltzmann methods for fluid dynamics simulation. Emphasis on multiphase fluids. Prerequisites: Programming Skills, graduate standing, permission of the instructor.

GLY 5875 Applications of Transmission Electron Microscopy (3). An introduction to theory and practical use of the JEOL JEM-1200EX II, Transmission Electron Microscope. Students will learn to prepare specimens and use for digital recording of publishable images. Prerequisites: Graduate standing or permission of the instructor.

GLY 5888 Coastal Hazards and Mitigation (3). Focus on the processes responsible for tsunamis, storm surges, coastal erosion, land subsidence, sea level rise, etc. and their mitigation.

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)

HOS 3012 Introduction to Horticulture Science (3). Focus on theoretical knowledge on horticulture plant identification, propagation, controlled environment production, pruning, plants for interior uses, and fruits and vegetables.

HOS 3012L Horticulture Science Lab (1). Focus on practical knowledge on horticulture plant identification, propagation, controlled environment production, pruning, plants for interior uses, and fruits and vegetables. Corequisite: HOS 3012.

IDS 1231 Local and Regional Sustainability (3). Introduction to the concept of sustainability and the

sustainable development of communities in the global, regional and local contexts.

IDS 1273 First Year Seminar in Sustainability (1). Seminar course meant for freshmen or 1st year transfer students in the undergraduate Sustainability and Environment program. Topics include: designing plan of study, career development, getting help.

IDS 3189 International Nutrition, Public Health and Economic Development – *GL* (3). This course will examine the impact of global public health, nutrition and economic development on the physical and political environment. Recommended also for non-majors.

IDS 4232 Sustainability in Action (3). Application of sustainability concepts and principles to environmental problems solving in community, business of research settings, emphasizing project management and communication skills. Prerequisites: Senior standing and Permission of the Instructor.

IPM 4020 Integrated Pest Management (3). An overview of Integrated Pest Management (IPM), emphasizes the integration of ecological, cultural, and chemical methods to manage pests to promote sustainable agroecosystems. Prerequisites: BSC 2010.

ISC 1056 First Year Seminar in Earth and Environment (1). Weekly seminar course meant for freshmen or 1st year transfer students in the undergraduate Earth and Environment programs. Topics include: assessing your skills, planning your program, and getting help.

ISC 4940 Undergraduate Research Internship in Earth and Environment (0-6). Directed research internship under the supervision of a professor in the student's field of interest. Subject may deal with laboratory work, field work, and/or bibliographical work. Prerequisite: Permission of instructor.

ISC 5150 Introduction to Research in Earth and Environmental Sciences (2). Introduction to research in Earth and Environmental Sciences: nature of scientific inquiry, development of research projects, data analysis, publication and presentation of research results.

ISC 5151 Earth and Environmental Graduate Seminar (1). Weekly seminar emphasizing research- and practice-oriented guest speaker series. Critical examination of current research topics by students, faculty, visiting speakers. Brief student reports. Prerequisite: Permission of the instructor.

MET 3003 General Meteorology (3). A quantitative introduction to the Earth's atmosphere. Topics include tropical and mid-latitude weather, clouds and convection, solar and infrared radiation, general circulation and climate, and an overview of meteorological dynamics. Prerequisites: PHY 2048 or PHY 2053 or permission of the instructor.

MET 3103 Planetary Climate Change (3). Interdisciplinary examination of causes, history, effects and strategies for mitigation of the Earth's changing climate. Prerequisite: Upper-division standing.

MET 3502 Synoptic Meteorology (3). Atmospheric fluid dynamics applied to mid-latitude weather systems. Four dimensional analysis of weather systems and forecasts. Prerequisite: MET 3003.

MET 3502L Synoptic Meteorology Laboratory (1). Development of diagnostic techniques for understanding of weather systems, using modern technological tools (e.g., we-based data, Doppler radar, satellite and real-time mesoscale models) to do weather forecasting. Prerequisite and Corequisite: MET 3502.

MET 4102 Physical Climatology (3). Climate and its global distribution, the climate controls and processes, the influences of climate on the environment. Prerequisites: PHY 2054 or PHY 2049.

MET 4300 Severe Weather (3). Local wind systems, thunderstorms, squall lines, mesoscale convection systems, hurricanes, and their interactions with synoptic scale systems. Prerequisites: MET 3003.

MET 4301 Dynamic Meteorology I (3). Air motion in rotating coordinates, pressure forces, hydrostatic balance, energy balance, and momentum and mass conservation, circulation and vorticity. Prerequisite: PHY 2048.

MET 4302 Dynamic Meteorology II (3). Physical mechanisms that control synoptic-scale air motion in mid-latitude, Rossby waves, mesoscale circulations, and general circulations. Prerequisites: PHY 2048, PHY 2049, MET 4301.

MET 4304 Introduction to Boundary Layer Meteorology (3). Understanding the basic dynamic and thermodynamic processes in the atmospheric boundary layer (ABL), the lowest part of the atmosphere that has direct impacts on our daily life. Prerequisites: PHY 2048 and PHY 2049.

MET 4400 Meteorological Instrumentation and Observations (3). Calibration and operation of basic meteorological sensors used to measure temperature, atmospheric flow, pressure, and moisture, including satellite and radar. Prerequisites: PHY 2048, MET 3003.

MET 4410 Remote Sensing: Radar and Satellite Meteorology (3). An overview of satellite and radar remote sensing including the principles of atmospheric radiative transfer, the retrieval of atmospheric variables, and basic principles of interpretation. Prerequisites: PHY 2048 and PHY 2049.

MET 4420 Physical Meteorology (3). Solar and infrared radiation, first and second thermodynamic law, entropy, phase change, physics of moist air and aerosols, condensation, clouds and precipitation formation processes. Prerequisites: PHY 2048, PHY 2049, MET 3003.

MET 4520L Practical Forecasting (1). Focus on analysis and forecasting of middle-latitude and tropical weather systems, including tropical cyclones. Students will be required to give weather forecast discussions. Prerequisites or Corequisites: MET 3502 or permission of the instructor.

MET 4532 Hurricanes (3). Hurricane formation, motion, and impacts for undergraduates and beginning graduate

students in engineering, physical sciences and social sciences. Prerequisite: Permission of the instructor.

MET 4705 Operational Meteorology I (3). Training at NOAA's Miami facilities, focusing in upper air observations, in preparation for careers in forecasting. Offered for Pass/Fail only. Prerequisites: MET 3502, MET 3502L, MET 4300, and permission of the instructor.

MET 4706 Operational Meteorology II (3). Second semester training at NOAA's Miami facilities, focusing on use of AWIPS system and forecasting procedures, in preparation for careers in forecasting. Offered for Pass/Fail only. Prerequisites: MET 4705 and permission of the instructor.

MET 4750 Techniques for Earth System Modeling (3). Numerical techniques for modeling meteorological, hydrological, and geophysical phenomena using Python and FORTRAN90. Includes problem definition, solution, graphics and interpretation of results. Prerequisites: MET 3003, MAC 2311, MAC 2312

MET 4910 Undergraduate Research in Meteorology (1-10). Individual supervised research in meteorology. May involve observational, modeling, or bibliographic investigations. Variable credit up to 10 credits. Offered for Pass/Fail only. Prerequisites: MET 3003, one other 3000 or 4000-level MET course, and permission of the instructor.

MET 4912L Meteorology Honors Research (1-3). Individual meteorological research under the supervision of faculty in meteorology in the student's field of interest. Offered for Pass/Fail only. Prerequisite: Admission into Geoscience Honors Major.

MET 4937 Senior Seminar in Atmospheric Science (1). Geoscience topics are researched, presented and discussed by students. Students develop knowledge of current research trends and written and verbal science communication skills. Prerequisites: Permission of instructor.

MET 4941 Internship in Meteorology (0-3). Practical meteorological work experience supervised by meteorology faculty at local media outlet, forecast office of laboratory. Offered for Pass/Fail only. May be repeated for credit. Prerequisites: Permission of the instructor.

MET 4970 Meteorology Honors Thesis (1-6). Preparation of honors thesis and research seminar. Offered for Pass/Fail only. Prerequisites: MET 4912L and permission of the instructor.

MET 5016 Physics of Atmospheres I (3). A quantitative examination of atmospheric radiation, thermodynamics and clouds, with a brief introduction to dynamics and applications to weather and climate. Prerequisites: Senior or first-year graduate student in physical science, computer science, or engineering.

MET 5017 Physics of Atmospheres II (3). Continuing examination of atmospheric dynamics, waves and inatabilities, with applications to models, weather and climate. Prerequisites: Senior or first-year graduate student in physical science, computer science, or engineering.

MET 5105 Planetary Climate Change: Processes and Impacts (3). Interdisciplinary study of the reasons the Earth's climate is changing, the climates past and expected future variations, impacts on the human and natural environments, and ways to reduce them. Prerequisite: Graduate standing.

MET 5135 Climate Dynamics (3). Global energy cycle, atmospheric radiative transfer, surface energy balance, hydrologic cycle, atmosphere/ocean circulation, climate feedbacks, natural variability, anthropogenic climate change. Prerequisite: Graduate standing.

MET 5305 Boundary Layer Meteorology (3). General survey of boundary meteorology. Topics include atmospheric boundary layer, (ABL), role in exchange and circulation, use in interpreting wind, temperature, and moisture distribution, hurricane boundary layer wind, and turbulent structures. Prerequisites: PHY 2048 and PHY 2049.

MET 5311 Dynamic Meteorology I (3). To study atmospheric phenomena on a rotating planet. It intends to lead towards an understanding of the theories of the atmospheric motion by applying concepts of Math., thermodynamics, and dynamics. Prerequisites: PHY 2048, PHY 2049.

MET 5312 Atmospheric Dynamics II (3). Second graduate-level course in Atmospheric Dynamics. Topics include 2 and 3-dimensional Rossby waves, baroclinic and other instabilities, ageostrophic motions, and general circulation. Prerequisites: Atmospheric Dynamics I and graduate standing in Atmospheric Sciences.

MET 5355 Severe and Hazardous Weather (3). Focuses on introducing thunderstorms, squall lines, mesoscale convection systems, and their interactions with synoptic scale weather. Prerequisites: MET 3003 or permission of the instructor.

MET 5365 Techniques for Earth System Modeling and Research (3). Model development for meteorology, hydrology, and geophysics using Python and FORTRAN. Includes model formulation, architecture and approximations, and synthesis of results. Prerequisite: Permission of the instructor.

MET 5412 Remote Sensing in Meteorology (3). An overview of satellite and radar remote sensing including the principles of atmospheric radiative transfer, the retrieval of atmospheric variables, and basic principles of interpretation. Prerequisites: PHY 2048 and PHY 2049.

MET 5530 Hurricane Meteorology and Impacts (3). Hurricane formation, motion, and impacts on the graduate level. Adds critical reading of the scientific and disaster literatures and quantitative problem sets to the undergraduate experience. Prerequisite: Permission of the instructor.

MET 5533L Weather Discussion and Analysis (1). Focus on analysis and forecasting of middle-latitude and tropical weather systems. Students will be required to give weather forecast discussions and to work on a research project. Prerequisites or Corequisites: MET 3502 or permission of the instructor.

MET 5561 Midlatitude Synoptic Meteorology (3). Focus on analysis and forecasting of middle-latitude weather systems. Examine the structure and dynamic of these systems by integrating weather observation with the current state of dynamic theory. Prerequisites: MET 3003 or permission of the instructor.

MET 5561L Midlatitude Synoptic Meteorology Lab (1). Focus on analysis and forecasting of middle-latitude weather systems. Develop an understanding of the weather forecasting process, and gain experience in communicating weather forecasts. Prerequisites: MET 3003 or permission of the instructor.

MET 5707 Operational Meteorology Research I (3). Training at NOAA's Miami facilities, focusing in upper air observations, in preparation for careers in forecasting. Offered for Pass/Fail only. Prerequisites: Graduate standing in Atmospheric Science and permission of the instructor.

MET 5708 Operational Meteorology Research II (3). Second semester training at NOAA's Miami facilities, focusing on use of AWIPS system and forecasting procedures, in preparation for careers in forecasting. Offered for Pass/Fail only. Prerequisites: MET 5707 and permission of the instructor.

OCE 2001 Introduction to Oceanography (3). The oceans, their nature and extent. Water of the oceans, chemical balance. Marine provinces, sediments and their relation to sea life and oceanic circulation, coastal provinces, sediments and their relation to sea life and oceanic circulation, coastal and deep-ocean circulation. Waves, tides, tsunamis. One field trip expected. (F,S,SS)

OCE 3014 Oceanography – *GL* (3). The ocean origin, physical properties, salinity, temperature, sound. Radiative properties, heat budget and climatic control. Tides, wind-driven motion-monsoon circulation. El Nino phenomenon. Subsurface water masses. Oceanic circulation and paleoclimates. (F,S,SS)

OCE 3014L Oceanography Lab (1). Laboratory investigation of the chemical and physical properties of seawater, ocean water motion and its effects. Corequisite: OCE 3014.

OCP 3002 Physical Oceanography (3). An in depth understanding of the physical properties of the ocean including morphology, chemistry, waves, tides, currents and its interactions with the atmosphere and coastline. Prerequisites: CHM 1045 and PHY 2048 or PHY 2053.

SWS 4303 Soil Microbiology (3). Examines biology of soil microorganisms and biologically-medicated chemical transformations occurring in soil ecosystems. Standard soil microbiology techniques will be emphasized. Prerequisite: EVR 4592.

SWS 4303L Soil Microbiology Lab (1). Examination of biology of soil microorganisms and biologically-mediated chemical transformations occurring in soil ecosystems. Standard soil microbiological techniques will be examined. Corequisite: SWS 4303.

SWS 5305 Advanced Soil Resources Analysis (3). A review of soil science concepts: analysis of physical and chemical properties of soils and nutrient cycling, emphasizing the soils of South Florida. Prerequisites: BSC 2010, BSC 2011, CHM 2210, CHM 2211; or permission of the instructor.

English

Ana Luszczynska, *Associate Professor and Chairperson*
Jacqueline Amorin, *Instructor*
Lynne Barrett, *Professor*
Dan Bentley-Baker, *University Instructor*
Lynn M. Berk, *Professor Emerita*
Richard Blanco, *Associate Professor*
Heather Blatt, *Associate Professor and Director Literature and Film Program*
Nathaniel Cadle, *Associate Professor*
Patricia Cano, *Senior Instructor*
Phillip Carter, *Associate Professor Director of the Center for the Humanities in the Urban Environment*
Gisela Casines, *Associate Dean Emerita*
Ann-Margaret Castro, *Assistant Professor*
Michael Creeden, *University Instructor and Associate Chair*
Cynthia Chinelly, *University Instructor and Associate Director of the Writing and Rhetoric Program*
Maneck Daruwala, *Associate Professor*
Debra Dean, *Professor*
Vernon Dickson, *Associate Professor*
John Dufresne, *Professor*
Denise Duhamel, *Professor*
Darrel Elmore, *Senior Instructor*
Ming Fang, *Senior Instructor*
Paul Feigenbaum, *Associate Professor*
Michael Gillespie, *Professor*
Paula Gillespie, *Professor Emerita*
Andrew Golden, *University Instructor*
Michael Grafals, *Instructor*
Christine Gregory, *Senior Instructor*
Justin Grant, *Instructor and Associate Director of the Writing and Rhetoric Program*
Kimberly Harrison, *Professor and Director of Writing Programs*
Bruce Harvey, *Associate Professor*
Lyndsay Head, *Instructor*
Glenn Hutchinson, *Assistant Professor and Director of the Center for Excellence in Writing*
Marilyn Hoder-Salmon, *Associate Professor Emerita*
Tometro Hopkins, *Associate Professor*
Amy Huseby, *Instructor*
Kenneth Johnson, *Associate Professor*
Mark Kelley, *Assistant Professor*
Shewonda Leger, *Assistant Professor*
Vytautas "Tiger" Malesh, *Instructor*
Christine Martorana, *Instructor*
Kathleen McCormack, *Professor Emerita*
Campbell McGrath, *Professor*
Carmela McIntire, *Associate Professor Emerita*
Asher Milbauer, *Professor and Director of Exile Studies Certificate Program*
Kim Miles, *Instructor*
Jason Pearl, *Associate Professor*
Maheba Pedroso, *Senior Instructor and Director of the Certificate in Professional and Public Writing*
Wanda Raiford, *Senior Instructor and Director of Liberal Studies*
Meri-Jane Rochelson, *Professor Emerita*
Heather Russell, *Professor and Senior Associate Dean for the School of Environment, Arts and Society (SEAS)*
Robert Saba, *University Instructor and Associate Director of the Writing and Rhetoric Program*
Martha Schoolman, *Associate Professor and Director of Graduate Program in English/Literature*
Richard Schwartz, *Professor Emeritus*
Michael Sohan, *Senior Instructor*
Vanessa Sohan, *Associate Professor and Associate Director of Graduate Program in English/Writing and Rhetoric*
Lester Standiford, *Professor and Director of Creative Writing Program*
Andrew Strycharski, *Instructor and Director of the Film Certificate Program*
Richard Sugg, *Associate Professor Emeritus*
James Sutton, *Associate Professor*
Luke Thominet, *Assistant Professor*
Ellen Thompson, *Associate Professor*
Rhona Trauvitch, *Instructor*
Nicholas Vagnoni, *Senior Instructor*
Carolina Villalba, *Instructor*
Julie Wade, *Associate Professor*
Donald Watson, *Professor Emeritus*
Jeffrey Wehr, *Senior Instructor*
Donna Weir-Soley, *Associate Professor and HSI Pathways to the Professoriate Coordinator*
Shelley Wick, *Instructor*
Cayce Wicks, *Instructor*
Mohamed Yacoub, *Instructor*
Mehmet Yavas, *Professor*

Bachelor of Arts in English

Degree Program Hours: 120

Lower Division Requirements

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
ENC 1101	ENCX101 or ENCXXXX[1]
ENC 1102	ENCX102 or ENCXXXX[1]

[1]Six semester hours of English coursework in which the student is required to demonstrate college-level English skills through multiple assignments. Note: C or better is required for all coursework.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

ENC 1101	Writing and Rhetoric I
ENC 1102	Writing and Rhetoric II
Or	
ENC 2304	College Writing for Transfer Students

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in

specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Other Degree Requirements

ENG 2012 Approaches to Literature

Students choosing to major in English should take Approaches to Literature (ENG 2012) while completing the University Core Curriculum; ENG 2012 is an option for Humanities with Writing. For English majors, ENG 2012 is a pre-requisite/corequisite for upper-division literature courses.

Upper Division Requirements

(12 hours in 3000- and 4000-level courses)

Creative Writing: (Once course, three hours)

CRW 3010	Creative Writing: Forms and Practices	3

Linguistics: (One course, three hours):

LIN 3013	Introduction to Linguistics	3
LIN 4680	Linguistics-Modern English Grammar	3

Literature: (One course, three hours)

Multicultural Literature (African American, Jewish, literature of exile, etc.)	3

Writing and Rhetoric: (One course, three hours)

Any upper division writing and rhetoric (ENC) course	3

Creative Writing Track

(18 hours in 3000 or 4000 level courses)

CRW 3111	Narrative Techniques	3
CRW 3311	Poetic Techniques	3

One of the following two courses:

CRW 4110	Writing Fiction	3
CRW 4310	Writing Poetry	3

Any three additional three-hour upper division CRW courses 9 9

Electives: (6)

Any upper division courses offered by the English department. Majors should choose their English courses and electives in consultation with their advisors, especially upon entering the program.

Additional Approved Electives: (24)

Students should consult with a departmental advisor about these courses, which may be from other departments in the university.

Linguistics Track

(12 hours in 3000- or 4000- level courses)

Whichever of the following two options from the upper division requirements remains:

LIN 3013	Introduction to Linguistics	3
LIN 4680	Modern English Grammar	3

One course within each of the following areas:

Phonetics or Phonology	3
Morphology, Syntax, or Semantics	3

Any one additional three-hour upper-division LIN course in the Department of English 3

Electives: (12)

Any upper division courses offered by the English department. Majors should choose their English courses and electives in consultation with their advisors, especially upon entering the program. One elective may be one course from another department from the following options:

CAP 4993	Natural Language Processing [Computer Science]
FRE 3780	French Phonetics (Taught in French) [Modern Languages]
FRE 4503	La Francophonie (Taught in French) [Modern Languages]
FRE 4791	French Phonology (Taught in French) [Modern Languages] (Prerequisites: FRE 3780 or permission of the instructor)
FRE 4800	French Morphology (Taught in French) [Modern Languages]
FRE 4840	History of the Language II (Taught in French) [Modern Languages] (Prerequisites: FRE 3780 or permission of the instructor)
FRE 4841	History of the Language II (Taught in French) [Modern Languages]
FRE 4850	Structure of Modern French (Taught in English) [Modern Languages]
LIN 4710	Language Acquisition [Psychology]
SPA 4002	Survey of Communication Disorders [Communication services and Disorders]
SPN 3733	Introduction to Spanish Linguistics (Taught in Spanish) [Modern Languages]
SPN 4704	Structure of Spanish (Taught in Spanish) [Modern Languages]
SPN 4930	Special Topics in Linguistics (La adquisición del español como lengua extranjera (Taught in Spanish) [Modern Languages]
SPN 4930	Special Topics in Linguistics (Aplicando la lingüistica en Miami (Taught in Spanish) [Modern Languages]
SPN 4802	Contrastive Syntax [Modern Languages]

Additional Approved Electives: (24)

Students should consult with a departmental advisor about these courses, which may be from other departments in the university.

Literature Track

(18 hours in 3000- or 4000- level courses)

Literary Theory (ENG 4043 or another designated course) 3

Two Courses from the following early historical periods:

American Literature prior to 1900	3
British Literature prior to 1660	3
Any three additional three-hour upper division Literature courses	9

Electives: (6)

Any upper division courses offered by the English department. Majors should choose their English courses and electives in consultation with their advisors, especially upon entering the program

Additional Approved Electives: (24)

Students should consult with a departmental advisor about these courses, which may be from other departments in the university.

Writing and Rhetoric Track

(18 hours in 3000- or 4000- level courses)

ENC 3334	Introduction to Writing Studies	3
ENC 3371	Rhetorical Theory and Practice	3
ENC 3213	Professional and Technical Writing	3

Any three additional three-hour upper division ENC courses 9

Electives: (6)

Any upper division courses offered by the English department. Majors should choose their English courses and electives in consultation with their advisors, especially upon entering the program.

Additional Approved Electives: (24)

Students should consult with a departmental advisor about these courses, which may be from other departments in the university.

(Note: Students with questions about major requirements should contact the Center for Advisement and Student Success in ZEB 210 or online at (http://english.fiu.edu/advising)

Bachelor of Arts in English: English Education Major

This program combines the requirements of the English B.A. program with content-specific pedagogy to prepare students interested in teaching English at the secondary level.

To qualify for admission to the program, undergraduate candidates must have met ail the lower division requirements including: 60 credit hours of lower-division courses, all general education requirements, lower division GPA of 2.5 or higher, and achieve the competencies of the FTCE General Knowledge Exam (GK).

All students must pass the GK Exam by the time they reach 72 credit hours in their program of study. 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.

UCC Courses: 36 hours

Common Prerequisites

ENC 1101	Writing and Rhetoric I
ENC 1102	Writing and Rhetoric II

Recommended:

ENG 2012	Approaches to Literature
DEP 2000	Human Growth and Development

Other UCC Courses: 24

Recommended Courses

SPC 2600	Public Speaking
ENC 3213	Professional and Technical Writing

English Major: 30 hours

In addition to the common prerequisites (ENC 1101 and ENC 1102), students must take the following courses:

Literary Theory (ENG 4043 or another designated theory course)		3
Multicultural Literature (African American, Jewish, literature of exile, etc.)		3
LIN 4680	Linguistics-Modern English Grammar	3
ENC 3501	Teaching Writing in Secondary Contexts	3
CRW 3010	Creative Writing: Forms and Practices	3

Two Courses from the following early historical periods:
American Literature prior to 1900
British Literature prior to 1660
Any three additional three-hour upper division Literature courses 9

Education Courses: 30 hours

EDG 3321	Managing Teaching Environments: Instructional Decisions and Classroom Management	3
EEX 3071	Educational Needs of Students with Exceptionalities	3
TSL 3080	ESOL Principles and Practices I – *GL*	3
LAE 3360	Managing the Secondary Language Arts Classroom	3
LAE 4335	Special Teaching Laboratory English	3
TSL 4081	ESOL Issues: Principles and Practices II – *GL*	3
LAE 4464	Experiencing Adolescent Literature in the Middle School and Senior High School	3
LAE 4942	Student Teaching	6
RED 4325	Subject Area Reading	3

Additional Electives: 24 hours

Combined BA/MA in Linguistics

To be considered for admission to the combined Bachelor's/Master's degree program, students must have completed at least 75 and no more than 90 credits in the Bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the Bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from his/her Bachelor's degree program. Upon conferral of the Bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

Admission Requirements

- Enrollment in undergraduate program in English, Spanish, French, or Portuguese at FIU.
- Must have completed 75-90 credits.
- Must have completed LIN 3013/LIN 3010 General Linguistics, LIN 4680 Modern English Grammar, FRE 3780 French Phonetics, or SPN 3733 Introduction to Spanish Linguistics with a grade of "A".
- Current GPA of 3.2 or higher.
- Two letters of faculty recommendation.
- A 2-4 page statement of purpose, explaining academic plans and goals.

Recommended Graduate Courses for Undergraduates

The following graduate courses are recommended to BA students. In order to complete their degree requirements, students may double-count up to 12 graduate credits of coursework toward the Bachelor's and M.A. degrees:

A. English

LIN 5018	Introduction to Linguistics*
LIN 5107	History of the English Language
LIN 5108	Language Universals**
LIN 5206	Phonetics***
LIN 5501	English Syntax
LIN 5574	Languages of the World**
LIN 6510	Syntax I***
LIN 5715	Language Acquisition
LIN 6602	Language Contact
LIN 5601	Sociolinguistics
LIN 5825	Pragmatics
LIN 5934	Special Topics in Linguistics

B. Spanish

LIN 5018	Introduction to Linguistics*
SPN 5705	The Structure of Spanish
SPN 5845	History of the Language
LIN 5604	Spanish in the United States
SPN 5736	Spanish as a Heritage Language: Acquisition and Development
LIN 5603	Language Planning: Linguistic Minority Issues
LIN 5601	Sociolinguistics
LIN 5720	Second Language Acquisition
LIN 5825	Pragmatics
LIN 5934	Special Topics in Linguistics

C. French

LIN 5018	Introduction to Linguistics*
FRE 5855	Structure of Modern French
FRE 5845	History of Language I
FRE 5846	History of Language II
FRE 5508	La Francophonie
FRE 5735	Special Topics in Linguistics
HAI 5235	Haitian Creole Seminar
LIN 5601	Sociolinguistics
LIN 5825	Pragmatics
LIN 5720	Second Language Acquisition
LIN 5934	Special Topics in Linguistics

D. Portuguese

LIN 5018	Introduction to Linguistics*
LIN 5601	Sociolinguistics
LIN 5825	Pragmatics
LIN 5720	Second Language Acquisition
LIN 5934	Special Topics in Linguistics

*MA core requirement – prerequisite to all other course requirements
**Fulfills the 'structure course' requirement of MA
***Fulfills one of the core requirements of MA

M.A. Degree Requirements

1.Course Work (36 graduate credit hours)
Core Required Courses: (a minimum of "B" is required in core courses)

LIN 5018	Introduction to Linguistics	3
LIN 5206	Phonetics	3
LIN 6085	Research Methods in Experimental Linguistics	3
LIN 6323	Phonology	3
LIN 6510	Syntax I	3
LIN 6805	Semantics	3

One course about the structure of a non-Indo-European Language:

LIN 5108	Language Universals	3
	or	
LIN 5574	Languages of the World	3
	or	
LIN 6572	Structure of a Non-Indo-European Language	3

Electives: 5 LIN prefixed graduate courses (or 6, if LIN 5018 has been waived)

2. Master's Research Project
3. Awarding of Degrees

- The BA will be awarded as soon as all BA requirements of the designated undergraduate program are completed.
- The MA will be awarded after all MA requirements of the Linguistics Program and the BA requirements are completed.

Minor in English

Students majoring in any other discipline may minor in English. A Minor in English requires 15 upper division semester hours of approved English credits, with a grade of 'C' or higher required in all courses counted toward the minor. Students seeking the minor must meet with an advisor.

Course Descriptions

Definition of Prefixes

AML-American Literature; CRW-Creative Writing; ENC-English Composition; ENG-English-General; ENL-English Literature; FIL-Film; LIN-Linguistics; LIT-Literature
Courses that meet the University's Global Learning requirement are identified as GL.

AML 2010 Survey of American Literature I (3). Students read and discuss major American works written between 1620 and 1865. Works will be considered in an historical context.

AML 2020 Survey of American Literature II (3). Students will read and discuss major American works written between 1865 and the present. Works will be examined in an historical context.

AML 2602 African-American Literature (3). Offers a survey of African-American literature spanning its genesis to the present. Includes units on major eras and major figures in the development of the literary traditions. May be repeated with different content.

AML 3042 Texts and Contexts: American Literature 1492 to the Present (3). Survey of American fiction, poetry, and drama from 1492 to the present, that examines the interactions between literacy texts and social, cultural, or political currents. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 3111 American Fiction to 1900 (3). Study of representative fiction by American authors from the Colonial period to 1900. Authors may include Brown, Irving, Cooper, Hawthorne, Melville, Twain, Chopin, James, and others. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 3401 American Humor (3). This course examines the writings of American humorists from the beginnings to the present. Special attention is given to the writings of Twain and Thurber. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 3415 American Literature and the Tradition of Dissent (3). Explores selected texts to examine the interactions between texts and social, cultural, and political currents from colonial times through the present. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4120 Modern American Fiction (3). Study of American novels and short stories written in the twentieth century. Among the writers to be read are John Barth, Alice Walker and Flannery O'Connor. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4155 Modern American Poetry (3). Study of American poetry written in the twentieth century. Among the poets to be examined are Elizabeth Bishop, Gwendolyn Brooks and Richard Wilbur. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4174 American Literary Genres since 1860 (3). Examines the development of specific literary genres in the United States since the Civil War, including the detective novel, the western, and science fiction. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4210 Colonial Literature (3). American Literature from the settlement of the continent through 1776. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4213 Studies in Colonial and Early American Literature (3). Students read, discuss, and write about literature of the Colonial and Early American periods from the time of the Puritans through the period of the Early Republic. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4221 Early National Literature (3). Examines the major literary works of the period 1776-1825. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4223 Antebellum Literature (3). Examines the writings of the period 1825-1860, including such writers as Hawthorne, Poe, and Harriet Jacobs. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4224 American Romanticism (3). An examination of the major American literary works of 1830-1860, including works by Melville, Poe, Whitman, Stowe, Dickinson, and Douglass.

AML 4233 American Realism (3). Examines the writings of the period 1860-1910, including works by Henry James, William Dean Howells, and Mark Twain. Prerequisites: ENC 1101 and ENC 1102 OR ENC 2304.

AML 4245 Modernism and Post-Modernism in American Literature (3). The course provides working definitions of modernism and post-modernism and will consider how the writers of the twentieth century use those outlooks while addressing political, social, and personal issues. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4263 Contemporary Southern Writers (3). Study of the literature of the modern South, its uniqueness and variety. Writers may include Tennessee Williams, Eudora Welty and William Faulkner. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4300 Major American Writers (3). Each section of this course will consider the works of one, two, or three major American writers. The writers studied in this course will change from semester to semester. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4306 Mark Twain (3). Study of the writings of American humorist and novelist Mark Twain including *Roughing It*, *Innocents Abroad* and *Huckleberry Finn*. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4503 Periods in American Literature (3). Individual sections will read and discuss works in the colonial, federal, antebellum, reconstruction, or modern periods. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4564 Periods in American Literature: the Twenties (3). Provides in-depth consideration of the major themes and authors of the literature of 1920's America, including Fitzgerald, Hemingway, Anderson, and Lewis.

AML 4606 Studies in 19th-Century African American Literature (3). An examination of literary works written by African Americans during the 19th Century. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4607 Studies in 20th-Century African American Literature (3). An examination of literary works written by African Americans during the 20th Century. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4612 Literature of the Harlem Renaissance Period (3). An examination of the literary production of Americans of African descent during 1919-1940, including discussion of nationality and identity formation.

AML 4621 Major African American Writers (3). An examination of selected African American writers. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4624 African American Women Writers (3). A study of the writings of African American women. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4630 Contemporary US Latino Literature (3). Examines literary achievements of a range of voices from US Latino writers, speaking to issues and concerns of oppression, injustice, and resistance in Latin America and in the US. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

AML 4930 Special Topics in American Literature (3). An examination of different aspects of American literature. May be repeated with a change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

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 with change of content.

AML 5505 Periods in American Literature (3). The literature and criticism regarding one specified period of American literature, such as colonial, federal, transcendental, antebellum, or twentieth century. May be repeated with change of content. Prerequisite: Permission of the instructor.

CRW 3010 Creative Writing: Forms and Practices (3). Analysis of the theoretical constructs underlying the various genres of imaginative writing, including practice in the forms. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

CRW 3111 Narrative Techniques (3). Analysis of and exercises in the elements of fiction: point of view, conflict, characterization, tone. Students will do various short assignments and one short story. Reading of published fiction will also be required. Corequisite: CRW 3010.

CRW 3311 Poetic Techniques (3). Analysis of and exercises in poetic techniques. Students will write poems in which they employ one or more technical skills. Reading and discussion of published poems will be required. Corequisites: CRW 3010.

CRW 4110 Writing Fiction (3). An intermediate course in writing fiction. May be repeated. Prerequisite: CRW 3111.

CRW 4124 Writing Mystery and Suspense (3). Through reading and analysis of published work and exercises in developing mystery and suspense fiction, students will gain understanding of and experience in these fiction genres. Corequisites: CRW 3010.

CRW 4211 Writing Creative Non-Fiction (3). Through reading and analysis of published nonfiction and exercises in writing creative nonfiction, students will gain understanding of and experience in writing nonfiction forms.

CRW 4223 Writing Memoir (3). A workshop designed to give students experience in reading, writing, and analysis of memoir, to gain understanding of the memoir form. Reading and discussion of published works is required. Corequisites: CRW 3010.

CRW 4310 Writing Poetry (3). An intermediate course in writing poetry. May be repeated. Prerequisite: CRW 3311.

CRW 4900 Independent Study in Creative Writing (3). Development and completion of an independent project in creative writing undertaken with the consent of the instructor. Corequisite: CRW 3010.

CRW 4930 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. Corequisite: CRW 3010.

CRW 4931 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. Corequisite: CRW 3010.

ENC 1930 Essay Writing (3). A course in writing short descriptive, analytic, and argumentative essays. Does not fulfill core curriculum requirement. Students who have completed ENC 1101 or ENC 1102, or both, cannot receive credit for this course.

ENC 1101 Writing and Rhetoric I (3). The first in a two-course sequence introduces the principles of college-level writing and research. Students write for multiple rhetorical contexts, with emphasis on critical thinking and revision. Written work meets the state composition requirement.

ENC 1102 Writing and Rhetoric II (3). The second in a two-course sequence expands upon the writing and rhetorical strategies learned in ENC 1101 and furthers students abilities to write and research arguments. Written work meets the state composition requirement. Prerequisites: ENC 1101 or equivalent.

ENC 2304 College Writing for Transfer Students (3). A course in the techniques of written exposition, argumentation, and research. The course is a prerequisite for transfer students (entering with 30 or more credits) taking further ENC classes. Written work meets the state composition requirement. Prerequisite: Transfer student.

ENC 3204 Advanced Business Writing (3). Advanced writing course emphasizing workplace writing and professional communication appropriate to business professions. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENC 3213 Professional and Technical Writing (3). Principles and practices of effective workplace writing. Students learn audience analysis in order to become more effective writers. Genres include memos, business letters, proposals, and reports. Written work meets the state composition requirement. Prerequisites: ENC 1101, ENC 1102 (or equivalents), or ENC 2304.

ENC 3249 Professional and Technical Writing for Computing (3). Introduces students to the expectations of written and verbal communication in the computer science profession; explores the ways in which technology and media help shape professional communication. Prerequisites: ENC 1102 or equivalent or ENC 2304.

ENC 3311 Advanced Writing and Research (3). Provides instruction in the concepts and methods of critical response and argumentation, and in the formulation, analysis, and presentation of original research in extended academic papers. Written work meets the state composition requirement. Prerequisites: ENC 1101, ENC 1102 (or equivalents), or ENC 2304.

ENC 3334 Introduction to Writing Studies (3). Examines key questions in Writing Studies: What does it mean to be a writer? How do rhetoric and writing relate? What changes can writing make in diverse public, private, and professional contexts? Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENC 3354 Writing as Social Action (3). Writing for academic and public settings. A significant part of the course will consist of students doing writing-related volunteer work in the community. Prerequisites: ENC 1101 and ENC 1102 (or equivalents).

ENC 3363 Writing About the Environment (3). Analysis and evaluation of a variety of marine coastal-themed texts mainstream articles, scientific articles, and novels. As well as develop a researched advocacy campaign. Prerequisites: ENC 1101 and ENC 1102 (or equivalents).

ENC 3371 Rhetorical Theory and Practice (3). An overview of various rhetorical traditions in order to help students understand and improve their discourse practices at school, work, or in technological spaces. Prerequisites: ENC 1101 and ENC 1102 (or equivalents).

ENC 3378 Writing Across Borders – *GL* (3). This course explores the implications of both Western and Eastern rhetorical theories and practices for written communication in the age of globalization. Prerequisites: ENC 1101 and ENC 1102.

ENC 3416 Writing and New Media (3). Provides intensive instruction on composing in new media formats with an eye on computer and network-based presentation, especially internet publication. Prerequisites: ENC 1101 and ENC 1102 (or equivalents).

ENC 3465 Legal Writing (3). Introduces students to writing and reasoning common in law school and legal practice. Course emphasizes clear, effective, and concise prose and focuses on objective and interpretive analytical skills. Prerequisite: ENC 1101 and ENC 1102 or ENC 2304.

ENC 3491 The Processes of Writing (3). Study of theoretical and practical aspects of one-to-one writing consultations. Students will learn the skills necessary to improve their writing and peer review skills. Prerequisites: ENC 1101 and ENC 1102 (or equivalents).

ENC 3492 Interdisciplinary Writing for Writing Fellows (3). For students who will become Peer Writing Fellows for Gordon Rule classes in various disciplines. Prerequisite: Permission of the instructor.

ENC 3501 Teaching Writing in Secondary Contexts (3). Examines questions in writing studies and writing pedagogy. Students explore theory and practice of teaching writing while analyzing how beliefs about writing shape the writing classroom. Prerequisites: ENC 1101 and ENC 1102 (or equivalents) or ENC 2304

ENC 4241 Scientific Writing (3). Develops skills necessary to write laboratory reports, scientific proposals, articles, research reports, progress reports, and seminar presentations. Prerequisites: ENC 1101 and ENC 1102 (or equivalents).

ENC 4260 Advanced Professional Writing (3). Advanced professional writing, which may include digital writing; reports, proposals, and grants; information design; technical editing; writing for journals; writing end-user documentation. Prerequisites: ENC 1101, ENC 1102 (or equivalents).

ENC 4331 Writing, Rhetoric, and Community (3). Developing the necessary rhetorical and analytical skills in order to compose written works that reflect writer's concerns as member of a community.

ENC 4355 Writing About Film (3). Introduces students to writing critical reviews and analyses of film narrative. Prerequisites: ENC 1101 and ENC 1102 (or equivalents).

ENC 4356 Writing About the Exile Experience (3). Advanced writing and research course where students learn to write rhetorically through their close readings of exile narratives, writing and research projects. This class has a service component. Prerequisites: ENC 1101 and ENC 1102.

ENC 4357 How To Go Public (3). Using writing to intervene in the public sphere, including the advantages and disadvantages of different rhetorical techniques and medians. Prerequisites: ENC 1101 and ENC 1102.

ENC 4373 Alternative Writing and Rhetorics (3). Investigations alternative discourses-academic writing that meshes language, form and meaning in nontraditional ways. Students read theories/examples of alternative writing and practice alt strategies. Prerequisites: ENC 1101 and ENC 1102.

ENC 4405 Queer Rhetorics (3). Situated at the intersection of LGBTQ studies and queer theory, this course introduces students to writing about discourses and rhetorics of gender, sex, and sexuality. Prerequisites: ENC 1101 and ENC 1102 or ENC 2301.

ENC 4930 Special Topics in Composition (3). Allows students to refine nonfiction writing skills in a variety of genres. May be repeated. Prerequisites: ENC 1101, ENC 1102 or equivalent.

ENC 5235 Grant Writing (3). Focus on rhetorical context of grant writing and the application of rhetorical concepts to the discourse of grant writing.

ENC 6702 Composition Theory and Practice (3). Studies historical and contemporary trends in the scholarship of rhetoric and composition.

ENC 6736 Writing Across Conventions (3). In this course, we will study composers who work within/across multiple languages, modes, genres, and media in ways that are either not accepted or unexpected in "standard" academic writing.

ENG 2001 Modes of Inquiry (3). A research and report writing course. A final research project is required. Basic bibliographical tools, library use, and technical and scientific reporting will be the main subject matter, emphasizing style, structure, and tone in a variety of research modes.

ENG 2012 Approaches to Literature (3). Introduces critical approaches to the study of literature. Students will develop a vocabulary for reading, discussing, and writing about a variety of texts. Meets state composition requirement. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 2100 Introduction to Film (3). Introduces students to the basic artistic and compositional elements of film and the analysis of the relationship between technical and aesthetic aspects of film.

ENG 2850 Critical Reading: PreMed I (1). Designed for Pre-Medical or other Pre-Health profession students, the course strengthens the student's ability to read critically.

ENG 3138 The Movies (3). Viewing and discussion of films, with attention to cinematic ways of story-telling and to the popular film as an expression of cultural values. May be retaken for credit with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4013 History of Literary Criticism (3). A study of the major texts in literary criticism and theory from Plato to the present. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4023 Semiotics and Narratology (3). This course studies Semiotics (the science of signs and sign system) and Narratology (theories about the nature of narratives) in an attempt to characterize the nature of how a story gets told/shown. Prerequisites: ENC 1101 and ENC 1102.

ENG 4043 Contemporary Literary Theory and Criticism (3). An examination of the works of recent literary theorists. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4052 Literary Aesthetics (3). This course surveys the history of philosophical aesthetics as it pertains to literature, considering at length the question of what makes a text literary. Prerequisites: ENC 1101 and ENC 1102.

ENG 4114 Film Adaptations of Literature (3). This course examines the nature of cinematic adaptations of literary sources, differentiating between written and visual/aural storytelling and adaptation as literary interpretation. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4121 History of the Film (3). Discussion, with examples, of the development of cinematic art, from its European and American beginnings to its place as a major world art form. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4132 Studies in the Film (3). Intensive examination of the work of a particular nation, group, or director. May also explore various film genres, e.g., documentary, horror, the Western. With change of content, may be retaken for credit. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4134 Women and Film (3). An examination of how women have been represented in dominant commercial films and how women filmmakers have responded to the appropriation of the image of women through alternative film narratives. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4135 The Rhetoric of Cinema (3). An examination of how films are constructed cinematically and narratively to involve audiences on aesthetic, intellectual and ideological levels. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4141 Queer Cinema (3). Survey of twentieth and twenty first century Queer Cinema, covering issues of gender and sexuality identity politics in Hollywood cinema from the 1920s to present. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4319 Film Humor and Comedy (3). Examines the nature of humor and comedy and its relation to film narrative. Films from all periods of cinematic history will be viewed. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4504 Contemporary World Cinema (3). A study of British and Foreign-language films concentrating on films of the era since the global market has allowed films from different cultures to gain a worldwide audience. Prerequisites: ENG 4121 and FIL 3006 are preferred but not required.

ENG 4845 Queer Studies: Literature, Culture and Theory (3). Issues in lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ) literature and culture, with a special emphasis on queer theory. Variable literary and cultural content in a global frame. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4906 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations. By permission of the instructor. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4936 Honors Seminar (3). Designed specifically for honors students and other superior, highly motivated students. Seminar topics will vary from semester to semester. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENG 4949 Cooperative Education in English (0-3). A student majoring in English may spend one or two semesters fully employed in industry or government in a capacity relating to the major. May be repeated. (Pass/Fail Only). Prerequisite: Permission of the department.

ENG 5950 Special Projects 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: Permission of the Graduate Director or Department Chair. Corequisite: Permission of the project supervisor.

ENL 2012 Survey of British Literature I (3). Students will read and discuss major British works written from the Anglo-Saxon period through 1750. Works will be examined within historical context.

ENL 2022 Survey of British Literature II (3). Students will read and discuss major British works written between 1750 and the present. The works will be examined in historical context.

ENL 3112 Development of the Novel: The 18th Century (3). A study of the development of the novel in England from Defoe and others to the Gothic novel. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 3122 Development of the Novel: The 19th Century (3). A study of the development of the novel in England from Austen to Henry James, including Bronte, Eliot and Dickens. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 3132 Development of the Novel: The 20th Century (3). A study of the development of the novel in England from Conrad to the present, including Lawrence, Woolf, and Joyce. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 3261 19th Century British Women Novelists (3). Examines fiction written by women in the 19th century, including classical realist, gothic, sensation, working-class, and New Woman novels. Authors include Austen, Eliot, Bronte, and Gaskell. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 3504 Texts and Contexts: British Literature to 1660 (3). Explores the development of British literature from its beginnings to 1660 through intensive study of selected texts; examines interactions between texts and social, cultural, or political currents. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 3506 Texts and Contexts: British Literature Since 1660 (3). Explores the development of British literature of the last three centuries through intensive study of selected texts; examines interactions between texts and social, cultural, and political currents. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4144 Eighteenth-Century Poetry (3). This course covers English poetry from the Restoration to the Romantic period. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4161 Renaissance Drama (3). A study of non-Shakespearean drama of the English Renaissance including Jonson, Kyd, Marlowe and Webster. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4171 Restoration and 18th Century Drama (3). Representative plays from the period 1660-1800. May include plays by Dryden, Etherege, Wycherley, Otway, Congreve, Farquhar, Gay, Fielding, Goldsmith and Sheridan. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4210 Studies in Medieval Literature (3). Students will read, discuss and write about works of medieval English literature from Beowulf to Chaucer. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4212 Medieval Women Writers (3). The contributions of medieval women to literary history are examined. Among the writers to be studied are Margery Kemp and Marie de France. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4215 Medieval Monstrosity – *GL* (3). Examines the role of the monstrous in medieval literary imaginations and analyzes what monstrosity reveals about cultures of the Middle Ages and today. Prerequisites: ENC 1101 and ENC 1102. Corequisite: ENG 2012

ENL 4220 Renaissance: Prose and Poetry (3). A study of Renaissance poetry and prose to suggest their contributions to literacy history, including More, Wyatt, Sidney, Donne, and Bacon. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4223 Studies in Renaissance Literature (3). Students will read, discuss Renaissance works excluding William Shakespeare. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4225 Spenser (3). Study of the works of one of the most important figures of the sixteenth century including *The Faerie Queen*, *The Shepheards Calender* and *Amoretti.* Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4230 Studies in Restoration and 18th-Century Literature (3). An in-depth study of the major figures in English Literature from 1660 to 1800, a period of transition between the Renaissance and modern times. Some of the writers who will be studied are Dryden, Pope, Swift, Jonson, and Fielding. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4232 Truth and Testimony (3). A survey of eighteenth-century nonfictional genres, including periodical essays, familiar letters, memoirs, biographies, literary criticism, conduct manuals, and philosophical and polemical treaties. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4241 Romanticism I (3). Focuses on the first generation of Romantic writers, including Blake, Wordsworth, Wollstonecraft, and Coleridge. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4242 Romanticism II (3). Focuses on the second generation of Romantic writers including Byron, Keats, Shelley, and Wollstonecraft-Shelley. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4243 Studies in Romanticism (3). Examination of recurring themes and motifs in Romantic literature. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4251 Victorian Literature (3). Study of the poetry and prose of the Victorian Age (1832-1901). Among the authors to be read are Dickens, Eliot, Carlyle, Ruskin, Arnold, Tennyson and Browning. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4254 Late Victorian Fiction (3). An examination of the variety of fiction written from 1880-1901, some including Wells, Zangwill, Gissing and D'Arcy. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4260 Studies in 19th-Century British Literature (3). Students will read, discuss, and write about literary works produced by British Romantic and Victorian writers between the Age of Wordsworth and the death of Queen Victoria. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4273 Studies in Modern British Literature (3). This course focuses on the literature of the 20th Century, limiting itself to British writers, but including the various genres of the modern and post modern periods. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4303 Major British Writers (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 with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4311 Chaucer (3). Study of Geoffrey Chaucer's contributions to English literary history. Among the works to be examined are *The Canterbury Tales, The Parliament of Fowls* and *The Book of the Duchess*. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4320 Shakespeare: Histories (3). Reading and informal dramatic interpretation of representative plays. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4321 Shakespeare: Comedies (3). Reading and informal dramatic interpretation of representative plays. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4322 Shakespeare: Tragedies (3). Reading and informal dramatic interpretation of representative plays. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4324 Global Shakespeares – *GL* (3). Global Shakespeares examines the worldwide use, appropriation, and influence of Shakespeare's texts in other cultures. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4341 Milton (3). Study of the poetic and prose contributions of John Milton including the influence of the literature of antiquity on Milton, and his influence on subsequent poets. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4370 Virginia Woolf and Her Circle (3). Focusing on the works of Virginia Woolf. This course also explores how the members of the Bloomsburg Circle influenced this English novelist. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4412 Anglo-Jewish Literature: 19th Century to the Present (3). Fiction, essays, and poetry of Jewish writers in Britain and Ireland from 1800 to the present day. Authors may include Aguilar, Levy, Zangwill, Sinclair, Gershon, and others. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4503 Periods in English Literature (3). Individual sections will read a group of literary works from one specified period of English literature, such as the Medieval, Renaissance, Victorian, twentieth-century and contemporary periods. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

ENL 4930 Special Topics in English Literature (3). An examination of the different aspects of English literature. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

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. Prerequisites: ENC 1101 and ENC 1102.

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. Prerequisite: Permission of the instructor. Prerequisites: ENC 1101 and ENC 1102.

FIL 3006 Introduction to Film (3). The first required course for the Film Studies Certificate Program. Introduces students to cinema as an institution as well as its role as textual narrative. Provides students with an understanding of the ways films can be analyzed and understood. Prerequisite: Must be enrolled in Certificate Program. Prerequisites: ENC 1101 and ENC 1102.

FIL 4827 Czech Film / Karlovy Vary Film Festival – *GL* (3). This course will cover the Czech Film industry from its inception in the 1920's to the present day with side trips to the Karlovy Vary Film Festival in the Czech Republic and Barrondov Studios in Prague. Prerequisite: Permission of the instructor.

FIL 4940 Internship in Film Studies (1-12). Students enrolled in the Film Studies Certificate Program work at the FIU Film Society and related film activities on archival research as well as working on organizing various aspects of the FIU Miami Film Festival including the concurrent seminars. Prerequisites: Introduction to Film Studies and History of Film.

LIN 2002 Introduction to Language (3). The study of the nature of human language, its origins, and its relation to thinking behavior, and culture. An examination of the similarities and differences between spoken human languages, animal languages, and non verbal communication (including sign language); of language variation between dialects and between different historical stages of a language; and of writing systems.

LIN 2612 Black English (3). This course covers the varieties of Black English spoken in the Americas, the Caribbean, and West Africa. Focuses on the nature of these English varieties and their social uses within the community, literature, and educational system.

LIN 3013 General Linguistics (3). Study of the sounds, vocabulary, and sentence patterns of standard modern English. Other topics include meaning, social and regional dialects, language change, and style. Subsequent credit for LIN 3010 or SPN 3733 will not be granted.

LIN 4122 Historical Linguistics (3). The study of linguistic methodology for determining historical and genetic relationships among languages. Prerequisites: Introductory course in Linguistics or permission of the instructor.

LIN 4214 Applied Phonetics (3). Study of sounds and suprasegmentals of English. Comparison of phonetics of standard English with African American English, Spanish influenced English and the phonetics of other languages. Applications of phonetics. Prerequisites: LIN 3013.

LIN 4321 General Phonology (3). The study of phonological processes in language and linguistic methodology for phonological analysis. Prerequisites: Introductory course in Linguistics or permission of the instructor.

LIN 4430 General Morphology and Syntax (3). The study of linguistic methodology for determining the morphological and syntactic structures of languages. Prerequisites: Introductory course in Linguistics or permission of the instructor.

LIN 4612 Black English (3). This course is a linguistic approach to the characteristics and functions of Black English and the current social controversies surrounding it. Prerequisite: Permission of the instructor.

LIN 4621 Bilingual Language Development (3). This course addresses language acquisition in bilingual children and adults. Prerequisites: LIN 3013 or equivalent.

LIN 4640 Languages and Cultures of the World – *GL* (3). Investigation of the major language families of the world, evolution of human language, and sociocultural, political, and historical influences on languages and language families.

LIN 4651 Gender and Language (3). Examines the evidence on a variety of questions regarding women and language, including women's speech in English and other languages, sexist language, and the relationship between language and societal attitudes towards women. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIN 4680 Modern English Grammar (3). Practical study of syntax. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIN 4702 Applied Linguistics (3). Linguistics in the classroom. English as a second language. Stylistics. Dialects. Prerequisite: LIN 3013.

LIN 4718 First Language Acquisition (3). The course considers language development from the perspective of linguistics and covers the acquisition of the lexicon, of grammar, and of speech sounds and prosodic and segmental patterns. Prerequisites: LIN 3013 or the equivalent.

LIN 4801 Semantics (3). The study of the semantic structure of languages. The structures underlying the meanings of words and underlying syntactic structures. Prerequisites: Introductory course in Linguistics or permission of the instructor.

LIN 4905 Independent Study (3). 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. Prerequisites: Introductory course in Linguistics or permission of the instructor.

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 5626 Language Acquisition and Processing in Bilinguals (3). This course covers language acquisition, interaction, and processing in bilingual children and adults, language and cognition in bilinguals, and issues of assessment of bilinguals. Prerequisites: LIN 5018 or equivalent.

LIT 1000 Introduction to Literature (3). Introduces students to the aesthetics and formal elements of literature and methods of interpreting, reflecting on, and thinking critically about the cultural significance of fiction, poetry, drama.

LIT 2010 Introduction to Fiction (3). This course offers an introduction to the basic elements of prose fiction: symbolism, plot, imagery, structure, characterization, style, point of view. Corequisite: ENC 1101.

LIT 2030 Introduction to Poetry (3). This course offers an introduction to the basic elements of poetry: imagery, figurative language, diction, style, tone, prosody. Corequisite: ENC 1101.

LIT 2040 Introduction to Drama (3). This course will introduce the student to the basic elements of drama and its various forms, modes, and techniques. Students will read 10-12 plays by representative English, American, and European authors. Corequisite: ENC 1101.

LIT 2110 World Literature I (3). Surveys the literature of many cultures from the beginning of written texts through the 16th century. Usually excludes British works.

LIT 2120 World Literature II (3). This course surveys the literature of Asia and Europe from the 17th century to the present. It gives attention to the themes and world views these works embody, as well as to their artistry.

LIT 3022 The Short Novel (3). An examination of the variety of short novels that have been written in the past three centuries. Short novels from Europe and the Americas are discussed. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 3050 Forms of Satire (3). This course will discuss the history and the different forms of satire from the Romans to the present, including the works of Horace, Juvenal, Swift, and Byron. Prerequisites: ENC 1101 and ENC 1102.

LIT 3132 Arthurian Literature (3). The legend of King Arthur is examined both in the original medieval version and in the subsequent retelling. Prerequisites: ENC 1101 and ENC 1102.

LIT 3145 Continental Novel (3). A study of the works of the major European novelists of the 19th and 20th centuries. Some of the writers whose work are read in translation are Tolstoy, Mann, and Flaubert. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 3170 Topics in Literature and Jewish Culture (3). An examination of literature by or about Jews in a variety of national, cultural, or historical contexts. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 3175 Literature of the Holocaust (3). Study of literary texts--memoirs, poetry, fiction, or drama--as a way toward understanding a period of massive trauma and genocide as well as the literature it has produced. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 3190 Survey of Caribbean Literature (3). The narratives, poetry, and fiction from the beginning of the Caribbean literary tradition to the present time. Prerequisites: ENC 1101 and ENC 1102.

LIT 3200 Themes in Literature (3). Individual sections will read and discuss works relating to topics of current and enduring interest. Discussion of literature as it reflects the identities of men and women: their places in families in past, present, and future societies, in the natural world, and the cosmic order. May be repeated. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304

LIT 3313 Science Fiction (3). An introduction to science fiction via narratives in various media: novel; short story; illustration; graphic novel; film. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 3331 Classics of Children's Literature (3). An examination of literary texts that form part of the imaginative experience of children, as well as part of our literary heritage. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 3384 Caribbean Women Writers (3). Examination of the writings of Caribbean women. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 3671 Global Issues in Literature – *GL* (3). Examination of aspects of story, author, character, and contexts affected by migration, exile, global trade, or other transnational forces. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 3673 Migrant Stories: Literature of the Immigration Experience (3). Fiction, essays, poetry, and drama of immigrants to England and America. Course may focus on Jewish, Caribbean, or other groups, or comparative studies. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 3674 Literature of the Jewish Immigration Experience (3). Fiction, essays, poetry, and drama of Jewish immigrants to English-speaking countries. Course may focus on the great wave, 1880-1920, or other periods. Authors may include Antin, Cahan, Lazarus, Yezierska, Zangwill and others. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 3702 Major Literary Modes (3). Individual sections will read and discuss the literary expression of heroic, tragic, comic, satiric, mythic, realistic, or others formalized views of human existence. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 3930 Special Topics (3). A course designed to give students an opportunity to pursue special studies not otherwise offered. May be repeated with change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4001 Major Literary Genres (3). Individual sections will read and discuss the form and development of novels, drama, poetry, short fiction, or such special forms as biographies, folksongs and tales, or essays, among other genres. May be repeated. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4023 Around the World in Short Stories (3) – *GL*. Short narratives from around the world, thematically grouped. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4041 17th Century Drama (3). A study of Western European drama of the seventeenth century including Calderon, Jonson, Tirso de Molina, Corneille, Racine, Wycherley, and Congreve. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4106 (3). This course examines how medieval literary traditions from England to China inform present-day cultural issues as wide-ranging as religious conflict, ethnic identity, and the mysteries of love. Corequisite: ENG 2012

LIT 4188 Regional Literature in English (3). Individual sections will discuss English writing in Ireland, Scotland, Wales, Canada, the Caribbean, India, sub-Saharan Africa, and Oceania, as well as distinctive regions in England and America. May be repeated. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4192 Major Caribbean Authors (3). Examines the literary achievements of major writers of the Caribbean region in the social, political, and cultural contexts of the English, French, and Dutch Caribbean. Prerequisites: ENC 1101 and ENC 1102.

LIT 4197 Global Asian Literature (3). Focus on issues of migration and identity in literature by writers of South and East Asian descent. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4215 Deconstruction and Ethics in Literature (3). A literary theory course that applies the work of Jean-Luc Nancy and Jacques Derrida to ethical questions of language, community, and deconstruction in African-American and U.S. Latino Literature. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4224 Exile and Literature: An Interdisciplinary Approach (3). An interdisciplinary analysis of the phenomenon of exile through an exploration of several literary case studies with a respective text by a major exiled writer at its core.

LIT 4253 Literature of Exile: A Comparative Literary Approach (3). With its main focus on the creative process, the course explores the universal nature of the experience of exile through a comparative study of literary texts by artists from different countries.

LIT 4324 Classical Myth (3). An introduction to classical mythology through a selection of important genres from classical literature: epic, tragedy, collective poem. Works to be read in modern translation. Prerequisites: "C" or better in ENC 1101 and ENC 1102 or ENC 2304.

LIT 4343 Short Stories of Horror and the Weird (3). 20th and 2st century short stories of horror, mystery, the supernatural, and the weird. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4351 Major African Writers (3). Surveys a variety of literary texts relevant to life in post-colonial Africa. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4356 Literature of the Cuban Diaspora (3). A survey of literatures written by Cuban-Americans and other writers of the Cuban diaspora. Texts will be in English or English translations. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4364 Post-Totalitarian Literature – *GL* (3). Covers the major literary works which have been published in the Czech Republic and Slovakia since the fall of Communism there in 1989. Prerequisite: Permission of the instructor.

LIT 4382 Women in Post Communist Eastern Europe (3). An examination of the role of women in Eastern Europe, particularly in the former Czechoslovakia, since the fall of Communism there in 1989. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4403 Literature Among the Arts and Sciences (3). Individual sections will relate the study of literature to other disciplines in the humanities, fine arts, the social and natural sciences. May be repeated. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4420 The Psychological Novel (3). This course concentrates on novels which explore the complexities of the human psyche. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4536 Multi-cultural Working Class Women's Literature (3). Evaluates gender issues across cultural, race, and class lines. Examines impact of migration and assimilation on multi-ethnic literature.

LIT 4606 Literature of the Sea (3). Identifies patterns and variations among elements, such as plot, character, metaphor, and so on, in various modes, periods, and genres of literature of the sea.

LIT 4825 Introduction to Latinx Literature (3). This course introduces Latinx literature through fictional and theoretical texts that critique fixed conceptions of Latinx identity and open new alternatives for identity formation. Prerequisite: ENC 1101 and ENC 1102

LIT 4930 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4931 Special Topics in Women's Literature (3). An examination of different aspects of literature by women. May be repeated with a change of content. Prerequisites: ENC 1101 and ENC 1102 or ENC 2304.

LIT 4950 Czech Study Abroad – *GL* (3). Covers the major literary movements and figures in the Czech Republic and Slovakia that have influenced the Western literary canon. The course is taught by FIU and Czech faculty. Prerequisite: Permission of the instructor.

LIT 5358 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. Prerequisite: Graduate standing.

LIT 5359 African Diaspora Women Writers (3). Study of black women writers from throughout the Diaspora from the early 19th century to present. Prerequisite: Graduate standing.

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.

Liberal Studies

Wanda Raiford, *Senior Instructor, Department of English and Director, Liberal Studies*
Grenville Draper, *Professor, Earth and Environment and Associate Director, Liberal Studies*
Jillian D'Alessio, *Adjunct Professor and Program Coordinator, Liberal Studies*

Bachelor of Arts in Interdisciplinary Studies

The Interdisciplinary Studies Bachelor of Arts degree recognizes that career satisfaction, mobility, and success requires an entrepreneurial matching of academic learning to new or emerging job categories and is, therefore, designed to help students discover their unique competence and develop a coherent, efficient career-centric program of study, whether as a first-time-in-college, a transfer from another college or university, or an employee seeking career-advancement. Its multi- or interdisciplinary curriculum also ensures that students will have developed the critical-analytical skills increasingly required in a globally-competitive employment market.

The 30 hours of upper-division coursework for the B.A. in Interdisciplinary Studies are to be taken within the College of Arts, Sciences and Education or, as appropriate, from other FIU colleges or schools.

The degree may be taken face to face or entirely online (online course offerings will vary semester-to-semester).

To ensure that student interests, previous academic history, and career plan coincide, a 3-credit hour "Capstone" course has been integrated into the degree requirements. The Capstone course helps students select a pathway from FIU academics to a career-world or post graduate education.

Degree Program Hours: 120

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
None	None

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**. Search Program Listing by Alphabetic Order.

Common Prerequisites

No specific courses required; all students transferring from Florida community colleges are encouraged to complete the Associate in Arts degree.

Upper Division Program

Required Courses: (30 credits)

Ten 3000- or 4000-level courses distributed in the areas below. All courses in the major must be completed with a grade of "C" or better.

With assistance from the Interdisciplinary Studies advisors, students build a concentration relevant to their future career or post-BA educational goals. For students admitted into the Honors College, the B.A. degree requirements for both the Interdisciplinary Studies B.A. and Honors College upper-division curriculum may be satisfied by taking twelve credits of Interdisciplinary Honors (IDH) courses appropriate to the categories below.

Some courses may require prerequisites and labs. When required, lab courses will give credit in the remaining 30 hours elective category. As appropriate, Global Learning courses may count towards the major requirements.

All courses must be completed with a grade of "C" or better.

For a full listing of applicable specific courses within the categories and department fields below, consult the Interdisciplinary Studies program advising sheets at **http://liberalstudies.fiu.edu/**.

Human Aspirations around the World 6 hours
Courses in Literature, Philosophy, Religion, History, Art History, Art, Performing Arts (Theater and Music) or for Honors College students IDH 3034/4007

Defining Social Spheres 6 hours
Courses in Anthropology, Sociology, Psychology, Criminal Justice, International Relations, Political Science, Economics, Management/Public Relations or for Honors College students IDH 3034/4007

Science and its Applications 6 hours
Courses in Chemistry, Biology, Earth and Environment, Engineering, Computer Science, Biomedical Engineering, or for Honors College students IDH 3034/4007

Expertise Focus, theory or applied 9 hours
Two additional courses from the areas above, in consultation with a program advisor, to build upon subject-matter expertise, or for Honors College students IDH 3034/4007

IDS 4890 Capstone 3 hours
To be taken at least one semester before the intended last semester before graduation to solidify degree focus and prepare for post-BA career or advanced degrees.

Honors students may elect to satisfy 6 credits in any field above by completing a thesis (IDH 3034/4007) in the Advanced Research and Creativity in Honors option, or by completing a 6-credit study abroad experience (IDH 3034/4008).

Electives: (30 credits)
The remaining hours will be taken as electives.

Bachelor of Arts in Liberal Studies

The Liberal Studies B.A. (in each track) combines the time-tested strength of a well-rounded education with innovative ways of seeing our 21st-century world and the knowledge or applied skills needed to be productive in that world. Students select one of four tracks: Health and Human Concerns; Humanities and Cultural Traditions; Law, Business and Society; or Education, Policy, and

Community Track. These thematic tracks--at once flexible and focused--ensure that student knowledge and skill sets will be cohesive, in-depth, and targeted towards diverse future career opportunities.

The 33 hours of upper-division coursework for the B.A. in Liberal Studies are to be taken within the College of Arts, Sciences and Education; optionally, up to 9 hours of the 33 hours may be taken from other FIU colleges or schools when designated in the tracks below.

To ensure that student interests, previous academic history, and career plan coincide, a graduating-year 3-credit hour "Capstone" course-- has been integrated into the degree requirements. The Capstone course helps students select a curriculum focus as well as to provide information/content that is designed to function as a gateway from FIU academics to a career-world beyond FIU.

Degree Program Hours: 120

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
None	None

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

No specific courses required; all students transferring from Florida community colleges are encouraged to complete the Associate in Arts degree.

Upper Division Program

Required Courses: (33 credits in one of the tracks below)

For each of the tracks below, students--in consultation with their Liberal Studies advisor--should take a coordinated array of 3000- or 4000-level courses in the Natural Sciences, Social Sciences, Humanities, or Writing. Some courses require prerequisites and labs. When required, lab courses will give credit in the remaining 27 hours elective category. As appropriate, Global Learning courses may count towards meeting the major requirements within the tracks below.

All courses must be completed with a grade of "C" or better.

For a full listing of applicable specific courses within the categories and department fields below, consult the Interdisciplinary Studies program advising sheets at **http://liberalstudies.fiu.edu/**.

Health and Human Concerns Track

Natural Sciences 12 hours
Biology, Chemistry, or Biochemistry

Social Sciences 9 hours
Psychology, Global and Sociocultural Studies, Politics and International Relations, or Public Administration

Humanities 6 hours
English, History, Humanities, Philosophy, or Religious Studies

Writing 3 hours
ENC 3311 "Advanced Writing and Research" or equivalent ENC 3000 or 4000 level course

Capstone—IDS 4890 3 hours
To be taken at least one semester before the intended last semester before graduation to solidify degree focus and prepare for post-baccalaureate career or advanced degrees

Humanities and Cultural Traditions Track

Sciences 3 hours
Biology, Marine Sciences, or Earth and Environment

Social Sciences 6 hours
Asian Studies, African and African Diaspora Studies, Latin American Studies, Women's Studies, or Global & Sociocultural Studies

Humanities 18 hours
English, History, Art History, Humanities, Greek, Latin, Modern Languages, Philosophy, or Religious Studies

Writing 3 hours
ENC 3311 "Advanced Writing and Research" or equivalent ENC 3000 or 4000 level course

Capstone—IDS 4890 3 hours
To be taken at least one semester before the intended last semester before graduation to solidify degree focus and prepare for post-baccalaureate career or advanced degrees

Law, Business and Society Track

Sciences 3 hours
Biology, Marine Sciences, or Earth and Environment

Social Sciences 18 hours
Labor Studies, Economics, Global & Sociocultural Studies, Politics and International Relations, Public Administration, Criminal Justice, Law, or Business

Humanities 6 hours
English, History, Humanities, Philosophy, or Religious Studies

Writing 3 hours
ENC 3311 "Advanced Writing and Research" or equivalent ENC 3000 or 4000 level course

Capstone—IDS 4890 3 hours
To be taken at least one semester before the intended last semester before graduation to solidify degree focus and prepare for post-baccalaureate career or advanced degrees

Education, Policy, and Community Track

Natural Sciences (9 Credits)

SCE 4310 Content and Methods of Teaching Elementary Science 3

PET 3325C/PET 3325L Anatomy for the Exercise and

	Sports Sciences	3
EEC 4211	Integrated Math and Science in Early Childhood	3
SMT 3100	Knowing and Learning in Math and Science	3

Social Sciences (9 Credits)

EDF 4780	The Teacher and the Law	3
EDF 4604	Cultural and Social Foundations of Education	3
EDG 3321	Managing Teaching Environments: Instructional Decisions and Classroom Management	3
EDP 3004	Educational Psychology	3
EDP 3273	Child Development	3
EDP 4274	Early Social and Emotional Development	3
SSE 4380	Developing a Global Perspective	3
SOW 4932	Current Topic in Social Work: Service-Learning: Social Change and Contemporary Social Issues	3
CPO 4053	Political Repression and Human Rights	3
ECO 4321	Radical Political Economy	3
ANT 3212	World Ethnography	3

Humanities (9 Credits)

ARE 3313	Experiencing Art in Elementary Schools	3
DAE 3300	Dance in the Elementary, Middle, and Secondary School	3
EDF 3521	Education in History	3
EEX 3070	Teaching Students with Exceptionalities in Inclusive Environments	3
EEC 3242	Art in Early Childhood Education	3
LAE 4405	Children's Literature	3
PHM 4362	Global Justice	3
Writing and Communication in and across disciplines		3
RED 3313	Language and Literacy Development	3
RED 4100	Emergent Literacy	3
RED 4150	Content and methods of Teaching Intermediate Literacy	3
RED 4325	Content Area Reading	3
TSL 3080	ESOL Principles and Practices I	3
SPA 3000	Acquisition of Speech and Language Skills	3
ENC 4331	Writing, Rhetoric, and Community	3
ENC 3354	Writing for Social Action	3

Required Course IDS 4890 Capstone (3 credits)
To be taken at least one semester before the intended last semester before graduation to solidify degree focus and prepare for post-baccalaureate career or advanced degrees

Note: Some courses may require field hours, fingerprinting, and background check. For a list of those course or for more information, please speak an advisor in the Liberal Studies program.

Course Descriptions

Definition of Prefixes

IDS-Interdisciplinary Studies
Courses that meet the University's Global Learning requirement are identified as GL.

IDS 2930 Faculty Scholars Seminar (1). Provides freshman Faculty Scholars the opportunity to participate in the interdisciplinary study of significant themes. May only be taken twice.

IDS 3949 Cooperative Education in Liberal Studies (3). A student majoring in Liberal Studies may spend one semester fully employed in industry in a capacity relating to the major. This course must be taken as an elective.

IDS 4890 Interdisciplinary Studies Capstone: Applying Knowledge (3). Preparation for course-of-study and guided academic/career self-assessment; senior year internship, service learning, or research project. Students complete a portfolio demonstrating applied expertise.

IDS 4920 Liberal Studies Colloquia (3). Individual sections will study, from an interdisciplinary perspective, issues selected and presented jointly by College faculty. Specific topics will be announced in advance.

IDS 4949 Internship in Liberal Studies/Interdisciplinary Studies (0-6). This variable credit course (0-6 credits) can be used to allow both Liberal Studies and Interdisciplinary Studies' students to take an internship and use that experience towards their degree**.**

Minor in Humanities (15 hours)

Wanda Raiford, *Senior Instructor, Department of English and Director Liberal Studies*
Grenville Draper*, Professor and Associate Director of Liberal Studies*

Students majoring in any other discipline may minor in Humanities.

The Humanities Minor course curriculum emphasizes the study of Classical culture and its continuities with our modern, global world. Whether learning about the ancient world, or building a foundational language base in Greek or Latin, or examining art and culture through a rich array of interdisciplinary courses, students who earn the Humanities Minor find it a fine complement to College of Arts, Sciences and Education and professional-school majors.

Requirements

A. One of the following courses (3 hours):

HUM 3214	Ancient Classical Culture and Civilization
	or
HUM 4431	The Greek World
	or
HUM 3432	The Roman World
	and

B. Four additional HUM courses (including classical languages) (12 hours)

Course Descriptions

Definition of Prefixes

GRE-Classical Greek; GRW-Classical Greek Literature; HUM-Humanities; LAT-Latin

Courses that meet the University's Global Learning requirement are identified as GL.

GRE 1130 Classical Greek I (5). Emphasis on grammar, and on basic reading and writing skills. GRE 1131 Classical Greek II (5). Emphasis on grammar, and on basic reading and writing skills. Prerequisite: GRE 1130.

GRE 2200 Intermediate Classical Greek (3). Emphasis on grammar, and on acquiring intermediate reading and writing skills. Prerequisite: GRE 1131.

HUM 1020 Introduction to Humanities (3). An interdisciplinary survey of how human beings have perceived themselves and the world around them, through literature, philosophy, religion, music and the arts.

HUM 2512 Art and Society (3). A study of the relationship between art and culture in different periods, including patronage, the role of the artist, and the relationship between art and economic, political, religious, and ideological forces.

HUM 3214 Ancient Classical Culture and Civilization (3). Explores the culture of the ancient Greek and Latin worlds from an interdisciplinary perspective and studies the varied conceptions of the individual, society, and nature. Written work meets the state composition requirement.

HUM 3306 History of Ideas (3). The historical development of fundamental concepts through an interdisciplinary cultural approach. Nature, freedom, beauty, virtue, alienation, and relativism are traced in literature, art, and philosophy including the social context of developing ideas. Meets the state composition requirement. Prerequisites: ENC 1101 and ENC 1102 or equivalent.

HUM 3432 The Roman World (3). An in-depth examination of selected cultural monuments and events of the Roman Republic and Empire and of the forces that helped shape them.

HUM 3939 Special Topics (3). An examination of specific topics in the humanities. The topics may vary from semester to semester. (May be repeated with a change in content.)

HUM 3949 Cooperative Education in Humanities (3). A student majoring in Humanities may spend one or two semesters fully employed in industry in a capacity relating to the major.

HUM 4431 The Greek World (3). An in-depth examination of selected cultural monuments and events of the Greek World in the Classical and Hellenistic periods and of the forces that helped shape them. (May be repeated with change in content.)

HUM 4543 Literature and Philosophy (3). The interpretation of literature and philosophy from an interdisciplinary perspective. In addition to philosophical novels, poetry, and drama, the course may examine the philosophical scrutiny of literature.

HUM 4555 Symbols and Myths (3). An in-depth examination of mythology and symbolic language within the cultural and psychodynamic forces that inform them. This course gives special emphasis to Classical myths.

HUM 4580 Film Humanities (3). Studies the significance of film in Western culture: the language, semiotics and technique of films with the aid of appropriate cinematographical material.

HUM 4906 Independent Study (1-3). Directed independent research. Requires prior approval by instructor. (May be repeated with a change in content.)

LAT 1130 Latin I (5). Emphasis on grammar and on acquiring basic reading and writing skills.

LAT 1131 Latin II (5). Emphasis on grammar and on acquiring reading and writing skills. Prerequisite: LAT 1130.

LAT 2200 Intermediate Latin (3). Emphasis on grammar and on acquiring basic reading and writing skills. Prerequisite: LAT 1131.

School of Integrated Science and Humanity (SISH)

Senior Associate Dean **Walter Van Hamme**
Senior Account Manager **Melinda Hoder**

The School of Integrated Science and Humanity (SISH) is a unique integration of academic departments, research centers and institutes created to deepen understanding and advance scientific inquiry in the areas addressing human health, well-being and society. SISH explores the critical concerns of our times through knowledge, discussion, and awareness of social and ethical issues in the sciences and humanities. Students and faculty are developing and implementing solutions to prevent disease, advance mental health treatment, and promote diversity and exploration throughout the world.

With an interdisciplinary approach to frontline research in the natural, biomolecular and behavioral sciences, SISH is building programs to advance science for humanity through outstanding scholarship and innovative teaching.

As part of the College of Arts, Sciences and Education, SISH offers academic degrees at all levels in Chemistry and Biochemistry, Mathematics and Statistics, Philosophy, Physics, and Psychology. The school is proud to house many of the university's prominent centers and institutes, including the Biomolecular Sciences Institute, Center for Children and Families, Center for Imaging Science, Center for Women's and Gender Studies, International Forensic Research Institute, and the Stocker AstroScience Center.

Based in the Academic Health Center complex on the Modesto A. Maidique Campus, the school brings together exceptional faculty who are leaders in education, preparing today's students for the ever-growing opportunities in the fields listed above. See also **http://sish.fiu.edu**.

Chemistry and Biochemistry

Yong Cai, *Professor and Chairperson*
Irina Agoulnik, *Associate Professor, College of Medicine*
Jose R. Almirall, *Professor*
David A. Becker, *Associate Professor*
John Berry, *Associate Professor*
Sara Casado Zapico, *Instructor*
David C. Chatfield, *Associate Professor*
Justin Carmel, *Assistant Professor*
Christopher J. Dares, *Assistant Professor*
Anthony P. DeCaprio, *Associate Professor and Director of Forensic Science Certificate Program*
Milagros Delgado, *University Lecturer and Coordinator of Laboratories at BBC Undergraduate Program Director*
Francisco Fernandez-Lima, *Associate Professor and Director of the Mass Spectrometry Program*
Kenneth G. Furton, *Professor and Provost, Executive Vice President, and Chief Operating Officer*
Piero R. Gardinali, *Professor and Director of SERC*
Palmer Graves, *University Lecturer and Coordinator of General Chemistry Laboratories*
Megan Gillespie, *Instructor*
Arthur W. Herriott, *Professor Emeritus*
Rudolf Jaffe, *Professor Emeritus*
Jeffrey A. Joens, *Professor*
Konstantinos Kavallieratos, *Associate Professor*
John T. Landrum, *Professor*
Watson J. Lees, *Associate Professor and Chemistry Graduate Program Director*
Fenfei Leng, *Professor*
Joseph Lichter, *Senior Instructor and Director of Pre-Health Professional Advising*
Yuan Liu, *Associate Professor and Biochemistry Graduate Program Director*
Ramon Lopez de la Vega, *Associate Professor and Associate Chair*
Bruce R. McCord, *Professor*
Alexander M. Mebel, *Professor*
Jaroslava Miksovska, *Associate Professor*
Joong-ho Moon, *Associate Professor*
Zaida Morales-Martinez, *Professor Emerita*
Kevin E. O'Shea, *Professor*
J. Martin E. Quirke, *Professor*
Raphael Raptis, *Professor*
Kathleen S. Rein, *Professor*
Barry P. Rosen, *Professor, College of Medicine*
Sandra Stojanovic, *Senior Lecturer and Coordinator of Organic Chemistry Laboratories*
Uma Swamy, *University Lecturer and Coordinator of General Chemistry Laboratories*
Yuk-Ching Tse-Dinh, *Professor*
Sonia M. Underwood, *Assistant Professor*
Xiaotang Wang, *Associate Professor*
Stephen Winkle, *Associate Professor*
Stanislaw F. Wnuk, *Professor and Associate Dean for Research*
Yi Xiao, *Associate Professor*

Bachelor of Science in Biochemistry

Degree Program Hours: 120

The B.S. in Biochemistry program prepares the student for graduate study or a professional career as a biochemist in industry, in government service, or in secondary school teaching. (Students interested in secondary teacher certification should contact the College of Arts, Sciences and Education Center for Academic Services at (305) 348-2978.)

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
BSC 2010, BSC 2010L	BSCX010/X010L or BSCX010C or BSCX040/X040L or PCBX011C
BSC 2011, BSC 2011L	BSCX011/X011L or BSCX011C or BSCX041/X041L
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX045C CHMX040 and CHMX041
CHM 1046, CHM 1046L	CHMX046/X046L or CHMX046C
CHM 2210, CHM 2210L	CHMX210/X210L and
CHM 2211, CHM 2211L	CHMX211/X211L or CHMX210C and CHMX211C
PHY 2048, PHY 2048L	PHYX048/X048L and
PHY 2049, PHY 2049L	PHYX049/X049L or PHYX048C and PHYX049C
MAC 2311	MACX311 or MACX281
MAC 2312	MACX312 or MACX282

Courses that form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**. Search Program Listing by Alphabetic Order.

Common Prerequisites

BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1
BSC 2011	General Biology II	3
BSC 2011L	General Biology II Lab	1
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1
CHM 2210	Organic Chemistry I[1]	4
CHM 2210L	Organic Chemistry I Lab[1]	1
CHM 2211	Organic Chemistry II[1]	3
CHM 2211L	Organic Chemistry II Lab[1]	1
PHY 2048	Physics with Calculus I[1]	4
PHY 2048L	Physics with Calculus I Lab[1]	1
PHY 2049	Physics with Calculus II[1]	4
PHY 2049L	Physics with Calculus II Lab[1]	1
MAC 2311	Calculus I	4
MAC 2312	Calculus II	4

[1]*Either the General Physics sequence or the Organic Chemistry Sequence must be taken at the lower division. Whichever is not taken must be taken before the degree is granted.*

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Upper Division Program: (60 total hours, 48 hours must be 3000 level and above)

The following courses are required:

CHM 3120	Introduction to Analytical Chemistry	3
CHM 3120L	Introduction to Analytical Chemistry Lab	1
CHM 3410	Physical Chemistry I	4
CHM 3411	Physical Chemistry II	4
CHM 4304	Biological Chemistry I	3
CHM 4304L	Biological Chemistry I Lab	1
CHM 4307	Biological Chemistry II	3
CHM 4307L	Biological Chemistry Lab II	1
CHM 4910L	Undergraduate Research in Chemistry	3
or		
BCH 4910L	Undergraduate Research in Biochemistry	3
CHM 4930	Senior Seminar	1
MCB 3020	General Microbiology	3
MCB 3020L	General Microbiology Lab	1
PCB 3063	Genetics	3
PCB 3063L	Genetics Lab	1

Upper Level Electives (see below for options)

Select one of two following sets of courses:

CHM 3410L	Physical Chemistry Lab I	1
CHM 3411L	Physical Chemistry Lab II	2
	or	
CHM 4130	Instrumental Analysis	3
CHM 4130L	Instrumental Analysis Lab	1

Upper Division Electives

(*If not selected above)

CHM 3410L	Physical Chemistry Lab I*	1
CHM 3411L	Physical Chemistry Lab II*	2
CHM 4130	Instrumental Analysis*	3
CHM 4130L	Instrumental Analysis Lab*	1
CHM 3610	Fundamentals of Inorganic Chemistry	3
CHM 4220	Advanced Organic Chemistry	3
CHM 4230L	Structure Determination Lab	1
CHM 4300	Bio-Organic Chemistry	3
CHM 4611	Advanced Inorganic Chemistry	3
CHM 4611L	Advanced Inorganic Chemistry Lab	1
CHS 4100	Radiochemistry	3
CHS 4100L	Radiochemical Techniques Lab	1
CHS 4430	Introduction to Chemical Toxicology	3
MCB 4503	Virology	3
PCB 4023	Cell Biology	3
PCB 4023L	Cell Biology Lab	1
PCB 4233	Immunology	3
PCB 4524	Molecular Biology	3

Other appropriate courses may be used as elective with department/program approval.

Bachelor of Science

Degree Program Hours: 120

The B.S. in Chemistry program is certified by the American Chemical Society and prepares the student for graduate study or a professional career as a chemist in industry, in government service, or in secondary school teaching. (Students interested in secondary teacher certification should contact the College of Arts, Sciences and Education Center for Academic Services at (305) 348-2978.)

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX040 and CHMX041 CHMX045C
CHM 1046, CHM 1046L	CHMX046/X046L or CHMX046C
CHM 2210, CHM 2210L	CHMX210/X210L and
CHM 2211, CHM 2211L	CHMX211/X211L or CHMX210C and CHMX211C
PHY 2048, PHY 2048L	PHYX048/X048L[1] and
PHY 2049, PHY 2049L	PHYX049/X049L[1] or PHYX048C[1] and PHYX049C[1] or PHY053/X053L[2] and PHY054/X054L[2] or PHYX053C[2] and PHYX054C[2]
MAC 2311	MACX311 or MACX281
MAC 2312	MACX312 or MACX282

[1]*The PHYX048/PHYX049 sequence is required for the Bachelor in Science degree. It is an option for the Bachelor in Arts degree.*

[2]*The PHYX053/PHYX054 sequence is not accepted for the Bachelor in Science degree.*

Courses that form part of the statewide articulation between the State University System and the Florida College System.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**. Search Program Listing by Alphabetic Order.

Common Prerequisites

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1
CHM 2210	Organic Chemistry I[1]	4
CHM 2210L	Organic Chemistry I Lab[1]	1
CHM 2211	Organic Chemistry II[1]	3
CHM 2211L	Organic Chemistry II Lab[1]	1
PHY 2048	Physics with Calculus I[1]	4
PHY 2048L	Physics with Calculus I Lab[1]	1
PHY 2049	Physics with Calculus II[1]	4
PHY 2049L	Physics with Calculus II Lab[1]	1
MAC 2311	Calculus I	4
MAC 2312	Calculus II	4

[1]*Either the General Physics sequence or the Organic Chemistry Sequence must be taken at the lower division. Whichever is not taken must be taken before the degree is granted.*

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Upper Division Program: (60 total hours, 48 hours must be 3000 level and above)

The following courses are required:

CHM 3120	Intro to Analytical Chemistry	3
CHM 3120L	Intro to Analytical Chemistry Lab	1
CHM 3410	Physical Chemistry I	4
CHM 3410L	Physical Chemistry I Lab	1
CHM 3411	Physical Chemistry II	4
CHM 3411L	Physical Chemistry II Lab	2
CHM 4130	Instrumental Analysis	3
CHM 4130L	Instrumental Analysis Lab	1
CHM 4220	Advanced Organic Chemistry	3
CHM 4304	Biological Chemistry I	3
CHM 4230L	Structure Determination Laboratory	1
	or	
CHM 4304L	Biological Chemistry I Lab	1
CHM 4611	Advanced Inorganic Chemistry	3
CHM 4611L	Advanced Inorganic Chemistry Laboratory	1
CHM 4910L	Undergraduate Research in Chemistry	3
CHM 4930	Senior Seminar	1

One additional senior-level (4000) Chemistry course *

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

MAP 2302	Differential Equations	3
COP 2270	C for Engineers	3
MAC 2313	Multivariable Calculus	4

Students are required to take a nationally-normed chemistry examination in their last semester before graduation.

*CHM 4911L may not be used to satisfy this requirement.

Bachelor of Science in Chemistry with Honors

Admission to the Program

To be a candidate for the honors in chemistry degree a student must first:

1. Be admitted to the BS in Chemistry program with a lower division GPA of at least 3.5 in science and math courses, and an overall GPA of at least 3.2,
2. Have completed at least twelve semester hours of chemistry courses,
3. Have arranged to be sponsored by a tenured or tenure-earning faculty researcher, and
4. Submit a letter to the Chemistry Undergraduate Committee requesting permission to pursue the honors track course of study.
5. Note: Any exceptions to these admissions criteria must be approved by the Undergraduate Program Director.

Graduation Requirements

1. Completion of all requirements for the BS in Chemistry with a minimum GPA of 3.5 in science and math courses and overall GPA of 3.2.
2. Completion of an honors research project in collaboration with a faculty advisor. The results of the research project must be written in the form of an honors thesis which is written in American Chemical Society-style publication format. The student must register for Undergraduate Research (CHM 4910L) and receive a grade of “B” or better. The faculty advisor and the departmental Undergraduate Research Committee must judge the thesis as suitable in style and content for publication in an appropriate American Chemical Society journal.
3. Submission of two completed and approved copies of the Honors Thesis must be presented to the Chemistry Department office; one copy is to be kept in the department, and the second copy is to be housed in the University library.
4. The results of the research project must be presented orally to an audience of peers and faculty members from all science department honors programs. The presentation will be graded by the Undergraduate Research Committee, and the student must receive a score of 4 or 5 on a 5-point scale for his/her presentation.

Combined BS/MS in Chemistry

To be considered for admission to the combined bachelor’s/master’s degree program, students must have completed at least 75-90 credits in the bachelor’s degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor’s degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor’s degree program. Upon conferral of the bachelor’s degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

Admission Requirements

- Current enrollment in the Bachelor of Science program in chemistry at FIU.
- Current GPA of 3.2 or higher.
- Official GRE general test scores.
- Three letters of recommendation.
- Approval of the Chemistry Graduate Committee.

Completion Requirements

Completed Bachelor of Science degree in chemistry at FIU

Required:

- Nine credits (3 courses) selected from graduate chemistry core courses. Required courses must be completed with an average of "B" or higher, and only one course may receive a grade less than "B-".
- Electives: 3 courses selected from the Chemistry Graduate Elective Offerings.
- Nine credits of Thesis Research and 2 credits of Thesis.
- One credit of Colloquium.
- Overlap: Up to 3 graduate level courses (9 credits) may be used to satisfy both the Bachelor's and Master's degree requirements.

Combined BS in Chemistry/MS in Forensic Science

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

Admission Requirements

- Current enrollment in the Bachelor of Science program in chemistry at FIU.
- Current GPA of 3.2 or higher.
- Official GRE general test scores.
- Three letters of recommendation.
- Approval of the Chemistry Graduate Committee.

Completion Requirements

Completed Bachelor of Science degree in chemistry at FIU

Required:

- BSC 5406 Forensic Biology
- CHS 5542 Forensic Chemistry
- CHS 5535 Forensic Analysis
- Required courses must be completed with an average of "B" or higher, and only one course may receive a grade of less than "B-".
- Electives: 5 courses selected from the Forensic Science Graduate Elective Offerings.
- Six credits of Thesis Research and 1 credit of Thesis.
- One credit of Colloquium.
- Overlap: Up to 3 graduate level courses (9 credits) may be used to satisfy both the Bachelor's and Master's degree requirements.

Bachelor of Arts

Degree Program Hours: 120

This program is designed for students preparing for careers in medicine, pharmacy, dentistry, environmental studies, veterinary medicine, patent law, forensic science, or secondary science education*.

The BA in Chemistry program is organized into four alternative areas of concentration. Students may choose to follow the "Standard BA in Chemistry Concentration" or – in consultation with an advisor – choose a specific area of emphasis: the Biochemistry Concentration, the Environmental Chemistry Concentration, or the Forensic Chemistry Concentration. Each of the four options is described below.

*(Students interested in secondary teacher certification should contact the College of Arts, Sciences and Education Center for Academic Services at (305) 348-2978.)

Lower Division Preparation for All Areas of Concentration

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX040 and CHMX041 CHMX045C
CHM 1046, CHM 1046L	CHMX046/X046L or CHMX046C
CHM 2210, CHM 2210L	CHMX210/X210L and
CHM 2211, CHM 2211L	CHMX211/X211L or CHMX210C and CHMX211C
PHY 2048, PHY 2048L	PHYX048/X048L[1] and
PHY 2049, PHY 2049L	PHYX049/X049L[1] or PHYX048C[1] and PHYX049C[1] or PHY053/X053L[2] and PHY054/X054L[2] or PHYX053C[2] and PHYX054C[2]
MAC 2311	MACX311 or MACX281
MAC 2312	MACX312 or MACX282

[1]The PHYX048/PHYX049 sequence is required for the Bachelor in Science degree. It is an option for the Bachelor in Arts degree.

[2]The PHYX053/PHYX054 sequence is not accepted for the Bachelor in Science degree.

Courses that form part of the statewide articulation between the State University System and the Florida College System.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
CHM 2210	Organic Chemistry I[1]	4

CHM 2210L	Organic Chemistry I Lab[1]	1
CHM 2211	Organic Chemistry II[1]	3
CHM 2211L	Organic Chemistry II Lab[1]	1
PHY 2048	Physics with Calculus I[2]	4
PHY 2048L	Physics with Calculus I Lab[1]	1
PHY 2049	Physics with Calculus II[2]	4
PHY 2049L	Physics with Calculus II Lab[1]	1
MAC 2311	Calculus I	4
MAC 2312	Calculus II	4

[1]*Either the General Physics sequence or the Organic Chemistry sequence must be taken at the lower division. Whichever is not taken must be taken before the degree is granted.*
[2]For the Bachelor of Arts degree, PHY 2053 and PHY 2054 may be substituted for PHY 2048 and PHY 2049.

Other Lower Division Courses Required for the Degree:

BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1

To qualify for acceptance into the upper division, FIU undergraduates must have met all the lower division requirements, completed 60 semester hours, and must be otherwise acceptable to the program.

Upper Division Program: (60 total hours, 48 hours must be 3000 level and above)

Upper Division Courses Required for All Concentrations

CHM 3120	Intro to Analytical Chemistry	3
CHM 3120L	Intro to Analytical Chemistry Lab	1
CHM 3400	Fundamentals of Physical Chemistry	3
CHM 3400L	Fundamentals of Physical Chemistry Lab	1
CHM 4304	Biological Chemistry I	3
CHM 4304L	Biological Chemistry I Lab	1
CHM 4930	Senior Seminar	1

Students are required to take a nationally-normed chemistry examination in their last semester before graduation.

Specific Courses by Concentration Standard BA-Chemistry Concentration

1. Choose from List 1 (Cognate Area Courses): Any one course*
   *Premed students should choose BSC 2011/2011L
2. Choose from List 2 (Restricted Elective): Any two courses, one of which must include its corresponding lab.
3. One senior level chemistry elective: (CHM4XXX/CHM5XXX)**

**CHM 4910L or CHM 4911L may not be used to satisfy this requirement.

Biochemistry Concentration

This concentration is intended for students who desire a comprehensive background in chemistry but with emphasis in biological chemistry. The curriculum is designed to contain all of the courses necessary for entry into medical and dental school.

1. Choose from List 1 (Cognate Area Courses): BSC 2011/BSC 2011L
2. Choose from List 2 (Restricted Electives): CHM 4300 & CHM 4230L or CHM 4307 & CHM 4307L and one other lecture course
3. One senior level chemistry elective (CHM4XXX/CHM5XXX)** which is biomedically related.

**CHM 4910L or CHM 4911L may not be used satisfy this requirement.

Environmental Chemistry Concentration

This concentration is intended for students who desire a comprehensive background in chemistry but with an interest in applying their expertise in chemistry to environmentally-related careers and issues.

1. Choose from List 1 (Cognate Area Courses): An environmentally-related course
2. Choose from List 2 (Restricted Electives): CHM 4130/4130L and one other lecture course
3. One senior level chemistry elective (CHM4XXX/CHM5XXX)** which is environ-mentally-related.

**CHM 4910L or CHM 4911L may not be used to satisfy this requirement.

NOTE: Students may earn a Certificate in Environmental Studies (offered by the Department of Earth and Environment), by taking the appropriate environmental studies courses. This also satisfies the College's requirement of 9 credits outside the major.

Forensic Chemistry Concentration

This concentration is intended for students who desire a comprehensive background in chemistry but with an interest in applying their expertise in chemistry to a career in forensic science or criminalistics.

1. Choose from List 1 (Cognate Area Courses): CCJ 2020
2. Choose from List 2 (Restricted Electives): CHM 4130/4130L and one other lecture course
3. One senior level chemistry elective (CHM4XXX/CHM5XXX or CHS4XXX/CHS5XXX)** with forensic emphasis.

**CHM 4910L or CHM 4911L may not be used satisfy this requirement.

List 1 – Cognate Area Courses

BSC 2011	General Biology II	3
BSC 2011L	Gen Biology II Lab	1
CCJ 2020	Introduction to Criminal Justice	3
EVR 3011	Environmental Resources	3
EVR 3013	Ecology of South Florida	3
EVR 3013L	Ecology of So Fl Lab	1
EVR 4211	Water Resources	3
EVR 4211L	Water Resources Lab	1
EVR 4231	Air Resources	3
EVR 4310	Energy Resources	3
EVR 4592	Soils & Ecosystems	3
EVR 4592L	Soils & Ecosystems Lab	1
GLY 3202	Earth Materials	3
GLY 3202L	Earth Materials Lab	2
GLY 4822	Intro to Hydrogeology	3
OCE 3014	Oceanography – *GL*	3

List 2 – Restricted Electives

CHM 4220	Advanced Organic Chemistry	3

CHM 4300	Bio-organic Chemistry	3
CHM 4307	Biological Chemistry II	3
CHM 3610	Fundamentals of Inorganic Chemistry	3
CHM 3411*	Physical Chemistry II	4
CHM 4130	Instrumental Analysis	3
CHM 4230L	Structure Determination Lab	1
CHM 4130L	Instrumental Analysis Lab	1
CHM 4307L	Biological Chemistry II Lab	1
CHM 4611L	Advanced Inorganic Chemistry Lab	1
CHM 3411L	Physical Chemistry II Lab	2
CHS 4430	Introduction to Chemical Toxicology	3
CHS 4600	Marine Chemistry	3

*CHM 3410 is a prerequisite of CHM 3411.

Chemical Education Major (FIUteach)

This program prepares students interested in chemistry and science for certification to teach at the secondary level. Additional science and/or mathematic certifications at the secondary level may be added (below). Students are encouraged to contact the FIUteach program (**FIUteach.fiu.edu**) for opportunities to try out teaching at no cost. Interested students are encouraged to contact the department, the FIUteach program, or the secondary science advisor for additional details and certification requirements.

Additional coursework in science and/or mathematics is required to prepare for certification in additional subject areas. Students must contact the FIUteach program or the secondary science advisor for details and requirements.

Admission to the Program

To qualify for admission to the program, undergraduate candidates must have met all the lower division requirements including: 60 credit hours of lower-division courses, all general education requirements, lower division GPA of 2.5 or higher, and achieve the competencies of the FTCE General Knowledge Exam (GK). All students must pass the GK Exam by the time they reach 72 credit hours in their program of study. 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.

Lower Division Preparation

Common Prerequisites as Detailed Under the BA Degree

Additional Lower Division Courses (6)

BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1
	and	
SMT 2661	Step 1: Inquiry Approaches to Teaching Mathematics and Science	1
SMT 2662	Step 2: Inquiry-Based Lesson Design in Mathematics and Science	1
	or	
SMT 2044	Combined STEP 1 & 2: Inquiry-Based Approaches and Lesson Design for Teaching Mathematics and Science	2

Upper Division Program (60)

CHM 3120	Intro to Analytical Chemistry	3
CHM 3120L	Intro to Analytical Chemistry Lab	1
CHM 3400	Fundamentals of Physical Chemistry	3
CHM 3400L	Fundamentals of Physical Chemistry Lab	1
CHM 4304	Biological Chemistry I	3
CHM 4304L	Biological Chemistry I Lab	1
CHM 4930	Senior Seminar	1

Chemical Education Major

List 1 – Elective

BSC 2011	General Biology II	3
BSC 2011L	General Biology II Lab	1

List 2 – Restricted Electives

Select any two courses. One must include a lab. (7 hrs. min)

CHM 4220	Advanced Organic Chemistry	3
CHM 4300	Bio-organic Chemistry	3
CHM 4307	Biological Chemistry II	3
CHM 3610	Fundamentals of Inorganic Chemistry	3
CHM 3411	Physical Chemistry II	4
CHM 4130	Instrumental Analysis	3
CHM 4230L	Structure Determination Lab	1
CHM 4130L	Instrumental Analysis Lab	1
CHM 4611L	Advanced Inorganic Chemistry Lab	1
CHM 3411L	Physical Chemistry II Lab	2

Education Requirements

CHM 3910	Research Methods in Chemistry	3
SMT 3100	Knowing and Learning in Mathematics and Science	3
SMT 4301	Classroom Interactions in Mathematics and Science Teaching	3
SMT 4664	Problem-Based Instruction (PBI) in Mathematics and Science	3
SCE 4194	Perspectives in Science and Math Education – *GL*	3
SCE 4944	Student Teaching	6
RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Strategies for Content Teachers – *GL*	3

Out of Division Elective 3

Minor in Chemistry

The minor in chemistry requires at least 21 credits in chemistry to include:

General Chemistry I & II (CHM 1045, 1045L, and 1046, 1046L)	8
Introduction to Analytical Chemistry (CHM 3120, 3120L)	4
Organic Chemistry I & II (CHM 2210, CHM 2210L, CHM 2211,CHM 2211L)	9

At least half of the credits to be counted towards the minor must be taken at the University.

Pre-Medical, Dentistry, Veterinary, Optometry Curricula

Students who have satisfied the requirements for either the BA or the BS degree in chemistry will also have satisfied the course requirements for admission to professional schools in the above areas. The BA in Chemistry degree (Biochemistry Concentration) includes additional course work relevant to the career objectives of

the student. Interested students should consult the Pre-Health Advisor at (305) 348-0515.

Cooperative Education

Students seeking the baccalaureate degree in chemistry may also take part in the Cooperative Education Program conducted in conjunction with Career Services in the Division of Student Affairs. The student spends one or two semesters fully employed in an industrial or governmental chemistry laboratory. For further information consult the Department of Chemistry, or Career Services at (305) 348-2423 (MMC) or (305) 919-5770 (BBC).

Department Policy

The Department of Chemistry does not award credit for courses by examination; it does, however, award credit for AP Chemistry with a score of 3 or higher and with evidence of a suitable laboratory experience. The department does not award credit for life experience.

Course Descriptions

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

Definition of Prefixes

BCH-Biochemistry (Biophysics); CHM-Chemistry; CHS-Chemistry-Specialized; ISC-Interdisciplinary Natural Sciences; OCC - Chemical Oceanography
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

BCH 4910L Undergraduate Research in Biochemistry (1-20). The student will work with a research advisor on a biochemical research project at FIU. A written report approved by the research advisor needs to be submitted. Permission of instructor is required.

BCH 5045 Survey of Biochemistry (3). For students NOT specializing in biochemistry. Topics will cover the structure, function, biosynthesis and synthesis of biological molecules, biological macromolecules and macromolecular assembles. Prerequisite: CHM 2211.

CHM 1020 Chemistry and Society (3). CHM 1020L Chemistry and Society Lab (1). A course for non-science majors which introduces students to basic concepts in chemistry and applies those concepts to contemporary issues such as air/water pollution, energy and food production, drugs, nutrition, and toxic chemicals. Prerequisites: One year of high school or college algebra. (Lab fees assessed) (F,S,SS)

CHM 1025 Fundamentals of Chemistry (2). Introduces students to basic mathematics required in chemistry, nature of matter, atomic structure, simple chemical reactions and stoichiometry.

CHM 1025L Fundamentals of Chemistry Lab (1). This course provides laboratory experiences designed to develop the students' skills in basic chemical laboratory techniques and practice (lab fees assessed). Corequisite: CHM 1025

CHM 1033 Survey of Chemistry (4). CHM 1033L Survey of Chemistry Lab (1). General and organic chemistry for non-science majors only. Atoms and molecules, states of matter, equilibrium, kinetics, acids and bases and introduction to organic chemistry. Laboratory must be taken concurrently. Does not fulfill requirements for chemistry, biology or pre-med majors. Prerequisites: One year of high school or college algebra. (Lab fees assessed) (S,SS)

CHM 1045 General Chemistry I (3). CHM 1045L General Chemistry Lab I (1). Fundamental principles of general chemistry: states of matter, atomic structure, stoichiometry, chemical bonding, acid-base reactions, and gas laws. Concurrent registration in both lecture and laboratory is required. Prerequisites: (MAC1105 or MAC1114 or MAC1140 or MAC1147 or any calculus course; or CHM1025 or adequate placement test score). Prerequisite or Corequisite: CHM1045L (Lab fees assessed) (F,S,SS)

CHM 1046 General Chemistry II (3). CHM 1046L General Chemistry Lab II (1). Continuation of General Chemistry I (CHM 1045). Fundamental principles of chemistry: thermodynamics, solutions, kinetics, equilibrium and electrochemistry. Concurrent registration in both lecture and laboratory is required. Prerequisites: CHM 1045 (with a “C” or better), CHM 1045L. (Lab fees assessed) (F,S,SS)

CHM 2200 Survey of Organic Chemistry (3). CHM 2200L Survey of Organic Chemistry Lab (1). A basic one-semester survey course in organic chemistry for non-majors presenting a broad background in the reactions and structures of organic molecules. Does not fulfill requirements for chemistry, biology, or pre-med majors. Laboratory must be taken concurrently with the course. Prerequisites: CHM 1020, CHM 1020L, CHM 1033, CHM 1033L, or CHM 1046, CHM 1046L. (Lab fees assessed)

CHM 2210 Organic Chemistry I (4). CHM 2210L Organic Chemistry Lab I (1). An introduction to chemical bonding and atomic structure theory as it pertains to the chemistry of carbon compounds. Correlation between structure and reactivity of organic molecules followed by a systematic look at the various reaction types using reaction mechanisms as a tool for study. Concurrent registration in both lecture and laboratory is required. Prerequisites: CHM 1046 (with a “C” or better), CHM 1046L. (Lab fees assessed) (F,S,SS)

CHM 2211 Organic Chemistry II (3). CHM 2211L Organic Chemistry Lab II (1). Continuation of CHM 2210, 2210L. Concurrent registration in lecture and laboratory is required. Prerequisites: CHM 2210 (with a “C” or better), 2210L. (Lab fees assessed) (F,S,SS) Lecture is corequisite for lab.

CHM 2216 Organic Chemistry I Recitation (1). Supplemental course for Organic Chemistry I (CHM 2210) that teaches problem-solving skills and reinforces concepts learned in lecture. Prerequisite: CHM 1046. Corequisite: CHM 2210.

CHM 2219 Organic Chemistry II Recitation (1). Supplemental course for Organic Chemistry II (CHM 2211) that teaches problem-solving skills and reinforces

concepts learned in lecture. Prerequisite: CHM 2210. Corequisite: CHM 2211.

CHM 3120 Introduction to Analytical Chemistry (3). CHM 3120L Introduction to Analytical Chemistry Lab (1). Fundamentals of classical quantitative analysis. Topics include theory of precipitation, acid-base and oxidation-reduction reactions, as well as an introduction to spectrophotometric methods of analysis, ion-exchange techniques and complex formation. Laboratory must be taken concurrently with the lecture. Prerequisites: CHM 1046, (with a "C" or better) CHM 1046L. (F,S,SS)

CHM 3400 Fundamentals of Physical Chemistry (3). CHM 3400L Fundamentals of Physical Chemistry Lab (1). Principles of physical chemistry. Topics include thermodynamics, equilibria, electrochemistry, and reaction kinetics. Laboratory must be taken concurrently with the course. Prerequisites: CHM 3120, 3120L, MAC 2311, 2312; (PHY 2048, 2048L PHY 2049, 2049L, or (PHY 2053, 2048L, and 2054, 2049L. Corequisite: CHM 3400L (F, S)

CHM 3410 Physical Chemistry I (4). CHM 3410L Physical Chemistry Lab I (1). Principles of thermodynamics, gas laws, kinetic theory of gases, chemical equilibrium, electrochemistry, and kinetics. Laboratory to be taken concurrently with the course. Prerequisites: MAC 2311, 2312; PHY 2048, 2048L PHY 2049, PHY 2049L, and CHM 3120, CHM 3120L. (F)

CHM 3411 Physical Chemistry II (4). CHM 3411L Physical Chemistry Lab II (2). Introduction to quantum mechanics. The Schrodinger equation and its application to rotational, vibrational, and electronic spectroscopy, atomic and molecular structure, and bonding. Prerequisites: CHM 3410, 3410L. (S)

CHM 3610 Fundamentals of Inorganic Chemistry (3). Fundamental principles of inorganic chemistry including atomic properties, valence and molecular orbital bonding, ionic solids, coordination chemistry and applications. Prerequisites: CHM 2211, CHM 2211L.

CHM 3910 Research Methods in Chemistry (3). Experimental development and design for future chemistry teachers. Independent physics experiments are designed, conducted and analyzed. Includes statistical analysis techniques. Prerequisites: SMT 2662, CHM 2211, CHM 3120.

CHM 3945 Chemical Education Seminar (1). Inquiry chemistry instruction approach incorporating chemical education research. Includes scientific discourse, assessment, and the use of technology in instruction. Prerequisites: CHM 1045, CHM 1045L, CHM 1046, CHM 1046L.

CHM 3949 Chemistry and Biochemistry Internship (0-3). One semester of full-time supervised work in a laboratory. A written report and supervisor evaluation will be required of each student. May be repeated. Prerequisite: Permission of the department required. (F,S)

CHM 4090L Introduction to Scientific Glassblowing (1). Basic glassblowing operations with glass tubing and rod are taught. Emphasis is on making and repair of scientific glassware. No prerequisites.

CHM 4130 Instrumental Analysis (3). CHM 4130L Instrumental Analysis Lab (1). Instrumental methods of chemical analysis, including electro-analytical methods, gas and liquid chromatography, mass spectrometry, x-ray fluorescence, and spectrophotometric methods. Prerequisites: CHM 3120, 3120L, CHM 2211, 2211L, CHM 3410, PHY 2048, 2048L, PHY 2049, 2049L, or permission of the instructor. (F,S)

CHM 4220 Advanced Organic Chemistry (3). An intensive examination of the major areas of contemporary organic chemistry. Reactive intermediates, pericyclic reactions, molecular rearrangements, and modern synthetic methods are among the topics covered. Prerequisites: CHM 2211, 2211L. (F)

CHM 4230L Structure Determination Lab (1). The qualitative analysis of organic compounds using modern spectroscopic, chromatographic and chemical methods. Prerequisites: CHM 2211, and 2211L. (F,S)

CHM 4300 Bio-Organic Chemistry (3). Chemistry of naturally-occurring organic compounds of biological importance. The relationship between organic chemistry and the chemical reactions which constitute the living organism. Prerequisites: CHM 2211, and 2211L. (S)

CHM 4304 Biological Chemistry I (3). CHM 4304L Biological Chemistry I Lab (1). Structures and functions of nucleic acids and proteins and cellular processes such as metabolism, replication and transcription are examined from a chemistry perspective. Prerequisites: CHM 2211, CHM 3120, BSC 2011 or permission of the instructor. Corequisite: A semester of physical chemistry. Lecture is corequisite for lab. (F,S,SS)

CHM 4307 Biological Chemistry II (3). Continuation of Biological Chemistry I (CHM 4304). Further exploration of bio-organic reaction mechanisms. Chemistry DNA synthesis and repair. Chemistry of information transfer. Reactions of drugs. Prerequisite: Biological Chemistry I (CHM 4304). (S)

CHM 4307L Biological Chemistry Lab II (1). Continuation of Biological Chemistry Laboratory I. Experimental methods presented include NMR, enzyme inhibition assays, macromolecular thermodynamics, peptide sequencing, ligand binding assays, chromatography. Prerequisites: CHM 4304, CHM 4304L. Corequisite: CHM 4307.

CHM 4320L Research Techniques in Organic Chemistry (2). Practical instruction in the more advanced manipulations and procedures of the modern chemistry laboratory. Restricted to B.S. chemistry majors. Prerequisites: CHM 3120, CHM 2211, CHM 2211L, CHM 3410, and CHM 3411L.

CHM 4321 Protein Chemistry (3). Structures of proteins and how they are determined. Protein-small molecule, protein-protein, protein-DNA, protein membrane interactions and their functions. Prerequisites: CHM 2211, BSC 2011, a biochemistry course or permission of the instructor. Corequisites: CHM 3410 or permission of the instructor.

CHM 4455 Survey of Polymer Chemistry (3). Fundamental aspects of polymer chemistry. Synthesis, characterization, properties, and uses of commodity and

specialized plastics and other polymers. Prerequisites:CHM2210 and CHM2211

CHM 4611 Advanced Inorganic Chemistry (3). Atomic structure, periodicity, bonding and structure of inorganic compounds, solution chemistry, ligand field theory, organometallic chemistry, and specific chemistry of the elements. Prerequisites: CHM 3120, CHM 2211, and CHM 3411. (F)

CHM 4611L Advanced Inorganic Chemistry Lab (1). Synthesis, purification, and study of coordination and organometallic compounds. Prerequisite: CHM 3411. Corequisite: CHM 4611. (F)

CHM 4910L Undergraduate Research in Chemistry (3). The student works directly with a professor on a research project. Credit is assigned based on 4 hr/wk laboratory/library work per credit hour. A written report is required. Report must be submitted to the Undergraduate Research Committee for approval. For additional credits of undergraduate research student must register for CHM 4911L. (F,S,SS)

CHM 4911L Undergraduate Research 2 (1-20). Faculty directed research in chemistry. Credit is assigned based on 4 hr/wk laboratory/library work per credit hour. May be repeated. Prerequisite: CHM 4910L. (F,S,SS)

CHM 4930 Senior Seminar (1). Techniques for preparation and presentation of a scientific seminar and postgraduate career development. Completion of an oral presentation, written report, and exit exam in chemistry required. Prerequisites: CHM 3400 or CHM 3411, or permission of the instructor. (F,S)

CHM 4934 Special Topics (3). Covers selected topics in chemistry. Permission of the instructor.

CHM 4949 Cooperative Education in Chemistry (1-3). One semester of fulltime supervised work in an outside laboratory. Limited to students admitted to the University Coop Program. A written report and supervisor evaluation will be required of each student. (F,S)

CHM 5138 Advanced Mass Spectrometry (3). Intensive examination of the processes and techniques involved in creating, controlling and measuring ionic species by mass spectrometry. Theory of mass spectrometry, methods of ionization, instrumental designs, quantitative mass spectrometry, meta-stable ions, and tandem mass spectrometry. Prerequisites: CHM 4130, CHM 4130L or permission of the instructor.

CHM 5139C Mass Spectrometry Workshop (2). Basic description of processes and techniques involved in creating, controlling and measuring elemental or molecular ionic species by mass spectrometry techniques. WS designed to provide hands on experience. Prerequisite: CHM 4130.

CHM 5150 Graduate Analytical Methods (3). Analysis of analytical data, electrochemistry, spectro-analytical techniques, chromatography, survey of new analytical methods. Prerequisites: Graduate standing or permission of the instructor.

CHM 5156 Advanced Chromatography (3). Intensive examination of the contemporary practice of chromatography including available chromatographic techniques, their selection and application. Prerequisites: CHM 4130 or permission of the instructor.

CHM 5165 Chemometrics and Sampling (3). Methods of evaluating analytical chemistry data. Planning sampling design for water, air and solids. Sample preparation and extraction techniques. Prerequisite: CHM 4130.

CHM 5225 Graduate Organic Chemistry (3). Advanced topics in organic chemistry. Structure of organic molecules, reaction mechanisms, organic synthesis, and natural product chemistry. Prerequisites: Graduate standing or permission of the instructor.

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. Prerequisites: CHM 4220 or permission of the instructor.

CHM 5251 Organometallic Chemistry (3). Fundamentals and applications of organometallic chemistry. Structures and bonding, ligand types, organometallic reactions, physical methods of characterization. Prerequisites: CHM 4611, CHM 3411.

CHM 5252 Asymmetric Synthesis (3). Recent advances in asymmetric synthesis for the selective design and construction of tetrahedral stereo-centers. Focus on principles of configuration in transition state assemblies. Prerequisite: CHM 4220.

CHM 5263 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. Prerequisites: 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, and acetogenins. Prerequisites: CHM 4220 or permission of the instructor.

CHM 5285 Marine Natural Products: Chemistry and Pharmacology/Toxicology (3). Identification, isolation, and characterization of toxic and other biologically active compounds from marine sources.

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. Prerequisites: CHM 4220 or permission of the instructor.

CHM 5305 Graduate Biological Chemistry (3). Structures of biological molecules; Biochemical reaction mechanisms; Enzyme kinetics; Biomolecular thermodynamics; Biomolecular spectroscopy. Prerequisites: Graduate standing or permission of instructor.

CHM 5306 Special Topics in Biological Chemistry (3). Investigation of one or more areas of biologically related chemistry. Prerequisites: CHM 4304 or permission of the instructor.

CHM 5325 Physical Chemistry of Proteins (3). Protein structures, dynamics and functions. Use of spectroscopic methods. Thermodynamics of protein folding and ligand binding. Enzyme Kinetics. Prerequisites: Biological Chemistry and Physical Chemistry 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. Prerequisites: 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. Prerequisites: 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. Prerequisites: CHM 3410, CHM 3411, or permission of the instructor.

CHM 5425 Graduate Physical Chemistry (4). Prequantum physics, the Schrodinger equation and its solutions, atoms and molecules, rotational, vibrational, and electronic spectroscopy. Prerequisites: Graduate standing or permission of the instructor.

CHM 5426 Graduate Physical Chemistry II (4). Gas laws; thermodynamics and equilibrium, electrochemistry, and chemical kinetics. Prerequisites: 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 2302.

CHM 5450 Advanced Polymer Chemistry (3). Advanced aspects of polymer chemistry. Properties, synthesis, uses and characterization of various polymeric materials. Prerequisites: CHM 2210 and CHM 2211. Corequisite: Graduate Standing.

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, photoelectron, 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. Corequisites: 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. Prerequisites: CHM 4304 or permission of the instructor.

CHM 5506 Physical Biochemistry (3). Physical properties of bio-molecules, molecular conformation; thermodynamic, kinetic, and spectroscopic properties of biomolecules. Prerequisites: CHM 4304 or permission of the instructor.

CHM 5517 Solid State (3). Crystalline form of solids, lattice dynamics, metals, insulators, semiconductors, and dielectric materials. Prerequisites: CHM 5490 or PHY 4604.

CHM 5540 Group Theory In Chemistry (3). The fundamental theory is developed with emphasis given to representations. Specific applications covered, with emphasis on molecular orbital theory and spectroscopy. Prerequisite: CHM 3411.

CHM 5586 Computational Chemistry (3). Surveys computational methods for studying issues pertinent to organic and biological chemistry. Emphasis on developing an understanding of principles and putting methods to use. Includes methods for studying reaction thermodynamics, reaction mechanisms and NMR spectral properties. Prerequisites: CHM 3410, CHM 3411.

CHM 5650 Physical Inorganic Chemistry (3). Introduction to use of physical methods to determine the structure of inorganic compounds. Prerequisite: CHM 4611 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. Prerequisites: CHM 4611 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 5932 Special Topics (3). A course covering selected special topics in chemistry.

CHM 5934 Special Topics in Analytical Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisites: CHM 4130 or permission of the instructor.

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 5938 Special Topics in Physical Chemistry (VAR). An intensive examination of one or more areas

selected by instructor and students. Prerequisites: CHM 3411 or permission of the instructor.

CHM 6491 Applications of Synchrotron and Electron Based Techniques (3). X-ray and synchrotron techniques, including general theory, X-ray diffraction, small and wide angle scattering, imaging and microscopy, transmission electron microscopy, and EELS spectroscopy. Prerequisite: Graduate Standing in chemistry or related area or permission of instructor.

CHS 3501 Survey of Forensic Science (3). A survey course introducing the principles and techniques of forensic science as they pertain to crime scene investigation and crime laboratory analysis.

CHS 3501L Survey of Forensic Science Laboratory (1). Laboratory course to accompany survey of forensic science lecture with emphasis on biological evidence. Topics include, CSI, DNA, toxicology, and serology. Corequisite: CHS 3501.

CHS 3511C Forensic Evidence (3). Introduces forensic science students to important aspects of the analysis of physical evidence including crime scene investigation techniques, professional practice and ethics, introduction to the law, and quality assurance. Prerequisites: CHM 1045, CHM 1045L, CHM 1046, CHM 1046L, CHM 2210, CHM 2210L, CHM 2211, CHM 2211L, CHM 3120, CHM 3120L, or permission of the instructor.

CHS 4100 Radiochemistry (3). CHS 4100L Radiochemical Techniques Lab (1). Production, isolation, methods of detection, counting statistics and estimation of radioisotopes. Applications to chemical, physical and biological problems. Laboratory must be taken concurrently with the course. Prerequisites: CHM 1046,(CHM 3400 or CHM 3410, or PHY 3107 Corequisite: Students must register for both CHS 4100 and 4100L.

CHS 4430 Introduction to Chemical Toxicology (3). Course focuses on basic principles of toxicology and pharmacology of drugs and related chemicals from a molecular, mechanistic, and physiochemical viewpoint. Prerequisites: CHM 4304 or BCH 3033.

CHS 4503C Forensic Science (3). Modern instrumental methods of chemical analysis and their use in the administration of justice. Prerequisites: CHM 3120 and CHM 2211 or permission of the instructor. Corequisites: a semester of physical chemistry or permission of the instructor.

CHS 4503L Forensic Science Lab (1). Laboratory to accompany Forensic Science, CHS 4503C. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, CHM 2211L or permission of the instructor.

CHS 4533C Forensic Biochemistry Applications (3). Forensic applications of biochemistry including metabolite analysis, DNA analysis and other laboratory methods and data interpretation. Prerequisites: BSC 2010, CHM 2211, CHM 4304, or BCH 3033.

CHS 4591 Forensic Science Internship (3). Internship in a forensic-science laboratory, contributing in a specific manner on an assigned problem. Twenty hrs/wk. Written report required. Open only to students in the Criminalistics Chemistry Program. Prerequisite: Senior standing.

CHS 4600 Marine Chemistry (3). A study of how the chemistry of marine systems operate and interact with biological, geological, and physical processes. Prerequisites: CHM2210 and CHM2210L, or CHM 2200 and CHM 2200L; CHM3120, CHM3120L, (or permission of the instructor)

CHS 4702 Inquiry Instruction in Chemistry (3). Inquiry chemistry instruction approach incorporating chemistry education research. Includes general topics, scientific discourse, assessment and technology use in teaching. Prerequisites: CHM 3945 or PHY 3012.

CHS 5435 Pharmacology and Toxicology of Drugs (3). Provides an in-depth understanding of basic pharmacological and toxicological principles of drug action from a molecular, mechanistic, and physiochemical viewpoint. Prerequisite: Graduate standing.

CHS 5502 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 the instructor.

CHS 5535 Forensic Analysis (3). An introduction to established chemical analysis techniques used in forensic science and new techniques under development. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, CHM 2211L or permission of the instructor.

CHS 5535L Forensic Analysis Lab (1). Laboratory to accompany Forensic Analysis CHS 5535. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, CHM 2211L or permission of the instructor.

CHS 5536 Forensic DNA Chemistry (3). Chemical basis for current methodologies of DNA analysis. DNA sequencing, PCR, STR, AFLP, mass spectrometry. Prerequisites: CHM 4304 or permission of the instructor.

CHS 5538C Chemistry and Analysis of Drugs (3). Introduction to the chemistry of drugs of abuse, including reactivity, synthesis and the principles of analysis from solid doses and from body fluids. Laboratory analysis through the determination of unknown samples. Prerequisites: CHM 4130, CHM 4130L, CHM 4304, CHM 4304L.

CHS 5539 Forensic Toxicology (3). Provides the basic concepts of forensic toxicology as it applies to drug and body fluid analysis. Prerequisites: CHM 2211+L, CHM 3120+L, CHM 4304+L (BCH 3033+L) or permission of the instructor.

CHS 5542 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.

CHS 5545 Chemistry and Analysis of Explosives (3). Chemistry and reactivity, including thermochemistry, of modern industrial and military explosives with an emphasis on the analysis of explosives residues from

post-blast debris and from samples of environmental interest. Prerequisites: CHM 4130, CHM 4130L.

ISC 4041 Scientific Literature (1). This course presents a perspective on the scientific literature and scientific documentation. Problems in using and searching the scientific literature will be specifically designed to meet the needs of various disciplines, e.g. chemistry, environmental science, physics, biology. Prerequisites: 16 semester hours of science.

OCC 5050 Chemical Oceanography (3). Interaction of chemical processes in marine systems with biological, geological, and physical processes. Prerequisites: Graduate standing or permission of the instructor.

Mathematics and Statistics

Laura DeCarli, *Professor and Chair*
Hassan Zahedi-Jasbi, *Associate Professor and Director of the Statistics Division*
Dongmei An, *Senior Instructor*
Leonid Bekker, *University Instructor*
Umut Caglar, *Instructor*
Chongsheng Cao, *Professor*
Zhenmin Chen, *Professor*
Ronan Conlon, *Assistant Professor*
Tedi Draghici, *Associate Professor*
Julian Edward, *Professor*
Domitila Fox, *University Instructor*
Edgar Fuller, *Professor and Director of the Center for the Transformation of Teaching Mathematics*
Ciprian Gal, *Associate Professor*
Maydelin Galvez, *Instructor*
Florence George, *Associate Professor*
Gauri L. Ghai, *Associate Professor and Advisor*
Susan Gorman, *University Instructor*
Gueo Grantcharov, *Professor*
Stephan Grigoriev, *Instructor*
Sneh Gulati, *Professor*
Yanqiu Guo, *Assistant Professor*
Kathleen Guy, *Instructor*
Jerry Hower, *Senior Instructor*
Kai Huang, *Associate Professor*
Steven M. Hudson, *Professor*
George Kafkoulis, *Associate Professor*
Golam Kibria, *Professor*
Solange Kouemou, *Senior Instructor*
Thomas Leness, *Professor*
Bao Qin Li, *Professor*
Dane McGuckian, *University Instructor*
Lakshmy Menon, *Instructor*
Idris Mercer, *Instructor*
Roneet Merkin, *Instructor*
Abdelhamid Meziani, *Professor*
Jie Mi, *Professor*
Ada Monserrat, *Senior Instructor*
Sergio Perez, *Instructor*
Shivanni Ramhit, *Instructor*
Taje Ramsamujh, *Associate Professor*
Laura Reisert, *Senior Instructor*
Louis Roder Tcheugoue Tebou, *Professor*
Alireza Rostamian, *Senior Instructor*
Svetlana Roudenko, *Professor*
Philippe Rukimbira, *Professor*
Samuel S. Shapiro, *Professor Emeritus*
Robert Storfer, *Senior Instructor*
Yuanchang Sun, *Associate Professor*
Theodore Tachim Medjo, *Professor*
Klaus Utikal, *Instructor*
Enrique Villamor, *Professor*
Wei Wang, *Associate Professor*
Zhongming Wang, *Associate Professor*
Anna Wlodarczyk, *University Instructor*
Wensong Wu, *Associate Professor*
Yi Zhi Yang, *Senior Instructor*
Mirroslav Yotov, *University Lecturer*
John Zweibel, *Associate Professor, Advisor and Undergraduate Director*

Bachelor of Science in Mathematical Sciences

The Bachelor's degree in Mathematical Sciences emphasizes a deeper study of mathematics and statistics. A student planning to continue into graduate study should major in Mathematical Sciences.

Degree Program Hours: 120

Lower Division Preparation

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
MAC 2311	MACX311
MAC 2312	MACX312
MAC 2313	MACX313
MAP 2302*	MAPX302*
COP 2210 or COP 2250	COPXXXX[1]
BSC 2010, BSC 2010L, BSC 2011, BSC 2011L, CHM 1045, CHM 1045L, CHM 1046, CHM 1046L, PHY 2048, PHY 2048L, PHY 2049, PHY 2049L	BSCXXXX/XXXXL[2] or CHMXXXX/XXXXL[2] or PHYXXXX/XXXXL[2]

**Not required for Statistics Majors*
[1]a scientific programming course designed for computer science majors.
[2]one laboratory based science course designed for science majors.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Required Courses

Common Prerequisites

MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Calculus III
MAP 2302	Differential Equations
COP 2210	Introduction to Programming
	or
COP 2250	Java Programming

Completion of one of the following courses with labs:

BSC 2010	General Biology I
BSC 2010L	General Biology Lab I
BSC 2011	General Biology II
BSC 2011L	General Biology Lab II
CHM 1045	General Chemistry I

CHM 1045L	General Chemistry Lab I
CHM 1046	General Chemistry II
CHM 1046L	General Chemistry Lab II
PHY 2048	Physics with Calculus I
PHY 2048L	Physics with Calculus Lab I
PHY 2049	Physics with Calculus II
PHY 2049L	Physics with Calculus Lab II

Students must choose one of the following majors:

Major in Mathematics – Comprehensive Track

The major in Mathematics – Comprehensive Track is the traditional Bachelor's degree in mathematics offers students the possibility of learning rigorously and deeply the fundamental ideas and concepts of modern mathematics. This track is mainly designed for students intending to pursue graduate studies in mathematics or graduate schools leading to careers in academia or engineering. Graduates can also enter the work force in fields where analytical skills are needed such as jobs in statistics, actuarial sciences, finance, biotech, and mathematics education.

Courses required for the degree:
Completion of one additional science course with lab from previous list, and

Required Courses

MAD 2104	Discrete Mathematics	3
MAS 3105	Linear Algebra	3
MAA 3200	Introduction to Advanced Mathematics	3
MAA 4211	Advanced Calculus	3
MAS 4301	Algebraic Structures	3
STA 4321	Mathematical Statistics I	3
MAT 4934	Senior Seminar	1

In addition, three courses from each of the following lists.

List 1

MAD 4203	Introduction to Combinatorics	3
MAA 4402	Complex Variables	3
MTG 3212	College Geometry	3
MAS 4203	Number Theory	3
MAA 4212	Topics in Advanced Calculus	3
MAS 4302	Topics in Algebraic Structures	3
MTG 4302	Topology	3

List 2

MAP 4401	Advanced Differential Equations	3
MAD 3305	Graph Theory	3
MAP 3103	Mathematical Modeling	3
STA 4322	Mathematical Statistics II	3
MAD 3401	Numerical Analysis	3
MHF 4302	Mathematical Logic	3
MHF 4102	Axiomatic Set Theory	3

Electives

The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor. *Remarks*: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematics major: MAC 2233, STA 1013, STA 2122, STA 3123, STA 2023, and QMB 3200 (College of Business).

Major in Mathematics – Applied Math Track

The major in Mathematics – Applied Math Track compared with the Comprehensive Track, less foundational and more application oriented. This track will prepare students for graduate studies in applied mathematics or engineering. Graduates can also enter the work force in fields where analytical skills are needed such as jobs in statistics, actuarial sciences, finance, biotech, mathematics education.

Required Courses

MAS 3105	Linear Algebra	3
MAD 2104	Discrete Mathematics	3
MAA 3200	Introduction to Advanced Mathematics	3
STA 4321	Mathematical Statistics I	3
MAA 4211	Advanced Calculus	3
MAD 3401	Numerical Analysis	3
MAP 4104C	Topics in Mathematical Modeling	4

Note: Students wishing to go to graduate school in Mathematical Sciences are strongly advised to take MAA 4402 Complex Variables.

Math Elective List

Four courses from the following list:

MAD 4203	Introduction to Combinatorics	3
MAA 4402	Complex Variables	3
MAA 4212	Topics in Advanced Calculus	3
MAS 4301	Algebraic Structures	3
MAS 4302	Topics in Algebraic Structures	3
MAP 4401	Advanced Differential Equations	3
MAD 3305	Graph Theory	3
STA 4322	Mathematical Statistics II	3
MAD 3512	Theory Algorithms	3
MHF 4102	Axiomatic Set Theory	3
MHF 4302	Mathematical Logic	3
MAP 4634	Quantitative Risk Management	3
MAS 4203	Number Theory	3
MAP 4215	Stochastic Differential Equations	3
MAP 4315	Nonlinear Dynamics with Applications to Sciences	3
MAP 3253	Mathematical Scientific Computation	3
MAP 4412	Introduction to Fourier Analysis	3
MAA 4504	Functional Analysis	3
MAS 4310	Introduction to Algebraic Geometry	3
MTG 4254	Differential Geometry	3
MTG 4302	Topology	3

Electives

The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor. *Remarks*: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematics major: MAC 2233, STA 1013, STA 2122, STA 3123, STA 2023, and QMB 3200 (College of Business).

Major in Mathematics – Biology Track

The major in Mathematics – Biology Track gives an opportunity to undergraduate mathematics students interested in biology to be exposed to the interplay

between the two disciplines. It also provides a firm mathematical foundation necessary for graduate studies in the life sciences. Courses for this track includes mathematics, statistics, and biology.

Required Courses

MAS 3105	Linear Algebra	3
MAD 2104	Discrete Mathematics	3
MAA 3200	Introduction to Advanced Mathematics	3
STA 4321	Mathematical Statistics I	3
MAD 3401	Numerical Analysis	3
MAP 4104C	Topics in Mathematical Modeling	4
MAP 4401	Advanced Differential Equations	3
MAP 4315	Nonlinear Dynamics with Applications to Sciences	3
BSC 2010	General Biology I	3
BSC 2010L	General Biology Lab I	1
BSC 2011	General Biology II	3
BSC 2011L	General Biology Lab II	1
PCB 3063	Genetics	3

One upper division biology course with the approval of the math advisor

One of the following two options

Option 1

STA 3163	Statistical Methods I	3
STA 3164	Statistical Methods II	3

Option 2: Two course among the following

STA 4234	Introduction to Regression Analysis	3
STA 4202	Introduction to Design of Experiments	3
STA 4502	Introduction to Non-parametric Methods	3

Electives

The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor. *Remarks*: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematics major: MAC 2233, STA 1013, STA 2122, STA 3123, STA 2023, and QMB 3200 (College of Business).

Major in Mathematics – Business Track

The major in Mathematics – Business Track gives an opportunity to undergraduate mathematics students interested in business and finance to be exposed to the interplay between mathematics and these two disciplines. It also provides a firm mathematical foundation necessary for graduate studies in finance. Courses needed for this track includes mathematics, statistics, economics, and business.

Required for the degree

ECO 2023	Principles of Microeconomics	3
ECO 2013	Principles of Macroeconomics	3

Upper Division Courses

MAS 3105	Linear Algebra	3
MAA 3200	Introduction to Advanced Mathematics	3
STA 4321	Mathematical Statistics I	3
MAD 3401	Numerical Analysis	3
MAP 4104C	Topics in Mathematical Modeling	4
MAP 4634	Quantitative Risk Management	3
MAP 4215	Stochastic Differential Equations	3
STA 4322	Introduction to Mathematical Statistics II	3
ACG 3024	Introduction to Accounting for Managers and Investors	3
FIN 3005	Introduction to Business Finance	3

One course from the following list:

ECO 3101	Intermediate Microeconomics	3
ECO 3202	Applied Macroeconomics	3
ECO 3203	Intermediate Macroeconomics	3
ECO 3223	Money and Banking	3

Electives

The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor. *Remarks*: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematics major: MAC 2233, STA 1013, STA 2122, STA 3123, STA 2023, and QMB 3200 (College of Business).

Major in Mathematics – Chemistry Track

The major in Mathematics – Chemistry Track gives an opportunity to undergraduate mathematics students interested in chemistry to be exposed to the interplay between two disciplines. It also provides a firm mathematical foundation necessary for graduate studies in chemistry and the life sciences. Courses needed for this track include offerings from mathematics, statistics, and chemistry.

Required Courses

MAA 3200	Introduction to Advanced Mathematics	3
MAD 2104	Discrete Mathematics	3
STA 4321	Mathematical Statistics I	3
MAD 3401	Numerical Analysis	3
MAP 4104C	Topics in Mathematical Modeling	4
MAP 4401	Advanced Differential Equations	3
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Laboratory I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Laboratory II	1
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1
CHM 2210	Organic Chemistry I	4
CHM 3410	Physical Chemistry I	4
CHM 3411	Physical Chemistry II	4

And one course from the following list:

MAP 3253	Mathematical Scientific Computation	3
MAA 4402	Complex Variables	3
STA 4322	Introduction to Mathematical Statistics II	3

Note: Students wishing to pursue a graduate degree in Mathematical Sciences are strongly advised to take MAA 4211 and MAS 4301. Students wishing to pursue graduate studies in Biochemistry or Bioinformatics will be encouraged to take Biological Chemistry CHM 4304 (the Chemistry Department will waive Organic Chemistry II CHM 2211 and Quantitative Analysis CHM 3120).

Major in Mathematics – Computer Science Track

The major in Mathematics – Computer Science Track gives an opportunity to undergraduate mathematics students interested in computer science to be exposed to the interplay between the two disciplines. It also provides a firm mathematical foundation necessary for graduate studies in computer science. Courses needed for this track include offerings from mathematics, statistics, and programming.

Required Courses

MAA 3200	Introduction to Advanced Mathematics	3
MAD 2104	Discrete Mathematics	3
MAS 3105	Linear Algebra	3
STA 4321	Mathematical Statistics I	3
MAD 3401	Numerical Analysis	3
MAP 4104C	Topics in Mathematical Modeling	4
MAD 3512	Theory Algorithms	3
COP 3337	Computer Programming II	3
COP 3530	Data Structures	3
CDA 3103	Fundamentals of Computer Systems	3

And one course from the following list:

MAP 3253	Mathematical Scientific Computation	3
MAA 4402	Complex Variables	3
STA 4322	Introduction to Mathematical Statistics II	3

And one course from the following list:

COP 4338	Programming III	3
COP 4710	Database Management	3
CAP 4770	Introduction to Data Mining	3
COP 4534	Algorithm Techniques	3
CAP 4710	Principles of Computer Graphics	3

Electives

The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor.

Major in Mathematics – Economics Track

The major in Mathematics – Economics Track gives an opportunity to undergraduate mathematics students interested in economics to be exposed to the interplay between two disciplines. It also provides a firm mathematical foundation necessary for graduate studies in economics or finance. Courses needed for this track includes mathematics, statistics, and economics.

Required Courses

MAS 3105	Linear Algebra	3
MAD 2104	Discrete Mathematics	3
MAA 3200	Introduction to Advanced Mathematics	3
STA 4321	Mathematical Statistics I	3
MAD 3401	Numerical Analysis	3
MAP 4104C	Topics in Mathematical Modeling	4
MAA 4211	Advanced Calculus	3
MAP 4215	Stochastic Differential Equations	3
STA 4322	Introduction to Mathematical Statistics II	3
ECO 2023	Principles of Microeconomics	3
ECO 2013	Principles of Macroeconomics	3
ECO 3101	Intermediate Microeconomics	3
ECO 3203	Intermediate Macroeconomics	3

And one course from the following list:

ECO 4400	Economics of Strategy and Information	3
ECO 4421	Introduction to Econometrics	3
ECO 4933	Topics In Theory	3

Electives

The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor. *Remarks*: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematics major: MAC 2233, STA 1013, STA 2122, STA 3123, STA 2023, and QMB 3200 (College of Business).

Major in Mathematics – Physics Track

The major in Mathematics – Physics Track gives an opportunity for undergraduate mathematics students interested in physics to be exposed to the interplay between the two disciplines. It also provides a firm mathematical foundation needed for graduate studies in the physical sciences. Courses needed for this track include offerings from mathematics, statistics, and physics.

Required Courses

MAS 3105	Linear Algebra	3
MAA 3200	Introduction to Advanced Mathematics	3
MAD 3401	Numerical Analysis	3
MAP 4104C	Topics in Mathematical Modeling	4
MAP 4401	Advanced Differential Equations	3
STA 4321	Introduction to Mathematical Statistics I	3
PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3

Any two of the following course sequences:

PHY 4221	Introduction to Classical Mechanics	4
PHY 4222	Advanced Classical Mechanics	3
	or	
PHY 4323	Intermediate Electromagnetism I	3
PHY 4324	Intermediate Electromagnetism II	3
	or	
PHY 4604	Quantum Mechanics I	3
PHY 4605	Quantum Mechanics II	3

Any two courses from the following list:

MAA 4211	Advanced Calculus	3
MAA 4402	Complex Variables	3
MAA 4504	Functional Analysis	3
MAP 4215	Stochastic Differential Equations	3
MAP 4315	Nonlinear Dynamics with Applications to Sciences	3
MAP 4412	Introduction to Fourier Analysis	3
MAS 4301	Algebraic Structures	3
MTG 4254	Differential Geometry	3
STA 4322	Introduction to Mathematical Statistics II	3

Electives

The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor. *Remarks*: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematics major: MAC 2233, STA 1013, STA 2122, STA 3123, STA 2023, and QMB 3200 (College of Business).

Major in Statistics

The Statistics major is designed to teach students how to collect, analyze, and interpret data. Graduating students will have the necessary job skills for employment in a variety of fields. However, the courses are rigorous so that students are well prepared to pursue a graduate degree in statistics.

Upper Division Program

Required Courses: (37)

MAS 3105	Linear Algebra	3
STA 3163	Statistical Methods I	3
STA 3164	Statistical Methods II	3
STA 3951	Oral Presentations in Statistics – *GL*	1
STA 4321	Introduction to Mathematical Statistics I	3
STA 4322	Introduction to Mathematical Statistics II	3
STA 4202	Introduction to Design of Experiments	3
STA 4234	Introduction to Regression Analysis	3
STA 4664	Statistical Quality Control	3
ENC 3213	Professional & Technical Writing	3

Six additional credit hours of approved statistics courses. Three additional credit hours in an approved statistics, mathematics, or computer science course. A grade of 'C' or higher in each of these courses is necessary for the major.

Electives

The balance of the 120 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor. *Remarks:* The student must consult his or her advisor to determine which courses, in addition to the required courses listed above, satisfy the requirements for a statistics major. The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a statistics major: MAC 2233, STA 1013, STA 2023, STA 3033, STA 3111, STA 3112, STA 2122, STA 3123, STA 3145 and QMB 3200 (College of Business).

Combined BS in Mathematics/MS in Mathematical Sciences

This program will allow strong students in mathematics to complete a bachelor's degree and a master's degree in 5 years rather than the usual six. A minimum of 140 credits are required for graduation with both the bachelor's and the master's degree. In addition to fulfilling the requirements for the Bachelor's degree in mathematics, these 140 credits include 30 graduate credits required for the Master's of Science in Mathematical Sciences. A maximum of ten (10) graduate mathematics credits can be concurrently used toward the bachelor's and master's degrees.

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

Admission Requirements

1. Current enrollment in a Bachelor's degree program in mathematics.
2. Current overall GPA of at least 3.2 and GPA of at least 3.2 in upper division courses.
3. Completion of 75-90 undergraduate credit-hours.
4. (Verbal and Quantitative) GRE scores with a minimum of 151 in the quantitative portion before entering the MS phase of the program.
5. Approval of the graduate committee.

Completion Requirements

Year 1 and 2:

MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Calculus III
MAS 3105	Linear Algebra
MAP 2302	Ordinary Differential Equations

Year 3
Fall

MAA 3200	Introduction to Advanced Mathematics
STA 4321	Introduction to Mathematical Sciences I

Spring

MAA 4211	Advanced Calculus
MAS 4301	Algebraic Structures

One course from List 1 or 2

Summer
One course from List 1 or 2 and 1 graduate course

Year 4
Fall

MAA 6616	Real Analysis

One course from List 1 or 2
Senior Seminar (1 credit)

Spring
One graduate course
Two courses from List 1 or 2

Summer
Three graduate credits

Year 5
Fall
Nine graduate credits

Spring
Nine graduate credits

The graduate courses distribution should follow catalog descriptions of the master's program requirements. Students must take at least 3 courses from List 1 and at least 3 courses from List 2. The balance of the 140 semester hours required for graduation may be chosen from any courses in the university, a minimum of six (6) of

these should be at the upper division level or higher.

List 1

MAD 4203	Introduction to Combinatorics	3
MAA 4402	Complex Variables	3
MTG 3212	College Geometry	3
MAS 4203	Number Theory	3
MAA 4212	Topics in Advanced Calculus	3
MAS 4302	Topics in Algebraic Structures	3
MTG 4302	Topology	3

List 2

MAP 4401	Advanced Differential Equations	3
MAD 3305	Graph Theory	3
MAP 3103	Mathematical Modeling	3
STA 4322	Mathematical Statistics II	3
MAD 3401	Numerical Analysis	3
MHF 4302	Mathematical Logic	3
MHF 4102	Axiomatic Set Theory	3

Bachelor of Arts in Mathematics: Mathematics Education Major (FIUteach)

Degree Program Hours: 120

Lower Division Preparation

To qualify for admission to the program, a student must have met all the lower division requirements and must be otherwise acceptable into the program. In addition to the University Core Curriculum, Foreign Language, and Common Prerequisites, requirements include a minimum overall GPA of 2.5 for all lower-division/transfer coursework and achieve the competencies of the FTCE General Knowledge Exam.

All students must pass the GK Exam by the time they reach 72 credit hours in their program of study. 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.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
MAC 2311	MACX311
MAC 2312	MACX312
MAC 2313	MACX313
MAP 2302	MAPX302
COP 2250 or COP 2210 or COP 2270	COPXXXX[1]
BSC 2010, BSC 2010L, BSC 2011, BSC 2011L, CHM 1045, CHM 1045L, CHM 1046, CHM 1046L, PHY 2048, PHY 2048L, PHY 2049, PHY 2049L	BSCXXXX/XXXXL[2] or CHMXXXX/XXXXL[2] or PHYXXXX/XXXXL[2]

[1]a scientific programming course designed for computer science majors.

[2]one laboratory based science course designed for science majors.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, See Common Prerequisite Manual.

Common Prerequisites

MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Calculus III
MAP 2302	Differential Equations
COP 2250	Java Programming
	or
COP 2210	Introduction to Programming
	or
COP 2270	C for Engineers

Completion of one of the following courses with labs:

BSC 2010	General Biology I
BSC 2010L	General Biology Lab I
BSC 2011	General Biology II
BSC 2011L	General Biology Lab II
CHM 1045	General Chemistry I
CHM 1045L	General Chemistry Lab I
CHM 1046	General Chemistry II
CHM 1046L	General Chemistry Lab II
PHY 2048	Physics with Calculus I
PHY 2048L	Physics with Calculus Lab I
PHY 2049	Physics with Calculus II
PHY 2049L	Physics with Calculus Lab II

Courses required for the degree:

SMT 2661	Step 1: Inquiry Approaches to Teaching Mathematics and Science	1
SMT 2662	Step 2: Inquiry-Based Lesson Design in Mathematics and Science	1
	or	
SMT 2044	Combined STEP 1 & 2: Inquiry-Based Approaches and Lesson Design for Teaching Mathematics and Science	2

Completion of one additional science course with lab from previous list, and

MAD 2104	Discrete Math
MAS 3105	Linear Algebra

Upper Division Math and Statistics Core: 25

MAT 3501	Numbers, Functions and Modeling for Teachers	3
MAA 3200	Introduction to Advanced Mathematics	3
MTG 3212	College Geometry	3
MHF 3404	History of Mathematics – *GL*	3
MAS 4203	Number Theory	3
MAT 4510	Problem Solving Seminar	3
STA 4321	Introduction to Mathematical Statistics I	3
	or	
STA 3163	Statistical Methods I	3
MAP 4104C	Topics in Mathematical Modeling	4

Upper Division Education Core: 27

SMT 3100	Knowing and Learning in Mathematics and Science	3
MAE 4394	Perspectives in Math and Science Education – *GL*	3
RED 4325	Subject Area Reading	3
SMT 4301	Classroom Interactions in Mathematics	

	and Science Teaching	3
TSL 4324	ESOL Issues and Strategies for Content Area Teachers – *GL*	3
SMT 4664	Problem-Based Instruction (PBI) in Mathematics and Science	3
MAE 4942	Student Teaching	9

Minor in Mathematics

Required Courses

MAC 2311-2-3 Calculus I-I-III *(or equivalent)*.

Plus four math courses from those approved for the upper division program of the BS in Mathematics. MAP 2302 and MAS 3105 may be included among these four courses.

A grade of 'C' or higher is necessary for the minor. *Remarks:* Courses completed elsewhere may be applied to the Mathematics minor, with the approval of the department. However, at least 2 of the 4 courses noted above, excluding MAC 2311-2-3, must be completed at FIU.

Minor in Mathematical Sciences

Required Courses

MAC 2311-2-3. Calculus I,II,III (or equivalent).
Plus MAP 2302, MAS 3105, and two courses from the following list:

COP 3337	Intermediate Programming	3
CDA 3402	Fundamentals of Computer Systems	3
MAD 2104	Discrete Mathematics	3
MAD 3401	Numerical Analysis	3
MAD 3512	Introduction to the Theory of Algorithms	3
MAT 4934	Senior Seminar	1
MAP 4401	Advanced Differential Equations	3
STA 3163-4	Statistical Methods I and II	3-3
COP 3530	Data Structures	3
MAA 4402	Complex Variables	3
MAD 3305	Graph Theory	3
MAD 4203	Intro to Combinatorics	3
MAD 5405	Numerical Methods	3
MAP 3103	Mathematical Modeling	3
MAS 5145	Applied Linear Algebra	3
MHF 4302	Mathematical Logic	3
STA 4603	Mathematical Techniques in Operations Research I	3
STA 4604	Mathematical Techniques in Operations Research II	3
STA 5446	Probability Theory I	3

A grade of 'C' or higher is necessary for the minor. *Remarks*: Courses completed elsewhere may be applied to the Mathematical Sciences minor, with the approval of the department. However, at least 2 of the 4 courses noted above, excluding MAC 2311-2-3, must be completed at FIU.

Minor in Statistics

Lower or Upper Division Preparation: (3 or 4)

MAC 2312	Calculus II	4
	or	
STA 2023	Statistics for Business and Economics	3
	or	
STA 2122	Statistics for Behavioral and Social Sciences I	3
	or	
STA 3111	Statistics I	3

Upper Division Program: (12)

Required Courses

STA 3163	Statistical Methods I	3
STA 3164	Statistical Methods II	3
Two additional courses from the following list:		
STA 3033	Introduction to Probability and Statistics for CS	3
	or	
STA 4321	Introduction to Mathematical Statistics I[1]	3
STA 4322	Introduction to Mathematical Statistics II	3
STA 4202	Introduction to Design of Experiments	3
STA 4234	Introduction to Regression Analysis	3
STA 4502	Introduction to Nonparametric Methods	3
STA 4664	Statistical Quality Control	3

[1]STA 4321 has MAC 2313 as a prerequisite.

A grade of 'C' or higher in each of these courses is necessary for the minor.
Remarks: No courses in statistics, mathematics or computer sciences can be applied to more than one minor in these disciplines, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a course is required for both a major in one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

Certificate Program in Actuarial Studies

The department offers a certificate in Actuarial Studies. For further information refer to the Certificate section at the end of the College of Arts, Sciences and Educations' section. For detailed information see section about certificate programs in the university catalog.

Course Descriptions

Definition of Prefixes

COT-Computing Theory; IDS-Interdisciplinary Studies; MAA-Mathematics: Analysis; MAC-Mathematics: Calculus and Pre-Calculus; MAD-Mathematics: Discrete; MAE-Mathematics Education; MAP-Mathematics Applied; MAS-Mathematics: Algebraic Structures; MAT-Mathematics; MGF-Mathematics: General and Finite; MHF-Mathematics: History and Foundations; MTG-Mathematics: Topology and Geometry; STA-Statistics
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.
Courses that meet the University's Global Learning requirement are identified as GL.

COT 5310 Theory of Computation I (3). Abstract models of computation; halting problem; decidability and undecidability; recursive function theory. Prerequisite: MAD 3512.

IDS 4174 Mathematics and Philosophy in Arts – *GL* (3). A panorama and a study of the global interrelation of mathematics, philosophy, and visual arts with emphasis

on the evolution of the role of geometry in depicting the perspective in arts.

MAA 3200 Introduction to Advanced Mathematics (3). Topics include: naive set theory, functions, cardinality, sequences of real numbers and limits. Emphasis on formal proofs. Prerequisite: MAD 2104 and MAC 2312. (F)

MAA 4211 Advanced Calculus (3). An intense study of the foundations of calculus. Topics may include: the real number system, continuity, differentiation, Riemann-Stieltjes integration, and series of functions. Note: The student must complete MAA 3200 before attempting this course. Prerequisites: MAC 2313, MAS 3105 and MAA 3200. (S)

MAA 4212 Advanced Calculus II (3). A sequel to MAA 4211. Topics may include: theory of integration; analysis in several variables; and Fourier series. Prerequisite: MAA 4211.

MAA 4402 Complex Variables (3). An introduction to complex variables, beginning with the algebra and geometry of the complex number system. Topics include: complex functions; analytic functions; Cauchy's theorem and its consequences; Taylor and Laurent series; residue calculus; evaluation of real integrals and summation of series; conformal mapping. Prerequisites: MAC 2313, and MAP 2302 or MAA 4211. (F)

MAA 4504 Functional Analysis (3). Metric spaces, Banach spaces, L^p spaces, Hahn Banach theorem, Hilbert spaces, contractions, fixed point theorems and applications to differential equations and numerical analysis. Prerequisites: MAC 2313, MAS 3105.

MAC 1105 College Algebra (3). Operations on polynomials, rational expressions, radicals; curves, lines, circles; functions, inverse functions, exponential and logarithmic functions; systems of equations and inequalities. (F,S,SS)

MAC 1114 Trigonometry (3). Trigonometric functions, identities, conditional equations, polar coordinates, vectors, polar graphs, complex numbers, DeMoivre's Theorem, conic sections. Student cannot receive credit for both this course and MAC 1147 Pre-Calculus. Prerequisites: MAC 1105 or appropriate score on placement exam for students with no prior college-level coursework in mathematics. (F,S,SS)

MAC 1140 PreCalculus Algebra (3). Covers polynomial, rational, exponential and logarithmic functions: zeros of polynomials; conic sections; determinant and Cramer's rule; sequences and series; induction; binomial theorem. Students cannot receive credits for both this course and MAC 1147. Prerequisites: MAC 1105 or appropriate score on placement exam for students with no prior college-level coursework in mathematics.

MAC 1147 Pre-Calculus Algebra and Trigonometry (4). Polynomials, Rational, Exponential and Logarithmic Functions, Trigonometry, Conic Sections, Cramer's Rule, Sequences and Series, Induction, Binomial theorem. Student cannot receive credit for both this course and MAC 1140 and/or MAC 1114. Prerequisites: Grade of "C" or higher in MAC 1105 or appropriate score on placement exam for students with no prior college-level coursework in mathematics. (F,S,SS)

MAC 2233 Calculus For Business (3). Basic notions of differential and integral calculus using business applications and models including: differential and integral calculus using polynomials, exponential and logarithmic functions. Prerequisites: Grade of "C" or higher in MAC 1105 or appropriate score on placement exam for students with no prior college-level coursework in mathematics. (F,S,SS)

MAC 2241 Calculus 1 for Biology (4). Emphasis on applications to biological systems. Concepts of calculus will be developed together with solutions, techniques of both analytical and numerical nature. Prerequisite: MAC 1147 or (MAC 1114 and MAC 1140).

MAC 2241L Lab for Calculus 1 for Biology (1). Review of numerical methods used in calculus 1 by students in QBIC program. Prerequisite: Permission of the department.

MAC 2242 Calculus 2 for Biology (4). A continuation of Calculus 1 for Biology. Covers calculus 2 concepts with emphasis on biological applications. A portion of the course deals with differential equations. Prerequisite: MAC 2241.

MAC 2242L Lab for Calculus 2 for Biology (1). Review of numerical methods in calculus 2 by students in QBIC program. Prerequisite: Permission of the department.

MAC 2281 Calculus I for Engineering (4). Limits, techniques of differentiation, graphs, optimization, applications relevant in engineering settings. Prerequisite: Grade of "C" or better in MAC 1147 or both courses MAC 1140 and MAC 1114 or appropriate score on placement exams

MAC 2282 Calculus II for Engineering (4). Fundamental Theorem of calculus, techniques of integration, volumes, surface area, convergence of series, Taylor series, polar coordinates, applications relevant in engineering. Prerequisite: Grade of "C" or better in Calculus 1 (MAC 2281 or MAC 2311).

MAC 2283 Calculus III for Engineering (4). Vector valued functions, rectangular, cylindrical, spherical coordinates, differential and integral calculus for functions of several variables. Green, Divergence, and Stokes Theorems. Prerequisites: Prerequisites: Grade of "C" or better in Calculus 2 (MAC2282 or MAC2312) or equivalent

MAC 2311 Calculus I (4). Limits, derivatives and their formulas, applications of derivatives, introduction to anti derivatives, introduction to parametric curves. Prerequisites: Grade of "C" or higher in MAC 1147 or MAC 1140 and MAC 1114 or appropriate score on placement exam for students with no prior college-level coursework in mathematics. (F,S,SS)

MAC 2312 Calculus II (4). Applications of the integral, integration techniques, improper integrals, Riemann sums, the integral, Fundamental Theorem of Calculus, infinite series, Taylor series, polar coordinates, parametric equations. Prerequisites: Grade of "C" or higher in MAC 2311 or AP Calculus credit. (F,S,SS)

MAC 2313 Multivariable Calculus (4). This course deals with the differential and integral calculus of real valued multivariable functions. The topics include: directional and

partial derivatives, gradients, and their applications; differential calculus of vector valued functions; multiple, iterated, line, and surface integrals. Prerequisites: MAC 2312 or equivalent with a grade of 'C' or better. (F,S,SS)

MAD 1100 Mathematics for Information Technology (3). Introduction to discrete mathematical structures with emphasis on applications to information technology: binary numbers, logic, sets, functions, recursion, combinatorics, graph theory, Boolean algebra. Prerequisites: MAC 1105 or MGF 1106 or appropriate score on placement exam for students with no prior college-level coursework in mathematics.

MAD 2104 Discrete Mathematics (3). Sets, functions, relations, permutations, and combinations, propositional logic, matrix algebra, graphs and trees, Boolean algebra, switching circuits. Prerequisites: MAC 1105 or MGF 1106 or appropriate score on placement exam for students with no prior college-level coursework in mathematics. (F,S,SS)

MAD 3305 Graph Theory (3). An introduction to the study of graphs. Topics include the following: paths and circuits, connectedness, trees, shortest paths, networks, planar graphs, the coloring of graphs, and directed graphs. Applications of graphs to computer science will be discussed. Prerequisites: COP 2210, COP 2250, or COP 2270 or CGS 2420 and either MAS 3105 or MAD 2104. (F,S,SS)

MAD 3401 Numerical Analysis (3). Basic ideas and techniques of numerical analysis. Topics include: finite differences, interpolation, solution of equations, numerical integration and differentiation, applications, introduction to applied linear algebra. This course will make extensive laboratory use of the computer facility. Prerequisites: COP 2210, COP 2250, COP 2270, or CGS 2420 and MAC 2312. (F,S,SS)

MAD 3512 Theory of Algorithms (3). Strings, formal languages, finite state machines, Turing machines, primitive recursive and recursive functions, recursive unsolvability. Prerequisite: MAD 2104. Computer Science majors must also take COT 3541. (F,S,SS)

MAD 4203 Introduction to Combinatorics (3). A survey of the basic techniques of combinatorial mathematics. Topics will include the Pigeonhole Principle, Binomial Coefficients, Inclusion-Exclusion, Recurrence Relations, and Generating Functions. Prerequisites: MAC 2312 and MAD 2104.

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.

MAE 3893 Mathematics Education Seminar (1). Provides students committed to Mathematics Education an early teaching experience and it will provide other students a low pressure opportunity to try out teaching. Prerequisite: MAC 2311.

MAE 3894 Early Teaching Experience (1). The goal of this course is to provide early in the program a unique opportunity for math education students to experience the tastes, the challenges, and the rewards involved in the teaching of math. Prerequisite: MAC 2311.

MAP 2302 Differential Equations (3). An introduction to differential equations and their applications, based upon a knowledge of calculus. Topics to include: initial value problems of the first order, numerical solutions, systems of differential equations, linear differential equations, Laplace transforms, series solutions. Prerequisite: MAC 2312 with a grade of 'C' or better. (F,S,SS)

MAP 3103 Mathematical Modeling and Applications (3). A course to provide an understanding of the use of mathematical models in the description of the real world. Basic principles in the philosophy of formal model building as well as specific models will be considered. Prerequisites: MAS 3105 and either MAC 2313 or MAP 2302.

MAP 3103L Lab for Mathematical Modeling (1). Lab sessions complement the course of mathematical modeling (MAP 3103). Computer projects using "MATLAB" will be used. Prerequisite: MAS 3015 and (MAP 2302 or MAC 2313). Corequisite: MAP 3103.

MAP 3253 Mathematical Scientific Computation (3). To acquaint students with some mathematical programming skills involving numerical computation software like Mathematics, Matlab, scientific document processing LaTeX, and data analysis tool Excel. Prerequisites: MAC 2312, MAS 3105.

MAP 4104C Topics in Mathematical Modeling (4). Introductory survey of applied mathematics with emphasis on modeling of physics and biological problems in terms of differential equations. Prerequisites: MAP 2302, and MAC 2313, and MAS 3105.

MAP 4215 Stochastic Differential Equations (3). Introduces the fundamental theories and important applications of stochastic differential equations. Topics include stochastic calculus, stochastic differential equations and applications. Prerequisites: MAP 2302, MAC 2313, MAS 3105, STA 4321.

MAP 4315 Nonlinear Dynamics with Applications to Sciences (3). The use of mathematics in order to solve real-world problems in all areas of science. Among other topics, the course will also give a first introduction into the chaos theory. Prerequisites: MAC 2313 and/or MAP 2302 and/or MAS 3105, or permission of the instructor.

MAP 4401 Advanced Differential Equations (3). A second course in differential equations. Topics may include: Bessel functions and other special functions arising from classical differential equations, Sturm-Liouville problems, partial differential equations, transform techniques. Prerequisites: MAP 2302 and MAC 2313. (S)

MAP 4401L Lab for Advanced Differential Equations (1). Lab sessions complement the course of advanced differential equations (MAP 4401). Computer projects using "MATLAB" will be used. Prerequisites: MAP 2302, MAC 2313. Corequisite: MAP 4401.

MAP 4412 Introduction to Fourier Analysis (3). Abstract measure theory, L^p spaces, Fourier transform in L^2, Plancherel theorem, Fourier transform of distributions,

fundamental solutions of differential equations, application wavelets. Prerequisites: MAC 2313, MAS 3105.

MAP 4634 Quantitative Risk Management (3). Interdisciplinary course with a strong quantitative approach to the risk management process of small and big businesses. Prerequisites: MAC 2313, MAP 2302, MAS 3105.

MAP 5117 Mathematical and Statistical Modeling (3). Study of ecological, probabilistic, and various statistical models. Prerequisites: COP 2210, MAC 2313, MAS 3105; and STA 3033 or STA 3164 or STA 4322.

MAP 5204 Optimization and Linear Algebra (3). Vectors, Euclidean spaces, operations on matrices, rank, determinants, linear and quadratic programming, Kuhn, Tucker techniques for constrained optimization. Prerequisite: MAC 2313.

MAP 5208 Numerical Optimization (3). The generalization of optimization theory and techniques to other formulations comprise a large area of applied mathematics. This course is mainly about convex optimizations. Prerequisites: MAP 2302, MAC 2313, MAS 3105.

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. Prerequisites: MAP 5117 and MAS 3105 and COP 2210.

MAP 5255 Mathematical Scientific Computation (3). Programming in Matlab, Graphics in Matlab, Creating GUIs in Matlab, Simulink. Prerequisites: MAC 2313, MAP 2302, MAS 3105.

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 5318 Dynamical Systems and Introduction to Chaos Theory (3). Important techniques for linear systems of differential equations and nonlinear systems, as well as applications of these systems in a wide variety of fields. Prerequisites: MAS 3105, or equivalent, or permission of the instructor.

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.

MAP 5415 Introduction to Fourier Analysis (3). Basic real analysis, and measure theory, L^p spaces and convolution, the Fourier transform in L^2, Plancherel theorem, application to differential equations and wavelets. Prerequisites: Advanced Calculus, Linear Algebra.

MAP 5467 Stochastic Differential Equations and Applications (3). Review of measure theory, stochastic processes, Ito Integral and its properties, martingales and their generalizations, stochastic differential equations, diffusions. Applications to boundary value problems and finance. Prerequisites: MAS 3105, MAP 4401, MAA 4211, MAA 5616 or permission of instructor.

MAS 3105 Linear Algebra (3). An introduction to the topics in linear algebra most often used in applications. Topics include: matrices and their applications; simultaneous linear equations and elementary operations; linear dependence; vector spaces; rank and inverses; inner products and 'best' approximations; numerical solutions of simultaneous linear equations; eigen-values and eigenvectors; iterative methods for calculating eigenvalues; and systems of linear equations. Prerequisite: MAC 2312. (F,S,SS)

MAS 3931 Topics in Actuarial Mathematics (1). Topics related to calculus/linear algebra such as mono-tone sequences, least upper bound, complex arithmetic, solid analytic geometry, linear transformations. Mathematics involved in insurance. Prerequisite: Admission to Actuarial Studies Certificate program.

MAS 4203 Number Theory (3). Topics to be discussed are selected from the following: congruencies, Diophantine equations, distribution of primes, primitive roots, quadratic reciprocity, and classical theorems of number theory. Prerequisites: MAA 3200, MAS 3105 or MTG 3212. (SS)

MAS 4301 Algebraic Structures (3). An introduction to abstract mathematical structures of modern algebra. Fundamental concepts of groups, rings, and fields will be studied. Note: the student must complete MAA 3200 before attempting this course. Prerequisites: MAS 3105 and MAA 3200. (S)

MAS 4302 Topics in Algebraic Structures (3). A sequel to Algebraic Structures. Topics may include: a continuation of the study of groups, rings and/or fields; polynomial domains; Euclidean domains; and Galois theory. Prerequisite: MAS 4301.

MAS 4310 Introduction to Algebraic Geometry (3). Introduction to the theory of affine and projective algebraic varieties over algebraically closed ground field. Various examples are discussed. Prerequisites: MAS 4301 and MAA 4402.

MAS 4316 Introduction to Commutative Algebra (3). Basic concepts, constructions and methods; emphasis on Noetherian, Artinian rings and modules; Primary Decompositions; Krull's dimension; Integral dependence; Dedekind domains. Prerequisite: MAS 4301

MAS 5145 Applied Linear Algebra (3). Vector spaces and linear maps, solutions of linear systems, orthogonal

projection and QR factorization, determinant and eigenvalues of a matrix. 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.

MAS 5315 Algebraic Geometry (3). Introduction to the theory of affine and projective schemes, coherent sheaves and sheaf cohomology. Application to studying algebraic varieties. Prerequisites: MAS 4301, MAA 4402.

MAT 1033 Intermediate Algebra (3). Serves as preparation for entry level mathematics courses. Topics include operations on algebraic expressions, solving equations and inequalities in one and two variables and graphing.

MAT 3501 Numbers, Functions and Modeling for Teachers (3). It is required for math majors in FIU teach program. Students will demonstrate proficiency in working with mathematical ideas and solving problems involving integers, real, and complex numbers. Prerequisites: MAD 2104 and MAC 2312.

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

MAT 4510 Problem Solving Seminar (3). To strengthen students ability in solving basic mathematics problems by teaching them more advanced techniques for dealing with challenging problems. Prerequisites: MAC 2313, MAS 3105, MAA 3200, MTG 3212, and MAS 4203 or permission of the instructor.

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

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

MAT 4934 Senior Mathematics Seminar (1). An exploration of research topics in the student's subfield. Coursework will include a written report, oral presentation, and departmental major field test. Prerequisite: Senior standing.

MAT 4943 Mathematical Sciences Internship (VAR). A special program to encourage students to get on-the-job experience in computer sciences, statistics, or mathematics in an industrial enterprise, governmental agency or other organization. Requirements: minimum grade of 'B' or higher in all courses in the major area, and approval by Departmental Internship Committee. Application is required at least one term in advance of registration for this course. Prerequisite: Departmental approval.

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.

MGF 1100 Exploration of Mathematics and Quantitative Reasoning (3). Designed to provide non-science students with meaningful and up-to-date introductory mathematical concepts. Critical thinking skills are enhanced through fundamental reasoning.

MGF 1106 Finite Mathematics (3). Study of concepts and applications involving finite mathematical processes such as sets, combinatorial techniques, formal logic, discrete probability, linear systems, matrices, linear programming. Prerequisite: Working knowledge of high school algebra. (F,S,SS)

MGF 1107 The Mathematics of Social Choice and Decision Making (3). Voting systems and their desirable properties. Weighted voting systems, fair division procedures, apportionment methods and game theory.

MHF 3404 History of Mathematics – *GL* (3). Development of mathematical thought through the ages. Topics may include equation solving, trigonometry, astronomy, and calculus. Prerequisite: MAC 2312. (F)

MHF 4102 Axiomatic Set Theory (3). Axioms of set theory, order and well-foundedness, cardinal numbers, ordinal numbers, axiom of choice, special topics. Prerequisites: MAA 3200 or permission of the instructor. (S, alternate years)

MHF 4302 Mathematical Logic (3). A study of formal logical systems and their applications to the foundations of mathematics. Topics to be selected from the following: definition of mathematical proofs; set theory; analysis formalized with the predicate calculus; theorem of Godel and Church; recursive function theory; and idealized computers. Prerequisites: MAA 3200 or MAD 3512. (S, alternate years)

MHF 4401 Methods in the History of Modern Mathematics – *GL* (3). Galileo and his time; Newton, and the laws of gravitation. Einstein and the theory of relativity; topics in differential geometry and non-Euclidean geometries Prerequisite: MAC 2313 and MAS 3105.

MHF 5107 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 5310.

MHF 5345 Mathematical Logic for Linguistics (3). Formal logical systems and applications. Propositional and predicate calculus, proof systems, completeness and incompleteness theorems, recursion. Chomsky hierarchy, formal grammars. Does not fulfill requirements for Mathematics Degree. Prerequisites: MAD 3512 or permission of the instructor.

MHF 5930 Topics in Modern Mathematics (3). Designed to provide student with the opportunity to pursue topics not otherwise covered in other courses. Prerequisites: MAC 2313, MAS 3105.

MTG 1204 Geometry for Education (3). Introduction for teachers to basic concepts of Euclidean geometry with ideas and activities adaptable to classroom. Students study and analyze pattern, learning and enhancing analytic, creative and visualization skills.

MTG 3212 College Geometry (3). A study of the basic structure of Euclidean geometry together with topics from advanced Euclidean geometry and non-Euclidean geometry. Prerequisites: Calculus II or permission of the instructor. (F)

MTG 4254 Differential Geometry (3). Hypersurfaces in R^n. Geodesics and curvature. Parametrization of surfaces, abstract manifolds. Integration, surfaces with boundary, Stokes Theorem. Isometries and intrinsic geometry. Gauss-Bonnet Theorem. Prerequisites: MAC 2313, MAS 3105, and MAP 2302 or permission of the instructor.

MTG 4302 Topology (3). An introductory course in topology requiring a prerequisite knowledge of calculus. Topics to be discussed will be selected from the following: topological spaces, metric spaces, continuity, completeness, compactness, separation axioms, products spaces, subspaces, convergence, and homotopy theory. Prerequisites: MAC 2313, MAS 3105, and MAA 3200. (SS)

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 1013 Statistics for Social Services (3). This is an elementary course in statistics, covering graphical and numerical condensation of data as well as the most basic parametric and non-parametric methods. Emphasis is placed on the interpretation of statistical results, rather than on ways to analyze experimental data. Prerequisite: High school algebra.

STA 1061 Introduction to SPSSX for Data Analysis (1). Data coding and entry for use on the mainframe. How to input data, create variables, select subsets of data. Use procedures such as: LIST, FREQUENCIES, CROSSTABS, DESCRIPTIVES, MEANS and CORRELATIONS. Prerequisite: A course in statistics.

STA 1062 Introduction to SAS for Data Analysis (1). Data coding for entry use on the mainframe. SAS Data step to input data, create variables, select subsets of data, PROCs such as: PRINT, FORMAT, MEANS, FREQ, SUMMARY, TEST, CORR, UNI-VARIATE and PLOT. Prerequisite: A course in statistics.

STA 2023 Statistics for Business and Economics (3). Starting with an introduction to probability, the course provides an introduction to statistical techniques used in management science. It includes descriptive statistics, probability distributions, estimation and testing of hypotheses. Subsequent credit for STA 2122 or STA 3111 will not be granted. Prerequisite: High school algebra. (F,S,SS)

STA 2122 Statistics for Behavioral and Social Sciences I (3). A course in descriptive and inferential statistics. Topics include: probability distribution of discrete and continuous random variables. Sampling distributions. Large sample estimation and hypothesis testing for means and proportions. Prerequisite: High school algebra. (F,S,SS)

STA 3033 Introduction to Probability and Statistics for CS (3). Basic probability laws, probability distributions, basic sampling theory, point and interval estimation, tests of hypotheses, regression and correlation. Prerequisite: MAC 2312. (F,S,SS)

STA 3060L Statistics Laboratory (1). A laboratory course designed to illustrate important statistical concepts through experiments. Data are analyzed using statistical software packages. Prerequisite or Corequisite: A statistics course.

STA 3111 Statistics I (3). Descriptive statistics. Basic probability rules. Discrete and continuous probability distributions. Point and interval estimation, hypothesis testing based on a single sample. Comparison of two proportions using independent and large samples. Subsequent credit for STA 2122 or STA 2023 will not be granted. Prerequisite: High school algebra. (F,S,SS)

STA 3112 Statistics II (3). Estimation and hypothesis testing based on two samples. Analysis of Variance. Simple linear regression. Linear correlation. Analysis of categorical data. Non-parametric methods. Use of statistical software packages. Subsequent credit for STA 3123 will not be granted. Prerequisite: STA 3111. (F,S,SS)

STA 3123 Statistics for Behavioral and Social Sciences II (3). Small sample statistical inference for means and variances. T, chi-square and F distributions. Analysis of variance, regression, correlation, basic nonparametric tests, goodness of fit tests and tests of independence. Prerequisites: STA 2122 or STA 2023 or equivalent. (F,S,SS)

STA 3145 Statistics for the Health Professions (3). Statistical analysis with applications in the health sciences. Binomial and normal distributions. Inferences about means and proportions. Regression, correlation, goodness of fit tests. Prerequisite: High school algebra. (F,S,SS)

STA 3163 Statistical Methods I (3). This course presents tools for the analysis of data. Specific topics include: use of normal distribution, tests of means, variances and proportions; the analysis of variance and covariance (including contrasts and components of variance models), regression, correlation, sequential analysis, and non-

parametric analysis. Prerequisites: A course in statistics or STA 2122 or MAC 2312 or equivalent. (F,S)

STA 3164 Statistical Methods II (3). This course presents tools for the analysis of data. Specific topics include: use of normal distribution, tests of means, variances and proportions; the analysis of variance and covariance (including contrasts and components of variance models), regression, correlation, sequential analysis, and non-parametric analysis. Prerequisite: STA 3163. (F,S)

STA 3193 Statistics for Biology I (3). Graphical data analysis; probability distributions, estimation, test of hypothesis. Statistical models used in the biological sciences, and testing for distributional assumptions used with these models. Prerequisites: MAC 2312, BSC 2011 and permission of the instructor.

STA 3194 Statistics for Biology II (3). Analysis of variance, correlation, regression, discrete data analysis, analysis of covariance and non-parametric procedures. Introduction to design of experiments, bio assay, logistic regression and multivariate analysis. Prerequisites: STA 3193 and permission of the instructor.

STA 3905 Independent Study (1-6). Individual conferences, assigned readings, and reports on independent investigations.

STA 3930 Special Topics (1-6). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

STA 3949 Cooperative Education in Statistics (1-3). One semester of either part-time or full-time work in an outside organization. Limited to students admitted to the Co-op program. A written report and supervisor evaluation are required of each student. Prerequisites: 2 courses in statistics and permission of Chairperson.

STA 3951 Oral Presentations in Statistics – *GL* (1). Students will communicate orally all stages of statistical analysis through a presentation in front of faculty and students. The problem must have a global component to be explained by the student. Prerequisites: ENC 3213 and STA 3164 or equivalent. (F,S,SS)

STA 4102 Introduction to Statistical Computing (3). Data manipulation and statistical procedures using popular software, simulation, and statistical algorithms. Prerequisites: STA 3112 or STA 3123 or STA 3164, and COP 2210.

STA 4173-HSC 4510 Statistical Applications in Health Care (3). A course in descriptive and inferential statistics for the Health Services. Topics include probability distributions, point and interval estimation, hypothesis testing, regression and correlation, and contingency table analysis. Prerequisites: STA 1013 or equivalent college mathematics course.

STA 4182 Statistical Models (3). This is a specialized course in the use of statistical models to represent physical and social phenomena. The emphasis is on providing tools which will allow a researcher or analyst to gain some insight into phenomena being studied. An introductory knowledge of probability theory and random variables is assumed. Specific topics include: introduction to discrete and continuous probability distributions, transformation of variables, approximation of data by empirical distributions, central limit theorem, propagation of moments, Monte Carlo simulation, probability plotting, testing distributional assumptions. Prerequisites: STA 3033 or STA 4321.

STA 4202 Introduction to Design of Experiments (3). Completely randomized, randomized block, Latin square, factorial, nested and related designs. Multiple comparisons. Credit will not be given for both STA 4202 and STA 5206. Prerequisites: STA 3163 or STA 3112 or STA 3123 or STA 4322.

STA 4321-STA 4322 Introduction to Mathematical Statistics I and II (3-3). This course presents an introduction to the mathematics underlying the concepts of statistical analysis. It is based on a solid grounding in probability theory, and requires a knowledge of single and multivariable calculus. Specific topics include the following: basic probability concepts, random variables, probability densities, expectations, moment generating functions, sampling distributions, decision theory, estimation, hypothesis testing (parametric and non-parametric), regression, analysis of variance, and design of experiments. Prerequisite: MAC 2313. (F,S)

STA 4234 Introduction to Regression Analysis (3). Multiple and polynomial regression, residual analysis, model identification and other related topics. Credit will not be given for both STA 4234 and STA 5236. Prerequisites: STA 3112 or STA 3123 or STA 3164.

STA 4502 Introduction to Non-parametric Methods (3). Sign, Mann-Whitney U, Wilcoxon signed rank, Kruskal-Wallis, Friedman and other distribution-free tests. Rank correlation, contingency tables and other related topics. Credit for both STA 4502 and STA 5507 will not be granted. Prerequisite: A course in statistics.

STA 4603 Mathematical Techniques of Operations Research I (3). An introduction to those topics in mathematics associated with studies in operations research. Topics include the following: linear programming and related topics, dynamic programming, queuing theory, computer simulation, network analysis, inventory theory, decision theory, integer programming. Prerequisites: MAS 3105, STA 3033 or STA 4322 “C”.

STA 4604 Mathematical Techniques of Operations Research II (3). An introduction to those topics in mathematics associated with studies in operations research. Topics include the following: linear programming and related topics, dynamic programming, queuing theory, computer simulation, network analysis, inventory theory, decision theory, integer programming. Prerequisite: STA 4603.

STA 4664 Statistical Quality Control (3). This course presents the simple but powerful statistical techniques employed by industry to improve product quality and to reduce the cost of scrap. The course includes the use and construction of control charts (means, percentages, number defectives, ranges) and acceptance sampling plans (single and double). Standard sampling techniques such as MIL STD plans will be reviewed. Prerequisite: A course in statistics.

STA 4905 Independent Study (1-6). Individual conferences, assigned readings, and reports on independent investigations.

STA 4930 Special Topics (1-6). Designed to give students an opportunity to pursue special studies not otherwise offered. May be repeated.

STA 4949 Cooperative Education in Statistics (1-3). One semester of either part-time or full-time work, in an outside organization. Limited to students admitted to the Co-op program. A written report and supervisor evaluation are required of each student. Prerequisites: STA 3164, STA 4322 and permission of Chairperson.

STA 5065L SAS Data Analysis Lab (1). Entering data, descriptive statistics, graphing data, crosstabulations, t-tests, correlation and regression, and analysis of variance. Prerequisites: A statistics course and graduate standing or permission of the instructor.

STA 5105L SPSS Data Analysis Lab (1). Topics include: Entering data from various sources, data checking, descriptive statistics, graphing data, cross tabulations, tests, correlation and regression, ANOVA, and reliability. Prerequisites: A statistics course or concurrent enrollment in a statistics course, and graduate standing or permission of the instructor. (F,S,SS)

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, a-priori contrasts, fixed, random, mixed models. This course may be of particular interest to behavioral sciences. Prerequisites: STA 3111 or STA 3123 or STA 3033; 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 3112 or STA 3123 or STA 3163 or STA 4322 or equivalent.

STA 5206 Design of Experiments I (3). Design and analysis of completely randomized block, Latin square factorial, nested experiments. Multiple comparisons. Credit for only one of three STA 4202, STA 5126, and STA 5206 courses will be granted. Prerequisites: STA 3033 or STA 3164 or STA 4322 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 3112 or STA 3123 or STA 3164, 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: A course in statistics.

STA 5666 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: MAC 2313, MAP 2302, STA 3033.

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, queuing theory, renewal processes, birth and death processes, Poisson and Normal processes. Applications to system reliability analysis, behavioral science, and natural sciences will be stressed. Prerequisite: STA 5447.

STA 5906 Independent Study (1-6). Individual conferences, assigned reading, and reports on independent investigation.

Philosophy

Paul Warren, *Professor and Chairperson*
Sean Allen-Hermanson, *Professor*
Timothy Aylsworth, *Assistant Professor*
Michelle Beer, *Associate Professor*
Clinton Castro, *Assistant Professor*
Bong Kil Chung, *Professor Emeritus*
Kenton Harris, *University Lecturer*
Bruce Hauptli, *Professor Emeritus*
George Kovacs, *Professor Emeritus*
Celine Leboeuf, *Assistant Professor*
Eugene Marshall, *Associate Professor*
Kenneth Rogerson, *Professor Emeritus*
Elizabeth Scarbrough, *Lecturer*
Laurie Shrage, *Professor*
Kiriake Xerohemona, *University Lecturer*

Bachelor of Arts in Philosophy

Degree Program Hours: 120

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
None	None

Courses which form part of the statewide articulation between the State University System and the Community College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

No specific courses are required; transfer students are encouraged to complete the Associate of Arts degree.

Philosophy encompasses a broad range of topics and methods of inquiry: Socratic questioning of the extent and nature of human knowledge, probing the rational basis of moral and political thought, confrontation with fundamental questions of value and meaning, analysis of basic concepts underlying theoretical and practical thought, reflection on the human existential situation, and exploring the structure of reasoning itself. The great philosophers are studied both for historical understanding and contemporary significance.

Philosophy majors may choose one of three tracks. The General Track is designed to serve students with a broad interest in philosophy. The Professional Track is designed for students considering philosophy as a professional discipline. It is especially appropriate for those considering graduate work in philosophy and those with an interest in a thorough and systematic study of the full range of philosophical thought. The Specialized Track is designed for students who are interested in philosophical reflection on a specific discipline or area such as law, religion, or psychology. It is especially appropriate for pre-law students and for dual majors who are interested in the relationship between philosophy and their other major discipline.

Degree Requirements

The following requirements apply to all three tracks. (i) any course taken to fulfill a requirement for the major may not be taken with the "pass/fail" option (with the exception of PHI 4945, Internship in Philosophy) and must be passed with a grade of "C" or better, (ii) no more than 6 (six) hours of Independent Study may be used to fulfill major requirements, (iii) at most, one of PHI 2100 (Introduction to Logic) or PHI 2103 (Critical Thinking), or their equivalents, may be used to fulfill major requirements, and at most six other hours of lower division philosophy courses may be counted toward the degree, (iv) after completing at least 24 hours of philosophy courses, all majors are required to take the one hour course PHI 4911 (Research Paper).

In addition to fulfilling the requirements of the major, the College of Arts, Sciences and Education has a number of requirements which are listed in the University's Catalog at the beginning of the Arts and Sciences section. The Philosophy Department allows a maximum of 15 hours of philosophy transfer credit for a major (6 hours for a minor) subject to the following restrictions: at most one of PHI 2100 (Introduction to Logic), PHI 2103 (Critical Thinking), or their equivalents may be used to fulfill major requirements, and be counted toward the degree. Such transfer credit can only be awarded by a philosophy advisor, and students who wish to apply for it are advised to discuss their course of studies with an advisor early in their career at FIU.

The General Track: (34 Semester Hours Required)

The General Track is designed to serve students with a broad interest in philosophy. One three-hour Logic course is required, selected from PHI 2100, PHI 2103, PHI 4130, or PHI 4161. The remaining 31 hours may include any philosophy courses (except that the requirements applying to all three tracks must be met). Students are strongly encouraged to discuss their course selections with their advisor. After completing at least 24 hours of philosophy courses, all majors are required to take the one hour course PHI 4911 (Research Paper).

The Professional Track: (34 Semester Hours Required)

The Professional Track is designed for students considering philosophy as a professional discipline. It is especially appropriate for those considering graduate work in philosophy and those with an interest in a thorough and systematic study of the full range of philosophical thought. After completing at least 24 hours of philosophy courses, all majors are required to take the one hour course PHI 4911 (Research Paper). Receiving a 'C' or better in 34 semester hours of upper division philosophy courses distributed as follows will fulfill the requirements for this track:

Logic/Probability[1]	3
Epistemology/Metaphysics	6
Value Theory	6
History of Philosophy[2]	9
Non-Western Philosophy	3
Other Philosophy Courses	3
Philosophy Seminar	3
Research Paper	1

(see department for list of courses which satisfy these requirements)
[1]Neither PHI 2100 nor PHI 2103 fulfills the Logic/Probability requirement for this track; however, one may be included as a Philosophy elective.
[2]Must include 3 hours in the area of Ancient Philosophy.

The Specialized Track:
(34 Semester Hours Required)

The Specialized Track is designed for students who are interested in philosophical reflection on a specific discipline or area such as law, religion, or psychology. It is especially appropriate for pre-law students and for dual majors who are interested in the relationship between philosophy and their other major discipline. An approved Individualized Plan of Study will meet the requirements for this track. Such plans are designed by the Philosophy advisor in consultation with the student so that they can be tailored to the student's specific interests and goals. Students pursuing the Specialized Track must secure prior written approval of their course selections from their advisor. The proposed course selections must present a clear, focused, and coherent plan of study. The Philosophy Program Brochure (available in the Department on either campus) includes several models of such plans of study, including Pre-Law Studies, Western Philosophy and Its Historical Context, Social and Political Philosophy, Philosophy and Religious Thought, Philosophy and Difference, Philosophy and Psychology, and Philosophy and the Arts. Each such plan must include 34 semester hours, and the courses taken in accord with the plan must be passed with a grade of 'C' or better. One three-hour Logic course is required, selected from PHI 2100, PHI 2103, PHI 4130, or PHI 4161. After completing at least 24 hours of philosophy courses, all majors are required to take the one hour course PHI 4911 (Research Paper). With the prior written approval of a Philosophy advisor, up to nine semester hours from other programs may be counted toward the 34 hour major.

Bachelor of Arts in Philosophy with Honors

A policy for Philosophy majors who wish to exercise the Thesis Option within the Honors College: This option is open only to Honor's Program students who are Philosophy majors and who must apply for it during the spring semester of the Junior year. To receive Honors via the Thesis Option:

- students must enroll in one three-credit Honors Thesis Independent Study course in Philosophy in each of the Fall and Spring semesters of their Senior year,
- be approved by both their Thesis Advisor (who directs the independent studies) and the Departmental Chairperson.

Eligible students may apply for the Thesis Option by submitting an Honors Thesis Proposal to the department Chairperson provided they have met the following minimal conditions:

1. they must have a cumulative FIU GPA of at least 3.5,
2. they must have completed (by the end of that semester) at least five upper division philosophy courses,
3. they must have completed (by the end of that semester) at least one upper division philosophy in the area in which they intend to write their Thesis, and
4. they must have identified a faculty member who would be willing to supervise the Thesis and the two three-credit independent study courses which are associated with it.

Students considering pursuing the Thesis Option should read the recommendations regarding Independent Study in the Philosophy Brochure.

Combined BA/MA in Liberal Studies

The combined (4+1) Bachelor/Master of Arts in Liberal Studies offers outstanding undergraduate FIU students in majors such as Philosophy and Liberal Studies the opportunity to earn a Masters degree in only one additional year beyond the BA degree. Many Philosophy and Liberal Studies majors earn minors, complete second majors, or do certificate programs because they have broad interests and have a tendency for cross-disciplinary and interdisciplinary inquiry. An accelerated MALS program seems the perfect vehicle to pursue such interests.

The (4+1) program represents two distinct options:

1. Liberal Studies to MALS. This option allows students to complement the undergraduate major with graduate study in the same discipline as the undergraduate study.
2. Other majors such as Philosophy to MALS. This option allows students to complement the undergraduate major with graduate study in another area.

The goal is to attract outstanding students into the combined program so that they formally apply to the program in the first semester of their senior year (i.e., when they have completed 90 credit hours.) Interested students should speak with the undergraduate advisor as early as possible because careful selection of undergraduate courses in the sophomore and junior years will be essential for admission to the program.

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified

by the program catalog, may be applied toward both degrees.

Applicants to the accelerated program need a GPA of 3.20. Formal admission to the accelerated program will usually be in the first semester of the senior year. Students would be also required to maintain a GPA of at least 3.20 to remain in the program. Participation in this program allows the students to fulfill some graduate program requirements during their senior year. More specifically, students at the senior level may be allowed to earn up to 9 graduate credits that will count towards their MALS degree. Up to 3 graduate courses (9 credits) may be used to satisfy both the Bachelor and Masters degree requirements. All double counted courses must be at the 5000 level of higher. Courses to be allowed to be double counted must be approved by MALS. Before starting the graduate program students must have satisfied all general education and core requirements.

The curriculum for the (4+1) MALS will meet criteria identical to those of the MALS program. A student will not be eligible for assistantship funding before completing all requirements for the Bachelors degree. For double-counted courses, students must confirm with their graduate program advisor that he or she is taking the course for graduate credit. Graduates and undergraduates may have different workloads and grading criteria. The student must earn a grade of "B" or better for these courses to count towards the Masters requirements.

Admission Requirements

1. Current enrollment in a bachelors degree in Philosophy or Liberal Studies.
2. Completion of at least 90 credits hours of coursework.
3. A current GPA of 3.20 or higher.
4. Application to the Department to enroll in the (4+1) MALS program that will include
   - Three letters of recommendation
   - Personal statement [2-3 pages] describing goals and objectives in seeking a combined accelerated degree
   - A 8-25 page writing sample of satisfactory quality
5. On-line application to the University Graduate School for admission to the MALS program.
6. Positive evaluation by the undergraduate program director.
7. Approval of the graduate admissions committee.
8. In addition to the admission requirements of the (4+1) MALS program, students must meet all the admission requirements of the University Graduate School.

Completion Requirements

1. Completion of both the required courses for the BA (33 credits and the required courses for the MALS (33 credits).
   - For the Liberal Studies-to-MALS option, either the 3 Great Ideas Seminars or 3 – 5000 or 6000 level courses in Natural Sciences, Humanities or Social Sciences may be used to satisfy both the Bachelors and Masters degree.
   - For other majors such as the Philosophy-to-MALS option, either 3 Great Ideas Seminars or 3 – 5000 or 6000 level courses in Natural Sciences, Humanities or Social Sciences may be used to satisfy both the Bachelors and Masters degree.
2. The bachelor's degree must be awarded when the student completes the requirements for the degree. In other words, the bachelor's degree must be awarded before the master's degree.
3. Students in the (4+1) MALS program have up to a year to complete the Master's degree after receipt of the bachelor's degree.
4. Students who fail to meet the one year post BA requirement or who elect to leave the (4+1) MALS program at any time and earn only the BA degree will have the same access requirements to a regular graduate program as any other student, but will not be able to use the 9 credits in both the bachelor's and the master's degrees.

Summary of Degree Requirements

Great Ideas Seminars:	9 hours (minimum*)
Interdisciplinary Concentration:	18 hours (minimum*)
Master's Essay or Master's Thesis:	3 hours or 6 hours
Total Hours:	**33 hours or 36 hours**

*33 hours of coursework are required of all (4+1) MALS students. However, a maximum of 3 hours are awarded for the "Master's Essay" course as opposed to 6 hours for "Master's Thesis" course. Students who choose the Essay option must complete either 4 Great Ideas Seminars or 21 hour Interdisciplinary Concentration.

The Philosophy Minor

A student majoring in another academic discipline can earn an academic minor in Philosophy by taking 15 hours in philosophy (PHH, PHI, PHM, and PHP prefixes) and earning a "C" or better. Only three hours may be earned in lower division (1000 and 2000 level) courses.

Course Descriptions

Definition of Prefixes

GRE-Ancient Greek; PHH-Philosophy, History of; PHI-Philosophy; PHM-Philosophy of Man and Society; PHP-Philosophers and Schools.

Courses that meet the University's Global Learning requirement are identified as GL.

GRE 3050 Introduction to Ancient Greek (3). Introduces the Greek language of the New Testament, and other works of the ancient period to enhance the understanding of translated texts. A portion of the Gospel of John is studied.

PHH 2063 Classics in Philosophy: An Introduction to the History of Philosophy (3). Introduces the history of philosophy by examining the works of such philosophical giants as Plato, Aristotle, Descartes, and Kant. Meets the state composition requirement. Prerequisites: ENC 1101 and ENC 1102.

PHH 3042 Latin American Philosophy (3). This course will examine the development of Latin American thought, with particular attention to the 19th and 20th centuries. It will consider the traditions and initiatives of prominent Latin American philosophers in the light of problems such as personal and cultural identity.

PHH 3100 Ancient Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought, particularly in the Greek and Roman cultural settings, and linkages to their past and future are emphasized in this course.

PHH 3200 Medieval Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the Middle Ages, and linkages to their past and future are emphasized in this course.

PHH 3401 Sixteenth and Seventeenth Century Philosophy (3). The basic concerns and teachings of representative European philosophers of the 16th and 17th centuries (esp. Hobbes, Descartes, Cavendish, Spinoza, Locke, Leibniz, and Amo) are emphasized

PHH 3402 British Empiricism (3). The basic concerns and teachings of representative British empiricists of the 17th & 18th centuries (esp. Locke, Newton, Leibniz, Berkeley, Du Châtelet, and Hume) are emphasized in this course.

PHH 3410 Philosophy of the Enlightenment (3). Engages some of the greatest thinkers and one of the most intellectually exciting periods in Western history including the development of modem science, liberal democracy, and pivotal revolutions.

PHH 3420 Early Modern Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the period from the Renaissance to Kant and the linkages to their past and future are emphasized in this course.

PHH 3440 Late Modern Philosophy (3). The basic concerns and teachings of representative 19th century German thinkers (esp. Kant, Hegel, Schopenhauer, Marx, and Nietzsche) are emphasized.

PHH 3602 Twentieth Century British Philosophy (3). Examines the development of 20th century British philosophy, with special attention to the justification for its aims, methods, and central concerns (e.g. knowledge, appearance and reality, memory, and the value of philosophy).

PHH 3700 American Philosophy (3). This course will examine the development of American philosophical thought, with particular attention to the 19th and 20th centuries. It will consider the traditions and initiatives of the prominent American philosophers, in the light of problems such as the relationship between theory and practice.

PHH 3810 Philosophy of Buddhism (3). Examines the central philosophy of Buddhism dealing with: 1) the question of reality and appearance, 2) the theories of causation, 3) the relation of these views to Buddhist soteriology (realism, idealism, dialectics, Hwa-yen).

PHH 3840 Indian Philosophy (3). Metaphysical, epistemological and ethical theories within such major Indian philosophical systems as philosophical Buddhism, Gains, Samkhya dualism, and Vedanta transcendentalism are examined.

PHH 4151 Hellenistic and Roman Philosophy (3). Philosophies of Europe, North Africa, and the Eastern Mediterranean 3rd Century BCE to 3rd Century CE. Focus on Hellenistic & Roman philosophies such as Platonism, Aristotelianism, Stoicism Epicurean.

PHH 4600 Twentieth Century Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the present century, and linkages to past and emerging generations are emphasized in this course.

PHH 4930 A Major Philosopher (3). This course will examine in detail the works of a major figure in the history of philosophy. Course may be repeated on a different philosopher. (S)

PHH 5938 Advanced Topics in the History of Philosophy (3). Examines in detail the works of a major figure and or period in the history of philosophy. May be repeated.

PHI 2010 Introduction to Philosophy (3). This course introduces both the tools of philosophical thinking and some of their applications to fundamental topics such as knowledge, value, meaning, and human society. Meets the state composition requirement. Prerequisites: ENC 1101 and ENC 1102.

PHI 2016 Philosophy Through Film (3). Offers a thorough investigation into several philosophical issues through the medium of film. Close readings of individual films will accompany the study of key philosophical texts.

PHI 2100 Introduction to Logic (3). This introductory course in logical thinking and argumentation will treat both practical and theoretical approaches to understanding human communications and solving problems. Students will be introduced to inductive and deductive logic, fallacies, and the role of logic in scientific explanation and popular expression.

PHI 2103 Critical Thinking (3). A course in practical reasoning designed to sharpen abilities at analyzing, evaluating, and constructing arguments.

PHI 2600 Introduction to Ethics (3). Explores philosophical accounts of morality, including the rational justification of commitment to the moral life, and theories of duty, obligation, and virtue. Meets the state composition requirement. Prerequisites: ENC 1101 and ENC 1102.

PHI 3073 African Philosophy (3). An analysis of the metaphysical, epistemic, ethical, and political thoughts constituting the African world views and cultural settings.

PHI 3300 Epistemology (3). The viewpoints of various philosophers and schools of thought regarding types of knowledge, certitude, and creativity are the main emphases of this introductory course. The meaning of truth and truthfulness is analyzed from both the classical and the contemporary perspectives.

PHI 3320 Philosophy of Mind (3). An inquiry into the concept of mind and subsidiary concepts such as sensation, perception, desire, emotion, intention, volition, imagination, and intellect. The course will address the problem of the relation of mind and body and such topics as the concept of a person, the nature of intentional action, and the nature of consciousness.

PHI 3400 Philosophy of Science (3). The philosophic background of scientific method will be examined. Attention will be given to the philosophical consequences of conceptual change in the sciences. Such topics as the growth and unity of science, explanation and prediction, and the role of science in society will be explored.

PHI 3420 Philosophy of Social Science (3). An inquiry into philosophical questions raised by the social sciences. Topics include forms of social explanation, the nature of rationality, and the status of values in social science.

PHI 3454 Philosophy of Biology (3). Examines the philosophical problems raised by the theory of evolution in 3 parts: external challenges to the theory, internal disputes about key concepts, controversies about applications theory.

PHI 3500 Metaphysics (3). This introductory course examines basic metaphysical questions regarding the nature of reality, as well as the meaning of these questions for the relationship of persons with their world. Fundamental texts from classical and contemporary philosophers will be considered.

PHI 3601 Ethics (3). What is intrinsically good? What ought one to do? How are moral claims justified? Competing views of major philosophers are considered.

PHI 3640 Environmental Ethics – *GL* (3). Examines philosophical and ethical perspectives on human interaction with the natural world. Course designated as a Global Learning course.

PHI 3638 Contemporary Ethical Issues (3). After a review of basic questions regarding ethics, this course considers special ethical problems in contemporary society from the perspective of one or more philosophers or systems of ethics. Topics will be selected and announced in advance.

PHI 3700 Philosophy of Religion (3). This course investigates whether or not religious beliefs can be rationally justified. Such topics as the nature of God, the problem of evil, religious experience, and the relationship of faith to reason will be explored.

PHI 3762 Eastern Philosophical and Religious Thought (3). This introductory course examines the development of philosophical and religious thought in the East from ancient to modern times. Hinduism, Buddhism, Confucianism, Taoism, and other major viewpoints will be considered, in themselves and in comparison with Western forms of thought.

PHI 3800 Aesthetics (3). Examines philosophical issues arising from an examination of the nature of art and beauty. Topics include aesthetic experience, expressive theory, representation and the art world.

PHI 4130 Symbolic Logic (3). This course provides an introduction to symbolic logic. Emphasis is upon both the formal techniques of analysis of argument and upon the theoretical aspects of formal logic.

PHI 4161 Philosophy and Probability (3). An introduction to the philosophical applications of elementary probability theory. Topics include mathematical probability, rational decision making, the foundations of science, and Pascal's wager.

PHI 4220 Philosophy of Language (3). The subject matter concerns the relations between language, thought, and the world. Topics to be studied include reference, meaning, speech acts, and propositional attitudes. Also to be considered are the implications of claims here for issues in other areas of philosophy.

PHI 4230 Language and Paradox (3). An inquiry into the nature of semantic paradoxes, including analysis of their significance, examination of proposed solutions, and investigation of the relationship between paradoxes, language, and truth.

PHI 4321 Topics in the Philosophy of Mind (3). This course examines selected issues in the philosophy of mind. Topics include the nature and value of the passions, self and self-deception, theory of action, etc. May be repeated.

PHI 4370 Topics in Epistemology (3). Study of a focused topics in epistemology (such as: a priori knowledge and justification; certainty; or skepticism). This course may be repeated.

PHI 4371 Truth and Deception (3). Examines the concepts of truth and deception across a variety of academic disciplines, their ubiquitous, complex and multifaceted applications from everyday use to moral, social, political disclosure.

PHI 4541 Philosophy of Time (3). An analysis of the nature of time. Topics include the "passage" of time, the asymmetry between past and future, Zeno's paradoxes, and philosophical implications of the special theory of relativity.

PHI 4633 Biomedical Ethics (3). After examining the foundations of ethics, this course will consider the human and ethical dimensions of current issues in the life sciences, such as the meaning of human living and suffering, ethics of genetic control, death and dying, personal responsibility in the medical and counseling professions.

PHI 4764 Religious Experience (3). An introduction to philosophical thought about religious experiences. After a brief survey of the major types of religious experiences, issues about their nature and cognitive status are examined.

PHI 4840 Art, Mind and Cognitive Science (3). Examines what the production and appreciation of art can tell us about the nature of mind and cognition and what theories of mind and cognition can tell us about the nature of art.

PHI 4841 Global Aesthetics (3). In contrast to standard aesthetic courses, we focus on non-European aesthetics, theories values. Topics include world aesthetic traditions, globalization and cultural appropriation.

PHI 4882 Philosophy in Literature (3). Philosophical implications of selected works and the impact of philosophical concepts such as the self, death, identity, alienation, responsibility, freedom, and the absurd.

PHI 4884 Philosophy of Film (3). An investigation into the distinctly philosophical issues that arise when studying film. In particular, questions surrounding narration, authorship and genre will be considered.

PHI 4910 Independent Research (1-6). Topics will be selected to meet the academic needs of the individual student. Prerequisite: Permission of the instructor.

PHI 4911 Research Paper (1-3). Based on previous course work, a research paper will be expanded and revised. Deepened knowledge of the specific topic will be developed, and oral and written skills improved. Prerequisites: 24 hours of PHH, PHI, PHM, or PHP. Corequisite: Philosophy major PHIL10BA.

PHI 4930 Special Topics (3). In-depth study of topics of special interest in philosophy.

PHI 4932 Special Topics in Aesthetics (3). Examines selected issues in aesthetics in depth such as the nature of art, fictive emotions, the artworld, or an artistic medium, truth and purpose in art, etc. May be repeated.

PHI 4935 Philosophy Seminar (3). This seminar is designed for majors and other qualified students approved by the Department, and will be guided by one or more faculty members. Topic will be selected and announced in advance. The number of participants will be limited.

PHI 4938 Special Topics in Philosophy of Religion (3). Examines issues of historical and contemporary significance in the Philosophy of Religion such as the existence and nature of God, evil, faith, religious experience, etc. Repeatable for credit.

PHI 4945 Internship in Philosophy (0-6). Provides oversight and structure for an internship in fields related to philosophy such as with community service organizations, schools, research projects, law, government, art, journalism, etc. May be repeated. (Pass/Fail Only) Prerequisite: Permission of the department.

PHI 5931 Advanced Topics in Philosophy of Mind and Cognitive Science (3). Explores issues of contemporary interest to philosophers and psychologists. Topics include: the self, personal identity, moral psychology, introspection, free will, perception, consciousness, etc. May be repeated for credit.

PHI 5933 Advanced Topics in Philosophy of Language and Logic (3). Explores a focused issue in philosophy of language, logic and possibly linguistics. Possible topics include: truth, meaning, reference, paradoxes, formal and informal logics, issues in language, etc. Repeatable for credit.

PHI 5934 Special Topics (3). Topics will be selected to meet the academic needs of groups of students.

PHI 5937 Advanced Topics in Philosophy of Religion (3). Explores issues of historical and contemporary issues. Topics may include the existence of God, the problem of evil, the nature or faith, religious experience, etc. Repeatable for credit.

PHM 3040 Philosophical Anthropology (3). Examines philosophically scientific perspectives concerning the nature of humankind and the human condition. Elucidate qualities that make humans what we are and distinguish us from other beings.

PHM 3200 Social and Political Philosophy (3). The nature of society and the state, authority of society and the state over the individual, political obligation, legitimacy of government, and idea of social contract are considered.

PHM 3400 Philosophy of Law (3). After an analysis of the nature of law and judicial reasoning in the light of fundamental alternative interpretations, basic topics of legal philosophy will be considered, such as freedom and rights, responsibility and punishment, rule of law and civil disobedience, legality and justice.

PHM 3500 Philosophy of History (3). After exploring the definitions, dimensions and interrelations of philosophy and history, students will examine major philosophies of history. The social responsibility of the historical narrative and the philosophical assumptions of historiographies will be discussed.

PHM 4020 Love and Sexuality (3). Examines historical and contemporary philosophical writings about human sexuality and erotic love. Topics include attraction, objectification, violence, marital and nonmarital sex, love and rationality.

PHM 4041 Thought, Community, and Inquiry (3). Investigates the notion of a community of philosophical inquiry, its emergence, its epistemological and pedagogical commitments and practical outcomes.

PHM 4050 Philosophy of Death (3). This course analyzes the meaning of death and man's attitude towards death and the dying. It examines how philosophy can share in the new confrontation between man and his death, and shows the ways philosophical thinking contributes to the discovery of an authentic attitude towards the phenomenon of death as part of human living.

PHM 4123 Philosophy and Feminism (3). A conceptual analysis of alternative feminist views. Topics include the goals of the feminist movement, sexist theories on women's nature, sexual stereotypes and androgyny, the nature of oppression, sexism, racism and homophobia.

PHM 4125 Philosophy of Gender and Race (3). Introduces the metaphysical and ethical issues pertaining to gender and race. Addresses such topics as: definitions of gender and race eliminativism, definitions of racism and sexism, etc.

PHM 4360 Topics in Political Philosophy (3). Examines a selected topic in political philosophy, such as: justice, democracy, liberty, or an important thinker. May be repeated. Prerequisites: PHM 3200 or permission of the instructor.

PHM 4362 Global Justice – *GL* (3). An examination of philosophical perspectives on the problems of global justice. Course designated as a Global Learning course.

PHM 4430 Topics in Philosophy of Law (3). Examines a focused topic in philosophy of law, such as: punishment, legislation of morality, the rule of law, or an important thinker. May be repeated.

PHM 5935 Advanced Topics in Social and Political Philosophy (3). Explores central problems in social and political philosophy. Possible topics include: justice, equality, freedom, democracy, the state, political obligation, etc. May be repeated for credit.

PHM 5936 Advanced Topics in Philosophy of Law (3). Explores a focused issue in philosophy of law. Possible topics include: constitutionalism, the rule of law, natural law theory, theories of punishment, the philosophy of the U.S. Constitution, etc. Repeatable for credit.

PHP 3840 Chinese and Japanese Philosophy (3). Metaphysical and ethical theories of the three main philosophical systems of China, namely, Classical and neo-Confucianism, Taoism, and Chinese Buddhism are examined. For Japanese philosophy, Shintoism is included.

PHP 4510 Marxism (3). This course examines the philosophic insights of Marx and the main trends (anthropological, social, existential) in contemporary Marxism. It includes an analysis of the Marxist interpretation of alienation, work, and human authenticity.

PHP 4782 Phenomenology (3). This course analyzes the method, the basic philosophical insights and the applications of 20th century phenomenology. It includes the phenomenological analysis of knowing as well as basic questions regarding the nature of reality together with the study of fundamental texts from Husserl, Heidegger, and Merleau-Ponty.

PHP 4784 Analytic Philosophy (3). This course examines the 20th century Anglo-American tradition of approaching philosophic problems by the methods of linguistic analysis. It will include study of techniques of linguistic analysis and an evaluation of their adequacy in dealing with meaning and truth, the mind-body problem, and free will.

PHP 4786 Existentialism (3). This course examines the origin, basic philosophical insights, and influence of the mainstreams of modern existentialism. It includes the study of fundamental texts of Kierkegaard, Nietzsche, Sartre, Jaspers, and Camus.

PHP 4789 Contemporary French Philosophy (3). Main trends (hermeneutics, postmodernism, deconstruction) in twentieth century French philosophy, with emphasis on seminal thinkers, e.g., Levinas, Derrida, Ricoeur, Foucault, Irigaray.

Physics

Tigran Abrahamyan, *Instructor*
Werner Boeglin, *Professor and Chairperson*
Richard A. Bone, *Professor*
Prem Chapagain, *Associate Professor*
Yesim Darici, *Professor*
Rudolf Fiebig, *Professor Emeritus*
Bernard Gerstman, *Professor*
Lei Guo, *Associate Professor*
Kenneth Hardy, *Professor Emeritus*
Jin He, *Associate Professor*
Kamal Kadel, *Instructor*
Laird H. Kramer, *Professor*
Angela Laird, *Professor*
Robert Laird, *Clinical Professor*
Hebin Li, *Associate Professor*
Wenzhi Li, *Professor*
Pete C. Markowitz, *Professor*
Oren Maxwell, *Professor Emeritus*
Stephan L. Mintz, *Professor Emeritus*
Rajamani Narayanan, *Professor*
Geoff Potvin, *Associate Professor*
Brian A. Raue, *Professor*
Jorge Reinhold, *Professor*
Jorge L. Rodriguez, *Associate Professor and Graduate Program Director*
Misak Sargsian, *Professor*
Caroline E. Simpson, *Professor*
Fiorella Terenzi, *Instructor*
Walter Van Hamme, *Professor*
Xuewen Wang, *Associate Professor*
James R. Webb, *Professor*
Yifu Zhu, *Professor*

Departmental information available at:
http://physics.fiu.edu

Bachelor of Science

Degree Program Hours: 120

The B.S. program in Physics prepares students for careers as professional physicists in industry, government, or graduate study in physics, engineering, or material science. It also prepares students for teaching careers. Students interested in teacher certification should contact the School of Education.

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM1045/CHM1045L	CHMX045C or CHMX040 & CHMX041 or CHMX045/X045L
CHM1046/CHM1046L	CHMX046C or CHMX046/046L
MAC2311	MACX311 or MACX281
MAC2312	MACX312 or MACX282
MAC2313	MACX313 or MACX283
PHY2048/2048L	PHYX048/X048L or PHYX048C
PHY2049/2049L	PHYX049/X049L or PHYX049C

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Required Courses

Common Prerequisites: (30)

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1
MAC 2311	Calculus I	4
MAC 2312	Calculus II	4
MAC 2313	Multivariable Calculus	4
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Additional Required Course: (4)

PHY 1033	Physics Pathways	1
MAP 2302	Differential Equations	3

Upper Division Program (60 total hours, 48 hours must be 3000 level or above)

Required Courses

PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3
PHZ 3113	Methods in Theoretical Physics	3
PHY 3513	Thermodynamics	3
PHY 4221	Introduction to Classical Mechanics	4
PHY 4323	Intermediate Electromagnetism I	3
PHY 4324	Intermediate Electromagnetism II	3
PHY 4604	Quantum Mechanics I	3
PHY 4605	Quantum Mechanics II	3
PHY 4821L	Advanced Physics Lab	3
Approved Physics Electives		9

Engineering Concentration

The program is designed for motivated students who have dual interests in physics and engineering. This program prepares undergraduate students for careers as professional physicists in industrial, university, and government laboratory settings. Students successfully completing this degree program will have satisfied the standard undergraduate requirements for admission to graduate programs in physics and engineering.

Lower Division Preparation

Common Prerequisite Courses and

Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM1045/CHM1045L	CHMX045C or CHMX040 & CHMX041 or CHMX045/X045L
CHM1046/CHM1046L	CHMX046C or CHMX046/046L
MAC2311	MACX311 or MACX281
MAC2312	MACX312 or MACX282
MAC2313	MACX313 or MACX283
PHY2048/2048L	PHYX048/X048L or PHYX048C
PHY2049/2049L	PHYX049/X049L or PHYX049C

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Required Courses (34 credit hours)

Common Prerequisites: (30)

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1
MAC 2311	Calculus I	4
MAC 2312	Calculus II	4
MAC 2313	Multivariable Calculus	4
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1

Additional Required Course: (4)

PHY 1033	Physics Pathways	1
MAP 2302	Differential Equations	3

Upper Division Program (60 total hours, 48 hours must be 3000 level or above)

Required Courses

PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3
PHY 3513	Thermodynamics	3
PHY 4221	Introduction to Classical Mechanics	4
PHY 4323	Intermediate Electromagnetism I	3
PHY 4604	Quantum Mechanics I	3
PHY 4821L	Advanced Physics Lab	3
Approved Engineering Courses		18
Physics, Math, or Engineering Electives		12
Electives		8

Approved Engineering Courses

EEL 2880	Applied Software Techniques in Engineering	3
EEE 3303	Electronics I	3
EEE 3303L	Electronics I Laboratory	1
EEE 4202C	Medical Instrumentation Design	4
EEL 3110	Circuit Analysis	3
EEL 3110L	Circuits Lab	1
EEL 3120	Introduction to Linear Systems in Engineering	3
EEL 3135	Signals And Systems	3
EEL 3160	Computer Applications in Electrical Engineering	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1
EEL 4213	Power Systems I	3
EEL 4213L	Energy Conversion Lab	1
EEL 4410	Introduction to Fields and Waves	3
EEL 4709C	Computer Design	3
EEL 4730	Programming Embedded Systems	3
EEL 4740	Embedded Computing Systems	3
EEL 4920	Senior Design I: Ethics, Communications, and Constraints	2
EEL 4921C	Senior Design II: Project Implementation	2
EIN 3235	Evaluation of Engineering Data I	3
EGN 3311	Statics	3
EGN 3321	Dynamics	3
EGN 3365	Materials in Engineering	3
EGN 3613	Engineering Economy	3
EMA 3702	Mechanics and Materials Science	3
EMA 3702L	Mechanics and Materials Science Lab	1
EML 3126	Transport Phenomena	3
EML 3222	Systems Dynamics	3
EML 3450	Energy Systems	3
EML 3500	Mechanical Design I	3
EML 4501	Mechanical Design II	3
EML 4140	Heat Transfer	3
EML 4702	Fluid Dynamics	3
EML 4706	Design of Thermal and Fluid Systems	3

Health Physics Concentration

The program is designed for those students who have interests in nuclear physics and the practical application of nuclear physics to modern society. This program prepares undergraduate students for careers as a nuclear worker in university, industrial, medical, and government laboratory settings. Students successfully completing this degree program will have satisfied the standard undergraduate requirements for admission to graduate programs in physics, medical physics, and health physics.

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM1045/CHM1045L	CHMX045C or CHMX040 & CHMX041 or CHMX045/X045L
CHM1046/CHM1046L	CHMX046C or CHMX046/046L
MAC2311	MACX311 or MACX281
MAC2312	MACX312 or MACX282
MAC2313	MACX313 or MACX283
PHY2048/2048L	PHYX048/X048L or PHYX048C
PHY2049/2049L	PHYX049/X049L or PHYX049C

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit:

http://www.flvc.org, Search Program Listing by Alphabetic Order.

Required Courses (38 credit hours)

Common Prerequisites: (30)

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1
MAC 2311	Calculus I	4
MAC 2312	Calculus II	4
MAC 2313	Multivariable Calculus	4
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1

Additional Required Course: (8)

PHY 1033	Physics Pathways	1
MAP 2302	Differential Equations	3
BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1

Upper Division Program (60 total hours, 48 hours must be 3000 level or above)

Required Courses

PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3
PHZ 3113	Methods in Theoretical Physics	3
PHY 3513	Thermodynamics	3
PHY 4221	Introduction to Classical Mechanics	4
PHY 4323	Intermediate Electromagnetism I	3
PHY 4324	Intermediate Electromagnetism II	3
PHY 4604	Quantum Mechanics I	3
PHY 4605	Quantum Mechanics II	3
PHY 4821L	Advanced Physics Lab	3
PHZ 3360	Introduction to Radiation Protection	1
PHZ 3308	Applications of Nuclear Physics	3
PHZ 3361	Radiation Detection and Measurement	3
PHZ 4731	Introduction to Health Physics	3
Electives		19

Recommended Electives

PHZ 4710	Introduction to Biophysics	3
PCB 3063	Genetics	3
PCB 3063L	Genetics Lab	1
PCB 4023	Cell Biology	3

Physics Education Track (FIUteach)

This program prepares students interested in physics graduate school as well as certification to teach physics at the secondary level. Students are encouraged to contact the FIUteach program (**FIUteach.fiu.edu**) for opportunities to try out teaching at no cost. Interested students are encouraged to contact the department, the FIUteach program, or the secondary science advisor for additional details and certification requirements.

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM1045/CHM1045L	CHMX045C or CHMX040 & CHMX041 or CHMX045/X045L
CHM1046/CHM1046L	CHMX046C or CHMX046/046L
MAC2311	MACX311 or MACX281
MAC2312	MACX312 or MACX282
MAC2313	MACX313 or MACX283
PHY2048/2048L	PHYX048/X048L or PHYX048C
PHY2049/2049L	PHYX049/X049L or PHYX049C

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, See Common Prerequisite Manual.

Common Prerequisites as Detailed Under the B.S. Degree

Additional Lower Division Courses: (6)

BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1
and		
SMT 2661	Step 1: Inquiry Approaches to Teaching Mathematics and Science	1
SMT 2662	Step 2: Inquiry-Based Lesson Design in Mathematics and Science	1
or		
SMT 2044	Combined STEP 1 & 2: Inquiry-Based Approaches and Lesson Design for Teaching	2

Upper Division Program (60 total hours, 48 hours must be 3000 level or above)

PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3
PHZ 3113	Methods in Theoretical Physics	3
PHY 3513	Thermodynamics	3
PHY 4221	Introduction to Classical Mechanics	4
PHY 4323	Intermediate Electromagnetism I	3
PHY 4604	Quantum Mechanics I	3
PHY 4821L	Advanced Physics Lab	3
PHY 3018	Research Methods in Physics	3
SMT 3100	Knowing and Learning in Mathematics and Science	3
SMT 4301	Classroom Interactions in Mathematics and Science Teaching	3
SMT 4664	Problem-Based Instruction (PBI) in Mathematics and Science	3
SCE 4194	Perspectives in Science and Math Education	3
SCE 4944	Student Teaching	6
RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Strategies for Content Teachers – *GL*	3
Physics Electives or required courses		8

Students encouraged to take PHY 4324 Intermediate Electromagnetism II and PHY 4605 Quantum Mechanics II if continuing onto physics graduate school.

Bachelor of Science with Honors in Physics

The Honors program in Physics provides outstanding students with the opportunity to do original research with a

faculty sponsor. To graduate with Honors, the student must carry out a research project, write up the project as an Honors Thesis, and present the research results in a departmental seminar.

Admission to the Program

To be admitted to the track, a student must:

- Be admitted to the BS Physics program with a lower division GPA of at least 3.5 in science and math courses and an overall GPA of at least 3.2.
- Have completed at least 12 hours of physics courses.
- Have arranged to be sponsored by a faculty researcher.
- Submit a letter to the Physics Department requesting permission to pursue the honors course of study.

Graduation Requirements

1. Completion of all requirements for the BS Physics degree with a minimum GPA of 3.5 in science and math courses and overall GPA of 3.2.
2. Completion of honors research project in collaboration with a faculty advisor. The results of the research project must be written in the form of an honors thesis which is written in American Physical Society-style publication format. The faculty advisor and curriculum committee must judge the thesis as suitable in style and content.
3. Submission of two completed and approved copies of the Honors Thesis must be presented to the Physics department office; one copy is to be kept in the department and the second copy is to be housed in the University library.
4. The results of the research project must be presented orally to an audience of peers and faculty members in a departmental seminar.

Bachelor of Arts

Degree Program Hours: 120

This program prepares students interested in physics and planning to enter professional schools in business, education, journalism, law, and medicine, and for liberal arts students desiring a strong background in physical science but with career objectives in other areas. The flexible program offers the opportunity for parallel studies in another discipline and/or pre-professional preparation. Students may choose to follow the standard B.A. or choose a specific area of emphasis: the Biophysics Concentration, the Business Concentration, or the Entrepreneurship Concentration. Students wishing to pursue careers as professional physicists or graduate study in physics should seek the Bachelor of Science degree in physics.

Lower Division Preparation for all areas of Concentration

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM1045/CHM1045L	CHMX045C or CHMX040 & CHMX041 or CHMX045/X045L
CHM1046/CHM1046L	CHMX046C or CHMX046/046L
MAC2311	MACX311 or MACX281
MAC2312	MACX312 or MACX282
MAC2313	MACX313 or MACX283
PHY2048/2048L	PHYX048/X048L or PHYX048C
PHY2049/2049L	PHYX049/X049L or PHYX049C

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Required Courses: (30)

Common Prerequisites

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1
MAC 2311	Calculus I	4
MAC 2312	Calculus II	4
MAC 2313	Multivariable Calculus	4
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1

Additional Required Course: (4)

PHY 1033	Physics Pathways	1
MAP 2302	Differential Equations	3

Upper Division Program for the B.A. (60 total hours, 48 hours must be 3000 level or above)

PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3
PHY 3513	Thermodynamics	3
	or	
PHZ 3113	Methods in Theoretical Physics	3
PHY 4221	Introduction to Classical Mechanics	4
PHY 4821L	Advanced Physics Lab	3
Physics Electives		15
Electives		29

Biophysics Concentration

This program prepares students interested in physics and planning to enter professional schools in medicine, biomedical engineering, and biomechanics as well as entry level biotechnology positions in industry and government. The flexible program offers the opportunity for parallel studies in another discipline. Students satisfying the degree requirements of this program will also have satisfied the course requirement for admission to medical schools. Interested students should consult the Premedical advisor at (305) 348-3084.

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)

CHM1045/CHM1045L	CHMX045C or CHMX040 & CHMX041 or CHMX045/X045L
CHM1046/CHM1046L	CHMX046C or CHMX046/046L
MAC2311	MACX311 or MACX281
MAC2312	MACX312 or MACX282
MAC2313	MACX313 or MACX283
PHY2048/2048L	PHYX048/X048L or PHYX048C
PHY2049/2049L	PHYX049/X049L or PHYX049C

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites as Detailed Under the B.A. Degree

Additional Required Courses: (4)

PHY 1033	Physics Pathways	1
MAP 2302	Differential Equations	3

Additional Lower Division Courses: (17)

BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1
BSC 2011	General Biology II	3
BSC 2011L	General Biology II Lab	1
CHM 2210	Organic Chemistry I	4
CHM 2210L	Organic Chemistry I Lab	1
CHM 2211	Organic Chemistry II	3
CHM 2211L	Organic Chemistry II Lab	1

Upper Division Program (60 total hours, 48 hours must be 3000 level or above)

PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3
PHY 3513	Thermodynamics	3
	or	
PHZ 3113	Methods in Theoretical Physics	3
PHY 4221	Introduction to Classical Mechanics	4
PHY 4821L	Advanced Physics Lab	3
PHZ 4710	Introduction to Biophysics	3
Physics Electives		12
Electives in Biology and Chemistry		12
Electives		17

Pre-med students are strongly encouraged to take:

BCH 3033	General Biochemistry	4
BCH 3033L	General Biochemistry Lab	1
	or	
CHM 4304	Biological Chemistry I	3
CHM 4304L	Biological Chemistry I Lab	1
PCB 3063	Genetics	3
PCB 3063	Genetics Lab	1
PCB 3702	Intermediate Human Physiology	3
PCB 3702L	Intermediate Human Physiology Lab	1

Business Concentration

This program prepares students interested in physics and planning to enter business and business management careers. Concentrates on the basics of business administration and on gaining a thorough understanding of electronics, lasers, computers and other tools of the physicist.

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM1045/CHM1045L	CHMX045C or CHMX040 & CHMX041 or CHMX045/X045L
CHM1046/CHM1046L	CHMX046C or CHMX046/046L
MAC2311	MACX311 or MACX281
MAC2312	MACX312 or MACX282
MAC2313	MACX313 or MACX283
PHY2048/2048L	PHYX048/X048L or PHYX048C
PHY2049/2049L	PHYX049/X049L or PHYX049C

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites as Detailed Under the B.A. Degree

Additional Required Courses: (4)

PHY 1033	Physics Pathways	1
MAP 2302	Differential Equations	3

Additional Lower Division Courses: (9)

ECO 2013	Principles of Macroeconomics	3
ECO 2023	Principles of Microeconomics	3
ACG 2021	Accounting for Decisions	3

Upper Division Program (60 total hours, 48 hours must be 3000 level or above)

PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3
PHY 3513	Thermodynamics	3
	or	
PHZ 3113	Methods in Theoretical Physics	3
PHY 4221	Introduction to Classical Mechanics	4
PHY 4821L	Advanced Physics Lab	3
Physics Electives		15
ACG 3301	Acc. for Planning and Control	3
CGS 3300	Introduction to Information Systems	3
FIN 3403	Financial Management	3
MAN 3025	Organization and Management	3
MAN 4602	International Business	3
MAR 3023	Introduction to Marketing– *GL*	3
Business Electives		3
Electives		8

Entrepreneurship Concentration

This program provides students with a strong background in physics as well as the skill set for starting and growing new high-tech business ventures. The curriculum encourages "hands on" interdisciplinary research in the form of an independent study course and an entrepreneurial science internship. It also provides the flexibility to tailor coursework to science and technology entrepreneurial activities. Graduates of this program will be well equipped to create their own high-tech jobs within existing companies as well as their own startup ventures.

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM1045/CHM1045L	CHMX045C or CHMX040 & CHMX041 or CHMX045/X045L
CHM1046/CHM1046L	CHMX046C or CHMX046/046L
MAC2311	MACX311 or MACX281
MAC2312	MACX312 or MACX282
MAC2313	MACX313 or MACX283
PHY2048/2048L	PHYX048/X048L or PHYX048C
PHY2049/2049L	PHYX049/X049L or PHYX049C

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites as Detailed Under the B.A. Degree

Additional Required Courses: (4)

PHY 1033	Physics Pathways	1
MAP 2302	Differential Equations	3

Upper Division Program (60 total hours, 48 hours must be 3000 level or above)

PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3
PHY 3513	Thermodynamics	3
	or	
PHZ 3113	Methods in Theoretical Physics	3
PHY 4221	Introduction to Classical Mechanics	4
PHY 4323	Intermediate Electromagnetism I	3
PHY 4604	Quantum Mechanics I	3
PHY 4821L	Advanced Physics Lab	3
Physics Electives		9
ENT 4113	Entrepreneurship: New Business Development	3
ISC 4947	Entrepreneurial Science Internship	3
GEB 4110	Writing the Business Plan	3
	or	
GEB 4xxx	Technology Product and Service Development	3
Electives		20

Physics Education Track (FIUteach)

This program prepares students interested in physics careers and certification to teach physics. Additional science and/or mathematic certifications at the secondary level may be added (below). Students are encouraged to contact the FIUteach program (**FIUteach.fiu.edu**) for opportunities to try out teaching at no cost. Interested students are encouraged to contact the department, the FIUteach program, or the secondary science advisor for additional details and certification requirements.

Additional coursework in science and/or mathematics is required to prepare for certification in additional subject areas. Students must contact the FIUteach program or the secondary science advisor for details and requirements.

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM1045/CHM1045L	CHMX045C or CHMX040 & CHMX041 or CHMX045/X045L
CHM1046/CHM1046L	CHMX046C or CHMX046/046L
MAC2311	MACX311 or MACX281
MAC2312	MACX312 or MACX282
MAC2313	MACX313 or MACX283
PHY2048/2048L	PHYX048/X048L or PHYX048C
PHY2049/2049L	PHYX049/X049L or PHYX049C

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites as Detailed Under the B.A. Degree

Additional Lower Division Courses: (8)

BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1
and		
SMT 2661	Step 1: Inquiry Approaches to Teaching Mathematics and Science	1
SMT 2662	Step 2: Inquiry-Based Lesson Design in Mathematics and Science	1
or		
SMT 2044	Combined STEP 1 & 2: Inquiry-Based Approaches and Lesson Design for Teaching Mathematics and Science	2

Upper Division Program (60 total hours, 48 hours must be 3000 level or above)

PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3
PHY 3107	Advanced Modern Physics	3
PHY 3513	Thermodynamics	3
PHY 4221	Introduction to Classical Mechanics	4
PHY 4821L	Advanced Physics Lab	3
PHY 3018	Research Methods in Physics	3

SMT 3100	Knowing and Learning in Mathematics and Science	3
SMT 4301	Classroom Interactions in Mathematics and Science Teaching	3
SMT 4664	Problem-Based Instruction (PBI) in Mathematics and Science	3
SCE 4194	Perspectives in Science and Math Education	3
SCE 4944	Student Teaching	6
RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Strategies for Content Teachers – *GL*	3
Electives		8

Minor in Physics

This program is designed for students who desire additional capabilities in physics beyond the basic sequence. This program is especially recommended for chemistry, mathematics, and engineering/technology majors.

PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1
PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3
Approved physics electives		3

Minor in Astronomy

This program is designed for students who desire additional capabilities in astronomy. The program offers enhanced preparation for graduate studies in astronomy and astrophysics. It is also aimed at students interested in careers in science education, science centers, musea, and planetaria.

PHY 2048	Physics with Calculus I	4
PHY 2048L	Physics with Calculus Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	Physics with Calculus Lab II	1
PHY 3106	Modern Physics	3
AST 3213	Modern Astrophysics	3
AST 3722	Observational Astronomy	3
AST 3722L	Observational Astronomy Lab	1

Cooperative Education

Students seeking the baccalaureate degree in physics may also take part in the Cooperative Education Program conducted in conjunction with Career Planning & Placement. The student spends several semesters fully employed in an industrial or governmental physics laboratory. For further information consult the Department of Physics or Career Planning & Placement.

Course Descriptions

Definition of Prefixes

AST-Astronomy; ENU-Engineering: Nuclear; MET-Meteorology; PHY-Physics; PHZ-Physics; PSC-Physical Sciences

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

AST 1002 Descriptive Astronomy (3). An introductory survey of our universe. Topics include the formation and evolution of the universe, including planets, stars, galaxies, and black holes.

AST 1002L Descriptive Astronomy Lab (1). Laboratory course to accompany AST 1002. An introduction to experimental work in astronomy including laboratory exercises during the day in the lab and evening observating sessions. Prerequisite/Corequisite: AST 1002.

AST 2003 Solar System Astronomy (3). General principles of Astronomy with emphasis on the structure and evolution of the Solar System, the laws of planetary motion, and the physical aspects of the sun, planets, and interplanetary debris. (F,S,SS)

AST 2003L Solar System Astronomy Laboratory (1). Laboratory section of AST 2003. Outdoor observing of the moon, planets and indoor exercises including celestial positions and time, the moon's orbit, planetary motions, comparative planetology. Corequisite: AST 2003. (Lab fees assessed) (F,S,SS)

AST 2004 Stellar Astronomy (3). General principles of Astronomy with emphasis on the structure and evolution of stars, stellar systems, galaxies and the universe. Topics include stellar birth and death, neutron stars and black holes, galactic distances and the expansion of the universe. (F,S,SS)

AST 2004L Stellar Astronomy Laboratory (1). Laboratory section of AST 2004. Outdoor observing of stars, constellations, binary and variable stars, star clusters, nebulae and indoor exercises including radiative properties of the stars, spectra, stellar and galactic distances, Hubble's Law. Corequisite: AST 2004. (Lab fees assessed) (F,S,SS)

AST 2037 Intelligent Life in the Universe (3). Examines the possibility of extraterrestrial life in terms of the probability of the existence of planets in other solar systems, the conditions necessary for life, and means of communication. (F or S)

AST 3213 Modern Astrophysics (3). An introduction to the structure of stars and galaxies and the evolution of the universe as a whole. Topics will include atomic spectra, stellar classifications, galactic structure, and cosmology. Prerequisites: PHY 2048, 2049. (F or S)

AST 3722 Observational Astronomy (3). Observational astronomical techniques from radio to x-rays including CCD Imaging, Photometry, and Spectroscopy. Prerequisite: PHY 2049.

AST 3722L Observational Astronomy Laboratory (1). The lab component associated with Observational Astronomy. Covers acquisition, reduction and interpretation of astronomical data using telescopes and computers. Corequisite: AST 3722.

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 3107, PHY 3513, 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 3107, PHY 3513, 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)

ENU 4101 Introduction to Nuclear Reactors (3). An elementary course in nuclear fission reactor theory and power plant operation. An overview of the relevant nuclear processes and their application to reactor design. Prerequisites: PHY 2048, PHY 2049.

MET 2010 Meteorology and Atmospheric Physics (3). Physics of the Earth's atmosphere and weather including energy and heat transfer, radiation, temperature and pressure changes and the development of storms, atmospheric optical effects, and weather forecasting. Prerequisite: High school algebra. (F,S)

MET 2010L Meteorology and Atmospheric Physics Laboratory (1). Practical weather analysis including fronts, local severe weather, hurricanes, also elementary analyses and interpretation of weather maps, satellite imagery, radar data. Corequisite: MET 2010. (F,S)

PHY 1020 Understanding the Physical World (3). A course to introduce non-science majors to the basic principles of the physical world with emphasis on understanding common devices, biological and medical applications, natural phenomena and sports. Prerequisite: one year high school or college algebra. (F,S)

PHY 1020L Understanding the Physical World Laboratory (1). Laboratory section of Understanding the Physical World. (F,S)

PHY 1033 Physics Pathways (1). Introduces activities, members, research and facilities of the Physics Department, curriculum choices, and physics career options to freshman through group discussions and faculty seminars. Repeatable for credit.

PHY 1037 Quarks, Superstrings, and Black Holes (3). Introduction to physics in the modern era for nonscientists. Topics include quantum mechanics, relativity, fundamental forces, and unification theory.

PHY 1037L Quarks, Superstrings, and Black Holes Laboratory (1). Laboratory to accompany Quarks, Superstrings, and Black Holes.

PHY 2023 Survey of General Physics (3). Units, quantities, Newton's laws, work, momentum, fluids, heat, gas laws, waves, charge and current, electric fields, circuits, light, atomic and nuclear physics. Prerequisites: Algebra, trigonometry (high school). (F,S,SS)

PHY 2048 Physics with Calculus I (4). First in physics with calculus sequence. Covers kinematics, Newton's Laws, conservations laws, gravitation, fluids, sound, and thermodynamics. PHZ 2102 strongly recommended for problem solving skills. Calculus I (MAC 2311 or equivalent) should be taken prior to or concurrent with this course. Prerequisite or Corequisite: MAC 2311 or equivalent.

PHY 2048L General Physics Laboratory I (1). Laboratory sections of PHY 2048, PHY 2049, PHY 2053, PHY 2054. Prerequisites or Corequisites: PHY 2048, PHY 2049, PHY 2053, PHY 2054. (Lab fees assessed) (F,S,SS)

PHY 2049 Physics with Calculus II (4). Second in basic physics with calculus sequence. Covers electricity and magnetism, field theory, geometrical and wave optics. PHZ 2103 strongly recommended for problem solving skills. Calculus II (MAC 2312 or equivalent) should be taken prior to or concurrent with this course. Prerequisites: PHY 2048. Prerequisite or Corequisite: MAC 2312. (F,S,SS)

PHY 2049L General Physics Laboratory II (1).). Laboratory sections of PHY 2048, PHY 2049, PHY 2053, PHY 2054. Prerequisites or Corequisites: PHY 2048, PHY 2049, PHY 2053, PHY 2054. (Lab fees assessed) (F,S,SS)

PHY 2053 Physics without Calculus I (4). First in physics without calculus sequence. Covers kinematics, Newtonian mechanics, properties of fluids, thermodynamics, and wave motion. PHY 2065 strongly recommended for problem solving skill. Trigonometry (MAC 1114 or equivalent) should be taken prior to or concurrently with this course.

PHY 2054 Physics without Calculus II (4). Second in basic physics without calculus sequence. Covers electricity and magnetism, geometrical and wave optics and the structure of matter. PHY 2166 strongly recommended for problem solving skills. Prerequisite: PHY 2053. (F,S,SS)

PHY 2065 Problem Solving in Physics without Calculus I (1). Supplemental course for Physics 2053 that teaches problem solving skills and reinforces concepts learned in the lecture. Corequisite: PHY 2053.

PHY 2166 Problem Solving in Physics without Calculus II (1). Supplemental course for Physics 2054 that teaches problem solving skills and reinforces concepts learned in the lecture. Corequisite: PHY 2054.

PHY 3012 Seminar in Physics Education (1). Physics education theory, pedagogy, and practice for those considering physics education careers. Covers conceptual development, collaborative learning, and assessment in multiple physics topics.

PHY 3018 Research Methods in Physics (3). Experimental development and design for future physics teachers. Four independent physics experiments are designed, conducted and analyzed. Includes statistical analysis techniques. Prerequisite: SMT 2662.

PHY 3106 Modern Physics (3). Development of modern physics. Topics include: special relativity, wave-particle duality, origins of quantum mechanics, and the Schrodinger wave equation. Prerequisites: PHY 2049 (F)

PHY 3106L Modern Physics Laboratory I (1). Laboratory courses to accompany Modern Physics I consisting of experiments in atomic and nuclear physics. Pre- or Corequisites: PHY 3106. (F)

PHY 3107 Advanced Modern Physics (3). Applications of Modern Physics. Topics include: the hydrogen atom, atomic physics, molecular physics, nuclear structure, nuclear instrumentation, and elementary particle physics. Prerequisite: PHY 3106. (S)

PHY 3107L Modern Physics Laboratory II (1). Laboratory courses to accompany Modern Physics II consisting of experiments in atomic and nuclear physics. Pre- or Corequisites: PHY 3107. (S)

PHY 3272 Physics of Space Flight (3). Basic physics is used to describe the motions of space craft, with a discussion of various types of propulsion systems, including chemical methods, nuclear systems, electric and photon propulsion. Prerequisite: PHY 2049.

PHY 3424 Optics (3). General formulation of geometrical optics including matrix techniques, interference phenomena, and the theory of Fraunhofer and Fresnel diffraction are among the topics covered. Prerequisites: PHY 2049.

PHY 3465 Physics of Music (3). Provides an understanding of the physics behind sound, sound reproduction and electronics that are necessary for musicians to understand to take full advantage of modern electronic and musical equipment.

PHY 3513 Thermodynamics (3). Fundamental principles of thermodynamics, the first, second, and third laws, free energy, entropy, the chemical potential, phase rule and its applications. Prerequisites: PHY 2049, MAC 2313. Corequisite: MAC 2313. (F)

PHY 3722 Electronics (3). Solid state theory and the theory of circuits, circuit operation and design in lecture and laboratory sessions. Prerequisites: PHY 2048, PHY 2049.

PHY 3802L Intermediate Physics Lab (3). Experiments covering physics topics from the 20th century are performed, analyzed, and discussed. An introduction to modern physics equipment, and techniques of data reduction and error analysis. Corequisite: PHY 3106.

PHY 3949, PHY 4949 Cooperative Education in Physics (1-3). One semester of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student. (F,S,SS)

PHY 4134 Widely Applied Physics I (3). Applications of Physics principles to a diverse set of phenomena. Topics include material science, computers and electronics, nuclear physics and energy, astrophysics, aeronautics and space flight, communication technology, and medical physics and imaging. Prerequisite: PHY 3106.

PHY 4135 Widely Applied Physics II (3). Second of a two-course sequence. Will investigate materials science, nanotechnology, computers and electronics, nuclear physics and energy, astrophysics, aeronautics and space flight, communications technology, meteorology, and medical physics and imaging. Course will focus on Chaos, Optical and Wireless Communications, High Temperature Superconductors. Prerequisite: PHY 3106.

PHY 4221 Introduction to Classical Mechanics (4). An introduction to classical mechanics. Topics include: Newton's laws, particle dynamics, central forces, oscillatory motion, Lagrangian and Hamiltonian mechanics, system and rigid body dynamics. Prerequisites: PHY 2049, MAC 2313. (F)

PHY 4222 Advanced Classical Mechanics (3). Lagrangian and Hamiltonian mechanics, rigid body dynamics, coupled oscillators and normal modes, nonlinear dynamics and chaos, collision theory, continuum mechanics, and special relativity. Prerequisite: PHY 4221. (S)

PHY 4323 Intermediate Electromagnetism I (3). The theory of electromagnetic fields and waves is developed from basic principles. Vector calculus, Coulomb's law, Gauss's Law, electrostatic potential, dielectrics, solutions to Laplace's and Poisson's equations, magnetic induction, vector potential, magnetic materials, Maxwell's equations, and propagation of waves in space and various media are discussed. Prerequisites: PHY 2049, MAC 2313. Prerequisite or Corequisite: MAP 2302. (F)

PHY 4324 Intermediate Electromagnetism II (3). The theory of electromagnetic fields and waves is developed from basic principles. Vector calculus, Coulomb's law, Gauss's Law, electrostatic potential, dielectrics, solutions to Laplace's and Poisson's equations, magnetic induction, vector potential, magnetic materials, Maxwell's equations, and propagation of waves in space and various media are discussed. Prerequisite: PHY 4323. (S)

PHY 4513 Statistical Thermodynamics (3). Review of the fundamental laws of thermodynamics applied to simple systems. Elementary kinetic theory of gases applied to diffusion, viscosity, thermal and electrical conductivity. Boltzmann, Fermi-Dirac and Bose-Einstein distribution functions applied in the Boltzmann limit to the calculation of thermodynamic variables. Prerequisites: MAC 2313, PHY 2048, PHY 2049.

PHY 4604 Quantum Mechanics I (3). A comprehensive introduction to quantum mechanics. Wave mechanics applied to standard one dimensional problems and the hydrogen atom. Prerequisites: MAP 2302, PHY 3106 and PHY 3107. (F)

PHY 4605 Quantum Mechanics II (3). General matrix formalism, angular momentum, symmetries, perturbation theory and variational methods, an introduction to relativistic theory and theory of fields. Prerequisite: PHY 4604. (S)

PHY 4752C Introduction to Scientific Instrumentation (3). The student learns to set up and operate such standard pieces of laboratory apparatus as bridges, amplifiers, oscilloscopes, frequency counters, flowmeters, and thermocouple circuits utilizing chart recorders. A background in general physics is required.

PHY 4821L Advanced Physics Lab (3). Advanced laboratory topics are treated. Modern physics laboratory equipment is used and the student is introduced to current laboratory practice. Prerequisites: MAC 2313, PHY 3802L. (S)

PHY 4905, PHY 4906, PHY 4907 Independent Study (1-20). The student works under the supervision of a faculty member on subject matter of mutual interest. Instructor's permission is required.

PHY 4936, PHY 4937, PHY 4938 Special Topics (VAR). A study of topics of special physics interest.

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 2313, MAP 2302. (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 5141 Intermediate Modern Physics I (3). Prepares advanced undergraduate and beginning graduate students to start research in atomic, molecular, or optical physics. Topics may be adapted to students' research interests. Prerequisite: Permission of the instructor.

PHY 5142 Intermediate Modern Physics II (3). Continuation of advanced undergraduate and beginning graduate student research preparation in atomic, molecular, optical or nuclear physics. Topics may be adapted to students' research interests. Prerequisite: PHY 5141.

PHY 5156C Physics Modeling II (4). Expanding the modeling guided-inquiry approach in Physics Modeling I to topics beyond mechanics such as electricity, magnetism, light, or modern physics. May be repeated for credit. Prerequisites: PHZ 5155C and permission of the instructor.

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 electromagnetism: Electrostatics, Green's function, Laplace's equation, multipole expansion, magnetostatics, 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 5466 The Physics of Music (3). Provides music technology majors a physical understanding of sound, sound generation and reproduction. Concentrates mainly on physical principles and less on calculation. Prerequisite: Permission of the instructor.

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. Prerequisite: PHY 4605.

PHY 5930 Seminar in Physics (1-3). A series of specialized lectures/seminars on selected topics in Physics/Astro-Physics. Prerequisite: Permission of the 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)

PHZ 2102 Problem Solving in Physics I (1). Supplemental course for Physics 2048 that teaches problem solving skills and reinforces concepts learned in the lecture. Corequisite: PHY 2048.

PHZ 2103 Problem Solving in Physics II (1). Supplemental course for Physics 2049 that teaches problem solving skills and reinforces concepts learned in the lecture. Corequisite: PHY 2049.

PHZ 3113 Methods in Theoretical Physics (3). Methods in theoretical physics and theoretical applications in physics. Includes analytic and numerical methods for differential equations, integral equations and transformations and other applications of real analysis. Prerequisite: MAC 2313.

PHZ 3308 Applications of Nuclear Physics (3). An introduction to nuclear structure, radioactivity, nuclear reactions, radiation detection, interactions of radiation with matter, biological effects, and the application of nuclear physics. Prerequisite: PHY 3106.

PHZ 3360 Introduction to Radiation Protection (1). An introduction to the principles of radiation protection. Topics include time, distance, and shielding, activity, radioactive decay, nuclear instrumentation, and the measurement of radiation. Prerequisite: PHY 2049.

PHZ 3361 Radiation Detection and Measurement (3). Interaction of radiation with matter, radiation detectors, gamma spectroscopy, pulse processing, counting statistics, radiation shielding. Prerequisites: PHY 3106 or CHM 3411.

PHZ 3422 Nanoscience and Nanotechnology (3). Introduction to the emerging nanoscience and nanotechnology, physical/chemical understanding of nanomaterials and nanostructures, basic skills and techniques for nanofabrication and characterization. Prerequisite: PHY 2049.

PHZ 4390 Nuclear and Particle Physics (3). Basics of Nuclear and Particle Physics, Nuclear forces, quarkgluon structure of hadrons, deep-inelastic scattering, qcd, nuclear and particle astrophysics, formation of quark-gluon plasma. Prerequisite: PHY 4604.

PHZ 4404 Introduction to Solid State Physics (3). Covers crystal structure, thermal properties, and survey of recent development in condensed matter physics. For upper division physics or engineering majors. Prerequisite: PHY 2049.

PHZ 4710 Introduction to Biophysics (3). Physical investigation of biological molecules with special reference to structure and function of protein, biomembranes and visual receptors. Prerequisites: PHY 3106, PHY 2049, or CHM 3411.

PHZ 4731 Introduction to Health Physics (3). An introduction to health physics. Topics include the biological effects of radiation exposure, environmental and personnel monitoring, dosimetry and dose calculations, and governmental regulations. Prerequisite: PHZ 3361.

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. Prerequisites: Undergraduate statistics course or equivalent, or permission of the instructor.

PHZ 5155C Physics Modeling I (4). An inquiry physics-teaching approach incorporating physics education research. Emphasis on basics models in mechanics, scientific discourse, and student learning assessment. May be repeated for credit. Prerequisite: Permission of the instructor.

PHZ 5156 Computational Physics I (3). Physical systems by means of computer simulation. Monte Carlo, molecular dynamics, percolation, random systems, chaos, criticality, gauge fields. Prerequisites: PHY 5115 and PHY 5116.

PHZ 5157C Computational Physics II (3). Advanced computer simulation methods of physical systems. Application in chaos, nonlinear and random systems, criticality, field theory and practices. Prerequisite: PHZ 5156. Corequisites: 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). Fundamental properties of nuclei, nuclear forces, nuclear models, radioactivity, weak processes and nuclear reactions. Prerequisite: PHY 4604. Corequisite: PHY 4605. (F or S)

PHZ 5340 Particle Interactions and Detection (3). Subatomic particle detectors and the utilization of physics in practical instrumentation applications in medical physics. The course will include laboratory exercises using various detectors. Prerequisites: PHY 3107 or permission of the instructor.

PHZ 5370 Nanoscience (3). Overview of the nanoscience with emphasis on physical properties, such as electrical, magnetic and optical properties, of nanomaterials. Prerequisites: PHY 3106, PHY 3107.

PHZ 5405 Solid State Physics (3). Crystalline form of solids, lattice dynamics, metals, insulators, semiconductors, crystalline surfaces, and amorphous materials. Prerequisites: PHY 3107 or CHM 3411. (F or S)

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 3513, PHY 4324, and PHY 4222.

PHZ 5506 Plasma Physics (3). An introduction to plasma fundamentals, the Boltzmann equation, the hydro-dynamic equations, orbit theory, the interaction of electromagnetic waves with plasmas, the pinch effect and instabilities. Prerequisite: PHY 2049.

PHZ 5606 Special Relativity (3). A detailed study of special relativity: Lorentz transformations, relativistic electrodynamics. Prerequisite: PHY 3107.

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. Prerequisites: PHY 4222 and PHY 4605.

PHZ 5705 Biomedical Physics (3). Physics principles applied to biology and medicine; transport through cell membranes, biochemical signaling, thermodynamics, neurons, biomechanics, biofluid flow, bioelectrical signals. Prerequisite: PHY 3107.

PHZ 5730 Biophysical Effects of Radiation (3). Biological effects resulting from interactions of radiation and matter for scientifically, technically, and medically oriented students. Prerequisite: PHY 3107.

PHZ 5732 Clinical and Medical Dosimetry (3). Practical patient dosimetry problems in radiation oncology. Irregular field calculations, two-and three-dimensional treatment planning, isodose distribution, dose rate brachytherapy planning. Prerequisite: PHY 3107.

PHZ 5734 Nuclear Medicine Physics (3). The nuclear physics principles of diagnostic and therapeutic applications of radionuclides, radiation beams, with lab activities in facility design, instrumentation essentials, quality assurance. Prerequisite: PHY 3107.

PHZ 5736 Therapeutic Radiological Physics (3). Production, application, and measurement of electromagnetic radiation and particle beams in therapeutic practice. Conceptual, instrumental, and methodological aspects of therapeutic radiology. Prerequisite: PHY 3107.

PHZ 5945 Clinical Experience in Medical Physics (3). Arranged through the Physics Department at local institutions e.g. hospitals, treatment centers, etc., this course places students in clinical medical physics facilities. Prerequisite: PHY 3107.

PSC 3941 Florida Consortium Physical Science Capstone Research Internship (3). Collaborative extramural research course for junior and senior physical science majors. Students are expected to perform research with National Labs, local industry, and partner members of the Florida Consortium. Prerequisites: By permission of the instructor.

PSC 4813 Modeling Instruction (3). Inquiry physics instruction approach incorporating physics education research. Includes basic models in mechanics, scientific discourse, and assessment. Includes use of technology in content delivery. Prerequisite: PHY 3012.

PSC 4814 Advanced Modeling Instruction (3). Extends modeling guided inquiry approach to topics including electricity and magnetism, light, and/or modern physics. Includes use of technology in content delivery. May be repeated for credit. Prerequisite: PSC 4813.

Psychology

Jeremy Pettit, *Professor and Chair*
Carla Abad, *Instructor*
Leila Allen, *Instructor*
Timothy Allen, *Assistant Professor*
Lisa Arango, *University Instructor*
Daniel Bagner, *Professor*
Lorraine Bahrick, *Professor*
Marie Barnes, *Instructor*
Leonard Bickman, *Research Professor*
Valentina Bruk-Lee, *Associate Professor*
Steve Charman, *Associate Professor*
Maricel Cigales, *Senior Instructor and Associate Dean, College of Arts, Sciences and Education*
Erika Coles, *Clinical Associate Professor*
Jonathan Comer, *Professor*
Stefany Coxe, *Associate Professor*
Anthony Dick, *Associate Professor*
Marvin Dunn, *Professor Emeritus*
Asia Eaton, *Assistant Professor*
Joan Erber, *Professor Emeritus*
Jacqueline Evans, *Assistant Professor*
Gordon Finley, *Professor Emeritus*
Ronald Fisher, *Professor*
Leslie Frazier, *Associate Professor and Director of Graduate Studies*
Stacy Frazier, *Professor*
Jami Furr, *Clinical Assistant Professor*
Arlene Garcia, *Instructor*
Jacob Gewirtz, *Professor Emeritus*
Deborah Goldfarb, *Assistant Professor*
Raul Gonzalez, *Professor*
Paulo Graziano, *Associate Professor*
Katie Hart, *Assistant Professor*
Samuel Hawes, *Research Assistant Professor*
Timothy Hayes, *Assistant Professor*
William Kurtines, *Professor Emeritus*
Mary Levitt, *Professor Emeritus*
Lu Liang, *Instructor*
Robert Lickliter, *Professor*
Aaron Mattfeld, *Assistant Professor*
Dana McMakin, *Associate Professor*
Erica Musser, *Assistant Professor*
Eliza Nelson, *Assistant Professor*
Mei Yi Ng, *Assistant Professor*
Kristin Nichols-Lopez, *Senior Instructor, Associate Chair*
Justin Parent, Assistant Professor
Janat Parker, *Professor Emeritus*
Julia Parker, Instructor
William Pelham, Jr., *Distinguished Professor and Director, Center for Children and Families*
Shannon Pruden, *Associate Professor*
Joseph Raiker, *Assistant Professor*
Angela Reaves, *Instructor*
Bethany Reeb-Sutherland, *Assistant Professor*
Maria Reid, *Instructor*
Rachel Ritchie, *Instructor and Director of Undergraduate Studies*
Suzanna Rose, *Professor and Associate Provost*
Bennett Schwartz, *Professor*
Nicole Schatz, *Research Assistant Professor*
Nadja Schreiber Compo, *Associate Professor*
Maria Shpurik, *Senior Lecturer*
Fabian Soto, *Assistant Professor*
Dionne Stephens, *Associate Professor*
Matthew Sutherland, *Assistant Professor*
Paige Telan, *Senior Instructor*
Adela Timmons, *Assistant Professor*
Elisa Trucco, *Assistant Professor*
Matthew Valente, *Assistant Professor*
Chockalingam Viswesvaran, *Professor*
Ryan Winter, *Senior Instructor*
Chit Yuen Yi, *Instructor*

Bachelor of Arts

Degree Program Hours: 120

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
BSC 2023	BSC X0XX or BSC X20X or ZOO X010
PSY 2012	PSYX012
DEP 2000 or DEP 2001 or CLP 2001 or INP 3004 or SOP 2772 or PSB 2071	PSYXXXX[1]
STA 2122 or STA 3111	STAX0XX

[1]Or any other lower level Psychology class within the Psychology Inventory (i.e., CLP, DEP, EAB, EXP, INP, PCO, PPE, and PSB prefixes)

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

BSC X0XX or BSC X20X or ZOO X010
Recommended FIU course:
BSC 2023 Human Biology

PSY X012
Recommended FIU course:
PSY 2012 Introduction to Psychology

PSY XXXX (Or any other lower level Psychology class within the Psychology Inventory (i.e., CLP, DEP, EAB, EXP, INO, PCO, PPE, and PSB prefixes).
Recommended FIU course:
DEP 2000 Human Growth and Development
or
DEP 2001 Psychology of Infancy and Childhood
or
CLP 2001 Personal Adjustment
or
INP 3004 Introductory Industrial/Organizational Psychology
or
SOP 2772 Psychology of Sexual Behavior

or
PSB 2071 Cognitive Neuroscience in the Media and Pop Culture

STA XXXX
Recommended FIU course:
STA 2122 Statistics for Behavioral and Social Sciences I
or
STA 3111 Statistics I

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Upper Division Program

Coursework for the Major: 36 credit hours are required (grade of "C" or better required). Students must complete the Research Sequence (10 credits), fulfill the Area Requirements (15 credits), and the Psychology Elective Requirements (9 credits) and successfully complete the Careers in Psychology Course (2 credits)

1. Research Sequence: (10 credit hours total). Students must take these three courses in the following order.

A. PSY 3211 Research Methods and Data Analysis in Psychology I (3 credits) (Prerequisite: STA 2122)
B. PSY 3215 Research Methods and Data Analysis in Psychology II (4 credits) (Prerequisites: Research Methods and Data Analysis in Psychology I)
C. PSY 4931 Senior Seminar in Psychology (3 credits) (Prerequisites: Research Methods in Psychology II or Research Methods in Psychology)

Note: Because the three courses in this component of the program must be taken in sequence, it is recommended that the first course should be taken no later than the first semester of the sophomore year.

2. Area Requirement Courses: (15 semester hours) Students are required to take one course from each area.

Area A: Cognitive/Neuroscience

EXP 3523	Memory and Memory Improvement
EXP 4204	Sensation and Perception
EXP 4604	Cognitive Processes
PSB 4002	Introductory Bio-Psychology
PSB 4240	Neuropsychology
PSB 4250	Animal Cognition

Area B: Social

SOP 3004	Introductory Social Psychology
SOP 3015	Social and Personality Development
SOP 3742	Psychology of Women
SOP 4414	Attitudes and Social Behavior
SOP 4731	Global Psychology: Cross Cultural Perspectives on Psychological Research and Theories – *GL*

Area C: Applied

CYP 3003	Introduction to Community Psychology
EAB 3002	Introduction to the Experimental Analysis of Behavior
EAB 4794	Principles and Theories of Behavior Modification
INP 4203	Personnel Psychology
INP 4313	Organizational Psychology
PSY 4302	Psychological Testing
SOP 4842	Legal Psychology

Area D: Clinical/Personality

CLP 4134	Childhood Psychopathology
CLP 4146	Psychopathology
CLP 4314	Psychology of Health and Illness – *GL*
CLP 4374	Psychotherapy
EAB 3764	The Application of Behavior Analysis to Child Behavior Problems
PPE 3003	Theories of Personality

Area E: Developmental

DEP 3115	Development in Infancy: The Basis of Human Knowledge
DEP 3305	Psychology of Adolescence
DEP 3404	Psychology of Adulthood
DEP 4164	Children's Learning
DEP 4464	Psychology of Aging

3. Psychology Elective Requirements: (9 credit hours) Any psychology course taken for a letter grade can be used to fulfill the requirement for electives. These courses must be upper level (3000 or 4000) courses. Students must have at least 36 credits hours in total of upper division hours for the psychology major. Students may, with the permission of the instructor, enroll in PSY 4916 Independent Research in Psychology, or PSY 4914 Honors Research Project, or PSY 4941 Experiential Learning/Internship in Psychology, or PSY 4XXX Research Internship in Psychological Science which are given pass/fail grades. A maximum of 6 credits of PSY 4916, PSY 4914, PSY 4941, and /or PSY 4XXX PSY can be used to satisfy Psychology Elective Requirements.

4. Careers Course Requirement: Students are required to take PSY 3024: Psychology Career Development.

5. General Electives: The College of Arts, Sciences and Education requires that, in the last 60 semester hours of enrollment, students must earn at least nine semester hours through coursework outside the major department. These courses can be either lower division or upper division courses.

Students may, with the permission of the instructor, take PSY 4900 and PSY 4914, which are given Pass/Fail grades. These courses cannot count in the category of Psychology Elective Requirements, but they can be used as additional credit towards graduation.

Please Note: (1) Students are strongly urged to contact their academic advisor in the Psychology Department for advisement in curriculum planning; (2) Psychology majors are allowed to transfer a maximum of eighteen semester hours in upper division psychology courses. Course substitutions may be approved by the Director of Undergraduate Studies.

Bachelor's Degree with Honors

Application must be made, and departmental approval granted, to undertake an independent project which must be approved by and carried out under the supervision of a full-time faculty member of the Department. Upon completion of an independent project, a satisfactory oral defense of the work must be presented to a Department committee, of at least two members.
Note: The Bachelor's degree offered in this program is a liberal arts degree and not a professional degree. While it is possible to concentrate courses in one's area of interest, it is not possible at the present time to obtain a 'professional specialization' at the undergraduate level in psychology.

B.A. in Psychology, Industrial-Organizational Psychology Track

This track is for students interested in applying the principles of psychology to workplace issues. Students completing this track will be able to work with organizations in designing selection systems, validating performance assessment systems and developing/delivering training programs. They will also be able to work with consulting companies that design and market selection and training programs. Students will also be competent for managing (1) leadership development programs, (2) talent management, especially High Potential (HIPO) programs and (3) occupational health and safety initiatives.

Degree Program Hours: 120

Degree Requirements:
1. Have 60 semester hours and have completed the University Core/General Education Requirements or have an A.A. degree from a FL public institution.
2. Must meet the Lower Division preparation Common Prerequisites courses and equivalencies listed for the B.A. Degree requirements
3. Must complete the Research Sequence (10 credits), fulfill the Area Requirements (15 credits), and the Psychology Elective Requirements (9 credits) and successfully complete the Careers in Psychology Course (2 credits).
4. Must meet the Psychology and General electives Requirements

Upper Division credits: 60

Area Requirement Courses: (15 semester hours) Students are required to take one course from each area.

Area A: Cognitive/Neuroscience

EXP 3523	Memory and Memory Improvement
EXP 4204	Sensation and Perception
EXP 4604	Cognitive Processes
PSB 4002	Introductory Bio-Psychology
PSB 4240	Neuropsychology
PSB 4250	Animal Cognition
SOP 3004	Introductory Social Psychology
SOP 3015	Social and Personality Development
SOP 3742	Psychology of Women
SOP 4414	Attitudes and Social Behavior
SOP 4731	Global Psychology: Cross Cultural Perspectives on Psychological Research and Theories – *GL*

Area B: Social

SOP 3004	Introductory Social Psychology
SOP 3015	Social and Personality Development
SOP 3742	Psychology of Women
SOP 4414	Attitudes and Social Behavior
SOP 4731	Global Psychology: Cross Cultural Perspectives on Psychological Research and Theories – *GL*

Area C: Applied

CYP 3003	Introduction to Community Psychology
EAB 3002	Introduction to the Experimental Analysis of Behavior
EAB 4794	Principles and Theories of Behavior Modification
INP 4203	Personnel Psychology
INP 4313	Organizational Psychology
PSY 4302	Psychological Testing
SOP 4842	Legal Psychology

Area D: Clinical/Personality

CLP 4134	Childhood Psychopathology
CLP 4146	Psychopathology
CLP 4314	Psychology of Health and Illness – *GL*
CLP 4374	Psychotherapy
EAB 3764	The Application of Behavior Analysis to Child Behavior Problems
PPE 3003	Theories of Personality

Area E: Developmental

DEP 3115	Development in Infancy: The Basis of Human Knowledge
DEP 3305	Psychology of Adolescence
DEP 3404	Psychology of Adulthood
DEP 4164	Children's Learning
DEP 4464	Psychology of Aging

Industrial-Organizational Psychology Track

Students interested in graduating with the Industrial Organizational Psychology Track must take:

INP 3004	Introductory Industrial/Organizational Psychology
INP 4203	Personnel Psychology
INP 4313	Organizational Psychology
PSY 4931	Senior Seminar in Industrial/ Organizational Psychology

And
Take one of the following three courses:

PSY 4302	Psychological Testing
INP 4210	Employee Selection: Psychometrics and Assessments
SOP 4745	Women and Leadership

Minor in Psychology

A Minor in Psychology requires 15 upper division semester hours of approved psychology credits. Students seeking the minor must meet with a psychology faculty member for advisement and should file with the Psychology Department a written notice of intention to minor in psychology. A grade of 'C' or higher is required in all courses counted toward the minor.

BA Psychology/ Public Health Policy MPH

The BA/MPH program is designed for outstanding undergraduate students. It provides a strong base of knowledge and skills in psychology, and at the same time accelerates completion of the Master of Public Health degree. Students may take advantage of the overlap of courses in the BA and MPH programs to receive their MPH degrees in a shorter period than it would otherwise be possible.

Admission Requirements
To apply, their GPA needs to be significantly above average (3.25). Students would also be required to maintain a high GPA (3.0) to remain in the program. The grade requirements for an MPH in Health Policy and Management would apply to courses that are counted toward the MPH degree.
• Current enrollment in the Bachelor's degree program in psychology at FIU.
• Current GPA of 3.25 or higher.
• Three letters of recommendation.
• Approval of the Health Policy and Management admissions committee.
• Official GRE scores.

General Requirements
Meet the requirements of both the BA in Psychology and the MPH in Health Policy and Management.
Four courses (12 credits) will be used to satisfy both the Bachelor's in Psychology and the MPH degree requirements. Students will take the following MPH courses as electives during their final year in the BA program:

PHC 6000	Epidemiology I: Introduction to Public Health Epidemiology	3
PHC 6065	Public Health Statistics	3
PHC 6102	Introduction to Public Health Policy and Management	3
PHC 6410	Health Behavior and Public Health	3

Course Descriptions

Definition of Prefixes

CBH-Comparative Psychology and Animal Behavior; CLP-Clinical Psychology; CYP-Community Psychology; DEP-Developmental Psychology; EAB- Experimental Analysis of Behavior; EXP-Experimental Psychology; INP-Industrial and Applied Psychology; LIN- Linguistics; PCO-Psychology for Counseling; PPE-Psychology of Personality; PSB-Psychobiology; PSY-Psychology; SOP-Social Psychology
Courses that meet the University's Global Learning equirement are identified as GL.

CBH 5256 Animal Cognition (3). Survey of comparative cognition between humans and other animals. Major topics include perception, attention, learning, memory, reasoning, tool use, and language. Prerequisites: Graduate standing or permission of the instructor.

CLP 2001 Personal Adjustment (3). Study of personal adjustment in the social and occupational life of the individual. Emphasis on interpersonal aspects of effective behavior.

CLP 4134 Childhood Psychopathology (3). Various forms of abnormal behavior in infancy, childhood, and adolescence are examined within the context of traditional and contemporary psychological theory. Problems of differential diagnosis and forms of remediation are discussed.

CLP 4146 Psychopathology (3). Various forms of behavior pathology are examined in the light of traditional and current concepts of mental health and illness. Problems of diagnosis and treatment are discussed. The role of social mores is examined.

CLP 4314 Psychology of Health and Illness – *GL* (3). Course provides an overview of the field of health psychology and behavioral medicine with an emphasis on psychological, social, cultural, and global factors affecting health and health care/policy. Prerequisite: PSY 2012.

CLP 4374 Psychotherapy (3). Current approaches to the treatment and improvement of psychological disorders are critically surveyed. Emphasis is placed on the examination of the various techniques of psychotherapy and behavior therapy. Broader strategies of prevention and mental health promotion like consultation, counseling, and programmed agency services are also studied.

CLP 4444 Personality Disorders (3). Studies personality disorders according to current concepts of mental health and illness. Emphasis given to current theoretical and diagnostic categories.

CLP 5007 Psychological Clinical Science I: Historical Perspectives and Current Controversies (3). This course overviews clinical child psychology, including (a) history and philosophy of psychological clinical science and (b) challenges and controversies related to bridging science and service. Prerequisite: Graduate standing.

CLP 5165 Psychopathology (3). This course will provide a comprehensive introduction to the literature on psychopathology with a focus on understanding its relationship to other areas of psychology. Prerequisite: Graduate standing.

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 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. Prerequisites: Abnormal Psychology or permission of the instructor.

CLP 5483 Psychological Clinical Science II: Ecologies of Development and Theories of Psychopathology (3). This course provides an overview of theories of clinical child psychology, including (a) ecologies of development as related to psychopathology and (b) theories of development psychopathology. Prerequisites: Graduate standing, CLP 5007.

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.

CYP 3003 Introduction to Community Psychology (3). An introduction to the issues and scope of Community Psychology. Students will be exposed to the development of Community Psychology as a growing discipline. Particular emphasis will be placed on the role of the community psychologist as an agent of social change.

CYP 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.

DEP 2000 Human Growth and Development: Introductory Developmental Psychology (3). An introductory study of the development of personality, intelligence, and motivation, from childhood to adulthood. Emphasis is on development of cognitive systems through social learning. The full life span of human growth and development will be considered.

DEP 2001 Psychology of Infancy and Childhood (3). An introduction to human development focusing on infancy and childhood. Particular attention will be devoted to intellectual, personality, and social development. Consideration will be given to both theoretical and empirical perspectives.

DEP 3115 Development in Infancy: The Basis of Human Knowledge (3). Provides a comprehensive review of current methods, theories, and findings in cognitive and perceptual development in the first year of life. Special emphasis on the bases of knowledge; object and event perception, memory, and imitation.

DEP 3305 Psychology of Adolescence (3). An examination of psychological, sociological and biological factors contributing to the changes from childhood to adolescence and from adolescence to young adulthood.

DEP 3404 Psychology of Adulthood (3). The transition from youth to middle age is studied. Focus is on changing roles in family, work, and societal settings, as these factors influence personality and other aspects of psychological function.

DEP 4014 Psychology of Parenting & Parenthood (3). An intensive examination of the reciprocal influences of parents on the development of their children and of children on the adult development of their mothers and fathers.

DEP 4032 Life-Span Cognitive Development (3). Course covers all facets of cognitive growth, change, and decline from infancy through adulthood, and old age. Prerequisites: DEP 2000.

DEP 4044 Psychology of Moral Development (3). A review of psychological theories and research concerning the development of moral attitudes and behavior.

DEP 4116 Current Issues in Cognitive and Perceptual Development in Infancy (3). An advanced undergraduate seminar that provides an in-depth analysis of current issues, methods, research, and theory of cognitive, perceptional, and social development during the first year of life. May be repeated. Prerequisites: DEP XXXX, PSY 3213.

DEP 4164 Children's Learning (3). Learning in infancy and childhood, with particular emphasis on simple conditioning, discrimination shifts, mediation, transposition, observational, and concept learning. Prerequisite: Students enrolling in this course should have completed successfully at least one prior course in developmental psychology.

DEP 4182 Socio-emotional Development (3). A survey of facts and theories of human social emotional development and social learning in the early years of life.

DEP 4321 Development of Sexual Identity: A Life Span Approach (3). Reviews developmental and clinical theory and research on sexual identity across the life span, emphasizing the influence of personal change, close relationships, and community factors. Prerequisite: PSY 2012.

DEP 4324 Psychology of Identity Development (3). An introduction to psychological theory, research, and application in the area of identity development.

DEP 4464 Psychology of Aging (3). An examination of the factors that contribute to the psychological profile characterizing old age. Biological and sociological components are considered, and their impact on perceptual, cognitive, and personality processes is analyzed.

DEP 4937 Integrating Research and Theory in Developmental Science (3). An advanced undergraduate seminar that integrates research in the lab with readings and discussion of current issues, theory, and methods in developmental science. May be repeated.

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 2001 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. Prerequisites: Graduate standing or permission of the instructor. Corequisite: Proseminar courses.

DEP 5065 Cognitive Development (3). An overview of cognitive development, with a focus on the theories, experimental evidence, and milestones in cognitive development. Topics include the development of attention, perception, memory, problem solving, categorization, concepts, language, reasoning, theory of mind, metacognition, and executive function. Prerequisites: Graduate standing or permission of the instructor.

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. Prerequisites: Graduate standing or permission of the instructor.

DEP 5099 Pro-seminar in Infancy, Childhood, and Adolescence (3). Provides a comprehensive review of issues in perceptual, cognitive, social, emotional, and personality development from infancy through adolescence. Prerequisites: 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 & Its Reversal (3). Theoretical analysis and methodological issues in the study of emotional learning. Prerequisites: Graduate standing or permission of the instructor.

DEP 5325 Proseminar in Identity Development (3). This class uses foundational identity theories and concepts to understand cross cultural development and psychological outcomes at an advanced level. Prerequisite: Graduate standing.

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 Pro-seminar 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. Prerequisites: 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. Prerequisites: Graduate standing or permission of the instructor.

DEP 5725 Research 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. Corequisites: 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. Prerequisites: Graduate standing or permission of the instructor. Corequisite: pro-seminars.

DEP 5936 Theory and Research Experience in Developmental Science (3). An advanced seminar that integrates research in the lab with readings and discussion of current issues, theory, and methods in developmental science. May be repeated. Prerequisites: Graduate standing and permission of instructor. Corequisites: Independent research in a developmental lab (PSY 5918 or PSY 6971).

EAB 3002 Introduction to the Experimental Analysis of Behavior (3). An introduction to and survey of the principles, methods, theories, and applications of the experimental analysis of behavior. Prerequisites: PSY 2012.

EAB 3764 The Application of Behavior Analysis to Child Behavior Problems (3). The applications of the theories and methods of behavior analysis to various childhood behavior disorders including anxiety and phobia, attention deficit disorders, autism and obesity. Prerequisite: EAB 3002.

EAB 4794 Principles and Theories of Behavior Modification (3). Studies different approaches to the modification of problem behavior, through the application of learning principles and theories. Prerequisite: EAB 3002.

EAB 4798 Single Case Research Methods (3). Intensive study of designs, strategies, and methods of single-case behavioral research. Prerequisite: EAB 3002.

EAB 5098 Pro-seminar 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 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.

EXP 3304 Motivation and Emotion (3). Introduces several perspectives from learning theory, perception, and personality theory to explore ways in which people move through their physical and social environment.

EXP 3523 Memory and Memory Improvement (3). This introduction to human memory considers the topics from a number of points of view. The following issues are addressed: the nature of memory and its phenomena; the capabilities and limitations of an ordinary and an extraordinary memory; and the skills that can aid an ordinary memory.

EXP 4204 Sensation and Perception (3). Basic concepts in sensation and perception are explored, with an emphasis on models of peripheral and central neural processing. Topics such as receptor function, brightness and color vision, movement and object perception, perceptual memory and pattern recognition are considered. Psychophysical techniques, such as subjective magnitude estimation and signal detection theory, are covered. (Lab fees assessed)

EXP 4214C Human Perception: Lecture and Laboratory (5). Lectures concern the methods researchers use to learn about the phenomena of sensation and perception. Laboratory exercises allow students to apply these methods and to experience the perceptual phenomena under investigation.

EXP 4604 Cognitive Processes (3). This course will explore areas of human "mental" behavior. These may include: aspects of memory, metacognition, perception, attention, imagery, problem solving, decision-making, and language.

EXP 5099 Pro-seminar in Experimental Psychology (3). Provides a comprehensive review of current research and theory in areas such as learning, memory, cognition, sensation, and perception. Prerequisites: 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 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 5667 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.

INP 3004 Introductory Industrial/Organizational Psychology (3). Study of psychological principles and theories applied to the workplace. Focus on job analysis, employee selection, performance evaluation, motivation, training, and organizational stress.

INP 4203 Personnel Psychology (3). Techniques and procedures applicable to the selection, placement, utilization, and evaluation of personnel in organizations are considered. The emphasis will be on empirical procedures, rather than the management function in the personnel area. Topics such as quantitative methods and models for selection, criteria analysis, performance appraisal, management training, and job satisfaction are discussed. Prior course in statistics strongly recommended.

INP 4210 Employee Selection: Psychometrics and Assessments (3). A study of valid selection tools that can be used in employee selection. Topics include reliability, validity, and utility of different selection tools, as well as applicant reactions. Prerequisite: STA 3123.

INP 4313 Organizational Psychology (3). Focuses on the “organizational” topics associated with the field of industrial/organizational psychology. Includes, leadership, team effectiveness, work and family issues.

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. Prerequisites: SOP 6098 or equivalent.

INP 6611 Organizational Stress (3). This seminar examines conceptualizations, causes, consequences, and correlates, of stress, strain, and coping in the workshop. Prerequisite: Graduate standing.

LIN 4705 Psychology of Language and Cognition (3). Investigation of the psychological processes underlying language. Attention will be devoted to speech perception, comprehension, written language, and the biological basis of language abilities. Prerequisite: PSY 2012.

LIN 4710 Language Acquisition (3). An examination of the way children acquire language, based on experimental findings from contemporary linguistics, psycholinguistics, and behavioral theory.

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. Prerequisite: Permission of instructor.

PCO 5251 Couples and Family Systems (3). An overview of theory, research, and treatment issues related to couples and family systems. The course covers relevant techniques, training, and professional issues. Prerequisite: Graduate standing.

PCO 5252 Theory and Techniques in Couples and Marital Therapy (3). An overview of the theories and techniques used in couples and marital therapy with an examination of treatment approaches and evidence-based practice. Consideration of clinical issues and problems.

PCO 5253 Theory and Techniques in Family Therapy (3). An examination of the major theories and techniques used in family therapy with an in-depth exploration of the skills and strategies used for treating clinical issues from multiples perspectives.

PCO 5311 Theory, Treatment, and Research of Addictive Behavior (3). An overview of theory, treatment, and research findings pertaining to the process and development of addictive behavior. This course covers treatment issues related to substance abuse disorders. Prerequisite: Graduate standing.

PCO 5750 Contemporary Issues in Family Life and Process (3). An examination of selected issues that are faced during the development and life cycle of the family. Family intergenerational history and sociocultural factors will be explored.

PHI 4543 Metaphysics through Science Fiction (3). Examines metaphysical puzzles and paradoxes as explored in the thought experiments posed by science fiction. Topics may include: personal identity, the problem of other minds, time travel etc.

PPE 3003 Theories of Personality (3). An examination of various theories of personality. Consideration is given to traditional and contemporary approaches to personality development.

PPE 3502 Psychology of Consciousness (3). Normal and altered states of human consciousness are analyzed from the perceptual and neuro-psychological viewpoint. Broad topic areas include physiologically determined levels of arousal, from deep sleep to intense excitement; selective attention; perceptual plasticity; illusions; sensory deprivation; biofeedback; psychosomatic disease; hypnotism and suggestibility; as well as a critical treatment of the phenomena of parapsychology.

PPE 4514 Psychology of Dreams and Dreaming (3). An in-depth examination of the most important psychological theories of dream function and of the use of dreams in different therapeutic approaches. The current research on the physiology and psychology of sleep is also evaluated. Prerequisites: Theories of Personality or its equivalent. PPE 4930 Topics in Personality (VAR). Special topics will be announced in advance.

PSB 2071 Cognitive Neuroscience in the Media and Pop Culture (3). Introduce broad topics in cognitive neuroscience and how the field is reflected in the media and pop culture. Critically review how the media and pop culture represent research on the brain.

PSB 4002 Introductory Bio-Psychology (3). A study of the more important psychobiologic correlates of behavior in basic psychological phenomena.

PSB 4240 Neuropsychology (3). The relation of brain to cognition and behavior. An introduction to the study of the effects of brain damage on psychological processes.

PSB 4250 Animal Cognition (3). Issues and concepts relating to the evaluation of cognitive abilities in animals. Examines theoretical, methodological and philosophical issues and problems in the study of animal cognition.

PSB 4800 NEUROBIOLOGY OF LEARNING AND MEMORY (3). Explores behavioral/brain mechanisms of learned behavior including non-associative/category learning, Pavlovian/instrumental conditioning, generalization, declarative memory & executive functioning.

PSB 5115 Introduction to Psychophysiology: Basics of Electroencephalography and Event-Related Potentials (3). This course introduces students to the concepts, theory, and methods of human psychophysiology with a specific focus on electroencephalography (EEG) and event-related potentials (ERPs). Prerequisite: Permission of the instructor.

PSB 5247 Neurobiology of Learning and Memory (3). Seminar focusing on the themes and questions of how the brain supports learning and memory.

PSY 2012 Introductory Psychology (3). Psychological principles underlying the basic processes of sensation, perception, cognition, learning, memory, life-span developmental, social behavior, personality, abnormal behavior, and psychotherapy.

PSY 2930 Introductory Special Topics in Psychology (3). Designed to give students an opportunity to pursue special studies in aspects of psychology at the introductory level not otherwise offered. Topics will be announced in advance.

PSY 3024 Psychology Career Development (2). Students develop attainable career goals and plans by implementing psychological knowledge, skills, and values in occupational pursuits in a variety of settings to meet personal and societal needs. Prerequisite: PSY 2012.

PSY 3211 Research Methods and Data Analysis in Psychology I (3). Basic research methods/data analysis techniques in psychology. Emphasis on the scientific method, qualitative, basic correlational, and experimental research along with associated analytic techniques. Prerequisites: STA2122, STA2023 or STA3111 or equivalent

PSY 3213 Research Methods in Psychology (4). Basic methods in contemporary psychology. Emphasis on the role of methodology and experimentation in subfields of psychology. Students evaluate different designs and conduct original research projects. Prerequisites: Junior standing, STA 3112 or STA 3123. (Lab fees assessed)

PSY 3215 Research Methods and Data Analysis in Psychology II (4). Advanced research methods/data analysis techniques in psychology. Emphasis on scientific writing/APA style, traditional/quasi-experimental design and analytic techniques conducted using SPSS. Prerequisites: PSY 3211.

PSY 4302 Psychological Testing (3). An introduction to the rationale underlying the use of psychological tests. Topics include basic test terminology, test administration, interpreting standard scores, reliability, validity, tests of intelligence, interest inventories, personality tests, the ethics of testing, and the fairness of tests for different segments of the population. Prerequisites: PSY 3211

PSY 4801 Metatheory in Psychology (3). Issues related to the meta-theoretical foundation of psychology, and history and systems of psychology.

PSY 4900 Independent Readings in Psychology (VAR). Limited to qualified students who have permission from a faculty member and who present a plan of study including area and objectives. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their study. Offered for Pass/Fail only. Prerequisite: Permission of instructor.

PSY 4914 Honors Research Project (VAR). Limited to qualified seniors seeking honors in psychology. Students must submit a research plan and have a research advisor's approval of the research project prior to enrollment in the course. A written report of the research in the A.P.A. publication style must be submitted for evaluation before credit will be awarded. Offered for Pass/Fail only. Prerequisite: Permission of instructor.

PSY 4916 Independent Research in Psychology (VAR). Limited to qualified students who have permission from a faculty member and who present a written proposal for research. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their research. Prerequisite: Permission of instructor.

PSY 4930 Advanced Special Topics in Psychology (3). Special topics will be announced in advance. Prerequisite: Permission of instructor.

PSY 4931 Senior Seminar in Psychology (3). An advanced seminar for seniors. Analysis of major contemporary trends in psychological theory and research. Prerequisite: PSY 3213 or PSY 3215.

PSY 4940 Research Internship in Psychological Science (0-6). Limited to qualified students who have permission from a faculty member. Students are expected to have regularly scheduled meetings with their faculty advisor and to submit a written project. Prerequisite: Permission of instructor

PSY 4941 Experiential Learning/Internship in Psychology (0-9). Limited to qualified students who have permission from a faculty member and who present a plan of study including area and objectives. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their experiences. May be repeated. (Pass/Fail Only) Prerequisite: Permission of 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 2122 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, Hotelling's T^2, MANOVA, principal component analysis, and factor analysis. Prerequisites: STA 3123 or equivalent; linear algebra recommended.

PSY 5908 Directed Individual Study (VAR). Under the supervision of an instructor in the graduate degree program, the graduate student delves individually into a topic of mutual interest which requires intensive and profound analysis and which is not available in a formal offering. May be repeated once. Prerequisite: Permission of the instructor.

PSY 5917 Psychology Research Proseminar (3). Specialized research and presentation to faculty members in his or her major research area. Seminar style. This course is intended as a core course for the masters program in psychology. Prerequisite: Full graduate admission.

PSY 5918 Supervised Research (VAR). Research apprenticeship under the direction of a research professor or a thesis advisor. Prerequisite: Full graduate admission.

PSY 5930 - Qualitative Research Methods in Development Psychology (3). Review recent developments in qualitative research methods. The focus will be on the application of these methods to research on human development. The interpretation of qualitative and quantitative methods will be stressed.

PSY 5939 Special Topics in Psychology (3). Special topics will be announced in advance.

SOP 2772 Psychology of Sexual Behavior (3). An examination of the nature, development, decline, and disorders of sexual behaviors, primarily from the perspectives of normal adjustment and interpersonal relations. Discussion also addresses love, intimacy, and similar emotionally charged socio-psychological topics. Modern and popular treatment approaches - including the 'new sex therapies' are critically evaluated.

SOP 3004 Introductory Social Psychology (3). Introduction to the study of the relationship of the individual to social systems, including topics such as social behavior, attitude development and change, social conflict, group processes, mass phenomena, and communication.

SOP 3015 Social and Personality Development (3). This course provides a survey of social and personality development throughout the life cycle. Emphasis will be placed on the interaction between psychological and environmental variables in life-span development changes.

SOP 3742 Psychology of Women (3). An examination of women from various perspectives, such as biological, anthropological, mythological, religious, historical, legal, sociological, and psychoanalytical points of view. Discussions of ways in which these various perspectives influence the psychological development of contemporary women.

SOP 3932 Psychology of Drugs and Drug Abuse (3). This course will cover some basic information about the nature and effects of drugs abused, the social and personal dynamics involved in the phenomena of drug abuse and the various rehabilitation programs currently being employed to combat drug abuse.

SOP 4414 Attitudes and Social Behavior (3). A review of classic and contemporary social psychological research on attitudes and persuasion. Emphasis will be placed on using persuasion processes to ameliorate social problems. Prerequisite: PSY 2012.

SOP 4522 Social Motivation (3). Focuses upon those sources of human motivation that are a consequence of man's social-interpersonal environment and his striving to obtain valued goals. Topics discussed include test-taking anxiety, alienation and affiliation motivation, internal vs. external orientation, achievement motivation, etc. The measurement of social motives and their roots and consequences for behavior are discussed.

SOP 4525 Small Group Behavior (3). Introduction to the study of the structure and function of groups, emphasizing the behavior of individuals as affected by the group. The course focuses on experimental evidence concerning such topics as social facilitation, group decision making, phases in group development, physical factors in group behavior, etc.; rather than upon student experience in sensitivity or encounter training.

SOP 4731 Global Psychology: Cross Cultural Perspectives on Psychological Research and Theories – *GL* (3). Examination of cultural contexts informing human behavior and psychological well internationally. Students will examine psychology research through direct application to global phenomena. Prerequisite: PSY 2012.

SOP 4745 Women and Leadership (3). A social psychological examination of how gender and leadership are constructed, the behaviors of men and women leaders, and how men and women leaders are perceived. Prerequisite: PSY 2012.

SOP 4774 Female Sexuality (3). Psychological and behavioral aspects of women's sexuality will be explored, including: anatomy, sexual functioning, pregnancy/childbirth. Sexual orientation, sexual variations, sexual assault/abuse, and relationships. Prerequisites: PSY 2012 (Intro to Psychology) or WST 3015 (Introduction to Global Gender and Women's Studies).

SOP 4842 Legal Psychology (3). Particular emphasis will be given to interpersonal courtroom processes. Topics considered include scientific jury selection, proximics, persuasive argumentation, witness demeanor, eyewitness testimony, and similar influences upon juror decision making.

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. Prerequisites: 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 ethnographies, 'etic' vs. 'emic' distinction. Prerequisites: 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 networks and their effects on task accomplishment and satisfaction will be included.

SOP 5726 Proseminar on the Psychology of Stereotyping, Prejudice, and Discrimination (3). This class uses social psychology theory and concepts to understand stereotyping, prejudice, discrimination, and minority experience at an advanced level. Prerequisite: Graduate standing.

Women's and Gender Studies

Core Faculty:
Yesim Darici, *Director, Center for Women's and Gender Studies and Professor of Physics*
Victoria Burns, *Instructor, Women's and Gender Studies*
Michaela Moura-Koçoğlu, *Instructor, Women's and Gender Studies*

Affiliated Faculty:
Irma de Alonso, *Economics*
Marissa Ball, *Green Library*
Diana Barratt, *Herbert Wertheim College Medicine*
Lynne Barrett, *English*
Pascale Bécel, *Modern Languages*
Michelle Beer, *Philosophy*
Judith Bernier, *Center for Labor Studies and Research*
Ana Maria Bidegain, *Religious Studies*
Heather Blatt, *English and International Relations*
Cheryl Brewster, *College of Medicine*
Valentina Bruk-Lee, *Psychology*
Eric Carpenter, *College of Law*
Phillip Carter, *English*
Aya Chacar, *College of Business*
Cynthia Chinelly, *English*
Cyra Akila Choudhury, *Law*
Maricel Cigales, *Psychology*
Ellen Cohn, *Criminal Justice*
Dorothy Contiguglia-Akcan, *Herbert Wertheim College of Medicine*
Alexandra Cornelius, *History/African and African Diaspora Studies*
Carol Damian, *Art and Art History*
Debra Davis, *School of Computing and Information Sciences*
Kathryn DePalo, *Politics and International Relations*
Nathalie Desrayaud, *College of Communication, Architecture + The Arts*
Maria Donoso, *Earth and Environment*
Denise Duhamel, *English*
Asia Eaton, *Psychology*
Sarah Eddy, *Biological Sciences*
Juliet Erazo, *Global and Sociocultural Studies*
Andrea Fanta, *Modern Languages*
Nicole Fava, *Robert Stempel College of Public health & Social Work*
Maria Fernandez, *Teaching and Learning*
Joyce Fine, *Teaching and Learning*
Leslie Frazier, *Psychology*
Rebecca Friedman, *History*
Annette Fromm, *Frost Art Museum*
Jose Gabilondo, *Law*
Evelyn Gaiser, *Biological Sciences, SERC and SEAS*
Meg Gardinier, *Leadership and Professional Studies*
Jenna Gibbs, *History*
Marin Gillis, *Herbert Wertheim College of Medicine*
Maria Gomez, *Modern Languages*
Justin Grant, *English*
María Asunción Gómez, *Modern Languages*
Kimberly Harrison, *English*
Kat Hart, *Psychology*
Gail Hollander, *Global and Sociocultural Studies*
Tometro Hopkins, *English*
Amy Huseby, *English*
Susan Jacobson, *College of Communication, Architecture + The Arts*
Mariamah Jaiteh, *African and African Diaspora Studies*
Sherry Johnson, *History*
Hilary Jones, *African and African Diaspora Studies and History*
Suman Kakar, *Criminal Justice*
Barbara King, *Teaching and Learning*
John "Jack" Kleban, *College of Business*
Suzanne Koptur, *Biological Sciences*
Tatiana Kostadinova, *Politics and International Relations*
Angela Laird, *Physics*
Hilary Landorf, *Global Learning Initiatives*
Shane Landrum, *History*
Celine LeBoeuf, *Philosophy*
Mary Levitt, *Psychology*
Yuan Liu, *Chemistry and Biochemistry*
Maria del Mar Logrono, *History*
Sharon Lopez, *Leadership and Professional Studies*
Ana Luszczynska, *English*
Sarah Mahler, *Global and Sociocultural Studies*
Lindsay Malloy, *Psychology*
Melissa McCartney, *Biological Sciences*
Jaroslava Miksovska, *Chemistry and Biochemistry*
Marilyn Montgomery, *Education*
Aurora Morcillo, *History*
Meredith Morgan, *Women's Center*
Marilys Nepomechie, *College of Communication, Architecture + The Arts*
Adis Orta, *Robert Stempel College of Public Health and Social Work*
Janewa Osei-Tutu, *College of Law*
Okezi Otovo, *African and African Diaspora Studies and History*
Ebru Ozer, *College of Communication, Architecture + The Arts*
Ozde Oztekin, *College of Business, Department of Finance*
Alpesh Patel, *Art and Art History*
Vrushali Patil, *Global and Sociocultural Studies*
Valerie Patterson, *Public Administration*
Samantha Paustian Underdahl, *College of Business*
Marifeli Perez-Stable, *Global and Sociocultural Studies*
Mary Lou Pfeiffer, *Honors College*
Mihaela Pintea, *Economics*
Semma Pissaris, *College of Business*
Teresa Ponte, College of Communication, Architecture + The Arts
Bianca Premo, *History*
Rene Price, *Earth and Environment*
Shannon Pruden, *Psychology*
Jean Rahier, *African and African Diaspora Studies and Global and Sociocultural Studies*
Bethany Reeb-Sutherland, *Psychology*
Jennifer Rehage, *Earth and Environment/SERC*
Jennifer Richards, *Biological Sciences*
Laurie Richardson, *Biological Sciences*
Rachel Ritchie, *Psychology*
Heather Russell, *English*
Juan Saiz, *Criminal Justice*
Nadja Schreiber Compo, *Psychology*
Laurie Shrage, *Philosophy*

Renee Silverman, *Modern Languages*
Caroline Simpson, *Physics*
Sondra Skelaney, *Women's and Gender Studies*
Linda Spears-Bunton, *College of Arts, Sciences and Education*
Dionne Stephens, *Psychology*
Judith Stiehm, *Politics and International Relations*
Kerry Stone, *College of Law*
Andrew Strycharski, *English*
John Stuart, *College of Communication, Architecture + The Arts*
Sarah Stumbar, *Herbert Wertheim College of Medicine*
James Sutton, *English*
Uma Swamy, *Chemistry and Biochemistry*
Samantha Syms, *Herbert Wertheim College of Medicine*
Richard Tardanico, *Global and Sociocultural Studies*
Paige Telan, *Psychology*
Vishodana Thamotharan, *STEM Transformation Institute*
Juan Torres-Pou, *Modern Languages*
Mary Jo Trepka, *Robert Stempel College of Public Health and Social Work*
Yuk Ching Tse Dinh, *Chemistry*
Chantalle Verna, *History*
Ligia Collado Vides, *Biological Sciences*
Carleen Vincent-Robinson, *Criminal Justice*
Chunlei "Peggy" Wang, *College of Engineering and Computing*
Judith Williams, *Chaplin School of Hospitality and Tourism Management*
Kirsten Wood, *History*
Wensong Wu, *Mathematics and Statistics*
Yi Xiao, *Chemistry and Biochemistry*
Hitomi Yoshio, *Modern Languages*
Demet Yilmazkuday, *Economics*
Susanne Zwingel, *Politics and International Relations*

Bachelor of Arts in Women's and Gender Studies

This major provides an opportunity to study how women's lives have been shaped by historical, political, economic, literary, social, and cultural contexts, and the meaning of gender difference in diverse societies and cultures. The courses are coordinated by the Center for Women's and Gender Studies, and are open to students of all genders, sexual orientations, and sex and gender presentations. This field of study explores sex-based bias throughout society- in the workplace, in school, and at home. Equal importance is given to the intersection of gender identities with nationality, race, ethnicity, class, age, and sexual orientation. Students may formulate a program of study consonant with their interests and goals. The major is an excellent preparation for graduate study in most fields and for careers in both the public and private sectors. A background in women's and gender studies develops critical thinking skills and offers knowledge relevant to understanding the contemporary world.

For further information and/or to seek academic advising for the women's and gender studies major, visit the Center for Women's and Gender Studies in DM-212 or call (305) 348-2408 or send email to: **wstudies@fiu.edu**. We welcome your inquiry.

Lower Division Preparation

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
None	None[1]

[1]All Florida College System students are encouraged to complete the Associate in Arts degree.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Upper Division Program

The major requires 30 hours of upper division coursework. Students who elect to major in women's and gender studies are strongly encouraged to declare a minor in another area of concentration or a double major. The major requires a core concentration of three courses and seven electives for a total of 10 courses. Any core concentration course that is not taken for the core requirement may be taken as an elective. Refer to full course descriptions below or in the program sections of this catalog related to the course prefix.

Courses that fulfill these requirements will be noted in each semester's Women's and Gender Studies course flyer. These courses will constitute part of the 30-credit requirement, and they may be core courses or electives.

Genre and topic courses are offered regularly and new courses are periodically added to the curriculum. The elective selection may include one course on ethnicity, class, sexuality, or race that is not specifically a women's or gender studies course. Student programs are coordinated with designated faculty advisors. The program also offers an academic certificate in women's and gender studies. For further information, refer to the certificate page at the end of the College of Arts, Sciences and Education section.

Upper Division Requirements

I. Introductory Courses
(Select one from this list. May also be used as electives)

WST 3015*	Introduction to Global Gender and Women's Studies – *GL*
WST 3106	Introduction to Global Diversity – *GL*
WST 3641*	LGBT and Beyond: Non-Normative Sexualities in Global Perspective – *GL* +
WST 3644	Introduction to Transgender Studies
AMH 3560	History of Women in the U.S. (or any approved History elective)

ECS 3021*	Women Culture and Economic Development – *GL*
REL 3145*	Women and Religion
SOP 3742*	Psychology of Women
SYD 3804*	Sociology of Gender

II. Depth Courses
(Select one from this list. May Also be used as electives)

WST 3011	Understanding and Preventing Campus Sexual Assault
WST 3114/ INR 4931	Sex Trafficking Solutions – *GL*
WST 3120	Global Women's Writing – *GL*
WST 4115	Gender Violence and the Law: Global Perspectives – *GL*
WST 4230/ LIT 4931	Women Write Empire
WST 4930*	Special Topics (online availability depends on the topic)
WST 4931	Women in Leadership
SYD 4702/WST 4252	Race, Gender, Sexuality: Entanglements Across Time and Space
POS 4072	Women in Politics
SOP 4774*	Female Sexuality
WST 4504	Feminist Theory

III. Breadth Courses (Social Science and Humanities Courses)
Select the rest of your courses from this list of approved electives[2]:
[2]*Below are some examples of our approved electives. Every semester, a complete list of electives is available on our website at* ***http://cwgs.fiu.edu***

Electives must be chosen from at least 3 different disciplines (i.e., History, Anthropology, Art and Art History, Economics, English, Humanities, International Relations, Labor Studies, Modern Languages, Music, Philosophy, Political Science, Geography, Psychology, Religion, Sociology, Architecture, Business, Criminal Justice, and Social Work)

IV. Capstone

WST 4905	Independent Study[1]
WST 4940	Internship

(Must be approved by the director. Please visit our website at ***http://cwgs.fiu.edu****) for eligibility criteria and application procedures.*

[1] Off-campus, local, and international locations will be considered
* These courses are also available online.

Approved Electives in Women's and Gender Studies

AFA 4372	Race, Gender and Sexuality in Hip Hop – *GL*
AMH 4561	Early American Women's History
AMH 4562	Modern American Women's History
AML 4263**	Contemporary Southern Writers
AML 4300**	Major American Writers
AML 4503	Periods in American Literature
AML 4606**	Studies in 19th-Century African American Literature
AML 4607**	Studies in 20th-Century African American Literature
AML 4624	African American Women Writers
AML 4930**	Special Topics in American Literature
ANT 3302	Sex, Gender, & Culture
ANT 3304	Voices of Third World Women
ANT 4334	Contemporary Latin American Women
ARC 4227	Gender and Architecture
ARH 4871	Women and Art
CCJ 3666	Victimology
CCJ 4663	Women, Crime and the Criminal Justice System
CCJ 4694	Human Trafficking
CLP 4314	Psychology of Health and Illness – *GL*
DEP 3305	Psychology of Adolescence
DEP 4014	Psychology of Parenting and Parenthood
ECP 3254	Women, Men, and Work in the USA
ENG 4134	Women And Film
ENL 3261	19th Century British Women Novelists
ENL 4212	Medieval Women Writers
ENL 4370	Virginia Woolf and Her Circle
EUH 4610	Women and Gender in Europe, 1750-Present
FIL 4881	Hispanic Culture: Women and Film
FRW 4583	Women Writers
HIS 4311	History of Feminist Thought
HIS 4930**	Special Topics
HIS 4935	Senior Seminar
INR 4085	Women and Men in International Relations
LAH 4721	History of Women in Latin America – *GL*
LBS 4154	Workers and Diversity – *GL*
LBS 4210	Women And Work – *GL*
LIN 4651	Gender And Language
LIT 3384	Caribbean Women Writers
LIT 4382	Women in Post-Communist Eastern Europe
LIT 4536	Multi-cultural Working Class Women's Literature
LIT 4930**	Special Topics
LIT 4931	Special Topics in Women's Literature
MAN 4102	Managing Diversity
PHM 4020	Love and Sexuality
PHM 4123	Philosophy and Feminism
POS 4073	The Military and the Citizen
POS 4605	Gender Justice
POT 3304	Feminist-Political Theory
POT 4309	Sex, Power and Politics
REL 3171	Sex and Religion
REL 3520	Saints, Witches, and Cathedrals
REL 4105	Latino/a Immigration and Religion
REL 4146	Feminist Theology and Ethics
REL 4361	Women in Islam
REL 4364	Interpreting the Quran: Gender and Jihad – *GL*
SOP 4731	Global Psychology
SOP 4745	Women and Leadership
SPC 3711	Gender and Communication
SYD 3811	Feminist Theories of Society
SYD 4800	Theories of Gender & Society
SYD 4820	Men and Masculinity
SYG 4060	Sexualities & Societies
SYO 3120	Families and Social Change
SYP 3456	Societies in the World
SYP 4562	Domestic Violence

WST 4272	History of Women and Gender in the Modern Middle East
WST 4334	Queer Cinema
WST 4642	Gender and Sexuality in Islamic Cultures

**These courses are subject to approval on a semester by semester basis.

Course Descriptions

Definition of Prefixes

WST – Women's Studies

Courses that meet the University's Global Learning requirement are identified as GL.

WST 3011 Understanding and Preventing Campus Sexual Assault (3). Analysis of individual and systemic antecedents and prevention strategies that relate to sexual assault in a college environment.

WST 3015 Introduction to Global Gender and Women's Studies – *GL* (3). Introduction to gender issues, in their intersection with issues of race, class, and ethnicity in global perspective. The focus will be on the diverse experiences of gender across the globe.

WST 3105 Gender Issues Across the Globe – *GL* (3). Exploration of issues of women and gender globally. Focus on experiences and inequalities related to gender, as well as efforts to combat inequalities.

WST 3106 Introduction to Global Diversity – *GL* (3). This course evaluates diversity across the globe in terms of race, ethnicity, religion, culture, gender, age, sexuality, ability, and status to assess systems of inequality and privilege.

WST 3114 Sex Trafficking: Building Solutions – *GL* (3). This course will provide an overview of all forms of sex trafficking and examine the issue through a historical, theoretical and social justice lens focusing on creating solutions.

WST 3120 Global Women's Writing: Gendered Experiences Across Societies and Cultures – *GL* (3). Provides a critical introduction to global women's writing, examining the literary representation of gendered experiences of societies and cultures across the globe.

WST 3641 LGBT and Beyond: Non-Normative Sexualities in Global Perspective – *GL* (3). This is a global learning foundations course which will introduce you to the study of non-normative sexualities around the world.

WST 3644 Introduction to Transgender Studies (3). This course introduces students to the new and evolving field of transgender studies, exploring trans lives, experiences, issues, and ideas across an array of disciplinary perspectives.

WST 3710 Title IX: Sports, Sex and Equality on Campus (3). This course examines the federal government's role in enforcing Title IX's equity principles, discussing issues of gender equality, gender identity, athletics participation and scholarship.

WST 4115 Gender Violence and the Law: Global Perspectives (3). – *GL* Critical analysis of power dynamics generating gender violence across gender, race, and class globally. Focus will be on existing legal framework locally and internationally to address these crimes.

WST 4230 19th-Century Women Write the Empire (3). We engage with Victorian women writers of color in the 19th century, reflecting on how women's bodies and lived experiences in literature represented, strengthened, or resisted the British Empire

WST 4252 Race, Gender, Sexuality: Entanglements Across Time and Space (3). Intended to assist students develop a world-historical perspective on three major categories of difference and identity in contemporary society: race, gender and sexuality.

WST 4272 History of Women and Gender in the Modern Middle East (3). Examination questions of feminism in the modern Middle East in relation to religion, law, colonialism, modernity, nationalism, and citizenship.

WST 4321 Women's Bodies and Biology (3). Focus on the body of the human female, considering her structure and function, image over time, and how biology affects women's abilities, health, and self-esteem.

WST 4334 Queer Cinema (3). Survey of twentieth and twenty first century Queer Cinema, covering issues of gender and sexuality identity politics in Hollywood cinema from the 1920s to present. Prerequisites: ENC 1101 and ENC 1102.

WST 4504 Feminist Theory (3). This course explores how women are viewed theoretically across the social sciences and humanities. Topics such as multiculturalism, cross-nationalism and post-modernism are addressed.

WST 4642 Gender and Sexuality in Islamic Cultures (3). The representation of homo-eroticism within Arab literature and culture.

WST 4905 Independent Study (1-3). Supervised readings course designed for advanced students who wish to pursue specialized topics in women's studies. Arrangements must be made with faculty member during prior semester. Prerequisite: Permission of the instructor.

WST 4930 Special Topics (3). Selected topics in Women's Studies. Subject of course varies with instructor.

WST 4931 Women in Leadership (3). Examines the foundation for theoretical leadership models and provides a forum for students to examine their own leadership style.

WST 4940 Women's Studies Internship (0-3). Supervised work experience in organization agency or business focused on women and/or girls. Prerequisites: WST 3015 or WST 3641.

WST 5116 Gender Violence and the Law: Global Perspectives (3). Critical analysis of power dynamics of gender violence across race, ethnicity, class globally. Examination of existing legal framework on a national and global level, opportunities for global justice

WST 5253 Entangled Histories: Race, Gender, Sexuality (3). Examines the transnational, interrelated history of race and gender from the 16th century to the present.

WST 5507 Feminist Theory (3). Theories, issues and major paradigms underlying feminist scholarship. Development of women's studies as a discipline. Emphasis on multicultural approaches and perspectives. Prerequisites: One WST course or permission of the instructor.

WST 5905 Independent Study (1-6). Supervised readings course designed for advanced and graduate students who wish to pursue specialized topics in women's studies. Arrangements must be made with faculty member during prior semester. Prerequisite: Permission of the instructor.

WST 5935 Special Topics (3). Selected topics in women's studies. Subject of course varies with instructor. Prerequisites: One women's studies course or permission of the instructor.

WST 5936 Women in Leadership (3). Examines the foundation for theoretical leadership models and provides a forum for students to examine their own leadership style.

WST 5946 Women's Studies Internship (0-3). Supervised work experience in organization, agency, or business focused on women and/or girls. Prerequisites: BA in women's studies or other discipline and permission from the Women's Studies director.

Certificate Programs

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

Awarded by an academic unit to a student at the time of awarding a bachelor's degree; or upon completion of the appropriate coursework to a student who already has a bachelor's degree.

An 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. An academic certificate, to the greatest extent possible, is to be interdisciplinary in nature.

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 certificate director or academic department.

Academic Certificates in:

Actuarial Studies
Agroecology
Biodiversity Conservation and Management
Coastal and Marine Affairs
Comparative Immunology
Environmental Studies
Exile Studies
Film Studies
Forensic Science
Law, Ethics and Society
Linguistics Studies
Post-baccalaureate Undergraduate Premedical
Professional and Public Writing
Queer Studies
Women's and Gender Studies

Certificate Program in Actuarial Studies

Coordinating Committee
Hassan Zahedi, *Director, Statistics*
Julian Edward, *Mathematics*
Steve Hudson, *Mathematics*

The Certificate in Actuarial Studies is designed to provide a focus for those students who are interested in pursuing a career in the actuarial sciences. The primary emphasis of the Certificate program is on the mathematical and statistical background that forms the foundation of the work in this area.

This certificate program is open to degree seeking students only. The program is most obviously suitable for those students who are majoring in Mathematics or Statistics. It would also be valuable for those who wish eventually to enter the actuarial field, but choose to major in an allied discipline, such as Business or Computer Science. In addition, it allows access to those students who are currently working in this area and wish to develop or upgrade their skills.

Upon completion of the following requirements, a student may apply for the Certificate in Actuarial Studies. The Certificate will be awarded at the time of awarding a Bachelor's degree, or upon completion of this work if the student already has a Bachelor's degree.

Statistics and Mathematics Required Courses: (20)

a) MAC 2311	Calculus I	4
b) MAC 2312	Calculus II	4
c) MAC 2313	Calculus III	4
d) MAS 3105	Linear Algebra	3
e) MAT 3930	Special Topics- Mathematics	1
f) STA 4321	Mathematical Statistics I	3
g) STA 3930	Special Topics-Statistics	1

Four options from the following list: (12)

a) STA 4322	Mathematical Statistics II	3
b) MAD 3401	Numerical Analysis	3
	or	
MAD 5405	Numerical Methods	3
c) STA 4603	Mathematical Techniques of Operations Research	3
	or	
MAP 5236	Operations Research	3
d) STA 4234	Introduction to Regression Analysis	3
	or	
STA 5236	Regression Analysis	3
e) ECO 2013	Principles of Macro-Economics	3
f) ECO 2023	Principles of Micro-Economics	3
g) ECO 4237	Money, Interest, and Capital	3
h) ACG 2021	Accounting for Decisions	3
i) ACG 3024	Introduction to Accounting for Managers and Investors	3
j) FIN 3403	Financial Management	3
k) COP 2210	Introduction to Programming	3
	or	
COP 3337	Intermediate Programming	3

An overall average of 'B' (3.0 GPA) or better in the 32 semester-hours of coursework listed above, with a grade of 'C' or better in each course. A minimum of 12 of these semester-hours must be earned in courses taken at the University.

Agroecology Certificate Program

Kateel Shetty, *Director, Earth and Environment*
Mahadev Bhat, *Earth and Environment*
Krish Jayachandran, *Earth and Environment*
Amir Khoddamzadeh, *Earth and Environment*
Suzanne Koptur, *Biological Sciences*
Gail Hollander, *Politics and International Relations*
Adriana Campa, *Dietetics and Nutrition*

This interdisciplinary program is aimed at providing students with an opportunity to learn problems and issues that emerge from the interface between agriculture, natural ecosystems and urban areas. Students will gain an appreciation of how traditional agricultural production systems will influence the quality of natural ecosystems and human environment, and also what ecological and developmental pressure that agriculture comes under from

the human system. The program will emphasize natural and economic services that are provided by large agricultural areas interspersed between urban and natural areas. Students will learn structural changes that are necessary within agriculture in order to make it ecologically sustainable and community supported. The program includes farm- and field-level experiential learning through internships, field demonstrations and minor experiments. This certificate program is open to degree-seeking students only.

Requirements

Prescribed Courses and Other Requirements:
The Agroecology Certificate Program requires successful completion of the following four categories of course work, with a total of 17-18 credit hours:

1. Agroecology core requirement:

EVR 4274	Sustainable Agriculture – *GL*	3
EVR 4272	Agroecology – *GL*	3

2. Agricultural internship or problem analysis: Take any one of the following:

ACG 4941	Agriculture Internship	2
ISC 4940	Research Internship in Earth And Environment	2
BSC 4914	Student Research Lab	2
BSC 3949	Cooperative Education in Biology	2
BSC 4915L	Honors Research	2

As part of the above courses, student must complete a farm-, field-or lab-based internship that may involve working on farms, carrying out agro-ecological field observations, carrying out agricultural science lab experiments, conducting geo-spatial modeling, or conducting agriculture-related socio-economic analysis. Student will produce a report based on the internship experience. Students also will have the option of doing internship or conducting agroecology science experiments at USDA's Agricultural Research Service, Miami or other research or education institutions.

3. General agricultural/environmental science and social studies electives:
   Take any three

HOR 3012	Introduction to Horticulture	3
EVR 4592	Soils and Ecosystems	3
EVR 3723	Natural Resources Valuation and Economics	3
AEB 4131	Farm Economics and Management	3
AGR 4240	Modern Crop Production	3
EVR 3010	Energy Flow in Natural and Man-made Systems	3
EVR 3013	Ecology of South Florida	3
GIS 3043	Introduction to GIS	3
EVR 4869L	Environmental Problem Solving	2
EVR 4026	Biotic Resources	3
EVR 4211	Water Resources	3
EVR 4310	Energy Resources	3
EVR 4321	Sustainable Resource Development	3
EVR 4323	Restoration Ecology	3
EVR 4401	Conservation Biology	3
EVR 4352	U.S. Environmental Policy	3
EVR 4415	Population and Environment	3
ECP 3302	Environmental Economics	3
ECP 4314	Natural Resource Economics	3
GEO 3510	Earth Resources – *GL*	3
GEO 4476	Political Ecology	3
GEO 4354	Geography/Global Food System – *GL*	3
GLY 3039	Environmental Geology	3
ENY 1004	General Entomology	3
ENY 4060	Advanced Entomology	3
IPM 4020	Integrated Pest Management	3
MCB 3020	General Microbiology	3
MCB 3020L	General Microbiology Lab	2
MCB 4603	Microbial Ecology	3
MCB 4653	Food Microbiology	3
PCB 2061	Introductory Genetics	3
PCB 4301	Freshwater Ecology	3
MCB 2000	Introductory Microbiology – *GL*	3
BOT 3014	Plant Life Histories	3
BOT 3154	Local Flora	3
BOT 3663	Tropical Botany	3
BOT 3810	Economic Botany	3
BOT 4503	Plant Physiology	3
BSC 4422	Biotechnology: Applications in Industry, Agriculture and Medicines	3
INR 3043	Population and Society	3
INR 4054	World Resources, World Order	3

The Certificate Committee will consider other courses toward the elective requirement on a case-by-case basis. Up to two courses taken at Miami Dade College or other colleges in the relevant areas of agricultural sciences, horticulture, ecology, and environmental sciences will count toward the general agricultural/environmental science and social studies elective requirement.

Biodiversity Conservation and Management Certificate Program

Joel Heinen, *Director, Earth and Environment*

The Undergraduate Certificate in Biodiversity Conservation and Management draws on areas of strength within the Department of Earth and Environment and the Department of Biological Sciences (College of Arts, Sciences and Education) to provide students with specialized knowledge about managing and conserving the earth's biological resources. It is designed for students who seek careers in agencies that manage and conserve biological resources, for people in the private sector who seek specialized knowledge in this area, for educators seeking advanced training, or for others interested in the topic. The certificate is managed by the Department of Earth and Environment and the Biodiversity and Conservation Certificate Committee. This certificate program is open to degree-seeking students only.

Admission Requirements

Students should have completed a minimum of 2 courses in general biology and one course in ecology as a prerequisite to the program.

Program Requirements

Students are required to take 18 credit hours of course work outlined below. Other related courses may be approved subject to consideration by the program director and committee on a case by case basis.

1. Foundational

EVR 4401	Conservation Biology	3

2. Biological Conservation Sciences 9 credits total
Take three courses from this list:

BOT 4401	Plant Conservation Biology	3
EVR 4323	Restoration Ecology	3
EVR 4272	Agroecology – *GL*	3
OCB 4070	Coastal Marine Conservation	3
EVR 4374	Ecology and Management of Invasive Species	3
EVR 4592	Soils and Ecosystems	3
PCB 4452	Introduction to Wetland Ecology and Management	3

**Additional upper division courses in organismal biology in the Department of Biological Science can be counted for this certificate on a case-by-case basis. See catalogue for recent offerings.*

3. Integrated Biological Resources Management 6 credits total
Take two courses from this list:

EVR 4274	Sustainable Agriculture – *GL*	3
EVR 4026	Ecology of Biotic Resources	3
EVR 4411	Human Organizations and Ecosystem Management	3
PCB 4467C	Marine Protected Areas – *GL*	4
BOT 3810	Economic Botany	3

Coastal and Marine Affairs Certificate Program

Ricardo Gonzalez, *Director, Global and Sociocultural Studies*

Coordinating Committee
John Berry, *Chemistry and Biochemistry*
Richard Brinn, *Biological Sciences*
Young Rae Choi, *Global and Sociocultural Studies*
Michael Heithaus, *Biological Sciences*
Diann Newman, *Hospitality Management*
Neptune Srimal, *Earth & Environment*

The purpose of the certificate in Coastal and Marine Affairs is to provide students with a broad multidisciplinary approach to the subject that includes courses not only from the sciences, but also the social sciences, humanities, arts, and the professional schools. In addition to the courses listed below, new courses are being added to support this theme as the Biscayne Bay Campus develops a new coastal environmental focus. Students should consult with the certificate director to identify new courses which may also be used to satisfy these requirements. This certificate program is open to degree-seeking students only.

Course Requirements

The certificate requires a total of 18 credit hours, from the following list:

Core Science courses: (at least 3 credits)

OCB 2003	Introductory Marine Biology – *GL*	3
OCB 2003L	Introductory Marine Biology Lab	1
OCB 3043	Marine Biology and Oceanography	3
OCB 3043L	Marine Biology and Oceanography Lab	1
OCE 2001	Introduction to Oceanography	3
OCE 3014	Oceanography – *GL*	3
OCE 3014L	Oceanography Lab	1
OCP 3002	Physical Oceanography	3

Core Policy and Law Courses: (at least 3 credits)

EVR 4356	Coastal and Marine Environmental Policy	3
HFT 3692	Ocean and Coastal Law for the Hospitality Industry	3
INR 4412	International Law of the Sea	3

Other Primary Courses: (at least 3 credits)

ANT 4305	Coastal Cultures	3
ART 3843	Land Art/Earth Art and Coastal Environment	3
ENC 3363	Writing About the Environment	3
LIT 4606	Literature of the Sea	3
HFT 4708	Coastal and Marine Tourism	3
OCB 3264	Biology of Coral Reefs	3
OCB 4303	Biology of Marine Mammals	3
OCB 4070	Coastal Marine Conservation	3

Electives: (from 0 to 6 credits)

EVR 1001	Introduction to Environmental Science – *GL*	3
EVR 1001L	Introduction to Environmental Science Lab	1
EVR 1017	Global Environment and Society – *GL*	3
EVR 3013	Ecology of South Florida	3
EVR 3013L	Ecology of South Florida Lab	1
GEA 2000	World Regional Geography – *GL*	3
GLY 1010	Physical Geology	3
GLY 1010L	Physical Geology Lab	1
HFT 3701	Sustainable Tourism Practices – *GL*	3
HFT 3770	Cruise Line Operations and Management	3
JOU 3314	Environmental Journalism	3
PHI 3640	Environmental Ethics – *GL*	3

No more than 9 credits total in biology, chemistry, and earth sciences may be used to satisfy the certificate requirements.

Courses that are not on this list may be substituted with permission of the certificate director.

Comparative Immunology Certificate Program

Charles H. Bigger, *Director, Biological Sciences*

Coordinating Committee
Sylvia Smith, *Biological Sciences*

This academic certificate provides students with in-depth training in the interdisciplinary research field of Comparative Immunology. In general, Comparative Immunology is the study of the immune responses and defenses of animals other than humans. Research areas include studies in domesticated animal health, the use of animal models for human biomedical research, and the hunt for natural products of biomedical interest. Additionally, in recent years, there has been an increasing interest and concern raised about wild life (terrestrial and aquatic) health and diseases. This field also includes the integration of immunology, endocrinology, and neuroscience.

Requirements

Prerequisite Courses

BSC 2010	General Biology I	3
BSC 2010L	General Biology Lab I	1
BSC 2011	General Biology II	3
BSC 2011L	General Biology Lab II	1
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1

Total credits required:20 semester hours

Required Courses

PCB 4233	Immunology	3
PCB 4233L	Immunology Lab	1
PCB 5238	Marine Comparative Immunology Workshop	1
PCB 6236	Comparative Immunology	3
MLS 5515	Advanced Diagnostic Immunology	3
MLS 5937	Current Topics in Comparative Immunology	3

(students enroll for three semesters)

Choice of one: 3 credits required

PCB 6237	Immunogenetics
PCB 5754	Comparative Pathology
MLS 6180	Immunopathology

Three credits in a Comparative Immunology Lab in one of the following courses:

MLS 4905/6905	Independent Study
MLS 4910/6910	Directed Independent Research
BSC 4914/6916	Student Research Laboratory

Environmental Studies Certificate Program

Mahadev Bhat, *Director, Earth and Environment*

Coordinating Committee
Kevin Hill, *Politics and International Relations*
Suzanne Koptur, *Biology*
Rod Neumann, *Politics and International Relations*
Patricia Houle, *Earth and Environment*

The Certificate Program in Environmental Studies is designed to provide degree-seeking students in various majors with the unique perspective of interdisciplinary ecological education to both enrich and expand the breadth of their primary training. The Certificate seeks to provide participants with an analytic basis for understanding the milieu of local and global environmental problems and processes.

The program requires no prerequisite and is complementary to majors in all disciplines and schools at the University. A grade of "C" or better is required for all courses.

Requirements

The curriculum for the Environmental Studies Certificate consists of six courses (18-20 credits).

I. Two Environmental Science Courses:

EVR 3011	Environmental Resources and Pollution

or

GEO 3510	Earth Resources
EVR 3013/L	Ecology of South Florida and Lab

Students with science backgrounds should take instead two environmental science courses from the following:

EVR 4026	Biotic Resources
EVR 4211/L	Water Resources and Lab
EVR 4310	Energy Resources

II. Two additional Environmental Social Sciences courses from the following:

ANT 3403	Cultural Ecology
GEO 3421	Cultural Geography
ECP 3302	Environmental Economics
EVR 4415	Population and Environment Issues
EVR 4352	U.S. Environmental Policy
INR 4350	International Environmental Policy
PUP 3206	International Law and the Environment
POS 4035	Environmental Politics
REL 3492	Earth Ethics – *GL*

III. Two additional Environmental Electives from the following (students should check with the Director of the certificate for additional classes that may be used to satisfy the elective component)**:**

AMH 4930	Environmental History
ANT 3403	Cultural Ecology
ANT 4552	Primate Behavior and Ecology
ANG 5267	Environmental Anthropology
BOT 3014	Plant Life Histories
BOT 3154	Local Flora & Lab
BSC 5825	Wildlife Biology
ECP 3302	Introduction to Environmental Economics
ECP 4314	Natural Resource Economics
ENY 4060	Advanced Entomology & Lab
EVR 3010	Energy Flows in Natural and Man-Made Systems
EVR 3013	Ecology of South Florida & Lab
EVR 4026	Biotic Resources
EVR 4211	Water Resources
EVR 4231	Air Resources
EVR 4310	Energy Resources
EVR 4321	Sustainable Resource Development
EVR 4323	Restoration Ecology
EVR 4351	U.S. Energy Policy
EVR 4352	U.S. Environmental Policy
EVR 4401	Conservation Biology
EVR 4415	Population and Environment Issues
EVR 4905	Independent Study
EVR 4934	Special Topics
EVR 5061	South Florida Ecology
EVR 5065	Ecology of Costa Rican Rainforest
EVR 6067	Tropical Forest Conservation
EVR 6300	Topics in Urban Ecology
EVR 5313	Renewable Energy Sources
EVR 5320	Environmental Resource Management
EVR 5353	International Energy Policy
EVR 5355	Environmental Resource Policy
EVR 6406	U.S. Endangered Species Management
EVR 5907	Research and Independent Study
EVR 5935	Special Topics
EVR 5936	Topics in Environmental Studies
GEO 3510	Earth Resources – *GL*
GEO 3421	Cultural Geography
GLY 3039	Environmental Geology & Lab

GIS 3043	Introduction to GIS	
HFT 3701	Sustainable Tourism Practices – *GL*	
INR 3043	Population and Society	
INR 4054	World Resources, World Order	
INR 4350	International Environmental Politics	
LIT 4930	Literature and the Environment	
MCB 4603	Microbial Ecology	
PCB 3043	Ecology & Lab	
PHI 3640	Environmental Ethics – *GL*	
PUP 3206	International Law and the Environment	
POS 4035	Environmental Politics	
REL 3492	Earth Ethics – *GL*	
ZOO 4462C	Herpetology	
Total Credit Hours:		18-20

Exile Studies Certificate Program

Asher Z. Milbauer, *Director and Professor, English*

Coordinating Committee
Michael Patrick Gillespie, *Professor, English*
Bruce Harvey, *Interim Director, Center for the Humanities, Associate Professor, English*
Tometro Hopkins, *Associate Professor, Linguistics*
Kenneth Johnson, *Associate Professor, English*
James Sutton, *Professor, English*

The Exile Studies Certificate Program will provide grounds for entry into the field of otherness through the reading of literary texts created by authors from around the world and suggest venues for comprehension of human differences and commonalities. Literature, as one of the most important forms of human activity, synthesizes and particularizes the rich often traumatic experiences of transplantation. It "has often acted as a sort of deep bridge across geographical borders, cultural mentalities, and ideological divides." Studying the works of transplanted writers through the lenses of scholarly disciplines such as social sciences, arts and humanities, students in the Exile Studies Certificate Program explore the far-reaching universal implications of the phenomenon of exile. This certificate program is open to degree-seeking students only.

The curriculum for the Exile Studies Certificate consists of six courses (18 credits).

Core Requirements

LIT 4224	Exile and Literature: An Interdisciplinary Approach	3
LIT 4253	The Literature of Exile: A Comparative Literary Approach	3
Independent Studies: Supervised Research in any relevant academic department		3

Elective Breadth Requirements

Literature: (3 credits)

AML 4300	Major American Writers	3
AML 4503	Periods in American Literature	3
AML 4930	Special Topics in American Literature	3
AML 5305	Major American Literary Figures	3
ENG 4121	History of the Film	3
ENG 4132	Studies in the Film	3
ENL 4242	Romanticism II	3
ENL 4303	Major British Writers	3
ENL 4320	Shakespeare: Histories	3
ENL 4341	Milton	3
ENL 4412	Anglo-Jewish Literature: 19th Century to the Present	3
ENL 4503	Periods in English Literature	3
ENL 4930	Special Topics in English Literature	3
LIT 3170	Topics in Literature and Jewish Culture	3
LIT 3190	Survey of Caribbean Literature	3
LIT 3200	Themes in Literature	3
LIT 3384	Caribbean Women Writers	3
LIT 3673	Migrant Stories: Literature of the Immigration Experience	3
LIT 3674	Literature of the Jewish Immigration Experience	3
LIT 3930	Special Topics	3
LIT 4324	Classical Myth	3
LIT 4351	Major African Writers	3
LIT 4356	Literature of the Cuban Diaspora	3
LIT 4364	Post Totalitarian Literature – *GL*	3
LIT 4931	Special Topics in Women's Literature	3
FRW 4123	Travel, Exile, and Cross-Cultural Encounters	3
FRW 4750	Francophone Literature of Africa	3
FRW 4751	Francophone Literature in the Caribbean	3
SPT 4813	The Interpreter and Language	3
ENG 4906	Independent Study	1-20

Social Sciences: (3 credits)

Psychology

DEP 4324	Psychology of Identity Development	3
CLP 2001	Personal Adjustment	3

Politics and International Relations

INR 3043	Population and Society	3
INR 3045	The Global Challenge of Refugees and Migrants	3
INR 4075	International Protection of Human Rights – *GL*	3
INR 4411	International Humanitarian Law	3
POS 3258	Politics on Film	3
CPO 4726	Ethnicity and Nationality: World Patterns and Problems	3
INR 4054	World Resources and World Order	3
CPO 4053	Political Repression and Human Rights	3
CPO 4057	Political Violence and Revolution – *GL*	3
POS 4314	American Ethnic Politics	3
CPO 3055	Authoritarians and Democrats	3
CPO 4725	Comparative Genocide	3

Global and Sociocultural Studies

ANT 4473	Culture and Globalization – *GL*	3
SYD 4237	Immigration and Refugees	3
SYD 4606	World Jewish Communities	3
SYD 4621	Cubans in the U.S.	3
SYD 4700	Racial and Ethnic Relations	3
SYP 4454	Globalization and Society	3
ANT 3610	Language and Culture	3
SYD 3620	Sociology of Miami	3

Religious Studies

REL 3112	Religion and Literature	3
REL 3220	Moses, Priests and Prophets	3
REL 3325	Religions of Classical Mythology	3
REL 3607	Judaism	3
REL 3194	The Holocaust	3
REL 3308	Studies in World Religions – *GL*	3

REL 3111	Religion in Film – *GL*	3
REL 3282	Archaeology of Israel	3
REL 3320	Moses, Jesus, Muhammad	3
REL 3344	Tibetan Buddhism	3
REL 3367	Islamic Faith and Society – *GL*	3
REL 3695	The Golden Age of Sephardic Jewry	3
REL 4224	The Prophets and Israel	3

History

AMH 3331	American Intellectual History I	3
AMH 3332	American Intellectual History II	3
AMH 4930	Topics in U.S. History	3
EUH 3576	The Russian Revolution and the Soviet Union	3
EUH 3611	European Cultural and Intellectual History	3
EUH 4033	Nazism and the Holocaust	3
EUH 4462	History of Modern Germany, 1815-1945	3
HIS 3308	War and Society	3
WOH 3281	Jewish History to 1750	3
WOH 3282	Modern Jewish History	3
WOH 4230	The African Diaspora and the Atlantic Slave Trade	3
WOH 4301	The Modern African Diaspora	3
LAH 4471	Colonial Caribbean in Comparative Perspective	3

Arts/Humanities (3 credits)
Art and Art History

ARH 4430	Art and Politics	3
ARH 4610	American Art	3
ARH 4470	Contemporary Art – *GL*	3

Architecture

ARC 3031	Miami in Film	3
ARC 3741	Urban Architecture and the 20th Century	3
ARC 3797	Hotels: Miami and La Habana at Mid-Century	3
ARC 4030	Film and the Architecture of Modern Life	3
ARC 4752	Architectural History of the Americas	3
ARC 4755	The Architecture of the City	3

Theatre

THE 4110	Theatre History I – *GL*	3
THE 4111	Theatre History II	3
THE 4314	Classical Dramatic Literature	3
THE 4370	Modern Dramatic Literature	3

Music

MUH 3019	History of Popular Music in the U.S.	3
MUH 3514	Music of the World – *GL*	3

Linguistics

LIN 4624	Bilingualism and Language Policies	3
LIN 4722	Problems in Language Learning	3
LIN 4710	Language Acquisition	3
LIN 5601	Sociolinguistics	3
LIN 5720	Second Language Acquisition	3
LIN 5825	Pragmatics	3

Graduate Linguistics courses require the permission of the instructor

Humanities

HUM 2512	Art and Society	3

In addition to the courses listed above, other courses may be applied/accepted with the approval of the Certificate Director.

Film Studies Certificate Program

The Film Studies Certificate Program enables students to obtain an interdisciplinary concentration in film studies. The certificate program will enable students to study this important field in a rigorous systematic fashion. Film is the major art form and communication medium that transmits culture, influences society, and both reflects and shapes human conduct. Furthermore, film links diverse cultures through depiction of national societies and through language exposure. The Certificate in Film Studies will therefore give recognition to a significant medium that generates innovative theoretical, historical, literary and creative methodologies. The certificate will enhance interdisciplinary connections among Modern Languages, English, Sociology, Anthropology, Architecture, Visual Arts, History, Religious Studies and other departments. Students will have a unique opportunity to access new films, film archives, film makers, internships and related benefits. This certificate will complement studies in other fields and enable students to obtain an intellectual background in the theories and methodologies of film culture. Moreover, it will enhance students' visual literacy and competency. This certificate program is open to degree-seeking students only.

This program will require 18 credit-hours (6 courses) from the following certificate course listing, or others approved by the certificate program advisor. These courses should be understood as a partial list; students should consult with the advisor of the certificate program about current course offerings. Students are required to take a minimum of two courses from departments other than English.

Requirements

FIL 3006	Introduction to Film Studies	
ENG 4121	History of Film	

Twelve (12) elective credits from the following partial list:

ARC 4030	Film and the Architecture of Modern Life	3
ENC 4355	Writing About Film	3
ENG 3138	The Movies	3
ENG 4319	Film Humor and Comedy	3
ENG 4132	Studies in the Film	3
ENG 4134	Women and Film	3
ENG 4135	The Rhetoric of Cinema	3
FIL 4940	Internship in Film Studies	1-12
ENG 6935	Special Topics in College Pedagogy (when film is the topic)	3
CRW 5620	Advanced Screenwriting Workshop	3
AMH 3317	America and the Movies	3
LAH 4734	Latin American History Through Film – *GL*	3
HUM 4580	Film and the Humanities	3
FIL 5825	Spanish Film	3
FIL 5846	Latin American Film	3
FRE 4391	French Cinema	3
POW 4390	Brazilian Cinema	3
SPW 4391	Contemporary Spanish Cinema	3
SPW 4580	El Dorado in Hispanic Literature and Film	3
SPW 5781	The Representation of Women in Spanish Literature and Film	3

SPW 6495	The Latin American Experience Through Literature and Film	3
REL 3111	Religion in Film – *GL*	3
SYP 4631	Sociology Through Film	3
ARH 4905	Directed Studies (when offered as film studies)	1-6
ARH 5907	Directed Studies (when offered as film studies)	1-6
FIL 2000	Introduction to Film-Making	3
FIL 3201C	Film Technique I	3
FIL 4204	Film Technique II	3

Forensic Science Certificate Program

Anthony P. DeCaprio, *Director, Chemistry/IFRI*

Coordinating Committee
Jose R. Almirall, *Chemistry/IFRI*
W. Clinton Terry, *Criminal Justice*
Jeffrey D. Wells, *Biological Sciences*

Administered by the International Forensic Research Institute (IFRI) the Certificate in Forensic Science is designed to provide a focus for those students who are interested in pursuing a laboratory career in the forensic sciences. The program is available to FIU B.S. students majoring in chemistry or biology who wish to enter the field of forensic science. The program also allows FIU B.A. students and other persons in the community who have already earned a B.S. or B.A. in chemistry, biology, or a natural science from another institution to work toward and receive a Certificate in Forensic Science. The FIU Certificate in Forensic Science program is accredited by the Forensic Science Education Programs Accreditation Commission (FEPAC) provided that it is accompanied by a B.S. degree in chemistry or biology from FIU.

The field of forensic science is interdisciplinary and requires significant training in the natural sciences. The prerequisites for admission into the Forensic Science Certificate Program are as follows: 1 calculus course, 1 statistics course, 1 general biology course with lab, 2 physics courses with labs, 2 general chemistry courses with labs, 2 organic chemistry courses with labs, 1 analytical chemistry course with lab, and 1 biochemistry course. Upon completion of the prerequisites and the following additional forensic coursework, the student may be awarded the Certificate. The certificate will be awarded at the time of awarding the Bachelor's degree, or upon completion of this work if the student already has a Bachelor's degree. The program consists 19-20 credits as detailed below. This certificate is open to degree- and non-degree seeking students only.

Requirements

Required Courses: (16 credits)

CHS 3501	Survey of Forensic Science	3
CHS 3501L	Survey of Forensic Science Laboratory	1
CHS 4503C	Forensic Science	3
	or	
CHM 5542	Forensic Chemistry	3
CHS 3511C	Forensic Evidence	3
	or	
CHS 5535	Forensic Analysis	3
BSC 4401	Principles of Forensic Biology	3
	or	
BSC 5406	Forensic Biology	3
CHS 4591	Forensic Science Internship	3
	or	
CHS 6946	Graduate Forensic Internship	3

Elective course: (3-4 credits) chosen from the following or others in consultation with the Program Director:

PCB 4524	Molecular Biology	3
PCB 4524L	Molecular Biology Lab	1
PCB 3063	Genetics	3
PCB 3063L	Genetics Lab	1
BOT 1010	Introductory Botany	3
CHM 4130	Instrumental Analysis	3
CHM 4130L	Instrumental Analysis Lab	2
CHS 5539	Forensic Toxicology	3
CHS 5538C	Chemistry and Analysis of Drugs	3
CCJ 2020	Introduction to Criminal Justice	3
CCJ 3651	Drugs and Crime	3
CCJ 4225	The Courts and Forensic Science	3
GLY 3039	Environmental Geology	3
SOP 4842	Legal Psychology	3

Law, Ethics and Society Certificate Program

Kenton Harris, *Director*

Coordinating Committee
Sean Allen-Hermanson, *Philosophy*
Paul Warren*, Philosophy*

This program offers a course of studies in the broad field of normative or value issues. The program seeks to develop a curriculum which will study these issues from a variety of perspectives. From philosophy we offer courses in ethical theory, social and political theory and various applied ethical courses-courses in medical ethics, business ethics, environmental ethics and so on. From political science the student sees how normative issues are considered in law and politics. In this context it is appropriate to have courses dealing with constitutional interpretation of rulings like affirmative action, environmental regulation and the like. From sociology and anthropology the student takes courses dealing with how values are incorporated in our society and how such values compare to other societies around the world. This certificate program is open to degree-seeking students only.

Requirements

Required Courses:

1. The certificate requires six (3 credit) courses from the following lists.
2. Two core (starred) courses are required.
3. Of the six courses, including core courses, at least one course must be taken from each of the following categories—Ethics, Law, & Legal Reasoning, and Society

Law & Legal Reasoning

CJL 3512	The Courts
ECO 4703	International Trade Theory and Policy
EVR 4352	US Environmental Policy

EVR 4356	Coastal and Marine Environmental Policy
INR 3403	International Law
MMC 4200	Mass Media Law and Ethics
PHI 2100	Introduction to Logic
PHM 3400	Philosophy of Law*
PHM 4430	Topics in Philosophy of Law
POS 3283	The Judicial Process
POS 3603	Constitutional Law: Powers*
POS 3604	Constitutional Law: Limit*
POS 3652	Law and the Legal Profession
POT 3054	Modern Political Theory

Ethics

CPO 4053	Political Repression and Human Rights
INR 4075	International Protection of Human Rights
INR 4091	Ethical Problems in International Relations
PHI 2600	Introduction to Ethics
PHI 3601	Ethics*
PHI 3638	Contemporary Ethical Issues*
PHI 3640	Environmental Ethics
PHI 4633	Biomedical Ethics
PHM 3200	Social and Political Philosophy
PHM 4360	Topics in Political Philosophy

Society

CPO 4047	Politics of North American Cooperation
CPO 4057	Political Violence and Revolution – *GL*
CPO 4062	Comparative Judicial Politics
CPO 4394	Race and Politics in the Americas
ECP 3541	Law and Economics
INR 3081	Contemporary International Problems
LAH 3718	History of US-Latin American Relations
PAD 4046	Public Values, Ethics and Morality in a Changing Environment
PHM 4123	Philosophy and Feminism*
PHM 4362	Global Justice*
PHM 4510	Marxism
POT 3302	Political Ideologies
PSY 4842	Legal Psychology
PSY 4930	Advanced Special Topics in Psychology (depending on topic- e.g. Children and the Law, Psychology of Wrongful Convictions*)
SYG 3325	Deviance in Society
SYP 3520	Criminology
SYP 3550	Juvenile Delinquency

Linguistic Studies Certificate Program

Ellen Thompson, *Director and Professor, Linguistics*

Coordinating Committee

Melissa Baralt, *Modern Languages*
Jean-Robert Cadely, *Modern Languages*
Phillip M. Carter, *English*
Tometro Hopkins, *English*
Peter Machonis, *Modern Languages*
Bennett Schwartz, *Psychology*
Mehmet Yavas, *English*

In addition to an M.A. in Linguistics, the Linguistics Program at Florida International University offers a Certificate in Linguistics. The Certificate is designed to meet the needs of those who have a general interest in linguistics, as well as those for whom work in linguistics would assist in career planning or advancement. Both undergraduate and graduate students are eligible to earn the certificate. This certificate program is open to both degree- and non-degree seeking students.

A student can acquire a Certificate in Linguistic Studies by successfully completing at least six courses in linguistics or linguistics-related courses, totaling eighteen credit hours. Students should consult a certificate advisor in selecting courses.

Requirements

All students must complete one introductory course and one structure course from the courses listed below for a total of six credit hours:

A minimum of one course from each of the following groups:

Introductory Courses

LIN 3010	General Linguistics	3
LIN 3013	General Linguistics	3
LIN 5018	Introduction to Linguistics	3

Structure Courses

LIN 4680	Modern English Grammar	3
FRE 4800	French Morphology	3
SPN 4802	Contrastive Syntax	3
LIN 5501	English Syntax	3

Four additional courses: (12)

In addition to the required courses stated above, all students must complete an additional four courses totaling twelve credits. Any course with an LIN prefix fulfills this requirement with the exception of LIN 3670 - Grammatical Usage. Linguistics courses with FOL, FRE, POR, and SPN prefixes also fulfill this requirement. Permission must be received from the Program Director to take courses with these prefixes. PHI 4221 (Philosophy of Language) and MHF 4302 (Mathematical Logic) also fulfill this requirement.

In addition to the requirements noted above, all of the requirements for obtaining a bachelor's degree from the University must be met, or the student must already possess a bachelor's degree.

With the advice of the Coordinating Committee, the student is encouraged to attain some degree of proficiency in a language other than his or her native language.

A Coordinating Committee representing various fields will advise students and grant the Certificate.

Post-baccalaureate Undergraduate Premedical Certificate

Joseph Lichter, *Director, Office of Pre-Health Professional Advising and Senior Instructor, Chemistry and Biochemistry*

Steering Committee

Michael Brown, *Senior Instructor, Biomedical Engineering*
Milagros Delgado, *Senior Lecturer, Chemistry and Biochemistry*
Kenton Harris, *Lecturer, Philosophy*
Jeffrey Joens, *Professor, Chemistry and Biochemistry*

The certificate consists of a minimum of 15 credits of upper division premedical coursework, as well as up to an additional 35 credits of prerequisite coursework depending on the academic background of the student. It is designed to enable students to take the coursework required for medical school admission, to facilitate success on the MCAT exam, and due to its interdisciplinary nature, enhance understanding of medical issues. This certificate program is open to degree-seeking students only.

Admissions Requirements

Through the FIU Office of Pre-Health Professions Advising, a wide variety of student services and opportunities are available to the students in this program as they are for the traditional FIU premedical students.

Prerequisite(s):

The following courses are required for admissions to medical school and many other health professional schools. They are also prerequisites for course work required by this certificate program. Once enrolled in the Post-baccalaureate Undergraduate Premedical Certificate Program, any of these courses not already completed must be taken at FIU. **A grade of "C" or better is required in all courses ("C-" is not acceptable).**

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1
BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1
BSC 2011	General Biology II	3
BSC 2011L	General Biology II Lab	1
PHY 2053	Physics without Calculus I	4
	or	
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Lab I	1
PHY 2054	Physics without Calculus II	4
	or	
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1
CHM 2210	Organic Chemistry I	4
CHM 2210L	Organic Chemistry Lab I	1
CHM 2211	Organic Chemistry II	3
CHM 2211L	Organic Chemistry Lab II	1

Required Courses (12 credits):

BCH 3033	General Biochemistry	3
	Or	
CHM 4304	Biological Chemistry I	3
PCB 3063	Genetics	3
PCB 4023	Cell Biology	3
One Physiology Course at the 3000 level or higher with the approval of the Certificate Program Director.		3

Elective Courses (3 credits):

Must complete ONE of the following. A grade of "C" or better is required in all courses ("C-" is not acceptable).

REL 3180	Medical and Bioethics	3
PHI 4633	Biomedical Ethics	3
ANT 3462	Medical Anthropology	3
SYO 3400	Health & Medicine in Society	3

Additional Requirements

To remain in the Post-baccalaureate Undergraduate Premedical Certificate Program students must maintain a **3.0** overall/institutional GPA or higher. To be awarded the Post-baccalaureate Undergraduate Premedical Certificate the student must achieve a minimum overall GPA of **3.0**.

Professional and Public Writing Certificate Program

Kimberly Harrison, *Director of Writing Programs*
Maheba Pedroso, *Certificate Director*

The Undergraduate Certificate in Professional and Public Writing is an 18-hour program open to degree-seeking students only. Firmly grounded in rhetoric, the certificate provides an opportunity for students interested in improving their writing skills in preparation for their professional careers and civic responsibilities. Students will be advised to select courses based upon their professional interests. They might focus the certificate in areas such as technical writing, scientific and environmental writing, or community-based writing.

To receive a Writing Certificate, a student must complete the required 18 credit hours with an average grade of "B" or better. Up to six credit hours of course work may be transferred from other institutions.

Required Hours: 18 hours

Prerequisites: ENC 1101 and 1102 or equivalent. Transfer students who take ENC 2304 and an additional 3000 level ENC class (either ENC 3311 or 3213) to fulfill core curriculum ENC requirements must take an additional fifteen hours above core requirements to earn the certificate.

Students choose 6 courses from the selections below:

Required Course: (3 credits)

ENC 3371	Rhetorical Theory and Practice	3

Digital Literacy (3 credits)

CGS 2060	Introduction to Microcomputers	3
CGS 2518	Computer Data Analysis	3
COP 3835	Designing Web Pages	3

Writing Electives (12 credits)

ENC 3204	Advanced Business Writing	3
ENC 3213	Professional and Technical Writing	3
ENC 3311	Advanced Writing and Research	3
ENC 3334	Introduction to Writing Studies	3
ENC 3354	Writing as Social Action	3
ENC 3363	Writing about the Environment	3
ENC 3378	Writing Across Borders	3
ENC 3416	Writing & New Media	3
ENC 3491	The Processes of Writing	3
ENC 4241	Scientific Writing	3
ENC 4260	Advanced Professional Writing	3
ENC 4331	Writing, Rhetoric, and Community	3
ENC 4355	Writing about Film	3
ENC 4357	How to Go Public	3
ENC 4373	Alternative Writing and Rhetorics	3
ENC 4405	Queer Rhetorics	3
CRW 4211	Writing Creative Non-Fiction	3
LIN 4680	Modern English Grammar	3
ENC 4930	Special Topics in Composition	3
SPN 3440	Spanish Business	

	Composition/Correspondence	3

Note: In addition to the courses listed above, other classes may be accepted at the discretion of the certificate directors.

Queer Studies Certificate Program

Yesim Darici, *Director, Center for Women's and Gender Studies and Professor of Physics*
Justin Grant, *Instructor, Writing and Rhetoric/ Women's and Gender Studies*

The Certificate in Queer Studies will empower students to learn through a rigorous study of the experiences of queer individuals and communities globally from historical, literary, sociological, religious, psychological and anthropological perspectives. Working across disciplinary fields, the program will encourage students to investigate how non-normative or minority sexual identities intersect with other categories of identity, such as race, gender, class, nation, ethnicity, and disability. This certificate program is open to degree-seeking students only.

Requirements: (18 credits)

Core Class: 3 credits

WST 3641	LGBT and Beyond: Non-Normative Sexualities in Global Perspective – *GL*	3

Electives: Select Five Classes (15 credits)

Advisors within Women's and Gender Studies will aid in directing students to courses supporting LGBT/Queer studies offered by Women's and Gender Studies affiliated faculty. Students can, therefore, choose courses from across a range of disciplines. Possible courses include:

AFA 4372	Race, Gender and Sexuality in Hip Hop – *GL*	3
AFS 3332	Genders and Sexualities in Sub-Saharan African Contexts	3
ANT 3302	Sex, Gender, & Culture	3
ENC 4930	Special Topics (Queer Rhetorics)	3
ENG 4141/ WST 4334	Queer Cinema	3
ENG 4845	Queer Studies: Literature, Culture and Theory	3
HIS 4315/ WST 4930	Gendered History of the Body	3
LIT 4930	Special Topics (Gender and Sexuality in the European Renaissance)	3
PHM 4020	Love and Sexuality	3
POT 4309	Sex, Power and Politics	3
PRT 4993	LGBTQ Culture in Brazil	3
REL 3171	Sex and Religion	3
REL 4434	Religion and Queer Theory	3
SOP 4774	Female Sexuality	3
SYD 3804	Sociology of Gender	3
SYG 3325	Deviance in Society	3
SYG 4060	Sociology of Sexuality	3
WST 3106	Introduction to Global Diversity	3
WST 3644	Introduction to Transgender Studies	3
WST 4504	Feminist Theory	3
WST 4905	Independent Study	3

or

Independent Study: Supervised research in any relevant field or discipline after approval by the advisor.

Note: In addition to the courses listed above, other classes may be accepted at the discretion of the certificate directors.

Women's and Gender Studies Certificate Program

Yesim Darici, *Director, Center for Women's and Gender Studies and Professor of Physics*
Victoria Burns, *Instructor, Women's and Gender Studies*
Michaela Moura-Koçoğlu, *Instructor, Women's and Gender Studies*

The Women's and Gender Studies Undergraduate Certificate provides an opportunity for students to integrate scholarship about women and gender differences from a variety of disciplines into a coherent program of study. This certificate program is open to degree-seeking students only. The Certificate Program includes a core of required courses central to an understanding of gender issues in a social and historical context. The courses provide a basic grounding in Women's and Gender Studies that should be useful in many majors and in preparation for graduate study and professional training. The core courses are supplemented by a variety of electives to be chosen according to the student's specific interests. Students may enroll in the Certificate Program or take courses as electives. For a list of course offerings, see the section 'Academics' on our website at: **http://cwgs.fiu.edu/.**

The program also offers a Bachelor of Arts in Women's and Gender Studies. For information about the major, refer to the Women's and Gender Studies section in the Arts and Sciences undergraduate major section.

The Center is located in DM 212, Modesto A. Maidique Campus, (305) 348-2408. Students may contact the Center for Women's and Gender Studies at the above location, or by email: **wstudies@fiu.edu**.

Requirements

A student may acquire the Certificate in Women's and Gender Studies by fulfilling the following requirements:

I. Certificate Core Requirements

(Select 3 courses. May also be used as electives)

AMH 3560	History of Women in the U.S. (or any approved History elective)
CLP 4314*	Psychology of Health and Illness – *GL*
ECS 3021*	Women Culture and Economic Development – *GL*
REL 3145*	Women and Religion
POS 4072	Women in Politics
SOP 3742*	Psychology of Women
SOP 4774*	Female Sexuality
SYD 3804*	Sociology of Gender
WST 4252	Race, Gender, Sexuality: Entanglements Across Time and Space
WST 3011	Understanding and Preventing Campus Sexual Assault
WST 3015*	Introduction to Global Gender and Women's Studies – *GL*
WST 3106	Introduction to Global Diversity – *GL*

WST 3114/ INR 4931	Sex Trafficking Solutions – *GL*
WST 3120	Global Women's Writing – *GL*
WST 3641*	LGBT and Beyond: Non-Normative Sexualities in Global Perspective – *GL*
WST 3644	Introduction to Transgender Studies
WST 4115	Gender Violence and the Law: Global Perspectives – *GL*
WST 4230/ LIT 4931	Women Write Empire
WST 4504	Feminist Theory
WST 4905	Independent Study[1]
WST 4930*	Special Topics (online availability depends on the topic)
WST 4931	Women in Leadership
WST 4940	Internship

*(Must be approved by the director. Please visit our website for eligibility criteria and application procedures at **http://cwgs.fiu.edu/**)*

[1]Off campus, local, national and international options will be considered.
* These courses are also available online.

II. Approved Electives[2] (Select 3 courses)

[2]*Below are some examples of our approved electives. To see the complete list of electives every semester, please visit our website:* **http://cwgs.fiu.edu/**.

AFA 4372	Race, Gender and Sexuality in Hip Hop – *GL*
AMH 4561	Early American Women's History
AMH 4562	Modern American Women's History
AML 4263**	Contemporary Southern Writers
AML 4300**	Major American Writers
AML 4503	Periods in American Literature
AML 4606**	Studies in 19th-Century African American Literature
AML 4607**	Studies in 20th-Century African American Literature
AML 4624	African American Women Writers
AML 4930**	Special Topics in American Literature
ANT 3302	Sex, Gender, & Culture
ANT 3304	Voices of Third World Women
ANT 4334	Contemporary Latin American Women
ARC 4227	Gender and Architecture
ARH 4871	Women and Art
CCJ 3666	Victimology
CCJ 4663	Women, Crime and the Criminal Justice System
CCJ 4694	Human Trafficking
CLP 4314	Psychology of Health and Illness – *GL*
DEP 3305	Psychology of Adolescence
DEP 4014	Psychology of Parenting and Parenthood
ENG 4134	Women And Film
ENL 3261	19th Century British Women Novelists
ENL 4212	Medieval Women Writers
ENL 4370	Virginia Woolf and Her Circle
ECP 3254	Women, Men, and Work in the USA
EUH 4610	Women and Gender in Europe, 1750-Present
FIL 4881	Hispanic Culture: Women and Film
FRW 4583	Women Writers
HIS 4311	History of Feminist Thought
HIS 4930**	Special Topics
HIS 4935	Senior Seminar
INR 4085	Women and Men in International Relations
LAH 4721	History of Women in Latin America – *GL*
LBS 4154	Workers and Diversity – *GL*
LBS 4210	Women And Work – *GL*
LIN 4651	Gender And Language
LIT 3384	Caribbean Women Writers
LIT 4382	Women in Post-Communist Eastern Europe
LIT 4536	Multi-cultural Working Class Women's Literature
LIT 4930**	Special Topics
LIT 4931	Special Topics in Women's Literature
MAN 4102	Managing Diversity
PHM 4020	Love and Sexuality
PHM 4123	Philosophy and Feminism
POS 4073	The Military and the Citizen
POS 4605	Gender Justice
POT 3304	Feminist Political Theory
POT 4309	Sex, Power and Politics
REL 3171	Sex and Religion
REL 3520	Saints, Witches, and Cathedrals
REL 4105	Latino/a Immigration and Religion
REL 4146	Feminist Theology and Ethics
REL 4361	Women in Islam
REL 4364	Interpreting the Quran: Gender and Jihad – *GL*
SOP 4731	Global Psychology
SOP 4745	Women and Leadership
SPC 3711	Gender and Communication
SYD 3811	Feminist Theories in Sociology
SYD 4800	Theories of Gender & Society
SYD 4820	Sociology of Men
SYG 4060	Sexualities & Society
SYO 3120	Families and Social Change
SYP 3456	Societies in the World
SYP 4562	Domestic Violence
WST 4272	History of Women and Gender in the Modern Middle East
WST 4334	Queer Cinema
WST 4642	Gender and Sexuality in Islamic Cultures

**These courses are subject to approval on a semester by semester basis.

College of Arts, Sciences and Education

Dean **Michael R. Heithaus**
Associate Dean, Undergraduate Studies **Maricel Cigales**
Associate Dean, Graduate Studies **Maureen A. Donnelly**
Associate Dean, Research **Rita Teutonico**
Director of Liberal Studies **Wanda Raiford**
Associate Director of Liberal Studies **Grenville Draper**
Assistant Dean, Accreditation and Assessment **Deborah J. Hasson**
Senior Associate Dean, School of Environment, Arts, and Society **Heather Russell**
Senior Associate Dean, School of Integrated Science and Humanity **Walter Van Hamme**
Senior Associate Dean, School of Education and Human Development **Laura Dinehart**

Chairpersons and Program Directors:

Biological Sciences **Steven F. Oberbauer**
Chemistry and Biochemistry **Yong Cai**
Counseling, Recreation and School Psychology **Adriana McEachern**
Earth and Environment **Leonard Scinto**
Educational Leadership and Policy Studies **Benjamin Baez**
English **Anna Luszczynska**
Forensic Science **De Etta Mills**
Liberal Studies **Wanda Raiford**
Linguistics **Ellen Thompson**
Mathematics and Statistics **Laura De Carli**
Philosophy **Paul R. Warren**
Physics **Werner Boeglin**
Psychology **Jeremy Pettit**
Teaching and Learning **Maria Fernandez**
Women's and Gender Studies **Yesim Darici**

Faculty

Abad, Carla V., Ph.D. *(Florida International University), Instructor, Psychology*
Abrahamyan, Tigran., Ph.D. *(Florida International University), Instructor, Physics*
Adelman, Andrea, Ph.D. *(University of Miami), Instructor, Early Childhood Education*
Allen, Leila M., Ph.D. *(University of California Irvine), Instructor, Psychology*
Allen, Timothy A., Ph.D. *(University of California-Irvine), Assistant Professor, Psychology*
Allen-Hermanson, Sean J., Ph.D. *(University of Toronto), Professor, Philosophy*
Almirall, Jose R., Ph.D. *(University of Strathclyde, Scotland), Professor, Chemistry and Biochemistry*
Amorin, Jacqueline, Ph.D. *(University of Florida), Instructor, English*
An, Dongmei, M.S. *(Mississippi State University), Senior Instructor, Mathematics and Statistics*
Anderson, Elizabeth, Ph.D. *(University of Georgia), Assistant Professor, Earth and Environment*
Anderson, Emily, Ph.D. *(Pennsylvania State University), Assistant Professor, International/Intercultural Education Educational Policy Studies*
Anderson, William T., Ph.D. *(Swiss Federal Institute of Technology, Zurich), Professor, Earth and Environment . Associate Vice President, Office of Research and Economic Development*
Arango, Lisa L., Ph.D. *(Florida International University), University Instructor, Psychology*
Arneson, Eric, Ed.D. *(Florida International University), Instructor (Courtesy Appointment), Leadership and Professional Studies*
Aslam, Nadeem, M.S. *(University of Miami), Instructor, Mathematics and Statistics*
Aylsworth, Timothy, *Ph.D. (University of Wisconsin Madison), Assistant Professor, Philosophy*
Baez, Benjamin, Ph.D. *(Syracuse University), Professor, Higher Education, Educational Policy Studies and Interim Chairperson*
Bagner, Daniel M., Ph.D. *(University of Florida), Professor, Psychology*
Bahrick, Lorraine, Ph.D. *(Cornell University), Professor, Psychology*
Balius, Maria, M.S. *(University of Havana, Cuba), Instructor, Mathematics and Statistics*
Bang, Hyejin, Ph.D. *(University of Minnesota), Associate Professor, Recreation and Sport Management, Counseling, Recreation and School Psychology*
Baraloto, Christopher J., Ph.D. *(University of Michigan), Associate Professor, Biological Sciences and Director, International Center for Tropical Botany, FIU Tropics*
Barbetta, Patricia, Ph.D. *(Ohio State University), Associate Professor, Special Education, Teaching and Learning*
Barbieri, Manuel A., Ph.D. *(Universidad Nacional de San Luis, Argentina), Professor, Biological Sciences*
Barnes, Marie, Ph.D., *(Florida International University), Instructor, Psychology*
Barrett, Lynne M., M.F.A. *(University of North Carolina-Greensboro), Professor, English*
Becker, David A., Ph.D. *(Massachusetts Institute of Technology), Associate Professor, Chemistry and Biochemistry*
Beer, Michelle C., Ph.D. *(University of Pittsburgh), Associate Professor, Philosophy*
Bekker, Leonid, M.S. *(Florida International University), University Instructor, Mathematics and Statistics*
Benaduce, Ana Paula, Ph.D. *(Florida International University), Instructor, Biological Sciences*
Bennett, Bradley C., Ph.D. *(University of North Carolina-Chapel Hill), Professor, Biological Sciences and Earth and Environment*
Bennett, Kyle, Ed.D. *(Florida Atlantic University), Assistant Professor, Special Education, Teaching and Learning*
Bentley-Baker, Dan B., M.F.A. *(Florida International University), University Instructor, English*
Berk, Lynn, Ph.D. *(Purdue University), Professor Emerita, English*
Berry, John P., Ph.D. *(Cornell University), Associate Professor, Chemistry and Biochemistry*
Bhat, Mahadev G., Ph.D. *(University of Tennessee-Knoxville), Professor, Earth and Environment*
Bickman, Leonard, Ph.D., *(City University of New York), Research Professor, Psychology*

Bigger, Charles H., Ph.D. *(Florida State University), Professor Emeritus, Biological Sciences*
Blanco, Richard, M.F.A, *(Florida International University), Associate Professor, English*
Blanton, Linda, Ed.D. *(Indiana University), Professor Emeritus, Special Education, Teaching and Learning*
Blatt, Heather E., Ph.D. *(Fordham University), Associate Professor and Director, Literature and Film Program, English*
Bleiker, Charles, Ph.D. *(Stanford University), Associate Professor, Early Childhood Education, Teaching and Learning*
Bliss, Leonard, Ph.D. *(Syracuse University), Professor Emeritus, Statistics and Research Design, Counseling, Recreation and School Psychology*
Boeglin, Werner U., Ph.D. *(University of Basel, Switzerland), Professor and Chair, Physics*
Bone, Richard A., Ph.D. *(University of West Indies, Jamaica), Professor, Physics*
Boswell, Kevin Mershon, Ph.D. *(Louisiana State University), Associate Professor, Biological Sciences*
Bracken-Grissom, Heather, Ph.D. *(University of Louisiana at Lafayette), Associate Professor, Biological Sciences*
Bray, David B., Ph.D. *(Brown University), Professor, Earth and Environment*
Brew, Eric, Ph.D. *(Arizona State University), Associate Professor, Science Education, Teaching and Learning*
Brinn, Lisa S., Ph.D. *(University of Sao Paulo), University Instructor, Biological Sciences*
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Finance	**Shahid Hamid**
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International Business	**William Newburry**
Marketing and Logistics	**Anthony Miyazaki**
Director, Tibor and Sheila Hollo School of Real Estate	**Eli Beracha**

Mission Statement

The College of Business 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 (COB) 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.

The College offers undergraduate, graduate, professional education, customized training, and executive education programs 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 oneself 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. The 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 Alvah H. Chapman, Jr., Graduate School of Business, the School of Accounting, the Tibor and Sheila Hollo School of Real Estate, and the Departments of Finance, Global Leadership and Management, Information Systems and Business Analytics, International Business, as well as Marketing.

The College also houses several centers of excellence dedicated to teaching, research, and service. These include the Jerome Bain Real Estate Institute, the Ryder Center for Supply Chain Systems, the Knight Ridder Center for Excellence in Management, the Office of Professional Education, the Office of Executive and Professional Education, and the Global Center for Entrepreneurship and Innovation.

Degree Programs

Through its Landon Undergraduate School, the College of Business (COB) offers academic programs leading to the undergraduate degrees of Bachelor of Business Administration (BBA) and Bachelor of Accounting (BACC). Through its Chapman Graduate School, COB offers graduate degrees of Master of Accounting (MACC), Master of Business Administration (MBA), Master of International Business (MIB), Master of Science in Finance (MSF), Master of Science in Information Systems (MSIS), Master of Science in Human Resources Management (MSHRM), Master of Science in International Real Estate (MSIRE), Master of Science in Health Informatics and Analytics (MSHIA), Master of Science in Marketing (MSM), and Doctor of Philosophy in Business Administration (Ph.D.).

The Eugenio Pino and Family Global Entrepreneurship Center

The Eugenio Pino and Family Global Entrepreneurship Center, founded in 2003 in the College of Business at Florida International University, fosters entrepreneurship throughout South Florida and internationally. The Pino Center provides the FIU and local communities with the knowledge and networks that enable them to reach their entrepreneurial objectives of designing, launching and nurturing successful new ventures and assisting established innovative enterprises in moving to the next level. Activities include: workshops and webinars, a business plan competition, a yearly conference on venture capital in the Americas, a venture mentor service, and a publication series, including working papers. Student and faculty in the college, as well as other departments and other schools and colleges within the University, are invited to participate in the programs and activities of the Pino Entrepreneurship Center. For more information, visit **www.entrepreneurship.fiu.edu**.

R. Kirk Landon Undergraduate School of Business

Undergraduate Degree Programs
Professional BBA Programs (PBBA)

In addition to traditional academic programs leading to the undergraduate degrees of Bachelor of Business Administration (BBA) and Bachelor of Accounting (BACC) the College offers innovative undergraduate programs that enable students to pursue their careers full-time. The PBBA program consists of a series of lock-step courses that lead to a Bachelor of Business Administration (BBA) degree in Management in a concentrated time span. Each class admitted to these programs proceeds through the curriculum as a group. Students in the PBBA Weekend Program attend classes on Saturday only and complete their degree requirements in 21 months. The PBBA program charges tuition plus additional fees for value-added services and is limited to a select number of students. The admission standard for this program is a GPA of 2.5 or higher. For additional information, including admission requirements, please contact the program manager at (305) 348-4052, email: **ProfessionalBBA@fiu.edu** or visit **http://business.fiu.edu**.

Undergraduate Degree Programs

Major programs leading to the Bachelor's degree are offered in Accounting, Business Analytics, Finance, Human Resource Management, Information Systems, International /Business, Logistics and Supply Chain Management, Management, Marketing, and Real Estate. Students are encouraged to visit the undergraduate student services website for additional information and assistance: **http://business.fiu.edu**.

Undergraduate Double Majors

Students in the COB have the ability to graduate with a double business major. Triple majors are not available to COB students. Additionally, dual degrees are not permitted when pursuing two business majors. Business students pursuing a dual degree outside the College of Business may not pursue a second major within the College of Business. Students may take any combination of majors. The process of admitting a student to a double major is as follows:

1. The student must complete the second major form. The student must be fully admitted to the primary major at the time the second major request is submitted.
2. Upon admission to the double major, the student may apply up to a maximum of four (4) major courses (12 semester hours) from the primary major's major course requirements to the second major.

Special note for Accounting students: When a student declares accounting as a double major, accounting is always considered the "primary major".
Students pursuing double majors are limited to pursuing (a) a maximum of two certificates offered within their majors, or (b) one certificate or one minor offered by any other major's department.

Undergraduate Non-Business Student Minors

The College offers several minors for undergraduate, non-business students: a minor in Business, a minor in Business Analytics, a minor in Logistics and Supply Chain Management, a minor in Marketing, a minor in Professional Sales, a minor in Project Management, a minor in Social Media and E-Marketing Analytics, and a minor in Entrepreneurship. Admission to all minors is set at a 2.5 GPA. All minor students must be fully admitted to their major in another college. Business majors are not eligible for a minor.

Students should be admitted to the minor PRIOR to taking classes. Courses taken prior to admission may not count towards the minor.

Students opting for a minor in business must complete the following five courses at Florida International University and obtain a minimum grade of "C" in each of the five courses (15 credit-hours):

ACG 3024	Introduction to Accounting for Managers and Investors
FIN 3005	Introduction to Business Finance
ISM 3012	Introduction to Information Systems
MAN 3022	Introduction to Management
MAR 3024	Marketing Fundamentals

All courses counting towards the minor must be taken at FIU. The minors in Business Analytics and Project Management are discussed in the "Information Systems and Business Analytics" section of this catalog; the minor in Entrepreneurship is discussed in the "International Business" section of this catalog; and the minors in Marketing, Professional Sales, Logistics and Supply Chain Management, and Social Media and E-Marketing Analytics are discussed in the "Marketing" section of this catalog.

Undergraduate Degree Programs

Admission Requirements

Applicants must follow regular University admission procedures and upon admission declare their specific major in Business Administration. In addition, students must complete courses detailed under Required Common Prerequisite Courses, below, as part of their 60 credit-hours of lower-division course work. The GPA earned in the 60 credit-hours must be 2.5 or higher to continue

pursuing a degree within the College of Business. Additionally, the GPA earned for all Common Prerequisite Course credit hours must also be 2.5 or higher to continue pursuing a degree within the College of Business.

All transfer students who have not successfully completed college-level mathematics courses, must complete the Math Placement Assessment for Incoming Students. Results determine appropriate mathematics enrollment.

Students eligible for readmission are subject to the University's and the College's degree program's regulations in effect at the time of readmission to include the criteria detailed above.

Major Maps

Once accepted into an undergraduate program in the University, students must log into their **my.fiu.edu** account to obtain their major maps and their assigned advisor information. The major map outlines the student's program of study which details the course sequencing and requirements to ensure the successful and timely completion of their degree. For any questions about course work and degree requirements, students should contact their advisor.

Upper-division Transfer

Students may be able to transfer previously-earned credit towards upper-division study in the College if 1) the credit was designated as junior or senior level at an accredited, four-year, upper-level institution, and 2) the student earned a grade of "C" or higher, or the credit can be validated by some acceptable measure to verify its equivalence. Students wishing to transfer to the college must be in good standing at their previous school or college.

Change of Major

Students who wish to change from a major in another college or school within the university to a new major within the College of Business must meet the degree requirements in effect at the time of the change of major.

Computer Literacy Requirement

Before students can enroll in ISM 3011 (or ACG 4401), they must demonstrate computer literacy proficiency. They can meet this requirement by completing CGS 2100 – Introduction to Micro-computers or an equivalent course and receive a grade of "C" or higher in the course.

Residency Requirement

Students must complete the last 30 semester hours of course work at the University to qualify for an undergraduate degree.

Study Abroad

The maximum number of credit-hours allowed to undergraduate students for participating in a study-abroad program is six (6).

Additional Policies

1. Undergraduate students majoring in subjects outside the College of Business will not be permitted to apply more than 30 semester hours of business courses toward their degree.
2. Undergraduate students who register for any graduate business course must be formally admitted to a graduate degree program at the university following the university's admission procedures.
3. Faculty has the discretion to administratively drop students who do not attend the first class of a course.

Undergraduate Degree Program Requirements

In general, students who can earn a bachelor's degree from the College of Business will have completed professional work that includes:

1. Required courses designed to provide students with a common body of knowledge that includes:
   a. Concepts and processes in the production, financing and marketing of goods and services in a business enterprise or organization, both domestically and internationally;
   b. The economic and legal environments of and the ethical, social, and political influences on profit and non-profit organizations;
   c. Concepts and applications in accounting, quantitative methods, computers and management information systems;
   d. Organizational theory and behavior and interpersonal communication;
   e. Administrative and decision-making processes in climates of uncertainty, including policy analysis at the highest management levels.
2. Required courses in major;
3. Approved upper division business elective courses.

Academic Standards

To earn an undergraduate degree from the College of Business, all students must comply with the following:

1. Students must earn a grade of "C" or higher in each of the lower-division Common Prerequisite Courses. Each of these courses cannot be attempted more than twice. Drops after the add/drop period, which result in a DR grade, are considered an attempt in the course and count as an unsuccessful enrollment.
2. Students must earn a grade of "C" or higher in all upper-division major courses.
3. Students must earn a grade of "C" or higher in all upper-division Business Core Courses. Each of these courses cannot be attempted more than three times. Drops after the add/drop period, which result in a DR grade, are considered an attempt in the course and count as an unsuccessful enrollment.
4. As a student within the College of Business, each student gets two drops after the add/drop period, which result in "DR" grades, in their first 60 credits attempted. Each College of Business student get two additional drops after the add/drop period, which result in "DR" grades, in the second 60 credits attempted. Unused drops after the add/drop period, which result in "DR" grades, do not carry over from the first 60 credits attempted to the second 60 credits attempted. Students entering the College of Business as transfer students with an A.A. degree from a Florida public college or with 60 or more transfer credits earned from another college or university only get two drops after the add/drop period, which result in "DR" grades. Students with disabilities who need to drop a course due to disability-related reasons are

allowed to petition for additional drops after the add/drop period, which result in "DR" grades. Students who can document extenuating circumstances may petition the College for additional drops. Approval to drop additional courses in excess of those allowed must be obtained from the College of Business

5. Students must satisfy the requirements of their respective programs of study and satisfy all university requirements for graduation.
6. Students not pursuing a double major are limited to pursuing (a) a maximum of two certificates, or (b) a maximum of two minors, or (c) a maximum of one certificate and one minor. Students pursuing a double major should refer to the "Undergraduate Double Majors" sections.
7. Students must declare double majors, certificates, minors, and second majors prior to 90 credit hours earned.
8. Student who (a) have 60 credit hours earned, but (2) have not completed the seven Common Prerequisite Course for Business majors, may register for, and/or complete, no more than 15 credit hours of upper-division Business courses

The College adheres strictly to the university's dismissal policy.

Students should be sure to read and understand Florida International University's policies regarding "Academic Warnings, Probation, and Dismissals" as described in the "General Information" section of this catalog. These policies apply to all students in the College of Business.

In addition to satisfying the degree requirements specified in the university's "General Information" section of the catalog, students in the College of Business must have completed the following course work:

Required Common Prerequisite Courses (3 credit-hours each)

Students are required to achieve a grade of "C" or higher in each of the following courses:

ACG 2021	Accounting for Decisions
ACG 3301	Accounting for Planning and Control
ECO 2013	Principles of Macroeconomics
ECO 2023	Principles of Microeconomics
MAC 2233	Calculus for Business
STA 2023	Statistics for Business and Economics

Additionally, students pursuing a Bachelor degree in Accounting, Business Analytics, Finance, Information Systems, International Business, Human Resources Management, Management, Marketing, or Real Estate are also required to achieve a grade of "C" or higher in.

CGS 2100	Microcomputer Applications for Business

While students pursuing a Bachelor degree in Logistics and Supply Chain Management are required to achieve a grade of "C" or higher in.

PHI 2600	Introduction to Ethics

In addition to the above:

1.Students admitted in Fall 2012 or after, as freshman or transfer students with fewer than 30 credit hours earned, are encouraged to take GEB 2011, Introduction to Business, during their first year.
2. Students admitted in the Fall 2018 or after, as freshman with fewer than 30 credit hours earned, are required to complete SPC 2608, Public Speaking for their Undergraduate Core Curriculum Arts Requirement.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
ACG 2021	ACGX021 or ACGX022 or ACGX001 and ACGX011
ACG 3301	ACGX071 or ACGX301
CGS 2100	CGSX100 or CGSX100C or CGSX530 or CGSX570 or CGSX060 or CGSX531 or CGSX000 or ISMX000
ECO 2013	ECOX013
ECO 2023	ECOX023
STA 2023	STAX023 or STAX122 or QMBX100
MAC 2233	MACX233 or MACX230
PHI 2600*	PHIX600, BULX241, CGSX092, BULX131, MANX440, GEBX350, CGSX110, CGSX570, or CGSX531

*As noted above under Required Common Prerequisite Courses, this course or its equivalent options is required for the Logistics and Supply Chain Management degree only.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Business Core Courses (24 Credit-hours)

The business core courses listed below are required for all undergraduate students in the College of Business. Prerequisites for each of the business core courses can be found in the College of Business Course Descriptions portion of the Undergraduate Catalog.

Students must complete one of the following three courses (3 credit hours).

ACG 4401	Accounting Information Systems[1]	
	or	
ISM 3011	Information Systems Management*	3

Students must also complete one of the following two courses (3 credit hours).

BUL 4310	Legal Environment of Business*	3
	or	
BUL 4320	Business Law[1]	3

Students must additionally complete one of the following two courses (3 credit hours).

QMB 4680	Business Analysis	3
	or	

MAN 4504	Operations Management[3]	3

Finally, students must complete each of the following six courses (18 credit hours):

FIN 3403	Financial Management	3
MAN 3025	Organization and Management	3
MAN 4720	Strategic Management – *GL*	3
MAR 3023	Introduction to Marketing – *GL*	3
QMB 3200	Applied Business Statistics	3

[1] These two courses (ACG 4401, Accounting Information Systems, and BUL 4320, Business Law) should ONLY be taken by students pursing a Bachelor of Accounting and who have successfully completed the upper-division Accounting Entrance Examination.
[2] Students admitted before Fall 2016 may take CGS 3300, Introduction to Information Systems.
[3] Students admitted before Fall 2018 may take MAN 4504, Operations Management.

Business Professional Development Courses (3 Credit-hours)
The business professional development courses listed below are required for all undergraduate students in the College of Business- Prerequisites for each of the business professional development can be found in the College of Business Course Descriptions portion of the Undergraduate Catalog.

COM 3112	Speech and Writing for Business Communication	2
GEB 3003	Career Management	1

****NOTE:** Students admitted before Fall 2011 can take either

COM 3150	Advanced Communication for Business	
	or	
COM 3110	Business and Professional Communication	

Prerequisite Requirements

Prerequisite course requirements for entry into upper level courses will be enforced. Students will be administratively dropped from courses when they lack the required prerequisite course or courses and/or required grade.
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 Education 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. For the most current and updated information, refer to the COB and appropriate Schools/Departments web sites.

School of Accounting

Clark Wheatley, *Professor and Director*
Jose Aldrich, *Professor*
David Barman, *Senior Instructor*
Abhijit Barua, *Professor*
Pietro Bianchi, *Assistant Professor*
Teresita Brunken, *Clinical Assistant Professor*
Jimmy Carmenate, *Clinical Assistant Professor*
Lucia Chang, *Professor Emeritus*
Silver Chung, *Assistant Professor*
Mort Dittenhoffer, *Professor Emeritus*
Desiree Elias, *Instructor*
Wendy Gelman, *Senior Instructor*
Erica Harris, *Assistant Professor*
Kenneth Henry, *Clinical Associate Professor*
Xiaochuan (Kelly) Huang, *Assistant Professor*
Stan Jansta, *Instructor*
Stephen W. Lin, *Professor and Ryder Eminent Scholar*
Ruth Ann McEwen, *Professor*
Jonathan Milian, *Associate Professor*
Kenneth S. Most, *Professor Emeritus*
Sue Ganske, *Clinical Professor*
Frederick Perry, *Clinical Professor*
Felix Pomeranz, *Professor Emeritus*
Kannan Raghunandan, *Professor and Ryder Eminent Scholar Chair in Business Leadership*
Dasaratha V. Rama, *Professor*
Leonardo Rodriguez, *Professor Emeritus*
Pablo Simon, *Instructor*
Antoinette Smith, *Professor*
Krishnamurthy Surysekar, *Professor*
Thomas J. Tarangelo, *Instructor*
Maria Vulcheva, *Associate Professor*
Miriam Weismann, *Clinical Professor*

Purpose

Our mission as a School of Accounting in an internationally-focused public research university is to:

- Foster an environment of intellectual curiosity, diversity of thought, and integrity;
- Provide a diverse student body with excellence in accounting education in order to succeed as business professionals and leaders as well as valued members of society;
- Prepare students for advancement in the accounting profession through specialized masters programs that strengthen professional competencies;
- Serve the academic community through scholarly research, colloquia, and the training of future accounting educators;
- Promote opportunities for professional development, lifelong learning and networking for our alumni and accounting professionals in the local, national and global community.

Bachelor of Accounting (BACC)

The objective of the BACC program is to prepare students for positions in public, private sector, corporate, and governmental accounting. To qualify for positions in public accounting, students must take the CPA examination, which, in Florida, requires an additional 30 credit-hours beyond the BACC degree.

The Bachelor of Accounting program also prepares students to pursue advanced degrees in accounting, business, or law.

Degree Program Requirements (120 credits)

Lower-Division/Business Pre-Core	60 credits
Upper-Division/Business Core	27 credits
Free Electives	12 credits
Accounting Core	15 credits
Accounting Electives	6 credits

Lower Division/Business Pre-Core (60 credits)

The "General Information" section in this catalog describes the lower and business pre-core division requirements.

Admissions Requirements

Students must pass an entrance examination before being admitted to the School of Accounting. Students may take the entrance examination no more than two times.

Upper Division/Business Core (27 credits)

The College's Business Core Requirements are listed in the first section of this "College of Business" chapter.

Free Electives (12 credits)

Accounting majors may take any coursework to satisfy their Elective requirement.

Accounting Core Requirements (15 credits)

ACG 4101	Financial Accounting I
ACG 4111	Financial Accounting II
ACG 4341	Management Accounting
TAX 4001	Income Tax Accounting
ACG 4651	Auditing

Accounting Electives (6 credits) may include

TAX 4011	Taxation of Corporations and Partnerships
ACG 4501	Governmental and Institutional Accounting

All accounting courses must be taken at Florida International University. Courses from other universities are not transferable unless approved in advance by the Director of the School of Accounting.

Academic Standards and Policies

1. Students may not take accounting and/or tax courses and are not considered admitted into the School of Accounting until they have successfully completed the entrance exam.
   a. In order to register for the entrance exam, students must have an overall GPA of 3.00.
   b. Students may take the entrance exam no more than two times.
   c. Students who fail to pass the exam after two attempts will be required to seek another major outside the School of Accounting.
   d. A passing entry exam score is valid for one year.
   e. Students who cannot pass ACG 4101 with a 'C' or better within one year must retake the exam, if they have not already taken it twice.
2. To enroll in ACG 4101, students must meet the requirements of the COB and must have earned an overall GPA of 3.0.

3. Students must earn a grade of 'C' or higher in all accounting major courses, including accounting, business law, and tax courses.
4. No student may register for upper-level accounting or tax courses after receiving five (5) grades of "C-", "D+", "D", "D-", "DR", or "F" in upper-level accounting major courses including accounting, business law, and tax courses.
5. Students who do not maintain an overall GPA of 2.5 will be removed from the Accounting program.
6. Students not achieving a grade of 'C' or higher in two enrollments in any course will be dropped automatically from the Accounting program. Drops after the add/drop period which result in a DR grade are considered an attempt in the course and count as an unsuccessful enrollment.
7. Once students have been removed from the Accounting program, they will not be readmitted to the School of Accounting.
8. Students who wish to take more than two accounting and tax courses in one semester must file a formal request to do so with the School of Accounting.
9. Prerequisites for all accounting and tax courses are strictly enforced. Students who have not met the prerequisites for a course may be administratively withdrawn from the course at any time during the semester that such deficiency is determined to exist.
10. Students taking accounting and tax courses are expected to seek counsel from an academic advisor before registering.
11. Students who work more than 20 hours per week are urged to discuss the composition of their schedule and number of courses they should take with an academic advisor before registering.
12. FIU email is the primary mechanism for corresponding with students outside of the classroom.
13. School of Accounting policy does not permit overrides into closed classes. Accounting and tax professors are not authorized to assist students with registration issues.

Tibor and Sheila Hollo School of Real Estate

William Hardin, *Professor, Director, Jerome Bain Real Estate Institute, and Associate Dean, Chapman Graduate School of Business*
Eli Beracha, *Associate Professor, and Director, Tibor and Sheila Hollo School of Real Estate*
Suzanne Hollander, *Senior Instructor*
Zhenguo Lin, *Professor*
Mark Thibodeau, *Assistant Professor*
Zhonghua Wu, *Associate Professor*

Adjunct Faculty
Paul Black

Purpose

The Tibor and Sheila Hollo School of Real Estate offers an undergraduate major in Real Estate. Real Estate students are provided with a comprehensive exposure to the real estate industry with an emphasis on international real estate, the quantification of real estate decisions, the financing of real estate, and the financial markets that support real estate activities. Many students combine both real estate and finance majors by earning a double major in real estate and finance.

Real Estate Major

Undergraduate business students can opt to pursue a Real Estate major. Students graduating with a degree in real estate are prepared to work in various positions with financial institutions, commercial brokerage firms, mortgage companies, investment management entities, appraisal firms, property management companies, and residential brokerage firms. Some students opt for entrepreneurial activities associated with the investment in and management of real property.

Real Estate Major Learning Objectives

1. Develop a conceptual understanding of the functions of real estate markets, real estate practices, and real estate institutions.
2. Familiarize students with the nature of the legal environment of real estate.
3. Appraise the real estate development opportunities in the commercial real estate markets for residential, warehouse, retail, and industrial properties.
4. Develop student's analytical skills to solve specific problems or issues related to the analysis or real estate financing alternatives.

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	27 hours
Major Courses	21 hours
Upper Division Business Electives	12 hours

Lower Division/Business Pre-Core

The "General Information" section in this catalog describes the lower division requirements.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of this "College of Business" chapter.

Upper Division Business Electives

All electives outside the College of Business must receive the approval of the Department Chair. A list of approved courses is available from COB Advising.

Major Courses (3 credit-hours each)

REE 3043	Real Estate Principles
REE 4204	Real Estate Finance
REE 4303	Real Estate Investment
REE 4433	Legal Environment of Real Estate
REE 4956	International Real Estate – *GL*

Elective courses in the major include additional REE classes, FIN classes, and other classes approved by the Department Chair.

Academic Standard

The Hollo School of Real Estate requires that students fulfill the following requirements in order to remain in a degree program:

1. Receive a grade of "C" or higher in each of the courses in their major.
2. Earn a grade of "C" or higher in each Upper Division business elective.

It is also strongly recommended that Real Estate majors join the Real Estate Student Association.

To improve the learning experience, to assure learning and to ensure employers of the quality of a graduate with a Real Estate major, all Real Estate majors will take a comprehensive examination of their knowledge and skills toward the end of their course of study.

Finance

Shahid Hamid, *Professor and Chair*
Dallin Alldredge, *Assistant Professor*
Joel Barber, *Associate Professor*
Deanne Butchey, *University Lecturer*
Mustafa Caglayan*, Associate Professor*
Flavio Carrillo, *Instructor and Director, Capital Markets Lab*
Chun-Hao Chang, *Professor*
Wen-Hsiu Chou, *Associate Professor and Knight Ridder Center Research Fellow*
Robert T. Daigler, *Professor Emeritus*
Krishnan Dandapani, *Professor, and Academic Director, Professional MBA Programs*
Diogo Duarte, *Assistant Professor*
Mark Del Pezzo, *Instructor*
Sandrine Dogne Penlap*, Assistant Professor*
Brice Dupoyet, *Associate Professor and Faculty Director, MSF Program*
Ali Gungoraydinoglu, *Senior Instructor*
Yeonju Jang, *Assistant Professor*
Kenneth Jessell, *Professor, CFO and Senior VP, Finance and Administration*
Xiaoquan Jiang, *Professor and Knight Ridder Center Research Fellow*
Qiang Kang, *Associate Professor*
James Keys, *University Instructor*
Manuel Lasaga, *Clinical Professor*
Edward Lawrence, *Professor and Florida International Bankers Association Professorship, Academic Director of the Finance Doctoral Program*
Joanne Li, *Dean, College of Business, Professor of Finance, Ryder Eminent Scholar Chair in Business*
Suchismita Mishra, *Professor*
Raul Moncarz, *Professor Emeritus*
Anastasios Moysidis, *Senior Instructor*
Ozde Oztekin, *Associate Professor and Knight Ridder Center Research Fellow*
Ali M. Parhizgari, *Professor*
Arun Prakash, *Professor Emeritus*
Emmanuel Roussakis, *Professor Emeritus*
Florent Rouxelin, *Assistant Professor*
Arun Upadhyay, *Associate Professor*
Minho Wang, *Assistant Professor*
John S. Zdanowicz, *Professor Emeritus*

Adjunct Faculty
Marcos Kerbel
Laureano Martinez

Purpose

The Department of Finance seeks to provide students with solid theoretical and practical knowledge in the areas of banking, corporate finance, investments, portfolio management, financial risk management, financial engineering, financial institutions, markets, and international finance.

Finance Major

Undergraduate business students can opt to pursue a Finance major. Those who do so graduate prepared to enter positions in corporations, financial institutions, brokerage firms, investment banks, and government. They also are prepared for post-graduate studies in all areas of business.

Finance Major Learning Objectives

1. Identify the functions of financial markets and institutions and examine their impact on the level of interest rates and interest rate differentials.
2. Investigate advanced time value of money concepts and extend these concepts to mortgage mathematics, commercial mathematics, and capital budgeting.
3. Explore the international integration of financial markets and analyze implications for financial managers.
4. Examine the nature of the commercial banking business. Ascertain the measures of bank return and risk performance and how they are applied to bank valuation decisions and management performance assessment.
5. Identify and analyze derivative instruments and strategies used by investors and corporations to hedge financial risks. Emphasis will be placed on identification of financial risk and designing optimal risk management strategies.
6. Determine and analyze the appropriate measures of risk and return for various financial instruments. Understand the mechanics and regulation of financial securities exchanges.

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	27 hours
Major Courses	21 hours
Upper Division Business Electives	12 hours

Lower Division/Business Pre-Core

The “General Information” section in this catalog describes the lower division and business pre-core requirements.

Upper Division/Business Core

The College’s Business Core Requirements are listed in the first section of this College of Business chapter. To be eligible to take any of the major courses, including all the electives, students must have earned a grade of “C” or higher in FIN 3403 or its equivalent.

Upper Division Business Electives

All electives outside the College of Business must receive the approval of the Department Chair. A list of approved courses is available from COB Advising.

Major Courses (3 credit-hours each)

FIN 3414	Intermediate Finance
FIN 4324	Commercial Bank Management
FIN 4502	Securities Analysis
FIN 4486	Financial Risk Management–Financial Engineering
FIN 4303	Financial Markets and Institutions
FIN 4604	International Finance – *GL*
FIN XXXX	Finance Elective
	or
REE XXXX	Real Estate Elective

Academic Standard

The Department of Finance requires that students fulfill the following requirements in order to remain in a degree program:

1. Receive a grade of "C" or higher in each of the courses in their major.
2. Receive a grade of "C" or higher in the core course (FIN 3403).
3. Earn a grade of "C" or higher in each Upper Division business elective.

It is also strongly recommended that Finance majors join the Financial Management Association Student Chapter and participate actively in its events.

To improve the learning experience, to assure learning and to ensure employers of the quality of a graduate with a Finance major, all Finance majors will take a comprehensive examination of their knowledge and skills toward the end of their course of study.

Certificate in Banking (CIB)

The Certificate in Banking is designed to train current and future bankers, as well as those who simply want to earn a Certificate while also pursuing an academic degree. The core program consists of four undergraduate Finance courses. Students who receive a grade of "C" or higher in all courses, both prerequisite and core, will have earned and will be presented with a Certificate in Banking. Students wishing to participate in more than one certificate program MAY NOT use the same course(s) to satisfy the requirements. A grade of "C" or higher is required in each course. This certificate program is open to degree-seeking students only.

Prerequisites: FIN 3403 (Financial Management), ACG 2021 (Accounting for Decisions), and ECO 2013 (Principles of Macro Economics), FIN 3414 (Intermediate Finance), and FIN 4502 (Securities Analysis), in addition to a minimum GPA of 2.75.

1. FIN 4486 Financial Risk Management-Financial Engineering: 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.

and

2. FIN 4303 Financial Markets and Institutions: Financial markets and the role of financial intermediaries in these markets. Emphasis will be upon the objectives and policies of financial intermediaries within the constraints of law and regulatory authorities.

and

3. FIN 4324 Commercial Bank Management: The management of bank assets and liabilities; specialized banking, functions; and the role of the commercial bank in financing business.

and

4. FIN 4345 Credit Analysis and Loan Evaluation: Topics to include: introduction to commercial lending; secured lending; accounts receivable financing and factoring; inventory financing; introduction to lending vehicles; short term lending; domestic taxation; consolidations; forecasting and intermediate term cash flow lending; term loan agreements/covenants; subordinations and guarantees; foreign exchange; international transactions and leasing.

or

FIN 4663 Global Private Banking: This course seeks to provide the students with an understanding of the nature of the global private banking, its role in preserving, augmenting and protecting wealth and how it is shaped by a sometimes-controversial need for confidentiality.

Certificate in International Bank Management (CIBM)

The Certificate in International Bank Management is designed to train current and future bankers in the field of international banking policies and practices. It provides current banking professionals with an understanding of the interrelationships between domestic and international banking. The core program consists of four undergraduate Finance courses. Students who receive a grade of "C" or higher in all courses, both prerequisite and core, will have earned and will be presented with a Certificate in International Bank Management. Students wishing to participate in more than one certificate program MAY NOT use the same course(s) to satisfy the requirements. A grade of "C" or higher is required in each course. This certificate program is open to degree-seeking students only.

Prerequisites: FIN 3403 (Financial Management), ACG 2021 (Accounting for Decisions), and ECO 2013 (Principles of Macro Economics), FIN 3414 (Intermediate Finance), and FIN 4502 (Securities Analysis), in addition to a minimum GPA of 2.75

1. FIN 4486 Financial Risk Management-Financial Engineering: 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.

and

2. FIN 4604 International Financial Management – *GL*: Capital budgeting operational analysis and financial decisions in the multinational context. Working capital management and intrafirm fund transfers. Measurement and evaluation of the risk of internationally diversified assets.

and

3. FIN 4634 International Banking – *GL*: Introductory survey of issues that deal with international aspects of banking. The course provides an overview of the structure and operation of the international banking function, the services offered, supporting documentation, and measures to improve the efficiency and effectiveness of the international banking organization. The purpose of the course is to acquaint the students with the daily activities in international banking.

and

4. FIN 4324 Commercial Bank Management: The management of bank assets and liabilities; specialized banking, functions; and the role of the commercial bank in financing business.

or

FIN 4345 Credit Analysis and Loan Evaluation: Topics to include: introduction to commercial lending; secured lending; accounts receivable financing and factoring; inventory financing; introduction to lending

vehicles; short term lending; domestic taxation; consolidations; forecasting and intermediate term cash flow lending; term loan agreements/covenants; subordinations and guarantees; foreign exchange; international transactions and leasing.

or

FIN 4663 Global Private Banking: This course seeks to provide the students with an understanding of the nature of the global private banking, its role in preserving, augmenting and protecting wealth and how it is shaped by a sometimes-controversial need for confidentiality.

Global Leadership and Management

Juan I. Sanchez, *Professor and Chairperson, and Knight Ridder Byron Harless Eminent Scholar*
Sungu Armagan, *Senior Instructor*
Brooke Buckman, *Assistant Professor*
Eric Cartaya, *Instructor*
Ravi Gajendran, *Associate Professor*
Carolina Gomez, *Professor, and Alvah Chapman Eminent Scholar*
Nathan J. Hiller, *Associate Professor, and Academic Director, Center for Leadership*
Karl O. Magnusen, *Professor Emeritus*
Modesto A. Maidique, *Professor, and FIU President Emeritus*
Hock-Peng Sin, Ph.D., *Associate Professor, Faculty Director for IMBA Program, and Alvah Chapman Eminent Scholar*
Marc Weinstein, *Clinical Professor and Academic Director, MSHRM Programs*

Purpose

The Department of Global Leadership and Management seeks to provide undergraduate students with courses that emphasize the most current knowledge in the profession. A dedicated faculty with expertise in strategic management, change management, human resource management, organizational behavior and international business prepares our students for successful management careers in the global business arena. Our graduates are armed with a clear understanding of the management field, a broad intellectual framework for managing in an evolving marketplace, the ability to lead and work within teams, computer literacy, and solid communication skills.

Information for all Management and Human Resource Management Business Majors

Undergraduate students can select a general Management Major or a Human Resource Management Major.

Internships: Students who are interested in receiving academic credit for an internship are required to submit an internship student application for Department Chair approval. To qualify for academic credit, activities carried out in the internship should be supervised and deemed capable of enhancing the student's business management skills and post-graduation employability. A minimum of 2.75 GPA, junior or senior standing is also required. For further instructions and to download the internship application, please visit our departmental webpage: **http://glam.fiu.edu**.

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	27 hours
Major Courses	21 hours
Upper Division Business Electives	12 hours

Lower Division/Business Pre-Core

The "General Information" section in this catalog describes the Lower Division requirements and business pre-core.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of the "College of Business" chapter.

Upper Division major requirements must be completed within six years prior to awarding of degree or otherwise be approved by the Department.

Upper Division Electives:

Management Majors may take any 3000 level or higher course preferably inside the College of Business to satisfy their Upper Division Business Elective requirement. All upper division electives outside the College of Business must demonstrate a relationship to business and receive the approval of the Global Leadership and Management Department Chair.

Human Resource Management Majors may take any 3000 level or higher course inside or outside of the College of Business to satisfy their Upper Division Business Elective requirement. All upper division electives outside the College of Business must demonstrate a relationship to the human resources function and receive the approval of the Global Leadership and Management Department Chair.

MAN Prefix Courses

Students should note that not all courses with a MAN prefix are actually management courses. Therefore, they should consult with a College advisor to confirm that their program of study reflects the degree requirements.

Management Major

This major is designed for students interested in a general management major. Management major students must take 21 major credits hours as prescribed below:

Management Courses:

MAN 4151	Organizational Behavior
MAN 4301	Human Resource Management
MAN 4771	Executive Skill Development

plus two of the following courses:

MAN 3100	Happiness at Work
MAN 4164	Leadership
MAN 4102	Managing Diversity
ENT 4113	Entrepreneurship: New Business Development
GEB 4110	Writing the Business Plan
MAN 4065	Business Ethics
MAN 4600	International Management

Management Major Electives

Two (2) additional 3000 and/or 4000 level courses offered by any department in the College of Business are required (6 credit hours).

Upper Division Business Elective Requirements (12 credit hours):

Management majors may take any 3000 level or higher course preferably inside of the College of Business to satisfy their Upper Division Business Elective requirement.

All upper division electives outside the College of Business must demonstrate a relationship to business and receive the approval of the Global Leadership and Management Chair.

Management majors are encouraged to meet their Major and Upper Division Elective Requirements by pursuing one of the Certificates offered by the College of Business (e.g., Banking, Sales and Customer Relationship Management, Social Media and E-Marketing Analytics, Import-Export and Supply Chain Management). Although pursuing a certificate is not required, certificates increase the employability of the students by allowing them to acquire specific, in-demand skills.

Human Resource Management

Degree Program Requirements (120 credit-hours)

This major is designed for students interested in human resource management. To fulfill this major, students must meet their basic requirements of 60 hours of Lower Division credit-hours and 27 credit-hours of Business Core courses and 12 credit hours of upper division business electives. In addition, they must take 21 credits as follows:

MAN 4301	Human Resource Management
MAN 4320	Recruitment and Staffing
MAN 4322	Human Resource Information Systems
MAN 4330	Compensation and Benefits
MAN 4350	Training and Development
MAN 4410	Union-Management Relations
Plus	
MAN 3100	Happiness at Work
or	
MAN 4102	Managing Diversity
or	
BUL 4540	Employment Law
or	
MAN 4610	International Human Resources

Upper Division Business Elective Requirements:

In addition to the above, HR majors may take any 3000 level or higher course inside or outside of the College of Business to satisfy their Upper Division Business Elective requirement. All upper division electives outside the College of Business must demonstrate a relationship to the human resources function and receive the approval of the Global Leadership and Management Department Chair.

Students enrolled in a second major or a certificate/minor program must take the courses prescribed in their program.

Team Management Certificate

The Team Management Certificate will be an Academic Certificate offered to all undergraduate FIU students. The Certificate reflects an interdisciplinary approach to team management via combining courses from three Departments, specifically, Information Systems and Business Analytics, Management and International Business, and Marketing and Logistics. Concepts in the area of organizational behavior, managerial/leadership skills, problem-solving, decision making, project management, innovation, technology, and globalization will be combined in the new certificate. The certificate is designed to provide students with an understanding and the practical skills needed to be effective team members and team leaders. This certificate program is open to degree-seeking students only.

The Certificate will require 18 credit hours. The Certificate will be comprised of six (6) courses which are three (3) credits each.

Requirements

(a) All certificate course work must be completed at FIU;
(b) Students will be required to obtain a grade of “C” or higher in each of the six courses comprising the certificate;
(c) The certificate must be earned concurrently with a Bachelor’s degree at FIU; and
(d) Students will be required to take six courses as follows:

Four Required Courses: (12 credit hours)

MAN 3025	Organization and Management
or	
MAN 3022	Introduction to Management
and	
MAN 4120	Managing Virtual Teams
MAN 4151	Organizational Behavior
MAN 4164	Leadership

Two Elective Courses: (6 credit hours)

MAN 3100	Happiness at Work
MAN 4054	Managing Innovation
MAN 4102	Managing Diversity
MAN 4152	Facilitating Activities for Teambuilding
MAN 4442	International Business Negotiations
MAN 4583	Project Management
or	
ISM 4314C	Project Management
MAR 4643	Decision Making and Negotiations

Academic Standard

The Department of Global Leadership and Management requires that students fulfill the following requirements in order to remain in a degree program:

1. Receive a grade of “C” or higher in each of the courses in their major.
2. Receive a grade of “C” or higher in each of the core management courses (MAN 3025 and MAN 4720).
3. Earn a grade of “C” or higher in each Upper Division business elective.

Information Systems and Business Analytics

Karlene Cousins, *Chair, Associate Professor*
David Agogo, *Assistant Professor*
Miguel Aguirre-Urreta, *Associate Professor*
Dinesh Batra, *Professor*
Lina Bouayad, *Assistant Professor*
Min Chen, *Assistant Professor*
Yan Chen, *Assistant Professor and Academic Director, MS in Information Systems*
Gloria Deckard, *Associate Professor*
S. Christopher Ellis, *Instructor and Academic Director, Corporate MBA Program*
Pouyan Esmaeil Zadeh, *Assistant Professor*
Paulo J. Gomes, *Assistant Professor*
Manjul Gupta, *Assistant Professor*
Sushil K. Gupta, *Professor*
Hyeyoung Hah, *Assistant Professor*
Attila J. Hertelendy, *Instructor*
Keum S. Kang, *Assistant Professor*
Richard Klein, *Associate Dean, Landon Undergraduate School, College of Business, Professor*
Gerard Klonarides*, Lecturer*
Christos P. Koulamas, *Professor and Ryder Eminent Scholar*
George J. Kyparisis, *Professor*
Cynthia LeRouge, *Associate Professor and Academic Director, MS in Health Informatics and Analytics*
George Marakas, *Professor and Director, Ph.D. Program*
Tala Mirzaei, *Assistant Professor*
Manoel Oliveira, *Senior Instructor*
Carlos Parra, *Clinical Professor*
Peter Polak, *Instructor*
Carrie Sanchez, *Visiting Instructor*
Gladys Simpson, *Senior Instructor*
Hemang C. Subramanian, *Assistant Professor*
Debra VanderMeer, *Associate Professor*
Nicole Wishart, *Senior Instructor*
Weidong Xia, *Associate Professor*

Mission

The mission of the Department of Information Systems and Business Analytics (ISBA) is to provide students with the knowledge and ability to design, develop, implement, and use information systems that allow organizations to effectively solve problems within organizations; and to provide students with the knowledge and ability to analyze and use data for decision-making within organizations. The department offers courses in business analytics, business statistics, health informatics, management information systems, operations management, and project management at both the graduate and undergraduate levels.

Curriculum Educational Objectives

By graduation, students are expected to be able to:

1. Recognize and analyze business problems and opportunities, apply systems development methodologies to elicit and analyze customer requirements.
2. Propose information systems-based solutions that are technically sound, economically feasible, and organizationally viable.
3. Communicate, orally and in writing, information systems solutions to the various stakeholders.
4. Use information systems to provide customers with the data, information, and knowledge to make decisions.
5. Develop state of the art information technology skills in the contemporary and emerging dynamic and complex business environment.
6. Collaborate in a team to participate in or manage complex information-based business projects.

BBA in Business Analytics

Undergraduate business students opting to pursue a BBA in Business Analytics (BA) will gain a solid foundation in the application of statistical methods, techniques, and tools to large data sets. The Business Analytics program provides students with the background needed to apply statistical methods and techniques through use of decision support systems (DSS), expert systems (ES), business intelligence (BI) reporting tools, and business analytics (BA) data mining tools. Graduates will be prepared for entry-level business analytics and reporting positions.

Degree Program Requirements (120 credit hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	27 hours
Major Courses	21 hours
Electives	12 hours

Lower Division/ Business Pre-Core
The "General Information" section in this catalog describes the lower division and business pre-core requirements.

Upper Division/Business Core
The College's Business Core Requirements are listed in the first section of this "College of Business" chapter.

Major Courses
Students are required to complete all of the following Major Courses (18 credit hours)

ISM 4151	Managing Digital Services and Innovation	3
ISM 4210	Data Base Applications	3
ISM 4211	Database Systems and Physical Design	3
ISM 4400	Managerial Information Analysis	3
ISM 4402	Business Intelligence and Reporting	3
ISM 4420	Business Analytics	3

Students are also required to complete one of the following courses (3 credit hours).

ISM 4314	Project Management	3
	or	
MAN 4583	Project Management	3

Electives
Students may complete any electives (12 credits). Recommended Department of Information Systems and Business Analytics electives include the following:

HIM 4656	Health Information Systems Management	3
ISM 3153	Business Process Analysis	3
ISM 3230	Business Application Development	3
ISM 3949	Information Systems Internship II	1-3

ISM 4053	Interface Design for Business Applications	3
ISM 4054	Web Application Development	3
ISM 4113	Systems Analysis and Design	3
ISM 4154	Business Application Integration	3
ISM 4220	Business Telecommunication Systems	1
ISM 4323	Information Systems Security	1
ISM 4340	Organizational Impacts of Information Systems	3
ISM 4949	Information Systems Internship II	1-3

Academic Standards

To progress into upper-division Business Analytics Major courses, students must complete the seven lower division Business Common Prerequisite Courses (21 credit hours) with (1) a C or better (2) in two attempts or fewer, and with (3) a GPA of 2.5 or greater for the set of seven courses. These seven courses (21 credit hours) include, six credit hours of accounting; six credit hours of economics; three credit-hours of business calculus; three credit-hours of business statistics; and three credit-hours of computer applications. Drops after the add/drop period, which result in a DR grade, are considered an attempt in the course and count as an unsuccessful enrollment. Further, it is also strongly recommended that all students pursuing a BBA in Business Analytics (BA) join the student chapter of the Association for Information Systems (AIS at FIU) and participate actively in organization sponsored events.

BBA in Information Systems

Undergraduate business students opting to pursue a BBA in Information Systems (IS) will gain a solid foundation in the design, use, and management of databases, enterprise systems, information security and telecommunications technology. The IS program provides students with the background needed to give informational support for decision-making through business analytics and to understand complex project management initiatives.

Graduates will be prepared for entry-level positions in information systems field, either in user- or system-oriented departments.

Degree Program Requirements (120 credit hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	27 hours
Major Courses	21 hours
Electives	12 hours

Lower Division/ Business Pre-Core

The “General Information” section in this catalog describes the lower division and business pre-core requirements.

Upper Division/Business Core

The College’s Business Core Requirements are listed in the first section of this “College of Business” chapter.

Major Courses

Students are required to complete all of the following Major Courses (18 credit hours).

ISM 3143	Business Process Analysis	3
ISM 3230	Business Application Development	3
ISM 4113	Systems Analysis and Design	3
ISM 4151	Managing the Digital Services and Innovation	3
ISM 4210	Database Applications	3
ISM 4220	Business Telecommunication Systems	2
ISM 4323	Information Systems Security	1

Students are also required to complete one of the following courses (3 credit hours).

ISM 4314	Project Management	3
	or	
MAN 4583	Project Management	3

Electives

Students may take any four electives (12 credits). Recommended Department of Information Systems and Business Analytics electives include the following:

ISM 3949	Information Systems Internship I	3
HIM 4656	Health Information Systems Management	3
ISM 4053	Business Interface Design	3
ISM 4054	Web Application Development	3
ISM 4154	Business Application Integration	3
ISM 4211	Database Systems and Physical Design	3
ISM 4340	Organizational Impacts of Information Systems	3
ISM 4400	Managerial Information Analysis	3
ISM 4402	Business Intelligence and Reporting	3
ISM 4420	Business Analytics	3
ISM 4949	Information Systems Internship II	1-3

Academic Standards

The Department of Information Systems and Business Analytics (ISBA) requires that students receive a grade of "C" or higher in all major courses, and a passing grade in business electives in order to remain in the degree program. Students pursuing an Information Systems (IS) degree must earn a grade of "C" or higher in ISM 3230. This course cannot be attempted more than twice. Drops after the add/drop period, which result in a DR grade, are considered an attempt in the course and count as an unsuccessful enrollment. Further, it is also strongly recommended that all students pursuing a BBA in Information Systems (IS) join the student chapter of the Association for Information Systems (AIS at FIU) and participate actively in organization sponsored events.

Business Analytics Track

The Department of Information Systems and Business Analytics (ISBA) offer a Business Analytics Track to students pursuing a degree in Information Systems (IS). The track focuses on developing the essential skills required to pursue careers as big data, or qualitative, analysts. As public and private entities accumulate ever-increasing stores of data assets, their ability to efficiently and effectively analyze such assets constitutes a key core competency. Students pursuing the track will specialize in the application of statistical methods, techniques, and tools to large data sets proliferating across organizations, in an effort to address persistent and evolving business problems. Student will gain hands on experience applying statistical methods and techniques through use of decision support systems (DSS), expert systems (ES), business intelligence (BI) reporting tools, and business analytics (BA) data mining tools. The Business Analytics Track consists of 7 courses (21 credit hours). Students with a

declared second major in Business Analytics may not pursue the IS with Business Analytics Track. Additionally, students pursuing a Minor in Business Analytics may not pursue the IS with Business Analytics Track. Students are required to receive a grade of "C" or higher in each course.

Required Track Courses

Students are required to complete all four of the following Major Courses (12 credit hours).

ISM 4151	Managing the Digital Services and Innovation	3
ISM 4210	Database Applications	3
ISM 4400	Managerial Information Analysis	3
QMB 3200	Applied Business Statistics	3

Students are required to complete all three of the following Upper Division Business Electives (9 credit hours).

ISM 4211	Database Systems and Physical Design	3
ISM 4402	Business Intelligence and Reporting	3
ISM 4420	Business Analytics	3

Business Information Security Track

The Department of Information Systems and Business Analytics (ISBA) offer a Business Systems Track to students pursuing a degree in Information Systems (IS). The track focuses on developing the key skills needed to pursue careers as information security, or cyber-security, analysis or specialists within modern business organizations. Information security analysts plan, implement, and monitor security measures to protect organizations' information systems and key data assets. Given the ever-increasing number of incidents plaguing business organizations, their responsibilities are continually expanding and changing. The Business Information Security Track consists of 8 courses (21 credit hours). Students are required to receive a grade of "C" or higher in each course.

Required Track Courses

Students are required to complete all of the following Major Courses (9 credit hours).

ISM 4113	Systems Analysis and Design	3
ISM 3230	Business Application Development	3
ISM 4220	Business Telecommunication Systems	2
ISM 4323	Information Systems Security	1

Students are also required to complete one of the following courses (3 credit hours).

ISM 4314	Project Management	3
	or	
MAN 4583	Project Management	3

Students are required to complete all three of the following Upper Division Business Electives (9 credit hours).

EEL 4806	Ethical Hacking and Countermeasures	3
EEL 4802	Introduction to Digital Forensics Engineering	3
EEL 4804	Introduction Malware Reverse Engineering	3

Business Systems Track

The Department of Information Systems and Business Analytics (ISBA) offer a Business Systems Track to students pursuing a degree in Information Systems (IS). The track focuses on developing the necessary skills required to pursue careers as business/systems analysts within IS departments or consulting organizations. Systems analysts study organizations' current information and computer systems as well as procedures, subsequently designing information systems solutions that help organizations operate more efficiently and effectively. These professionals bring business and information technology together by understanding the needs and limitations of both. The Business Systems Track consists of 7 courses (21 credit hours). Students are required to receive a grade of "C" or higher in each course.

Required Track Courses

Students are required to complete all of the following Major Courses (9 credit hours).

ISM 3230	Business Application Development	3
ISM 4113	Systems Analysis and Design	3
ISM 4220	Business Telecommunication Systems	2
ISM 4323	Information Systems Security	1

Students are also required to complete one of the following courses (3 credit hours).

ISM 4314	Project Management	3
	or	
MAN 4583	Project Management	3

Students are required to complete all three of the following Upper Division Business Electives (9 credit hours).

ISM 4053	Interface Design for Business Applications	3
ISM 4054	Web Application Development	3
ISM 4154	Business Application Integration	3

Minor in Business Analytics (12 credits)

The Department of Information Systems and Business Analytics (ISBA) offers a Minor in Business Analytics to non-Business Analytics majors (IS). Additionally, Information Systems (IS) majors with a track in Business Analytics may not pursue a Minor in Business Analytics. The minor affords students the opportunity to learn about the application of statistical methods and techniques through decision support systems (DSS), expert systems (ES), business intelligence (BI) reporting tools, and business analytics (BA) data mining tools. As both public and private sector organizations accumulate ever-increasing stores of data, their ability to apply qualitative techniques and tools constitutes an essential skill. While the application of such techniques has historically focused on accounting and financial data, marketing and other fields are increasingly turning data to drive new business models and achievement of competitive advantages. Students are required to receive a grade of "C" or higher in each course.

Required Courses

Business students are required to complete the following course (3 credit hours).

QMB 3200	Applied Business Statistics	3

Non-business students are required to complete one of the following four courses (3 credit hours).

ECO 3410	Measurement and Analysis of Economic Activity	3
STA 3033	Introduction to Probability and Statistics for CS	3

STA 3112	Statistics II	3
STA 3123	Statistics for Behavioral and Social Sciences II	3
STA 3145	Statistics for the Health Professions	3

All students are required to complete all three of the following courses (9 credit hours).

ISM 4400	Managerial Information Analysis	3
ISM 4402	Business Intelligence and Reporting	3
ISM 4420	Business Analytics	3

Minor in Project Management (12 credits)

The Department of Information Systems and Business Analytics (ISBA) offers a Minor in Project Management to non-Information Systems (IS) majors. The minor affords students the opportunity to acquire project management skills. As the fundamental process project enterprises employ to organize and manage numerous initiatives, project management skills allow business professionals to succeed in many different fields. Accordingly, the Minor in Project Management is open to all students to help them develop a set of basic skills to effectively manage projects in their professional lives. Students are required to receive a grade of “C” or higher in each course.

Required Courses

Business students are required to complete the following course (3 credit hours).

ACG 3301	Accounting for Planning and Control	3

Non-business students are required to complete the following course (3 credit hours).

ACG 3024	Introduction to Accounting for Managers and Investors	3

All students are required to complete one of the following courses (3 credit hours)

ISM 4314	Project Management	3
	or	
MAN 4583	Project Management	3

All students are required to complete both of the following courses (6 credit hours).

ISM 3153	Business Process Analysis	3
ISM 4113	Systems Analysis and Design	3

International Business

William Newburry, *Professor and Chair, and Ryder Eminent Scholar of Global Business*
Aya Chacar, *Professor and Ingersoll-Rand Professor*
Danielle Combs, *Assistant Professor*
Jose de la Torre, *Professor Emeritus*
Stav Fainshmidt, *Associate Professor, Academic Director, MIB Programs*
Doreen Gooden, *University Instructor*
Orhun Guldiken, *Assistant Professor*
Jerry Haar, *Clinical Professor, Executive Director, Executive & Professional Education*
Arun Kumaraswamy, *Associate Professor*
Sumit Kundu, *Professor, James K. Batten Eminent Scholar Chair in International Business and Associate Dean, International Programs*
Curba Lampert, *Associate Professor*
Louis Melbourne, *Senior Instructor*
Ronaldo Parente, *Professor and Knight-Ridder Research Fellow*
Karen Paul, *Professor*
Clifford R. Perry, *University Instructor*
Seema Pissaris, *Clinical Professor*
Dileep Rao, *Clinical Professor*
Donald Roomes, *University Instructor*
Philip Shepherd, *Associate Professor*
Mary Ann Von Glinow, *Professor and Knight Ridder Eminent Scholar Chair in International Management, Faculty Director, Center for International Business Education Research*
Fred Walumbwa, *Associate Professor*
David Wernick, *University Lecturer*

Adjunct Faculty

Jaime Franco **Jose Rocha**
S. Shawn Khosravi **David Wilson**
Juan Pujol

Mission

The mission of the Department of International Business is three-fold: 1) to be a world leader in international business research, teaching and academic leadership; 2) to provide impactful entrepreneurship educational programs in line with the needs of the South Florida community, and 3) to be a recognized player in the strategic management field. The department strives to prepare its students by offering a wide variety of academic courses, experiential learning activities and exposure to real-world international business environments, guided by world-renowned faculty members.

International Business Major

This major provides students with an intensive, in-depth study of the international dimensions of business. Students in the program will be exposed to all major business areas of International Business.

For more information, please visit our departmental web page at **http://ib.fiu.edu**

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	27 hours
Major Courses	21 hours
Upper Division Business Electives	12 hours

Lower Division/Business Pre-Core

The "General Information" section in this catalog describes the Lower Division requirements and business pre-core.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of the "College of Business" chapter.

Upper Division major requirements must be completed within six years prior to awarding of degree or otherwise be approved by the Department.

Major Courses Requirements:

International Business majors must take 21 credit-hours from the following list:

IB Required Courses (5 courses, 15 credit-hours)

FIN 4604	International Financial Management – *GL*
MAN 4602	International Business
MAR 4156	International Marketing
MAN 4633	MNC Strategy
	AND
MAN 4600	International Management
	OR

any 3000 level or higher language course (3 credits) with the prefixes ABT, CHI, FRE, GER, HAI, ITA, JPN, POR, SPN or equivalent.

IB Major Elective Courses (2 courses, 6 credit hours)

ENT 4704	International Entrepreneurship
MAN 4203	Leadership in Multilateral Institutions
MAN 4442	International Business Negotiations
MAN 4610	International Human Resources
MAN 4613	International Risk Assessment
MAN 4660	Business in Latin America
MAN 4661	Business in Asia
MAN 4662	Business in Europe
MAN 4663	Business in the Caribbean
MAN 4664	Business in Africa
MAN 4671	Special Topics in International Business
MAN 4672	IB Regulation and Ethics
MAN 4673	Trade Policy and Business
MAN 4690	Independent Study in International Business
MAN 4712	IB Business-Government Relations
MAN 4946	International Business Internship
MAN 4956	International Business Study Abroad
MAN 4653	Foreign Direct Investment
ACG 4251	International Accounting
ECO 4701	World Economy
ECO 4703	International Trade Theory and Policy
ECO 4713	International Macroeconomics – *GL*
FIN 3652	Asian Financial Markets and Institutions
FIN 4633	International Capital Markets
FIN 4634	International Banking – *GL*
FIN 4651	Latin American Financial Markets and Institutions
FIN 4663	Global Private Banking
MAR 4144	Export Marketing
MAR 4203	Marketing Channels
MAR 4503	Consumer Behavior

MAR 4733	Digital Marketing
REE 4956	International Real Estate – *GL*
TRA 4721	Global Logistics

Upper Division Business Elective Requirements:

IB majors are required to take 12 credits of upper division electives. Review of this policy and future changes will be the prerogative of the Chair of the IB Department.

IB majors may take any 3000 level or higher course inside or outside of the College of Business to satisfy their Upper Division Business Elective requirement. All upper division electives outside the College of Business must demonstrate a relationship to international business and receive the approval of the IB Department Chair.

Students enrolled in a second major or a certificate/minor program must take the courses prescribed in their program.

Double Majors

International Business majors may choose general Management, Human Resource Management, or another discipline (preferably within the College of Business) as a second major. By combining two majors, students can gain a competitive edge in the job market. Students can apply three courses from one major to the second major. These 3 courses when combined with the four upper division business electives allow students to complete the double major within 120 or 123 credits. Students desiring a double major are encouraged to meet with their College of Business advisor early in their program of study.

Internships: The Department also offers internship opportunities to undergraduate students through the College of Business's Business Career Management office located in CBC 121. To qualify for academic credit in these activities, students must have a 2.75 GPA, junior or senior standing, and approval from the Department Chair.

For more information, please visit our departmental webpage: **http://ib.fiu.edu**.

MAN Prefix Courses

Students should note that not all courses with a MAN prefix are actually management or international business courses. Therefore, they should consult with a College advisor to confirm that their program of study reflects the degree requirements.

Honors in International Business Program

The Honors in International Business (Honors in IB) program attracts highly motivated, focused, and intellectually curious students who have a global perspective. The Honors in IB program provides the opportunity for future leaders in the world economy to develop a global business skill set through international study, travel, and work experiences.

An Honors in IB student has the opportunity to participate in ceremonies, networking events, honors-dedicated courses, special corporate seminars, and placement services. An Honors in IB student will graduate with Honors recognition. Students joining the Honors in IB program are expected to join the IB Honors Society, the community/social responsibility arm of the program that engages students in compelling international service learning projects.

Program Highlights:

INTERNATIONAL BUSINESS EXPERIENCE: Honors in IB students are given the opportunity to experience the real world of international business via their participation in an international business activity. This requirement can be filled by enrollment in a study abroad program or an international business internship anywhere in the world.

INTERNATIONAL EXPLORATION: Students in the program will have the opportunity to be exposed to various topics and themes germane to international business through multidisciplinary coursework.

HONORS PROJECT: The Honors in IB program allows students to fulfill their IB Honors Project by doing an individual thesis, or becoming a member of a team which enters a national case or business plan competition, or by developing an individual business plan.

Admission to the Program

College of Business Honors in IB program: Students interested in the Honors in IB program must first declare an international business major and consult the Honors in IB Advisor to submit a completed application form obtained from the Honors in IB website. Students must have a minimum GPA of 3.3 and have earned a minimum grade of "B" in MAN 3025 to be admitted to the Honors in IB program. Admission to the Honors College is not required. Upon completion of degree requirements students will receive a BBA degree with Honors in International Business (see http://business.fiu.edu/landon/hib.cfm).

Honors in IB program Academic Standards

Students are required to

(a) obtain a grade of "B" or higher in each of their major courses,
(b) obtain a minimum GPA of 3.3 in the program for graduation,
(c) fulfill all University language requirements, and
(d) fulfill all other Department, COB and University graduation requirements.

Students interested in participating in the Honors in IB program should contact the program's director at (305) 348-2791, or consult the Honors in IB program website.

Scholarships

A limited number of academic scholarships are available to students in the Honors in IB program. Please consult the Honors in IB advisor for specific details.

Honors in International Business Major Degree Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	27 hours
Major Courses	33 hours

Honors in IB program

REQUIRED UPPER DIVISION CORE COURSES (9 courses, 27 credit-hours)

BUL 4310 The Legal Environment of Business

NOTE: HC IBH students can take INR 3403, International Law, in lieu of BUL 4310

ISM 3011	Information Systems Management
	or
QMB 4680	Business Analysis
COM 3150	Advanced Communications for Business
FIN 3403	Financial Management
MAN 3025	Organization and Management
MAN 4720	Strategic Management – *GL*
MAR 3023	Introduction to Marketing – *GL*
QMB 3200	Applied Business Statistics

HONORS IN IB REQUIRED MAJOR COURSES (7 courses, 21 credit-hours)

FIN 4604	International Financial Management – *GL*
MAN 4600	International Management
MAN 4602	International Business
MAN 4633	MNC Strategy
MAN 4970	International Business Honors Project Seminar
MAR 4156	International Marketing
	plus
MAN 4946	International Business Internship
	or
MAN 4956	Study Abroad in International Business

INTERNATIONAL EXPLORATION (2 courses required, 6 credit-hours)

Students may select two (2) courses (6 credit-hours) from the following list:

ENT 4704	International Entrepreneurship
MAN 4203	Leadership in Multilateral Organizations
MAN 4442	International Business Negotiations
MAN 4610	International Human Resources
MAN 4613	International Risk Assessment
MAN 4653	Foreign Direct Investment
MAN 4660	Business in Latin America
MAN 4663	Business in the Caribbean
MAN 4671	Special Topics in International Business
MAN 4672	International Business Regulation and Ethics
MAN 4673	Trade Policy and Business
MAN 4690	Independent Study in International Business
MAN 4712	International Business - Government Relations
ECO 4701	World Economy
ECO 4703	International Trade Theory and Policy
ECO 4713	International Macroeconomics – *GL*
ECS 3003	Comparative Economic Systems
FIN 3652	Asian Financial Markets
FIN 4634	International Banking – *GL*
FIN 4663	Global Private Banking
FIN 4651	Latin American Financial Markets and Institutions
REE 4956	International Real Estate – *GL*
ECO 3202	Applied Macroeconomics
MAR 4144	Export Marketing
MAR 4203	Marketing Channels
MAR 4722	e-Marketing
MAR 4503	Consumer Behavior
TRA 4721	Global Logistics
AFS 3011	African Civilization, Religion and Philosophy – *GL*
AFA 4340	Health, Society and Culture in the African World
AFS 3332	Gender and Sexualities in Sub-Saharan African Contexts – *GL*
AFS 3331	Women and Human Rights in Sub-Saharan Africa – *GL*
AFS 4265	Latin America and the Caribbean in Africa: South-South Interactions – *GL*
CPO 3204	African Politics
CPO 4404	Iraq: Politics and Society
GEA 3600	Population and Geography of Africa – *GL*
INR 3253	International Relations of Sub-Saharan Africa
MAN 4664	Business in Africa
REL 4370	African Religions
ABT 3503	Arabic Language and Culture
ASN 3015	South Asian Cultures
ASN 3329	Women in Asian Society
ASN 3410	Introduction to East Asia – *GL*
ASN 4510	Dynamics of Asia
ASN 4936	Modern Asia
CHI 3400	Intermediate Chinese Conversation
CHI 3410	Advanced Chinese I
CHI 3440	Business Chinese
CHT 3502	Chinese Culture and Society
COM 3410	Cultural Communication Patterns of Asia
CPO 3403	Politics of the Middle East
CPO 3502	Politics of the Far East
CPO 4553	Government and Politics of Japan
ECS 3200	Economics of Asia
INR 3223	Japan and the United States
INR 3224	International Relations of East Asia
INR 3274	International Relations of the Middle East
INR 4032	Asia and Latin America in World Affairs
INR 4232	International Relations of China
GEA 3635	Population and Geography of the Middle East
JPN 3140	Japanese for Business
JPN 3500	Japanese Culture and Society – *GL*
JPN 3242	Intermediate Japanese Conversation
JPN 3243	Advanced Japanese Composition
JPN 3400	Advanced Japanese I
MAN 4661	Business in Asia
REL 3123	Asian Religions in the Americas
REL 3310	Introduction to Asian Religions
REL 4351	Religions and Japanese Culture
SYD 3650	Sociology of Gender and Power in Asia
CPO 4541	Politics of China
CPO 3103	Politics of Western Europe
CPO 3104	Politics of the European Union
EUH 3282	European History, 1945 to Present
FRE 3420	Review Grammar/Writing I
FRE 3421	Review Grammar/Writing II
FRE 3441	Advanced Business French
FRE 3504	Language and Culture
GEA 3500	People, Place, and Environment of Europe
GEA 3554	Geography of Russia and Central Eurasia
GER 3420	Review Grammar/Writing I
INR 3214	International Relations of Europe
INR 3262	International Relations of Russia and the former USSR
ITA 3420	Review Grammar/Writing I
ITA 3421	Review Grammar/Writing II

ITA 3500	Italian Culture and Society – *GL*
ITA 3410	Advanced Italian Conversation
MAN 4662	Business in Europe
PHH 3602	Twentieth Century British Philosophy
POR 3244	Portuguese Intermediate Conversation
POR 3420	Review Grammar/Writing I
POR 3421	Review Grammar/Writing II
POR 3440	Portuguese for Business
SPN 3013	Language Skills for Professional Personnel
SPN 3301	Advanced Spanish for Non-Heritage Speakers
SPN 3440	Spanish Business Composition/Correspond
SPN 3422	Advanced Grammar and Composition I
SPN 3423	Advanced Grammar and Composition II
SPN 4500	Spanish Culture – *GL*
SPN 4520	Latin American Culture – *GL*
AFA 4241	The African Diaspora in Latin America
ANT 4332	Latin America
ANT 4334	Contemporary Latin American Women
ANT 4340	Caribbean Cultures
CPO 3304	Politics of Latin America
CPO 4303	Politics of South America
CPO 4333	Politics of Central America
ECS 3401	The Brazilian Economy
ECS 3402	The Political Economy of South America
ECS 3403	Economics of Latin America
GEA 3320	Population and Geography of the Caribbean
GEA 3400	Population and Geography of Latin America
HAI 3213	Accelerated Haitian Creole
HAI 3214	Accelerated Intermediate Haitian Creole
HAI 3500	Haiti: Language and Culture
INR 3243	International Relations of Latin America
INR 3246	International Relations of the Caribbean
LAH 3718	History of U.S.-Latin American Relations
LAS 3002	Introduction to Latin American and Caribbean Studies
PHH 3042	Latin American Philosophy
REL 3375	Religions of the Caribbean
REL 4481	Contemporary Latin American Religious Thought
SPN 3343	Advanced Spanish for Heritage Speakers – *GL*
SPN 4521	Topics on Latin American Culture

HONORS IN IB UPPER DIVISION BUSINESS ELECTIVES (2 courses, 6 credit-hours)
Students in the Honors in IB program are required to take two (2) 3000- or 4000- level (upper division) business electives.

Entrepreneurship Minor for Non-Business Students

Non-business students wishing to earn a minor in Entrepreneurship must have a minimum GPA of 2.5 to be admitted to the minor and complete four (4) of the following courses (12 credit-hours) with a grade of "C" or higher in each course.
Note: The faculty of the IB Department highly recommends students take ENT 4113, GEB 4110, MAN 3022, and MAN 4802 to fulfill the minor.

MAN 3022	Introduction to Management
ENT 4113	Entrepreneurship: New Business Development
GEB 4110	Writing the Business Plan
MAN 4802	Small Business Management
AMH 4373	Entrepreneurs in the US
AMH 4375	Technology and American Society

Entrepreneurship Certificate

FIU students wishing to earn a certificate in entrepreneurship must apply for the certificate program and complete six of the following courses (18 credit-hours) with a grade of "C" or higher in each course. This certificate program is open to degree-seeking students only.

Entrepreneurship Foundation Courses: Four (4) Courses Required (12 credit hours)

MAN 3025	Organization and Management
	or
MAN 3022	Introduction to Management

(or equivalent such as HFT 3203)

ENT 4113	Entrepreneurship: New Business Development
GEB 4110	Writing the Business Plan
MAN 4802	Small Business Management
	and

Entrepreneurship Elective Courses: Two (2) Courses Required (6 credit hours)

ENT 4604	Product Development and Innovation
ENT 4704	International Entrepreneurship
FIN 4702	Entrepreneurial Finance
GEB 4153	Social Entrepreneurship
MAN 4054	Managing Innovation
MAN 4301	Human Resource Management
MAN 4864	Family Business
MAR 4025	Marketing of Small Business Enterprises
MAR 4400	Personal Selling
HFT 4292C	Entrepreneurship in Hospitality & Tourism
AMH 4373	Entrepreneurs in the US
AMH 4375	Technology and American Society

International Trade and Investment Certificate

The Certificate in International Trade and Investment is open to all FIU students. It is designed for students who want to develop expertise in the international movements of goods and services and the operation of commercial enterprises in foreign locations. The courses address different aspects of international business: export/import; franchising and licensing; managing global operations; finance; political, legal, economic and; cultural differences; marketing abroad; and negotiating with businesspeople from other countries. This certificate program is open to degree-seeking students only.

Students will take six (6) courses each of which is three (3) credit hours for a total of 18 credit hours.

Requirements

(a) All certificate course work must be completed at FIU;

(b) Students will be required to obtain a grade of "C" or higher in each of the six courses comprising the certificate;
(c) The certificate must be earned concurrently with a Bachelor's degree at FIU; and
(d) Students will be required to take six courses as follows:

Five Required Courses: (15 credit hours)

MAN 4600	International Management
MAN 4602	International Business
MAN 4673	Trade Policy and Business
MAN 4613	International Risk Assessment
MAN 4653	Foreign Direct Investment

One Elective Course: (3 credit hours)

FIN 4604	International Financial Management – *GL*
FIN 4634	International Banking – *GL*
MAN 4442	International Business Negotiations
MAN 4633	MNC Strategy
MAN 4956	Study Abroad in International Business
MAR 4144	Export Marketing
MAR 4156	International Marketing

Academic Standard

The Department of International Business requires that students fulfill the following requirements in order to remain in a degree program:

1. Receive a grade of "C" or higher in each of the courses in their major.
2. Receive a grade of "C" or higher in each of the business core courses (MAN 3025 and MAN 4720).
3. Earn a grade of "C" or higher in each Upper Division business elective.

Marketing and Logistics

Anthony Miyazaki, *Professor and Chairperson*
Alexandra Aguirre-Rodriguez, *Associate Professor*
Nicolo Alaimo, *Visiting Instructor*
Christopher Allen, *Visiting Instructor*
L. Craig Austin, *Visiting Instructor*
Elisabeth Beristain, *Senior Instructor*
Tim Dugan Birrittella, *University Instructor*
Yi-Ju Vivian Chen, *Senior Lecturer*
Sebastián Garcia-Dastugue, *Assistant Professor*
Peter R. Dickson, *Professor*
Maria M. Garcia, *Senior Instructor*
Wendy Guess, *Instructor*
William Humphrey, *Instructor*
Walfried M. Lassar, *Ryder Professor*
Jaehoon Lee, *Assistant Professor*
Tiger Li, *Associate Professor*
Greg Maloney, *Instructor and Director, Ryder Center for Supply Chain Management*
Ron Mesia, *Senior Instructor and Executive Director, Ryder Center for Supply Chain Management*
Gustavo Mosquera, *Visiting Instructor*
Anna Pietraszek, *Instructor*
Nancy Rauseo, *University Instructor*
Nancy Richmond, *Instructor*
Raymond Rody, *Visiting Instructor*
Bruce Seaton, *Associate Professor*
Jayati Sinha, *Associate Professor*
Rafael Soltero, *Instructor*
Jaclyn Tanenbaum, *Instructor*
Kimberly Taylor, *Associate Professor*
John Tsalikis, *Professor and BMI Marketing Professor*
Sheryl Weir-Latty, *Visiting Instructor*
Andrew Yap, *Visiting Instructor*

Purpose

Mission

The mission of the undergraduate marketing major is to develop graduates who will be highly valued and actively recruited by the business community for their skills.

Curriculum Educational Objectives

By graduation, students are expected to be able to:

1. Recognize and apply the components that affect buyer decision-making.
2. Identify the elements of and determine appropriate practices for a personal brand strategy.
3. Identify business information needs and select appropriate data collection processes.
4. Analyze a prospect's needs, uncover the objections to closing the sale, and select appropriate sales strategies.
5. Analyze an organization's marketing strategy and determine appropriate and inappropriate marketing alternatives.

Marketing Major

Students who decide to major in marketing will be given a broad foundation in marketing concepts, and practice in their contemporary contexts. Students will have opportunities to pursue a greater depth of understanding in select areas of the discipline. Marketing majors are encouraged to apply for and complete one of the available certificate programs listed later in this section.

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	27 hours
Major Courses	21 hours
Upper Division Electives	12 hours

Lower Division/Business Pre-Core

The "General Information" section in this catalog describes the Lower Division and business pre-core requirements.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of this "College of Business" chapter.

Major Courses (3 credit-hours each)

Undergraduate students majoring in marketing must complete 21 credit hours of 4000-level marketing course work, of which the following 15 credit-hours are required:

MAR 4354	Marketing Yourself in Today's Competitive Job Market
MAR 4400	Personal Selling
MAR 4503	Consumer Behavior
MAR 4613	Marketing Research I
MAR 4804	Marketing Strategy

Students can fulfill the other 6 credit-hours with courses from the list below:

MAR 4025	Marketing of Small Business Enterprises
MAR 4071	Current Issues in Marketing I
MAR 4144	Export Marketing
MAR 4156	International Marketing
MAR 4203	Marketing Channels
MAR 4231	Retail Marketing
MAR 4232	Current Issues in Retail Marketing
MAR 4233	Social Media Marketing
MAR 4323	Integrated Marketing Communication
MAR 4403	Sales Management
MAR 4404	Business-to-Business Sales and Marketing
MAR 4415	Advanced Professional Selling
MAR 4620	Marketing Research II
MAR 4643	Decision Making and Negotiations
MAR 4674	Marketing Analytics
MAR 4733	Digital Marketing
MAR 4803	Cases in Marketing Management
MAR 4860	Customer Relationship Management
MAR 4933	Special Topics in Marketing
MAR 4941	Marketing Internship

Upper Division Business Electives

All electives outside the College of Business must receive the approval of the Department Chair. A list of approved courses is available from COB Advising.

Logistics and Supply Chain Management Major

In today's global economy, the vast majority of businesses require the movement of information, goods, products, supplies, materials, and people in order to fulfill the organization's goals and to provide benefits to the

communities the organization serves. This movement of human, physical, and informational capital involves the field of logistics and supply chain management. The new major in Logistics and Supply Chain Management provides undergraduate students with in-depth knowledge of logistics and supply chain concepts, best practices, and current tools of the trade that will enhance their career opportunities with respect to local, national, and international organizations.

Degree Program Requirements (120 credit-hours)

Lower-Division/Business Pre-Core	60 hours
Upper-Division/Business Core	27 hours
Major Courses	21 hours
Upper Division Electives	12 hours

Lower Division/Business Pre-Core

Required Common Prerequisite Courses (3 credit-hours each)

Students are required to achieve a grade of "C" or higher in each of the following courses:

ACG 2021	Accounting for Decisions
ACG 3301	Accounting for Planning and Control
PHI 2600	Introduction to Ethics (see equivalent below)
ECO 2013	Principles of Macroeconomics
ECO 2023	Principles of Microeconomics
MAC 2233	Calculus for Business
STA 2023	Statistics for Business and Economics

In addition to the above:
1. Students admitted in Fall 2012 or after, as freshman or transfer students with fewer than 30 credit hours earned, are encourages to take GEB 2011, Introduction to Business, during their first year.
2. Students admitted in the Fall 2018 or after, as freshman with fewer than 30 credit hours earned, are required to complete SPC 2608, Public Speaking for their Undergraduate Core Curriculum Arts Requirement.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
ACG 2021	ACGX021 or ACGX022 or ACGX001 and ACGX011
ACG 3301	ACGX071 or ACGX301
PHI 2600	PHIX600, BULX241, CGSX092, BULX131, MANX440, GEBX350, CGSX110, CGSX570, or CGSX531
ECO 2013	ECOX013
ECO 2023	ECOX023
STA 2023	STAX023 or STAX122 or QMBX100
MAC 2233	MACX233 or MACX230

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.
For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Upper Division/Business Core

The College's Business Core Requirements are listed in the first section of this "College of Business" chapter.

Major Courses (21 credit hours; 3 credit-hours each)

MAR 4144	Export Marketing
MAR 4203	Marketing Channels
TRA 4202	Logistics Technology
TRA 4203	Principles of Logistics
TRA 4214	Logistics Strategy
TRA 4721	Global Logistics
TRA 4012	Principles of Transportation

Upper Division Business Electives

All electives outside the College of Business must receive the approval of the Department Chair. A list of approved courses is available from COB Advising.

Marketing and Logistics Minors for Non-Business Majors

Qualified undergraduate students who are not business majors must apply to the College of Business to request one of the three minors offered in Marketing.

To earn a minor in Marketing, students must complete the required credit-hours of course work and receive a grade of "C" or higher in each course:

Minor in General Marketing for Non-Business Majors (15 credits)

All majors need to understand who their customers are, what they look for, and how to properly position a product or service for customer satisfaction. Knowing how to do these things can make a graduate much more valuable in any organization. In this minor, students can explore such areas as product planning and management, distribution, marketing research, retailing, advertising and promotion, consumer behavior, customer relations, and global marketing.

Required Courses

MAR 3023	Introduction to Marketing – *GL*
MAR 4503	Consumer Behavior

In addition, students must complete three of the following courses:

MAR 4025	Marketing of Small Business Enterprises
MAR 4144	Export Marketing
MAR 4156	International Marketing
MAR 4203	Marketing Channels
MAR 4231	Retail Marketing
MAR 4232	Current Issues in Retail Marketing
MAR 4323	Integrated Marketing Communications
MAR 4400	Personal Selling
MAR 4613	Marketing Research I
MAR 4620	Marketing Research II
MAR 4643	Decision Making and Negotiations
MAR 4674	Marketing Analytics
MAR 4804	Marketing Strategy
MAR 4860	Customer Relationship Management
MAR 4907	Independent Study in Marketing
TRA 4203	Principles of Logistics

TRA 4721 Global Logistics

Minor in Logistics and Supply Chain Management for Non-Business Majors (12 credits)

In today's global economy, most organizations require the movement of information, products, supplies, materials, and personnel in order to fulfill organizational serves. This movement of human, physical, and informational capital involves logistics and supply chain management. This minor provides students with a working knowledge of logistics and supply chain concepts, and is designed to complement a student's major field of study and enhance career opportunities. Logistics knowledge can appeal to students in any field, but students in certain fields may be particularly interested, such as those in engineering, politics, architecture, environmental studies, sustainability, economics, international relations, tourism management, hospitality management, health administration, and public administration. Students in fields where they expect to deal with international transportation of physical materials or personnel would also benefit. Students must receive a grade of "C" or higher in each course to be awarded the minor.

Required Courses

TRA 4203	Principles of Logistics
TRA 4012	Principles of Transportation
TRA 4202	Logistics Technology
TRA 4214	Logistics Strategy

Minor in Professional Sales for Non-Business Majors (12 credits)

Research shows that more than 50% of college graduates from a wide variety of majors and backgrounds enter a career in sales. Sales drive economic growth in all industries and through all marketing channels. The opportunities for sales careers far outnumber those in any other area. Recruiters in all industries are looking for students who can add value to organizations, internally and/or externally. This value comes from skills in these areas: interpersonal interactions and communications, questioning, listening, objection handling, negotiations, closing and service. This minor prepares students in any academic field with real-world, specialized training in the skills needed to succeed in this career area demanded by today's job market.

Required Courses

MAR 3023	Introduction to Marketing – *GL*
MAR 4400	Personal Selling
MAR 4415	Advanced Professional Selling

Choose one of the following courses:

MAR 4403	Sales Management
MAR 4404	Business-to-Business Sales and Marketing

Minor in Social Media and E-Marketing Analytics for Non-Business Majors (12 credits)

E-marketing and social media have changed the way companies, organizations, and individuals do business. Thus, a new set of skills and competencies are required of students from a diverse set of majors and backgrounds as they engage in the technological future that lies before us. This is not just about how to use social media; this minor prepares students from all majors to utilize social media and e-marketing to engage customers, to communicate and deliver value, to enhance skills needed to gain meaningful employment, and to apply analytical tools for better decision-making with respect to social media and online marketing.

Required Courses

MAR 3023	Introduction to Marketing – *GL*
MAR 4733	Digital Marketing
MAR 4233	Social Media Marketing
MAR 4674	Marketing Analytics

Certificate in Health and Fitness Marketing

The health and fitness marketing certificate is open to degree-seeking students only. This certificate is designed to enhance a student's knowledge of how marketing principles, practices, and strategies can be applied to the many health marketing and fitness marketing opportunities that exist in business, health, education, entertainment, and other fields. Health and fitness marketing are unique in that they rely highly on the desire to change individuals' behaviors in a manner that provides long-term benefits to the individuals themselves and society (and the economy) as a whole. It is appropriate for students in a variety of careers, for example:

- the promotion of health services, dietetics and nutrition, and long-term behavioral health change;
- the marketing of fitness, exercise, physical training, etc.;
- building participation in sports programs, fitness facilities, parks and recreation programs, summer camps, etc.;
- advocacy for educational system fitness programs and school, district, regional, and national levels;
- health and fitness promotion from a public health and/or nursing perspective;
- company and organizational health and fitness for human resource managers.

To earn the certificate in health and fitness marketing, students must complete six courses (18 credit hours) with a minimum GPA of 2.75 and no individual course grade of "C" or below.

Required Courses

MAR 3023	Introduction to Marketing – *GL*	3
MAR 4712	Health and Fitness Marketing – *GL*	3
MAR 4711	Sports Marketing and Sponsorship	3
MAR 4503	Consumer Behavior	3

Choose two of the following electives (6 credit hours):

MAR 4025	Marketing of Small Business Enterprises	3
MAR 4400	Personal Selling	3
MAR 4233	Social Media Marketing	3
MAR 4323	Integrated Marketing Communication	3
MAR 4941	Marketing Internship (*Must be a preapproved internship in a health*	

	marketing and/or fitness marketing field)	3

Certificate in Import-Export and Supply Chain Management

The import-export and supply chain management certificate is open to degree-seeking students only. This certificate is designed to enhance knowledge and skills essential in managing export and/or import businesses, and for students considering careers in, for example:

- an export management company that represents manufacturers in the global market.
- a freight forwarding company that specializes in export-import operations, including customs clearance, shipping tariffs and schedules, and traffic operations.
- the export department of a manufacturer that manages the firm's overseas marketing and sales operations.
- an international logistics company that manages a client's global supply chain operations, including transportation, warehousing, inventory, and customer service.
- starting and operating a family-owned export-import business that trades goods and products across borders.

To earn the certificate in import-export and supply chain management, students must complete six courses (18 credit hours) with a minimum GPA of 2.75 and no individual course grade below a "C":

Required Courses (2 courses, 6 credit hours)

MAR 4144	Export Marketing	3
TRA 4203	Principles of Logistics	3

Elective Courses (4 courses, 12 credit hours)

Choose four of the following:

TRA 4721	Global Logistics	3
MAR 4203	Marketing Channels	3
TRA 4202	Logistics Technology	3
TRA 4214	Logistics Strategy	3
TRA 4012	Principles of Transportation	3

Certificate in Marketing Research and Analysis

The marketing research and analysis certificate program is open to degree-seeking students only. This certificate is designed to enhance a student's knowledge and skills required to examine customer issues, collect appropriate market data, analyze trends and relationships, and generate actionable marketing information. It is especially appropriate for those students who are considering careers that focus or involve marketing research and data analysis such as the following:

- Advertising and media consumption research for service to advertising agencies, social media planners, telecommunications firms, and entertainment groups.
- Brand image and positioning research for both consumer goods and industrial markets.
- Customer satisfaction research for companies in hospitality, telecommunications, financial services, real estate, insurance, healthcare, and business services.
- Quantitative and qualitative data collection field and online services.
- Business-to-business research.

To earn the certificate in marketing research and analysis, students must complete six courses (18 credit hours) with a minimum GPA of 2.75 and no individual course grade below a "C".

Required Courses

MAR 3023	Introduction to Marketing – *GL*	3
MAR 4503	Consumer Behavior	3
MAR 4613	Marketing Research I	3
MAR 4620	Marketing Research II	3
MAR 4674	Marketing Analytics	3

Choose one of the following:

MAR 4941	Marketing Internship	3
MAR 4907L	Independent Study: Marketing Research Practicum	3

For the sixth course, students must either intern with a professor and participate in (better yet, coauthor) an actual research project, or intern with a marketing research firm and work on research projects.

Certificate in Retail Marketing and Management

The retail marketing and management certificate program is open to degree-seeking students only. This certificate is designed to prepare students for managing all retailing activities involved in the sales of products and services to final consumers. It is especially appropriate for those students who are considering careers in, for example:

- Store management for a large retail company, which includes managing people, sales, promotions, inventory, and merchandising for a line of business within a store or an entire store.
- Retail buying which includes selecting and negotiating with vendors to create the appropriate product mix.
- Retail planning which includes forecasting for product sales and promotions cycles and inventory management across stores and regions.
- Online retailing which includes the online storefronts of large retail businesses or opening up one's own small business online.
- Entrepreneurship.

To earn the certificate in retail marketing and management, students must complete six courses (18 credit hours) with a minimum GPA of 2.75 and no individual course grade below a "C".

Required Courses

MAR 3023	Introduction to Marketing – *GL*	3
MAR 4231	Retail Marketing	3
MAR 4232	Current Issues in Retail Marketing	3
MAR 4674	Marketing Analytics	3

Choose two of the following electives (6 credit hours):

MAR 4503	Consumer Behavior	3
MAR 4643	Decision Making and Negotiations	3
MAR 4860	Customer Relationship Management	3

Additional Requirements

In addition to the above courses, students must complete a:

1. Retail Seminar at Florida International University
2. Corporate Tour

Certificate in Sales and Customer Relationship Management

The sales and customer relationship management certificate program is open to degree-seeking students only. This certificate is designed to enhance an undergraduate's knowledge and skills essential for inside and outside sales positions across all marketing channels. It is especially appropriate for those students who are considering careers in, for example:

- Sales and account management (business-to-business and business-to-consumer) for service companies in hospitality, telecommunications, financial services, media sales, real estate, insurance, and business services.
- New business development, industrial sales, sales engineering, field sales, and account management for business goods channels and manufacturers.
- Sales consulting for professional services firms in accounting, legal, business consulting, and healthcare.
- Retail and direct sales (business-to-consumer) in the consumer goods channels.
- Customer service and sales support in all channels and industries.
- Entrepreneurship.

To earn the certificate in sales and customer relationship management, students must complete six courses (18 credit hours) with a minimum GPA of 2.75 and no individual course below a "C".

Required Courses

MAR 3023	Introduction to Marketing – *GL*	3
MAR 4400	Personal Selling	3
MAR 4415	Advanced Professional Selling	3
MAR 4860	Customer Relationship Management	3

Choose <u>two</u> of the following:

MAR 4403	Sales Management	3
MAR 4404	Business-to-Business Sales and Marketing	3
MAR 4643	Decision Making and Negotiations	3

Certificate in Social Media and Digital Marketing Analytics

The social media and digital marketing analytics certificate program is open to degree-seeking students only. Social media and digital marketing have changed business practices in every field. Thus, a new set of skills and competencies are required as students from a diverse set of majors and backgrounds engage in the technological future that lies before us. This certificate is designed to enhance a student's knowledge of social media and e-marketing as a core function of customer relationship management and stakeholder engagement. Students pursuing the program will learn about current trends, applications, online content management, content creation, user engagement, and user activity analysis. Many new positions are emerging from this field of study. The skills gained from this certificate program make students highly marketable for career that focus on or involve the following:

- Social media marketing management for a variety of organizations such as manufactures, retailers, news agencies, NGOs, government agencies, educational institutions, and firms dealing in travel, hospitality, tourism, healthcare, and technology.
- E-marketing and social media research and analysis, digital content management, and digital strategy development for organizations in the public and private sectors.
- Public relations, communications, community building, and consumer engagement planning for local, national, and international organizations.
- Quantitative and qualitative data collection for small, medium, and large firms.
- Social media outreach planning via multimedia platforms to foster healthier business-to-consumer and business-to-business relationships.

To earn the certificate in social media and digital marketing analytics, students must complete six courses (18 credit hours) with a minimum GPA of 2.75 and no individual course below a "C".

Required Courses

MAR 3023	Introduction to Marketing – *GL*	3
MAR 4503	Consumer Behavior	3
MAR 4733	Digital Marketing	3
MAR 4233	Social Media Marketing	3
MAR 4674	Marketing Analytics	3

Choose <u>one</u> of the following electives:

MAR 4323	Integrated Marketing Communication	3
MAR 4860	Customer Relationship Management	3

Academic Standard

The Department of Marketing requires that marketing majors receive a grade of "C" or higher in all marketing major courses and upper division business electives. It is also strongly recommended that marketing majors join the American Marketing Association Student Chapter and participate actively in its events. To improve the learning experience and to assure employers of the quality of a graduate with a marketing major all marketing majors will take a comprehensive examination of their marketing knowledge and capabilities that will be offered at the end of the MAR 4804 capstone strategy course.

Course Descriptions

Definition of Prefixes

ACG-Accounting; BUL-Business Law; CGS-Computer and Information Systems; ENT-Entrepreneurship; FIN-Finance; GEB-General Business; HIM-Health Information Management; IDS-Interdisciplinary Studies; ISM-Information Systems Management; MAN-Management; MAR-Marketing; QMB-Quantitative Methods in Business; REE-Real Estate; RMI-Risk Management and Insurance; STA-Statistics; TAX-Taxation; TRA-Transportation.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.
Courses that meet the University's Global Learning requirement are identified as GL.

Departmental or School/College Prefixes:
AC – School of Accounting
BA – College of Business Administration
FI – Finance
GM – Global Leadership and Management
IB – International Business
IS – Information Systems and Business Analytics
ME – Marketing and Logistics
RE – Real Estate

ACG 2021 Accounting for Decisions (AC) (3). Accounting concepts and analysis essential to determining the income and financial position of a business enterprise. Prerequisites: MAC 1105 with a grade of "C" or better or equivalent math placement, minimum 30 credit hours earned and admitted to the College of Business.

ACG 3024 Introduction to Accounting for Managers and Investors (AC) (3). Introduction to the principles used in measuring organization activities. Prerequisite: (a) Business Minors or (b) Project Management Minors or (c) BS in Construction Management, or (d) Bachelor of Health Service Administration.

ACG 3081 Applied Accounting Principles (AC) (3). This course focuses on financial accounting for non-accounting business majors. Prerequisites: Admission to Accounting Minor; for non-accounting business majors only.

ACG 3083 Accounting Preparation and Review (AC) (0). A review of ACG 2021 and preparation for ACG 4101. The course explores the preparation and use of accounting information. A thorough review of math procedures applied to business decisions. Prerequisites: ACG 2021 and ACG 3301 or equivalents.

ACG 3301 Accounting for Planning and Control (AC) (3). Use of accounting concepts, analysis, and financial data to aid in the evaluation of the business enterprise; and to aid management in its planning, organizing, and controlling functions. Prerequisites: ACG 2021 or equivalent with a grade of 'C' or higher and admitted to the College of Business.

ACG 3343 Cost Accounting I (AC) (3). This course focuses on cost and managerial topics in accounting for non-accounting business majors. Prerequisites: Admission to Accounting Minor; for non-accounting business major only.

ACG 4101 Financial Accounting I (AC) (3). Underlying concepts and ethical, regulatory and business environment of financial reporting with emphasis on measurement, analysis and interpretation of income, cash flows and financial position. Prerequisites: A grade of "C" or higher in (a) QMB 3003 or MAC 2233 and (b) ACG 3301 or equivalent, successful completion of entrance exam, 60 credits earned, 3.0 GPA.

ACG 4111 Financial Accounting II (AC) (3). Underlying concepts and ethical, regulatory, and business environment of financial reporting with emphasis on measurement, analysis and interpretation of financial position. Prerequisites: A grade of "C" or higher in ACG 4101, 60 credits earned.

ACG 4201 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. Prerequisites: A grade of "C" or higher in ACG 4111, 60 credits earned.

ACG 4251 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 measurement; and the role of accounting in national economic development. Prerequisites: CGS 2100 or equivalent, ACG 3301 with a grade of 'C' or higher.

ACG 4311 Applied Accounting Concepts (AC) (3). Intensive study and application of new topic(s) as a response to current developments in the fields of financial accounting, auditing/assurance, business valuation, and accounting information systems. Prerequisites: A grade of "C" or higher in ACG 4401, 60 credits earned.

ACG 4341 Management Accounting (AC) (3). Determination and control of production costs; job order and process systems; actual and standard costs; budgetary control; performance measurement; ethics; short-run decision models. Prerequisites: A grade of "C" or higher in ACG 4101 or equivalent, 60 credits earned.

ACG 4353 Advanced Management Accounting (AC) (3). Discuss defects in traditional cost management systems, highlight today's leading edge practices including ERP, and show how to design systems benefiting a wide range of organizations. Prerequisites: A grade of "C" or higher in ACG 4111, ACG 4341, ACG 4401, 60 credits earned.

ACG 4401 Accounting Information Systems (AC) (3). The study of the concepts and terminology of accounting information systems and the use of IT to and decision making in accounting and auditing. Prerequisites: (CGS 2060 or CGS 2100 or equivalent with "C" or higher), successful completion of entrance exam, 60 credits earned, 3.0 GPA.

ACG 4481 Small Business Accounting Staff (3). Live client clinic providing business and accounting services to low income and minorities seeking to start small businesses or non-profit corporations and weekly seminars on relevant topics. Prerequisites: A grade of "C" or higher in ACG 4101 and TAX 4011, 60 credits earned.

ACG 4501 Governmental and Institutional Accounting (AC) (3). Budgeting, accounting, and reporting standards and practices for government and other not-for-profit entities. Prerequisites: A grade of "C" or higher in ACG 4111 or equivalent, 60 credits earned.

ACG 4651 Auditing (AC) (3). Standards and procedures of auditing financial information, ethics and responsibilities of auditors, collection and documentation of audit evidence, reporting and international auditing standards. Prerequisites: A grade of "C" or higher in ACG 4111 or equivalent, 60 credits earned.

ACG 4671 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. Prerequisites: A grade of "C" or higher in ACG 4111 or equivalent, 60 credits earned.

ACG 4672 Internal Auditing (AC) (3). This course focuses on internal accounting and fraud topics for non-accounting business majors. Prerequisites: Admission to Accounting Minor; "C" or better in ACG 3081 and ACG 3343; for non-accounting business majors only.

ACG 4692 Accounting Information Presentation (AC) (3). Seminar in the development and presentation of oral and written information as required by authoritative standards and pronouncements in accounting and auditing. Prerequisites: ACG 4651 and ACG 4341 or equivalents with grades of 'C' or higher.

ACG 4821 Accounting and Social Responsibility (AC) (3). Ethical and social responsibilities of accountants with emphasis on professional ethics in corporate, government and public accounting structure and practices and their effects on employees, environment and community. Prerequisites: ACG 4341, ACG 4651 or equivalents with grades of 'C' or higher.

ACG 4901 Independent Study in Accounting (AC) (1-3). Individual conferences, supervised readings, and reports on personal investigations. Prerequisites: 60 credits earned, 3.00 GPA.

ACG 4931 Special Topics in Accounting (AC) (1-3). 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: Permission of the Director of the School of Accounting.

ACG 4940 Accounting Internship (AC) (3). Practical application in a clinical setting of knowledge acquired in the classroom. Prerequisites: A grade of "C" or higher in ACG 4101, permission of instructor and Director of School of Accounting.

BUL 4310 The Legal Environment of Business (AC) (3). The course includes issues such as: Contracts, Torts, Legal/Political/Economic aspects of Ethics and the Law, U.C.C., Antitrust Law, Employment Law, Administrative Law, Securities Law, and International Business Law topics. Prerequisites: (a) Business students with ACG 3301, and ECO 2013 and ECO 2023 and (QMB 3003 or (STA 2023 and MAC 2233)), or equivalent with C or better. (b) BS in Construction Management students with ACG 3024 and (ECO 2013 or ECO 2023) and MAC 2233 and STA 2023 or equivalent with C or better.

BUL 4320 Business Law I (AC) (3). Substantive issues and principles of business law, including: the American legal system, torts, contracts, Uniform Commercial Code sales, property law, credit and secured transactions, and ethical issues in business law. Prerequisites: A grade of "C" or higher in QMB 3003 or MAC 2233 and ACG 3301 or equivalent, successful completion of entrance exam, 60 credits earned, 3.0 GPA.

BUL 4321 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. Prerequisite: A grade of "C" or higher in BUL 4320, 60 credits earned.

BUL 4540 Employment Law (AC) (3). Legal and regulatory issues to include: the ADA, privacy issues, sexual harassment, race, gender, religion, age, and other areas of discrimination. Also OSHA, ERISA, workers' compensation, regulations affecting job performance evaluation. Prerequisites: 60 credits earned, 3.00 GPA.

BUL 4650 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: Permission of the Director of the School of Accounting.

BUL 4904 Independent Study in Business Law (AC) (1-6). Individual conferences; supervised readings; reports on personal investigations. Prerequisites: 60 credits earned, 3.00 GPA.

ENT 1000 Introduction to Entrepreneurship (IB) (3). Introduction to how to start and run a new enterprise. How to write business plans. Obtaining loans, copyrights, permits, and other resources. Tools and experience that can be utilized professionally.

ENT 4113 Entrepreneurship: New Business Development (IB) (3). Designed for those wanting to start or grow a business. Students analyze unstructured business situations and use critical thinking and business development principles to develop the solutions. Prerequisites: A grade of "C" or higher in MAN 3025 or MAN 3022 or equivalent.

ENT 4604 Product Development and Innovation (IB) (3). Students will develop a theoretical and practical understanding of product development, including actions and methods appropriate in each phase using estimations, spreadsheets and geometric models. Prerequisites: A grade of "C" or higher in MAN 3025 or MAN 3022 or ENT 4113 or equivalents.

ENT 4704 International Entrepreneurship (IB) (3). This course provides a foundation in international entrepreneurship, focusing on the experiences of small as well as large entrepreneurial firms. Cross-national and cross-cultural business practices are analyzed. Prerequisites: A grade of “C” or higher in ENT 4113 or equivalent and a minimum of 45 credit hours earned.

FIN 3005 Introduction to Business Finance (FI) (3). An introductory course offering a survey of financial markets and institutions, managerial finance, investments, and personal financial issues. Prerequisite: Business Minors or Biological Sciences (Bioentrepreneur Track) Majors Only.

FIN 3105 Personal Investment Management (FI) (3). Introduces Financial Markets/Institutions; examines investment strategies including valuation of securities, stock market operations and assessment of risk/return. Prerequisites: 45 credit hours earned, non-Business major only.

FIN 3140 Personal Financial Management (FI) (3). An introductory course to help individuals achieve their personal financial goals. Topics include personal budgeting, taxes, credit, major expenses, insurance, investments, and retirement planning. Prerequisite: 45 credit hours earned.

FIN 3403 Financial Management (FI) (3). A study of financial decision making in the corporate form of enterprise. An analysis of the sources and uses of funds. Emphasis is placed on working capital management; capital budgeting techniques; short and long term financing; and capital structure and the value of the firm. Prerequisites: ACG 3301, QMB 3003 or ((STA 2023 or STA 2122), and (MAC 2233 or MAC 2311)), or equivalents with a grade of 'C' or higher, minimum 45 credit hours earned, Business students only.

FIN 3414 Intermediate Finance (FI) (3). Advanced theories and applications underlying financial decision making. Topics may include valuation of assets and liabilities, advanced time value, mortgage math, commercial loans, capital budgeting, cost of capital, capital structure, dividend policy, restructuring, mergers and acquisition, bankruptcy, cash management, and agency theory. Prerequisites: A grade of “C” or higher in FIN 3403 or equivalent, minimum 60 credit hours earned, completion of University Core Curriculum, Business students only.

FIN 3560 Student Managed Investment Fund I (FI) (3). Course will cover the application of financial software, institutional financial data systems in the investment selection process and move further develop investment skills to invest real money portfolio. Prerequisites: A grade of “C” or higher in FIN 3403, 3.0 GPA, minimum 60 credit hours earned, Business students only, and department consent required.

FIN 3561 Student Managed Investment Fund II (FI) (3). Course will involve practical applications of finance skills to the management of a portfolio of real money and analysis of actual equities for purchase by the FIU Student Managed Investment Fund. Prerequisites: A grade of “C” or higher in FIN 3560, Business students only, instructor approval required.

FIN 3652 Asian Financial Markets and Institutions (FI) (3). The course provides students, who are interested in Asia, an exposure to Asian financial market practices and institutional framework. The materials discussed provide a basic framework for the non-finance student to understand the basic concepts and tools of financial markets and institutions, and the specific intricacies of the various Asian countries and their institutional practices.

FIN 4303 Financial Markets and Institutions (FI) (3). Financial markets and the role of financial intermediaries in these markets. Emphasis will be upon the objectives and policies of financial intermediaries within the constraints of law and regulatory authorities. Prerequisites: A grade of “C” or higher in FIN 3403 or equivalent, minimum 60 credit hours earned, completion of University Core Curriculum, Business students only.

FIN 4324 Commercial Bank Management (FI) (3). The management of bank assets and liabilities; specialized banking functions; and the role of the commercial bank in financing business. Prerequisites: A grade of “C” or higher in FIN 3403 or equivalent, minimum 60 credit hours earned, completion of University Core Curriculum, Business students only.

FIN 4345 Credit Analysis and Loan Evaluation (FI) (3). Topics to include: introduction to commercial lending; secured lending; accounts receivable financing and factoring; inventory financing; introduction to lending vehicles; short term lending; domestic taxation; consolidations; forecasting and intermediate term cash flow lending; term loan agreements/covenants; subordinations and guarantees; foreign exchange; international transactions and leasing. Prerequisites: A grade of “C” or higher in FIN 3403 or equivalent, minimum 60 credit hours earned, completion of University Core Curriculum, Business students only.

FIN 4412 Working Capital Management (FI) (3). Liquidity analysis; inventory, credit, and payables mgt.; collection concentration, and disbursement systems; cash forecasting; short-term investing, borrowing, and risk mgt.; treasury info systems. Prerequisites: A grade of “C” or higher in FIN 3414 or equivalent, 60 credit hours earned.

FIN 4435 Capital Budgeting Techniques and Applications (FI) (3). The application of contemporary theory and techniques to the problem of long term resource allocation. A review of capital budgeting techniques and the implications the investment and management of capital have toward the goal of maximizing the value of the firm. Prerequisites: A grade of “C” or higher in FIN 3414 or equivalent, 60 credit hours earned.

FIN 4443 Policies for Financial Management (FI) (3). The process of securing and allocating funds within the organization, with emphasis on the relevant financial decision-making and policy aspects. Prerequisites: A grade of “C” or higher in FIN 3414 or equivalent, 60 credit hours earned.

FIN 4461 Financial Statement Analysis (FI) (3). This course explores methods of deriving information from financial statements, including both published documents and privately prepared reports that would be of interest to lenders and investors. Extensive use is made of computer assisted financial planning forecasting models. Prerequisites: A grade of "C" or higher in FIN 3403 or equivalent, minimum 60 credit hours earned, Business students only.

FIN 4486 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. Prerequisites: A grade of "C" or higher in FIN 3414 and FIN 4502 or equivalents. Prerequisites or Corequisites: FIN 4303, FIN 4324, and FIN 4604.

FIN 4502 Securities Analysis (FI) (3). The examination of the determinants of the values of common and preferred stocks, bonds, and warrants. The timing of security purchases and sales and an introduction to portfolio construction techniques. Prerequisites: A grade of "C" or higher in FIN 3403 or equivalent, minimum 60 credit hours earned, completion of University Core Curriculum, Business students only.

FIN 4514 Portfolio Analysis and Management (FI) (3). Financial theories will be applied to the construction of portfolios. Portfolio management techniques will be analyzed in regard to the goals of individuals, corporations, and various financial institutions. Prerequisites: A grade of "C" or higher in FIN 4502 or equivalent, 60 credit hours earned.

FIN 4556 Behavioral Finance (FI) (3). Behavioral Finance studies human behavior and decision-making under conditions of uncertain risk, greed and loss. It applies research from psychology, sociology and anthropology to human behavior in markets. Prerequisites: A grade of "C" or higher in FIN 3403 or equivalent, 60 credit hours earned.

FIN 4594 Financial Software Applications (FI) (3). Use of Reuters, Bloomberg, and Excel, to solve financial problems. Explore how markets operate with trading simulations and software. Prerequisites: FIN 4502 or equivalent with a grade of "C" or higher, minimum 60 credit hours earned or permission of the instructor, Business students only.

FIN 4604 International Financial Management – *GL* (FI, MA) (3). Capital budgeting operational analysis and financial decisions in the multinational context. Working capital management and intra firm fund transfers. Measurement and evaluation of the risk of internationally diversified assets. Prerequisites: A grade of "C" or higher in FIN 3403 or equivalent, minimum 60 credit hours earned, completion of University Core Curriculum, Business students only.

FIN 4633 International Capital Markets (FI) (3). The world's major non-U.S. stock exchanges; international diversification and the international capital asset pricing model; foreign exchange markets and Euro-currency markets. Prerequisites: A grade of "C" or higher in FIN 3403 or equivalent, 60 credit hours earned.

FIN 4634 International Banking – *GL* (FI) (3). Objective of course is to provide student with an understanding of nature of international banking and the major cultural, economic, social, and legal environments in which international banking operates. Prerequisites: A grade of "C" or higher in FIN 3403 or equivalent, minimum 60 credit hours earned, completion of University Core Curriculum, Business students only.

FIN 4651 Latin American Financial Markets and Institutions (FI) (3). This course examines the Latin American financial climate and especially financial markets and institutions. Topics include evolution of the money and capital markets, regulation, banking innovations, the role of foreign banking, integration and globalization of banking. Prerequisites: A grade of "C" or higher in FIN 3403 or equivalent, minimum 60 credit hours earned, completion University Core Curriculum, Business students only.

FIN 4663 Global Private Banking (FI) (3). This course seeks to provide the students with an understanding of the nature of the global private banking, its role in preserving, augmenting and protecting wealth and how it is shaped by a sometimes-controversial need for confidentiality. Prerequisites: A grade of "C" or higher in FIN 3403 or equivalent, minimum 60 credit hours earned, completion of University Core Curriculum, Business students only.

FIN 4702 Entrepreneurial Finance (FI) (3). This course will be focused on the financial management within and surrounding entrepreneurial firms, which will be examined at all phases of their life cycles, from idea generation to venture launch. Prerequisites: A grade of "C" or higher in ENT 4113 or equivalent, 60 credit hours earned.

FIN 4744 Financial Crime (FI) (3). The course provides a solid understanding of the crimes committed in financial markets. The origin and development of financial crimes will be covered. The foundation of the course will be based upon a study of the following: identity theft, mortgage fraud, money laundering, foreign exchange crimes, check cashing and wire transfer companies, capital flight issues, tax evasion, import duty fraud, insurance fraud, underground economy, insider trading, terrorist financing, Hawala banking, international trade-based money laundering, and illegal offshore center activity. Also the role of all domestic and international regulatory/ enforcement agencies in detecting and preventing financial crimes will be discussed. Prerequisites: A grade of "C" or higher in FIN 3403 or equivalent, minimum 60 credit hours earned, completion of University Core Curriculum, Business students only.

FIN 4904 Independent Study in Finance (FI) (1-6). Individual conferences, supervised readings, reports on personal investigations. Prerequisites: Consent of instructor and Department Chairperson required.

FIN 4934 Special Topics in Finance (FI) (1-6). For groups of students who desire an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Prerequisites: Consent of instructor and Department Chairperson required.

FIN 4941 Finance Internship (FI) (1-3). Part-time supervised work in a selected bank or other organization in the area of finance. Prerequisites: At least 9 hours of Finance with grades of "C" or higher, consent of instructor and Department Chairperson required.

FIN 4949 Cooperative Education in Finance (FI) (3). Semesters of full-time classroom study are alternated with semesters of full-time remunerated employment which closely relates to the student's area of academic study. Carefully designed and monitored work assignments are intended to develop the student's understanding of the relationship between theory and practice in an authentic work environment. Prerequisites: Consent of instructor and Department Chairperson required.

GEB 2011 Introduction to Business (GM) (3). Looks at the business arena by examining the role/function of business, types of businesses, managerial functions, marketing principles, financial management, technology, ethics and global influences.

GEB 2935 Career and Entrepreneurship Skills (MA) (3). Course responds to student needs to make career decisions in tight job markets. Develops entrepreneurial skills to assess financial viability of start-up opportunities in competitive environments.

GEB 3003 Career Management (BA) (1). Systematic approach to career development by identifying and evaluating their interests, skills, and values. Students will develop career management skills. Prerequisites: Minimum of 45 credit hours earned, and Business students only

GEB 3930 Business Innovation Special Topics (BA) (1-6). Special Topics course enabling students to learn about new startups, product/service launches, and/or business re-engineering, innovation projects from entrepreneurs. Prerequisite: Instructor Approval.

GEB 4110 Writing the Business Plan (GM) (3). Students (a) write 2 business plans for a new business - one to raise equity and the other to obtain debt, (b) analyze successful plans, and (c) obtain understanding of investor perspectives and demands. Prerequisites: A grade of "C" or higher in ENT 4113 or equivalent and a minimum of 45 credit hours earned.

GEB 4153 Social Entrepreneurship (IB) (3). This course explores opportunities for social entrepreneurship-addressing societal needs via the creation of innovative nonprofit or for-profit social purpose organizations. Prerequisites: A grade of "C" or higher in MAN 3022 or MAN 3025 or equivalents.

GEB 4940 Business Innovation Project Internship (BA) (1-6). Internship program enabling students to participate in internships related to new startups, product/service launches, and/or business re-engineering, innovation projects. Prerequisite: Instructor Approval

HIM 4656 Health Information Systems Management (IS) (3). This course explores the structure, acquisition and use of medical information by health care organizations. Prerequisites: A grade of "C" or higher in CGS 3300 or equivalent, minimum 60 credit hours earned.

IDS 3163 Global Supply Chains & Logistics – *GL* (3). Global supply chains and their interactions with all facets of business and society. Design issues and operation issues are investigated using simulation models and case studies.

ISM 3011 Information Systems Management (IS) (3). Course introduces business students to the benefits, deployment, management, and use of information within organizations, particularly business analytics and large stores of data. Prerequisites: (a) ACG3301, (CGS2100 or PHI2600) and MAC1105 or equivalents with a grade of 'C' or higher, (b) 45 credits earned, (c) business students only.

ISM 3012 Introduction to Information Systems (IS) (3). Overview of organizational computer information systems use, to include databases, decision support systems, production planning and control systems, and so on. Not available to business majors. Prerequisite: Business Minors only.

ISM 3153 Business Process Analysis (IS) (3). Introduction to principles and methods of business process management. Emphasis on role of process models to understand and analyze operations and to drive design of Information Technology solutions. Prerequisite: (a) 45 credit hours earned; and (b) Business Students or Project Management Minors only.

ISM 3230 Business Application Development (IS) (3). Design, implement, test, debug, and document business applications using a business programming language. Compelling exercises illustrate how applications implement business processes. Prerequisites: 45 credit hours earned; Business students only.

ISM 3949 Information Systems Internship I (IS) (1-3). A program enabling MIS majors to work in jobs significantly related to their major area and career goals. Placement must be approved by instructor. Prerequisites: CGS 3300 or ISM 3011 or ACG 4401 or equivalents with a grade of "C" or higher.

ISM 4053 Interface Design for Business Applications (IS) (3). Draws on fundamental concepts of human perception and cognition in order to develop effective human-computer interfaces. Examines a variety of interfaces, including for web and mobile applications. Prerequisite: ISM 3230.

ISM 4054 Web Application Development (IS) (3). Development and effective use of web sites in organizations, drawing on use of major commercially available Web-related hardware and software tools.. Prerequisites: A grade of "C" or higher in ISM 3230 or equivalent.

ISM 4113 Systems Analysis and Design (IS) (3). Topics include: information systems concepts; the structure, design, and development of the data base; and techniques and procedures used in the analysis and design of systems projects. Prerequisites: 45 credit hours earned; Business students or Project Management Minors only.

ISM 4151 Managing Digital Services and Innovation (IS) (3). Investigates advanced practices for managing the IS function. Exposes students to the development of a business case and prototype of a new information technology innovation. Prerequisites: CGS 3300 or ISM 3011 or ACG 4401 grade of C or higher b) ISM 3230 or ISM 4400, grade of "C" or higher. Corequisites: ISM 3230, ISM 4113, ISM 4210, ISM 4220, ISM 4314C, ISM 4323, and (ISM 3153 or ISM 4400) with a grade of "C" or higher.

ISM 4154 Business Application Integration (IS) (3). Explores enterprise-wide business application integration for strategic alignment of an organization's information systems. Topics include management planning and integration design. Prerequisites: ISM 3230; ISM 3153.

ISM 4210 Database Applications (IS) (3). Application of the database technology and concepts to organization problems. Includes database management system (DBMS components; hierarchic, network and relational approaches to DBMS design. Prerequisites: 45 credit hours earned; Business students only.

ISM 4211 Database Systems and Physical Design (IS) (3). Essential concepts of database design and management in modern business environments. Students gain hands-on experience and exposure to modern databases and their use cases e.g. Big Data. Prerequisites: (a) 45 credit hours earned; and (b) QMB 3200 with a grade of "C" or higher; and (c) Business Students only.

ISM 4220 Business Telecommunication Systems (IS) (2). Application of telecommunication technology and concepts to organizational networks. Includes client-server architecture, distributed computing, network management, and data communication fundamentals. Prerequisites: 45 credit hours earned; Business students only. Corequisite: ISM 4323.

ISM 4314 Project Management (IS) (3). Covers fundamental knowledge areas related to successful Project Management, to include selection and initiation, work breakdown structure and scope management, scheduling, and cost analysis. Prerequisites: ACG2021 or ACG3024, and Business Students or Project Management Minors

ISM 4323 Information Systems Security (IS) (1). Provides knowledge and skills to protect enterprise assets by mitigating IS/IT related security risks. Exposure to IS/IT security regulations and compliance, security policies, and incident response. Prerequisites: 45 credit hours earned; Business students only, Corequisite: ISM4220.

ISM 4400 Management Support Systems (IS) (3). Focuses on use of information processing and decision support techniques to provide knowledge workers and decision makers with information to assist in making informed and rational decisions. Prerequisite: (a) 45 credit hours earned; and (b) Business Students or Business Analytics Minors only.

ISM 4402 Business Intelligence and Reporting (IS) (3). A broad overview of managerial, strategic and technical issues associated with BI and reporting techniques. Gather, analyze, understand information processed from business data. Prerequisites: 45 credit hours earned; Business students or Business Analytics Minors only

ISM 4420 Business Analytics (IS) (3). Explores data analysis and statistical methods as well as best practices for continuous iterative investigation of past business performance to gain insights and drive business planning. Prerequisites: (a) 60 credits earned; and (b) QMB3200 or ECO3410 or STA3033 or STA3112 or STA3123 or STA3145 with a grade of "C" or higher; and (c) Business Students or Business Analytics Minors only.

ISM 4480 Electronic Commerce Systems (IS) (3). Introduction to technology enablers facilitating electronic commerce and evolving e-commerce business models as well as landscape that has developed around these technologies in new and existing organizations. Prerequisites: ISM 3230 or equivalent with a grade of "C" or higher.

ISM 4949 Information Systems Internship II (IS) (1-3). A continuation of ISM 3949. A program enabling MIS majors to work in jobs significantly related to their major area and career goals. Placement must be approved by instructor. Prerequisites: CGS 3300 or ISM 3011 or ACG 4401 or equivalents with a grade of "C" or higher.

MAN 3022 Introduction to Management (GM) (3). Introduction to management processes: planning, organizing, directing and controlling for nonbusiness majors. Describes the environments and technologies used in the management of firms and employees. Prerequisites: Business Minors or Biological Sciences (Bioentrepreneur Track) Majors only.

MAN 3025 Organization and Management (GM) (3). An analysis of organizations and the management processes of planning, organizing, directing, and controlling in the context of socio-technical systems. Individual, group, intergroup, and organizational responses to various environments and technologies are studied, as are pertinent techniques of manpower management. Prerequisites: Students must complete a minimum of 45 credit hours. Only open to Business students. (F,S,SS)

MAN 3061 Business, Ethics and Environment (IB) (1). Examines personal values and ethics, role of business as a social institution corporate citizenship, creation of ethical work climates, ethics in a global economy and emerging issues. Prerequisite: Students must have completed a minimum of 45 credit hours.

MAN 3072 American Culture in Business (IB) (3). This course examines how the U.S.'s culture, values, and methodologies influence the development and management of businesses in the U.S. The restrictions placed by U.S. culture on firms are explored. Prerequisite: Students must have completed a minimum of 30 credit hours.

MAN 3100 Happiness at Work (GM) (3). This course emphasizes the psychological aspects of a meaningful, fulfilling and thriving work life. It includes theories and applications of behavioral sciences as they relate to happiness at work. Prerequisite: Students must have completed a minimum of 30 credit hours.

MAN 3949 Management Internship I (GM) (3). A special program enabling management majors to work in jobs significantly related to their major area and career goals. Specific placement must be approved by the Department Chairperson prior to enrollment. Prerequisites: GPA 2.75 or higher, minimum 60 credit hours earned, qualification for Internship Program and permission from the department chair.

MAN 4054 Managing Innovation (IB) (3). Addresses managing creative people, projects and departments. Emphasis is on motivating, evaluating, and rewarding creative people, and creating an environment that enhances innovation productivity. Prerequisites: A grade of "C" or higher in MAN 3025 or MAN 3022 or equivalents, and a minimum 45 credit hours earned.

MAN 4064 Crisis Management (GM) (3). Examines the dilemmas of managerial responsibility that occur when organizations face crisis because of disasters or other unexpected circumstances. Emphasis is placed on how to avoid or minimize the organizational or environmental damage a crisis can cause. Prerequisite: A grade of "C" or higher in MAN 3025 or equivalent.

MAN 4065 Business Ethics (GM) (3). The application of ethical theory to business management. A review of ethical systems, and examples, theoretical and practical of institutionalizing ethics in organizations. Case analysis used, and written projects required. Prerequisite: Students must have completed a minimum of 45 credit hours. (F,S)

MAN 4102 Managing Diversity (GM) (3). Examines how workforce diversity can lead to competitive advantage and ethical, fair-minded decision making. Includes topics of gender, race, ethnicity, and other areas of diversity. Covers perception and stereotyping, sexual harassment, the "glass ceiling," and legal issues. Prerequisite: A grade of "C" or higher in MAN 3022 or MAN 3025 or equivalents. (F,S)

MAN 4120 Managing Virtual Teams (GM) (3). Centers on the analysis of selected concepts in intergroup relations and introduces the strategies, tools and techniques necessary for success in virtual team environments. Prerequisite: A grade of "C" or higher in MAN 3022 or MAN 3025 or equivalents.

MAN 4151 Organizational Behavior (GM) (3). An analysis of selected concepts in behavioral science, their interaction and application to management. Topics include perception, motivation, and group behavior. Prerequisites: A grade of "C" or higher in MAN 3022 or MAN 3025 or equivalents. (F,S)

MAN 4152 Facilitating Activities for Teambuilding (GM) (3). This experimental and web-assisted course will teach students to facilitate activities to improve group communication, trust, decision-making, problem solving and interpersonal skills. Prerequisites: A grade of "C" of higher in MAN 3022 or MAN 3025 or equivalents.

MAN 4164 Leadership (GM) (3). Designed to provide a clear understanding of current thinking in the area of leadership. Topics include general leadership issues such as leader integrity and authenticity, managing people and effecting change and chairing effective meetings. Use of technology is leading effective global teams is emphasized. Prerequisites: A grade of "C" of higher in MAN 3022 or MAN 3025 or equivalents.

MAN 4201 Organization Theory (IB) (3). A comparative analysis of various theories of organization (including the classical, biological, economic, and Cyert-March models); and of their treatment of fundamental structure; conflict communications; group and individual behavior; and decision-making. Primary emphasis on developing an integrated philosophy of organization and management. Prerequisite: A grade of "C" or higher in MAN 3025 or equivalent.

MAN 4203 Leadership in Multilateral Organizations (GM) (3). Designed to provide the undergraduate IB student with a clear understanding of current thinking in the area of leadership in multinational firms and coordination of multilateral work activities. Prerequisite: A grade of "C" or higher in MAN 4602 or equivalent.

MAN 4294 Creativity and Innovation (IB) (3). Explores techniques for inventing new things or making things better. These techniques include brainstorming, how to get new ideas, how to evaluate ideas, and how to select ideas for implementation. Prerequisites: A grade of "C" or higher in MAN 3022 or MAN 3025 or equivalents.

MAN 4301 Human Resource Management (GM) (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 resource management and development at various organizational levels. Prerequisite: A grade of "C" or higher in MAN 3025 or equivalent. (F,S,SS)

MAN 4320 Recruitment and Staffing (GM) (3). In-depth study of the personnel staffing function. Includes an analysis of objectives, techniques, and procedures for forecasting manpower needs, recruiting candidates, and selecting employees. Prerequisite: A grade of "C" or higher in MAN 4301 or equivalent. (F,S)

MAN 4322 Human Resource Information Systems (GM) (3). A survey of personnel reporting requirements; assessment of information needs; manpower planning; and development of integrated personnel systems. Prerequisite: A grade of "C" or higher in MAN 4301 or equivalent.

MAN 4330 Compensation and Benefits (GM) (3). Presents the theories and techniques used by management in the areas of work measurement, wage incentives, and job evaluation. Prerequisite: A grade of "C" or higher in MAN 4301 or equivalent.

MAN 4350 Training and Development (GM) (3). Corporate training functions. Needs analysis; content design/delivery. Expatriate orientation. Globalization: training in multicultural/diverse contexts. Management development. Presentation skills. Prerequisite: A grade of "C" or higher in MAN4301 or equivalent.

MAN 4410 Union-Management Relations (GM) (3). Examination of current issues and problems facing unions and management, with emphasis on unfair labor practices, contract administration, and arbitration. Prerequisite: A grade of "C" or higher in MAN 4301 or equivalent.

MAN 4442 International Business Negotiations (IB) (3). Developing expertise in negotiations across cultural borders, working with various suppliers, developing multicultural project teams and sensitivity, and developing counter proposals. Prerequisite: A grade of "C" or higher in MAN 4602 or equivalent.

MAN 4583 Project Management (IS) (3). Methods and cases to measure, evaluate, plan and improve productivity in business and service organizations; also methods on how to manage projects. Prerequisite: 45 credit hours earned; Business students or Project Management Minors only.

MAN 4600 International Management (IB) (3). Examines the functions of management in the international firms (e.g., leadership, motivation, communication, human resource development) and issues related to adapting managerial practice to "local" environments. Prerequisites: A grade of "C" or higher in MAN 3022 or MAN 3025 or equivalent. (F,S)

MAN 4602 International Business (IB) (3). Examines the political, economic, legal and cultural international business environment and related institutions impacting global firms; covers international issues in all functional business areas. Prerequisites: A grade of "C" or higher in MAN 3022 or MAN 3025 or equivalent. (F,S,SS)

MAN 4610 International Human Resources (GM) (3). Compares global human resource systems with emphasis on the reasons HR differences exist. The HR functions of selection, training, compensation and performance management are compared in different countries and cultures. Focuses on both expatriate assignment and foreign HR operations. Prerequisite: A grade of "C" or higher in MAN 4301 or equivalent.

MAN 4613 International Risk Assessment (IB) (3). Introduces the types of risk confronting businesses operating internationally. Critiques specific techniques used to assess risk and relate the results to management decision making. Prerequisite: A grade of "C" or higher in MAN 4602 or equivalent.

MAN 4633 MNC Strategy (IB) (3). Study of the concept and process of MNC strategy. Involves considering the competitive and political structure of the global market, logic of the multinational enterprise, and nature of organizations. Prerequisite: A grade of "C" or higher in MAN 4602 or equivalent. (F,S)

MAN 4653 Foreign Direct Investment (IB) (3). This course presents/assesses foreign direct investment (FDI) in the world economy and in so doing examines the political, economic, cultural, and legal dimensions of both inward and outward bound FDI. Prerequisites: MAN 3022 or MAN 3025 with a grade of "C" or higher.

MAN 4660 Business in Latin America (IB) (3). Examines the Latin American business climate and U.S. Latin American Business linkages. Topics include exporting to Latin America, regional economic integration, and examinations of individual countries. Prerequisite: A grade of "C" or higher in MAN 4602 or equivalent.

MAN 4661 Business in Asia (IB) (3). Comprehensive overview of culture and management in major East and Southeast Asian economies. Includes a brief survey examination of the Asian business environment. Prerequisite: A grade of "C" or higher in MAN 4602 or equivalent.

MAN 4662 Business in Europe (IB) (3). Investigates and shows how a unique combination of cultures and environments, despite great social and military conflicts, now a compete among the top world economies. Prerequisite: A grade of "C" or higher in MAN 4602 or equivalent.

MAN 4663 Business in the Caribbean (IB) (3). Introduces students to various business practices and environments as they relate to countries in the Caribbean region including cultural, economic, political and legal factors. Prerequisite: A grade of "C" or higher in MAN 4602 or equivalent.

MAN 4664 Business in Africa (IB) (3). Examination of the opportunity/challenges of conducting business in the African business environment; includes country/regional analysis of cultural, social, economic, legal and political issues. Prerequisite: A grade of "C" or higher in MAN 4602 or equivalent.

MAN 4671 Special Topics in International Business (IB) (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: Students must complete a minimum of 45 credit hours.

MAN 4673 Trade Policy and Business (IB) (3). Examines the multilateral trading system, its rules and practices and its relevance to U.S. business. Attention will focus also on the political dynamics of international trade policy and application. Prerequisite: A grade of "C" or higher in MAN 4602 or equivalent.

MAN 4690 Independent Study in International Business (IB) (3). Individual conferences; supervised readings; reports on personal investigations. Prerequisites: A grade of "C" or higher in MAN 3025 or equivalent, minimum of 60 credits earned, permission of Department Chair.

MAN 4701 Business in Society (IB) (3). A conceptual and practical overview of the role of business in contemporary society. Explores the social context of economic systems, examines the concept of business legitimacy, and looks at responsible management in a global, hi-tech economy. Prerequisites: A grade of "C" or higher in MAN 3022 or MAN 3025 or equivalents.

MAN 4702 Emergency and Disaster Management (BA) (3). Organizational response to emergencies and disasters. Preparing for and responding to external crisis such as hurricane, floods, fires, etc. Prerequisites: A grade of "C" or higher in MAN 3025 or equivalent, completed a minimum of 60 credit hours.

MAN 4707 Managing Organizational Reputations (GM) (3). Examines the importance of organizational reputation. Emphasizes ways organizations can create and maintain reputations for integrity, consistency and quality that will insure viability. Prerequisite: A grade of "C" or higher in MAN 3025 or equivalent.

MAN 4711 Business-Community Leadership (GM) (3). Examines the role of the company as a community citizen, focusing on methods business leaders can contribute to strengthening the social fabric of their communities to achieve benefits for both the community and the firm. Prerequisite: Students must have completed a minimum of 45 credit hours.

MAN 4712 International Business – Government Relations – *GL* (IB) (3). The main objective of this course is to impart a broad understanding of the relationships between business and government in the international market place. Prerequisite: A grade of "C" or higher in MAN 4602 or equivalent.

MAN 4720 Strategic Management – *GL* (IB) (3). Capstone integration of real organizational situations. Decision making applied to business/corporate level strategy concepts, firm performance and global citizenship. Prerequisites: Complete with "C" or higher: QMB 3200, FIN 3403, MAN 3025, MAR 3023, and minimum 90 credits hours earned. Corequisites: (BUL 4310 or BUL 4320), (CGS 3300 or ISM 3011 or ACG 4401), (COM 3150 OR COM 3112), and (MAN 4504 or QMB 4680).

MAN 4735 Modern Business History (BA) (3). An examination of the history of the corporation in the United States since the Civil War, up to, and including, the development of the multinational corporation. An examination of the social and economic forces operative in the development of the corporate form. A full exploration of the current power of the corporate form and legal and other, efforts to limit this power. Prerequisite: A grade of "C" or higher in MAN 3025 or equivalent.

MAN 4741 Managing Change in Organizations (BA) (3). Emphasizes organizational challenges associated with internal change and examines the importance of change management strategies for organizational policy formation. Explores the impact of change on employee morale, firm performance, and management response capability. Prerequisite: A grade of "C" or higher in MAN 3025 or equivalent.

MAN 4742 Environmental Management (BA) (3). Examines opportunities and risks of the social, legal, political and ecological environments. Analyzes sustainability - management's development of proactive green management strategies. Prerequisite: A grade of "C" or higher in MAN 3022 or MAN 3025 or equivalents.

MAN 4771 Executive Skill Development (GM) (3). Explores strengths analysis, nuanced communication, presentation skills, workplace professionalism, career advancement, time management, self-awareness, authentic leadership, and followership. Students cannot receive credit for both this course and MAR 4354. Prerequisite: Business students only.

MAN 4787 Green Management (BA) (3). Examines successes/failures of green projects and presents guidelines for effective green management. Course includes project analysis and an experiential learning module with a local organization. Prerequisites: A grade of "C" or higher in MAN 3022 or MAN3025 or equivalents plus completed a minimum of 60 credit hours.

MAN 4802 Small Business Management (IB) (3). Covers strategies/actions of a new business developer to launch and grow a startup business. Examines business development, monitoring and growth strategies using a hands-on learning approach. Prerequisite: A grade of "C" or higher in ENT 4113 or equivalent.

MAN 4864 Family Business (IB) (3). Students analyze business practices of family businesses including functions, issues, operations and the interpersonal dynamics of family businesses from a strategic management perspective. Prerequisite: A grade of "C" or higher in ENT 4113 or equivalent.

MAN 4930 Special Topics in Management (GM) (1-10). Intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Faculty sponsor and written permission of Chairperson and Dean required. Grading option. Prerequisites: A grade of "C" or higher in MAN 3025 or equivalent, permission of Department Chair.

MAN 4932 Professional Development Module (BA) (3). This course presents techniques for outstanding presentation, business planning, analytical and critical thinking skills. The course includes significant focus on business ethics, entrepreneurial dynamics, economics issues, and international business. Prerequisite: Only open to business majors who have completed a minimum of 60 credit hours.

MAN 4946 International Business Internship (IB) (1-3). Supervised work in a selected organization in the area of international business. Prerequisites: A grade of "C" or higher in MAN 3025 or equivalent, earned a minimum of 60 credit hours, permission of the Chairperson.

MAN 4948 Service Learning (BA) (3). The integration of classroom theory with experimental learning in community service. Participation, development, and management of community service projects, especially those associated with the business community. Prerequisite: A grade of "C" or higher in MAN 3022 or MAN 3025 or equivalents.

MAN 4949 Management Internship II (GM) (3). Continuation of MAN 3949. Prerequisites: Completed a minimum of 90 credits, GPA 2.75 or higher, permission of the Department Chair.

MAN 4956 Study Abroad in International Business (IB) (3). Designed as an integrated program of learning conducted in foreign business environments. It develops an understanding among economic, political, and cultural factors in various countries. Prerequisites: A grade of "C" or higher in MAN 3022 or MAN 3025 or equivalent.

MAN 4970 International Business Honors Project Seminar (IB) (3). Seminar that explores recent themes in international business. Designed to help IB Honors students develop a thesis and methodology. Prerequisite: A grade of "C" or higher in MAN 3025 or equivalent.

MAR 3023 Introduction to Marketing – *GL* (ME) (3). A study of how marketing delivers value and satisfies customer needs and wants by determining which markets can best be served, and which products, services, and programs best serve these markets. Prerequisite: 45 credit hours earned.

MAR 3024 Marketing Fundamentals (ME) (3). An introduction to the basic concepts, analyses, and activities that make up the marketing function within an organization for students pursuing the Business minor. Prerequisite: Business Minors or Biological Sciences (Bioentrepreneur Track) Majors Only.

MAR 4025 Marketing of Small Business Enterprises (ME) (3). Designed to develop an understanding of the principles and practices which contribute to the successful marketing operation of a small business enterprise, this course deals with marketing policies, techniques, and applications to aid the entrepreneur in this field. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4071 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. Prerequisites: MAR 3023 or equivalent.

MAR 4144 Export Marketing (ME) (3). The course emphasizes practical approaches to export marketing, including marketing strategies by individual firms to serve foreign markets. Operational methods of identifying, establishing, and consolidating export markets are discussed, with particular attention to the needs of the smaller business. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4156 International Marketing (ME) (3). The course studies the information required by marketing managers to assist in satisfying the needs of consumers internationally. Special emphasis will be given to the constraints of the international environment. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4203 Marketing Channels (ME) (3). The course focuses upon institutions, functions, and flows within channels of distribution; and their integration into channels systems. Wholesaling and physical activity are emphasized. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4231 Retail Marketing (ME) (3). An examination of the role of retailing in the marketing system. Attention is concentrated on fundamentals for successful retail management. The course emphasizes basic marketing principles and procedures, including merchandising; markup-markdown; pricing; stock-turn; and sales and stock planning. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4232 Current Issues in Retail Marketing (ME) (3). An intensive look at topics of current importance in retailing, from planning, buying and store management perspectives. Course emphasizes interaction with business executives and a practical learning approach. Prerequisites: A grade of "C" or higher in MAR 4231 or equivalent, 60 credit hours earned.

MAR 4233 Social Media Marketing (ME) (3). This course introduces students to social media marketing functions, analyses, and strategies that are essential to consumer involvement, community engagement, and customer relationship management. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent and have at least 60 credit hours earned.

MAR 4323 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. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4333 Promotional Strategy (ME) (3). The course deals with problems of decision-making in the areas of marketing communication methods, with primary emphasis on advertising. Prerequisites: MAR 3023 or equivalent.

MAR 4334 Advertising Campaign Management (ME) (3). Strategic approaches to managing advertising campaigns, including selection of approaches; market research; consumer target markets; media; advertisements; development and control of budgets. Prerequisites: A grade of "C" or higher in MAR 4323 or equivalent, 60 credit hours earned.

MAR 4354 Marketing Yourself in the Global Marketplace (ME) (3). Of all the "products" you will ever market, the most important is your personal/professional brand. Learn how to evaluate, develop, communicate, and market your brand in the global marketplace. Prerequisite: 45 credit hours earned.

MAR 4400 Personal Selling (ME) (3). Development of effective sales skills, including listening, questioning, presenting, objection handling and closing, needed to build long-term relationships. Emphasis on practical application. Prerequisites/Corequisites: A grade of "C" or higher in MAR 3023 or equivalent, minimum of 45 credit hours earned.

MAR 4403 Sales Management (ME) (3). Analysis of field sales management with emphasis on the role of personal selling in the marketing mix, building an effective organization, and controlling and evaluating the sales force. Prerequisites: A grade of "C" or higher in MAR 4400 or equivalent, 60 credit hours earned.

MAR 4404 Business-to-Business Sales and Marketing (ME) (3). This course focuses on the development of strategic plans to manage major accounts, the supply chain, purchasing units, and the segmenting and targeting of organizational markets. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, and have at least 60 credit hours earned.

MAR 4415 Advanced Professional Selling (ME) (3). Students will gain advanced instruction, coaching and skills development in interpersonal communication skills, objection handling, closing and team selling, through sales calls and presentations. Prerequisites: A grade of "C" or higher in MAR 4400 and have at least 60 credit hours earned.

MAR 4503 Consumer Behavior (ME) (3). A study of essentials underlying consumer decisions, and relating such understanding to issues in product development/positioning, pricing, advertising, segmentation, and other marketing variables. Prerequisite: 60 credit hours earned.

MAR 4613 Marketing Research I (ME) (3). Study of the marketing research process and its role in decision-making. Emphasis placed on problem identification, and use of methods, primary and secondary data tools and information. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4620 Marketing Research II (ME) (3). An advanced examination and application of research approaches, techniques, and statistical analyses in the field of marketing, using multiple methods and statistics software. Prerequisites: A grade of "C" or higher in MAR 3023 and MAR 4613 or equivalent, 60 credit hours earned.

MAR 4643 Decision Making and Negotiations (ME) (3). The course explores individual and group level judgment and decision-making and methods for de-biasing these processes. It also presents techniques for maximizing one's negotiating effectiveness. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4674 Marketing Analytics (ME) (3). A study of the metrics and systems needed to receive a return on every sales and marketing investment made. The course focuses on tools and approaches to gauge the impact of marketing expenditures. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, and have at least 60 credit hours earned.

MAR 4711 Sports Marketing and Sponsorship (ME) (3). Promotion, licensing, sponsorship, and strategic marketing for various levels of sports and sports-related industries at professional, semi-professional, amateur, school, and recreational levels. Prerequisite: A grade of "C" or higher in MAR 3023.

MAR 4712 Health and Fitness Marketing — *GL* (ME) (3). Analyze, design, and implement marketing strategies unique to promoting health, fitness, and positive behavioral change for organizations, educational systems, industries, and society as a whole. Prerequisites: A grade of "C" or higher in MAR 3023 or taking MAR 3023 concurrently with this course.

MAR 4733 Digital Marketing (ME) (3). Exploration of how the Internet has revolutionized the marketplace. Topics covered include B2B and B2C electronic commerce, segmentation, relationship marketing, and legal and ethical challenges. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4803 Cases in Marketing Management (ME) (3). An analytic approach to the performance of marketing management. The elements of marketing mix as the focus of decision-making in marketing are studied, and the case method of instruction is employed. Prerequisites: A grade of "C" or higher in MAR 4503, MAR 4613 or ADV 3500 or equivalent, 60 credit hours earned.

MAR 4804 Marketing Strategy (ME) (3). An analysis of marketing strategy, including situation analysis, target strategy, positioning strategy, and planning. Course emphasizes the use of cases. Prerequisites: A grade of "C" or higher in MAR 4503, MAR 4613 or ADV 3500 or equivalent, 60 credit hours earned.

MAR 4860 Customer Relationship Management (ME) (3). Customer Relationship Management (CRM) is becoming an important strategic tool in consumer goods, firms, financial, health and tourist services, business-to-business firms, and in all of eMarketing. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4907 Independent Study in Marketing (ME) (3). Individual conferences; supervised reading; reports on personal investigations. Consent of faculty supervisor and Department Chairperson required. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4907L Independent Study: Marketing Research Practicum (ME) (3). This course offers an opportunity to apply marketing knowledge within the context of a consumer research setting. The intention is to be an introductory experience to a marketing research lab. Prerequisites: A grade of "C" or higher in MAR 4620 or equivalent, 60 credit hours earned.

MAR 4933 Special Topics in Marketing (ME) (1-20). 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. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4941 Marketing Internship (ME) (1-6). Full-time supervised work in a selected organization. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4942C The General Motors Marketing Internship (GMMI) Project (ME) (3). To give students the opportunity to gain extensive real-world business experience by preparing and executing an actual hands-on marketing program, which is typically not available in the average classroom. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

MAR 4949 Cooperative Education in Marketing (ME) (3). Open to marketing majors who have been admitted to the Cooperative Education Program, with consent of Chairperson. Full-time supervised work with a participating organization in marketing. Report to the organization and a paper to the Chairperson are required. Prerequisites: A grade of "C" or higher in MAR 3023 or equivalent, 60 credit hours earned.

QMB 3003 Quantitative Foundations of Business Administration (IS) (3). Elements and extensive applications of the following quantitative tools to Accounting, Finance, Economics, Marketing, Management and Production: Algebra review, sets, combinatorics, matrices, linear and non-linear functions, derivatives and integrals with a view towards optimization. Case studies. Open only to Business Administration majors. Prerequisite: College Algebra.

QMB 3200 Applied Business Statistics (IS) (3). Inference and modeling for business decisions under uncertainty. Topics covered include survey sampling, confidence intervals and hypothesis testing for mean(s), variance(s), and proportion(s), chi-square test for independence and goodness of fit, correlation, linear regression, time series, and analysis of variance. Use of computer packages to solve real business problems. Prerequisites: (a) ACG 3301, CGS 2100 or CGS 2060 or PHI 2600, ECO 2013, ECO 2023, QMB 3003 or (STA 2023 and MAC 2233) or equivalents with a grade of 'C' or higher; (b) minimum 45 credits earned; (c) only open to Business students.

QMB 4680 Business Analysis (IS) (3). Application of business tools and techniques to complete inventory/production time-series and forecasting, spreadsheet modeling, optimization modeling, and decision tree analyses. Prerequisites: QMB 3200 with a "C" or better. b) Minimum 60 credit hours earned, and c) Business students only

QMB 4700 Principles of Operations Research I (IS) (3). Application of deterministic operations research models (such as linear and non-linear programming, networks, dynamic programming, and branch and bound techniques) to managerial problems of allocation, planning, and scheduling.

QMB 4905 Independent Study in Decision Sciences (IS) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of instructor, Department Chairperson and Dean required. P/F only.

QMB 4930 Special Topics in Quantitative Methods (IS) (1-6). For students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Grading option. Prerequisite: Department Chairperson required.

REE 3043 Real Estate Principles (RE) (3). Introduction to the nature, principles, and fundamental practices of the real estate industry. The completion of this course and REE 4433, meets the FREC educational requirement for real estate licensing. Prerequisites: 45 credit hours earned, 2.5 GPA or higher, completion of University Core Curriculum, UGBU standing.

REE 4103 Appraisal of Real Estate (RE) (3). Valuation and appraisal framework applied to residential and income producing property; role of computers; valuation theory and process as a guide to business decisions. Prerequisites: 45 credit hours earned, 2.5 GPA or higher, completion of University Core Curriculum, UGBU standing.

REE 4204 Real Estate Finance (RE) (3). Financial analysis and structuring of real estate projects; traditional and creative concepts and mechanisms for construction and permanent financing; portfolio problems; governmental programs; money and mortgage market analysis; computers and financial models. Prerequisites: A grade of “C” or higher in REE 3043 or FIN 3403 or equivalents or permission of the instructor.

REE 4303 Real Estate Investment (RE) (3). Advanced concepts of acquisition, ownership, and disposition of investment property; taxation and tax shelter; cash flow projection; analysis of specific types of investment property; utilization of computers as a decision-making tool; models of real estate investment analysis; case analysis and policy formulation. Prerequisites: A grade of “C” or higher in REE 3043 or FIN 3403 or equivalents or permission of instructor.

REE 4433 Legal Environment of Real Estate (RE) (3). The legal environment of real estate as it relates to buying, financing and selling of real property. The completion of this course and REE 3043, meets the FREC educational requirement for real estate licensing. Prerequisites: A grade of “C” or higher in REE 3043 or FIN 3403 or FIN 3105 or equivalents or permission of instructor.

REE 4504 Real Estate Management (RE (3). Theories and techniques of professional management of real estate including such topics as creating a management plan; merchandising space; economics of alternates; market analysis; the maintenance process; owner-tenant manager relations; operating budgets; tax consideration; and ethics. Prerequisites: 45 credit hours earned, 2.75 GPA or higher. (on demand)

REE 4733 Real Estate Land Planning (RE) (3). Theories of city growth and structure, operations of the real estate market in land allocation; current practices in real estate land planning. Prerequisites: 45 credit hours earned, 2.75 GPA or higher. (on demand)

REE 4754 Real Estate and Regional Development Policy (RE) (3). A capstone course in integrating all the aspects of real estate and regional development learned in previous courses, projects, cases, and field trips. Prerequisites: 45 credit hours earned, 2.75 GPA or higher. (on demand)

REE 4814 Real Estate Marketing (RE) (3). Techniques of selecting, training, and compensating sales personnel; obtaining and controlling listings; process and methods involved in the selling of real estate; promotion activities; including advertising and public relations; growth problems; professionalism; and ethics. Prerequisites: 45 credit hours earned, 2.75 GPA or higher. (on demand)

REE 4905 Independent Study in Real Estate (RE) (1-20). Individual conferences; supervised readings; reports on personal investigations. Prerequisites: Consent of instructor and Department Chairperson required.

REE 4930 Special Topics in Real Estate (RE) (1-20). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Prerequisites: Consent of instructor and Department Chairperson required.

REE 4956 International Real Estate – *GL* (RE) (3). Focus on characteristics of international real estate environment include: inbound and outbound transactions, accounting practice, tax law, legal constraint, global strategic plan, foreign exchange, global financing, and cultural issues. Prerequisites: A grade of "C" or higher in REE 3043 or FIN 3403 or equivalents or permission of instructor, completion of University Core Curriculum, UGBU standing.

RMI 3011 Principles of Risk Management and Insurance (BA) (3). Risk Management, Elements of Risk Theory and Risk Bearing. The Insurance industry, fundamentals and legal concepts in insurance. Overview of property and liability as well as life insurance policies. Prerequisites: 45 credit hours earned, 2.75 GPA or higher.

RMI 4124 Health Insurance (BA) (3). Economics of Health Insurance types of coverage; marketing, underwriting, claims adjustment and administration. Private and social insurance programs. Regulations. Prerequisites: 45 credit hours earned, 2.75 GPA or higher.

RMI 4200 Property and Liability Insurance (BA) (3). Fundamentals and legal environment of property and liability insurance. Major P-L insurance lines including fire, marine, automobile, worker's compensation, homeowner's and liability; functions of P-L insurers. Prerequisites: 45 credit hours earned, 2.75 GPA or higher.

RMI 4220 Casualty Insurance (BA) (3). A broad concept of casualty insurance, including a thorough review of basic policies; dailies; underwriting losses; multiple line and comprehensive forms. Subjects covered include personal liability insurance, boiler and machinery insurance, air insurance, inland and ocean marine insurance, workmen's compensation, and surety. Prerequisites: 45 credit hours earned, 2.75 GPA or higher.

RMI 4305 Risk Management (BA) (3). The elements of Risk Theory and Risk Bearing. Risk identification and analysis. Methods for handling risks with quantitative analysis of available alternative including Self-Insurance and Captive Insurance concepts. Prerequisites: 45 credit hours earned, 2.75 GPA or higher.

RMI 4405 Insurance Law (BA) (3). Legal environment and essentials of insurance law. Legal and non-legal liabilities. Regulation of insurance in Florida. Prerequisites: 45 credit hours earned, 2.75 GPA or higher.

RMI 4935 Special Topics in Insurance (BA) (1-20). Intensive study for groups of students of a particular topic or a limited number of topics, not otherwise offered in the Curriculum. Prerequisites: Consent of instructor and Department Chairperson required.

TAX 4001 Income Tax Accounting (AC) (3). A survey of federal income taxation with emphasis on taxation of individuals and corporations, and the ethics of income tax accounting Prerequisites: A grade of "C" or higher in QMB 3003 or MAC 2233 and ACG 3301 or equivalent, successful completion of entrance exam, 60 credits earned, 3.0 GPA.

TAX 4011 Taxation of Corporations and Partnerships (AC) (3). An in-depth study of income taxation of corporations and partnerships, including tax planning. Prerequisites: A grade of "C" or higher in TAX 4001 and ACG 4101, 60 credits earned.

TAX 4931 Special Topics in Taxation (AC) (1-3). For groups of students wishing an intensive study of a particular topic(s) not otherwise offered in the curriculum. Prerequisite: Permission of the Director of the School of Accounting.

TRA 4012 Principles of Transportation (ME) (3). Overview of transportation systems. Topics include: a survey of transportation modes (including rail, motor, water, air, and pipelines), management issues (market entry, pricing, competitive responses, service levels, capital structure, traffic management) and global perspectives.

TRA 4202 Logistics Technology (ME) (3). The use of information technology in logistics: EDI, data bases, Internet, decision support systems for logistics, and commercial logistics software. The application of quantitative models in logistics. Prerequisites: A grade of "C" or higher in TRA 4203 or equivalent, 60 credit hours earned.

TRA 4203 Principles of Logistics (ME) (3). Overview of the logistics functions within a firm and in the context of integrated vertical systems. Topics include: customer service, information flow, inventory control, materials management, order processing, packaging, physical distribution, purchasing, transportation, warehousing, and supply chain management. Prerequisite: 45 earned hours.

TRA 4214 Logistics Strategy (ME) (3). Study of logistics policy and strategy, computer simulation of logistics systems under various market conditions, and integration of the logistics function with marketing, production, and finance functions. Case and simulation exercises to illustrate logistics. Prerequisites: A grade of "C" or higher in TRA 4203, 60 credit hours earned.

TRA 4411 Airport Management (ME) (3). Application of management principles to airport operation, with emphasis on unique characteristics of airport finance; government relations and regulations; airline relations and interdependence.

TRA 4721 Global Logistics (ME) (3). Logistics activities of multinational firms, international transportation systems, global sourcing, customer service, faculty location, inventory management, customs issues, export-import activities and the role of governments. Prerequisite: 60 credit hours earned.

TRA 4936 Special Topics in Transportation (ME) (1-20). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

TRA 4945 Logistics Internship (ME) (3). Full-time supervised work in a selected organization. Prerequisites: A grade of "C" or higher in TRA 4203 or equivalent, 50 credit hours earned.

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Director, Graduate Program Administration	**Angel Burgos**
Executive Director, Marketing and Analytics	**Anthony Miyazaki**
Executive Director, Ryder Center for Supply Chain Management	**Ron Mesia**
Executive Director, Executive and Professional Education	**Jerry Haar**
Director, Asia-Pacific Programs	**Anna Pietraszek**
Director, Undergraduate Advising	**Kelly G. Ferguson**
Director, Ph.D. Programs	**George Marakas**
Director, Jerome Bain Real Estate Institute	**Eli Beracha**
Director, Marketing and New Media	**Luisa Perez**
Director, Ryder Center for Supply Chain Management	**Gregory Maloney**
Director, Career Management Services	**John Nykolaiszyn**
Director, Global Initiatives	**Jennifer Hilton Montero**

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School of Accounting	**Clark Wheatley**
Finance	**Shahid Hamid**
Global Leadership and Management	**Juan I. Sanchez**
Information Systems and Business Analytics	**Karlene Cousins**
International Business	**William Newburry**
Marketing and Logistics	**Anthony Miyazaki**
Director, Tibor and Sheila Hollo School of Real Estate	**Eli Beracha**

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Gomes, Paulo J., D.B.A. *(Boston University), Assistant Professor, Information Systems and Business Analytics*

Gomez, Carolina, Ph.D. *(University of North Carolina), Professor, Global Leadership and Management, Alvah Chapman Eminent Scholar*

Gooden, Doreen, D.B.A. *(Nova Southeastern University), University Instructor, International Business*

Guess, Wendy, Ph.D. *(Texas Women's University), Instructor, Marketing and Logistics*

Guldiken, Orhun, Ph.D. *(Old Dominion University), Assistant Professor, International Business*

Gungoraydinoglu, Ali, Ph.D. *(University of Florida), Senior Instructor, Finance*

Gupta, Manjul, Ph.D. *(Iowa State University), Assistant Professor, Information Systems and Business Analytics*

Gupta, Sushil K., Ph.D. *(University of Delhi), Professor, Information Systems and Business Analytics*

Haar, Jerry, Ph.D. *(Columbia University), Clinical Professor, Executive Director, Executive & Professional Education, International Business*

Hamid, Shahid, Ph.D. *(University of Maryland), Professor and Chair, Finance*

Han, Hyeyoung, Ph.D. *(Emory University), Assistant Professor, Information Systems and Business Analytics*

Hardin, William, Ph.D. *(Georgia State University), Professor and Director, Jerome Bain Real Estate Institute; and Associate Dean, Chapman Graduate School of Business*

Harris, Erica, Ph.D. *(Temple University), Assistant Professor, Accounting*

Henry, Kenneth, Ph.D. *(Florida International University), CPA, Clinical Associate Professor, Accounting*

Hertelendy, Attila J., Ph.D. *(University of Mississippi), Instructor, Information Systems and Business Analytics*

Hiller, Nathan J., Ph.D. *(Pennsylvania State University), Associate Professor, Global Leadership and Management and Academic Director, Center for Leadership*

Hollander, Suzanne, J.D. *(University of Miami), Senior Instructor, Tibor and Sheila Hollo School of Real Estate*

Huang, Xiaochuan (Kelly), Ph.D. *(George State University) Assistant Professor, Accounting*

Humphrey, William F., Ph.D. *(Texas Tech University), Assistant Professor, Marketing and Logistics*

Jang, Yeonju, Ph.D. *(University of Kansas), Assistant Professor, Finance*

Jansta, Stan, M.S. *(Florida International University), Instructor, Accounting*

Jiang, Xiaoquan, Ph.D. *(University of Houston), Professor, Finance*

Kang, Keumseok, Ph.D. *(Purdue University), Associate Professor, Information Systems and Business Analytics*

Kang, Qiang, Ph.D. *(University of Pennsylvania), Associate Professor, Finance*

Keys, James D., M.B.A., M.S.F. *(Florida International University), University Instructor, Finance*

Klein, Richard, Ph.D. *(Georgia State University), Professor, Information Systems and Business Analytics and Associate Dean, Landon Undergraduate School*

Koulamas, Christos P., Ph.D. *(Texas Tech University), Professor, Information Systems and Business Analytics; Ryder Eminent Scholar*

Klonarides, Gerard, M.B.A. *(University of La Verne), Lecturer, Information Systems and Business Analytics*

Kumaraswamy, Arun, Ph.D. *(New York University), Professor, Director, International Business PhD Program, International Business*

Kundu, Sumit, Ph.D. *(Rutgers University), Professor and James K. Batten Eminent Scholar Chair in International Business, Associate Dean of International Program International Business*

Kyparisis, George J., D.Sc. *(George Washington University), Professor, Information Systems and Business Analytics*

Lampert, Curba, Ph.D. *(University of Texas at Austin), Associate Professor, International Business*

Lasaga, Manuel, Ph.D. *(University of Pennsylvania), Clinical Professor, Finance*

Lassar, Walfried M., Ph.D. *(University of Southern California), Ryder Professor, Marketing and Logistics*

Lawrence, Edward R., Ph.D. *(University of Nebraska), Professor, Finance and Florida International Bankers Association Professorship*

Lee, Jaehoon, Ph.D. *(University of Texas, San Antonio), Assistant Professor, Marketing and Logistics*

LeRouge, Cynthia, Ph.D. *(University of South Florida), Associate Professor, Information Systems and Business Analytics*

Li, Joanne, Ph.D. *(Florida State University), Professor and Ryder Eminent Scholar, Chair in Business, Finance and Dean College of Business*

Li, Tiger, Ph.D. *(Michigan State University), Associate Professor, Marketing and Logistics*

Lin, Stephen W., Ph.D. *(University of Manchester), CPA, Professor, Knight Ridder Eminent Scholar, Accounting*
Lin, Zhenguo, Ph.D. *(University of Wisconsin at Madison), Professor and Tibor and Shelia Research Fellow, Tibor and Sheila Hollo School of Real Estate*
Maidique, Modesto A., Ph.D. *(Massachusetts Institute of Technology), Professor and Alvah H. Chapman Eminent Scholar Chair in Leadership, Global Leadership and Management; FIU President Emeritus*
Maloney, Greg, M.B.A. *(University of Miami), Instructor, Marketing and Logistics; Director, Ryder Center for Supply Chain Management*
Marakas, George, PH.D. *(Florida International University), Professor, Information Systems and Business Analytics*
McEwen, Ruth Ann, Ph.D. *(Georgia Institute of Technology), CPA, Professor, Accounting*
Melbourne, Louis, D.M. *(University of Maryland, University College), Senior Instructor, International Business*
Mesia, Ron, D.B.A. *(Nova Southeastern University), Senior Instructor, Marketing and Logistics and Executive Director, Ryder Center for Supply Chain Management*
Milian, Jonathan, Ph.D. *(University of Chicago), CPA, Associate Professor, Accounting*
Mirzaei, Tala, Ph.D. *(The University of North Carolina, Greensboro), Professor, Information Systems and Business Analytics*
Mishra, Suchismita, Ph.D. *(University of Nebraska-Lincoln), Professor, Finance*
Miyazaki, Anthony, Ph.D. *(University of South Carolina), Professor and Chairperson, Marketing and Logistics; Faculty Director*
Mosquera, Gustavo, M.B.A. *(Florida International University), Visiting Instructor, Marketing and Logistics*
Moysidis, Anastasios, M.S.F. *(Florida International University), Senior Instructor, Finance*
Newburry, William, Ph.D. *(New York University), Department Chair and Professor, International Business and SunTrust Bank Professor*
Oliveira, Manoel, Ph.D. *(Florida International University), Senior Lecturer, Information Systems and Business Analytics*
Oztekin, Ozde, Ph.D. *(University of Florida), Associate Professor, Finance*
Parente, Ronaldo, Ph.D. *(Temple University), Associate Professor, International Business*
Parhizgari, Ali, M., Ph.D. *(University of Maryland), Professor, Finance*
Parra, Carlos M., Ph.D. *(Tokyo Institute of Technology), Clinical Professor, Information Systems and Business Analytics*
Paul, Karen, Ph.D. *(Emory University), Professor, International Business*
Perry, Clifford R., Ph.D. *(Purdue University), University Instructor, International Business*
Perry Frederick, Ph.D. *(University of Miami), Clinical Professor, Accounting*
Pietraszek, Anna, Ph.D. *(Jagiellonian University) Instructor, Marketing and Logistics, Director, Asia-Pacific Programs*
Pissaris, Seema, Ph.D. *(Florida Atlantic University), Clinical Professor, Global Leadership and Management*
Polak, Peter, Ph.D. *(University of Pittsburgh), Instructor, Information Systems and Business Analytics*
Raghunandan, Kannan, Ph.D. *(University of Iowa), Professor and Ryder Eminent Scholar Chair in Business Leadership, Accounting*
Rama, Dasaratha, Ph.D. *(University Iowa), SunTrust Bank Professor, Accounting*
Rao, Dileep, Ph.D. *(University of Minnesota), Clinical Professor, International Business*
Rauseo, Nancy, D.B.A. *(Nova Southeastern University), University Instructor, R. Kirk Landon Teaching and Student Engagement Fellow, Marketing and Logistics*
Richmond, Nancy, Ed.D. *(Northeastern University), Instructor, Marketing and Logistics*
Rody, Raymond C., Ph.D. *(University of Southern California), Visiting Instructor, Marketing and Logistics*
Roomes, Donald, D.M. *(University of Maryland, University College), University Instructor, International Business*
Rouxelin, Florent, Ph.D. *(University of South Wales, Australia), Assistant Professor, Finance*
Sanchez, Carrie, M.B.A. *(Florida International University), Visiting Instructor, Information Systems and Business Analytics*
Sanchez, Juan I., Ph.D. *(University of South Florida), Professor and Chair, Global Leadership and Management and Knight Ridder Byron Harless Eminent Scholar, International Business*
Seaton, Bruce, Ph.D. *(Washington University), Associate Professor, Marketing and Logistics*
Shepherd, Philip, Ph.D. *(Vanderbilt University), Associate Professor, International Business*
Simon, Pablo, M.A. *(University of Miami),* **M.S.** *(Florida International University), CPA, Instructor, Accounting*
Simpson, Gladys, Ph.D. *(Florida International University), Senior Instructor, Information Systems and Business Analytics*
Sin, Hock-Peng, Ph.D. *(Pennsylvania State University), Associate Professor, Faculty Director for IMBA Program, Global Leadership and Management, and Alvah Chapman Eminent Scholar*
Sinha, Jayati, Ph.D. *(University of Iowa), Associate Professor, Marketing and Logistics; Macy's Retailing Professorship*
Smith Antoinette L., Ph.D. *(University of South Florida), CPA, Professor, Accounting*
Soltero, Rafael, M.B.A. *(Rochester Institute of Technology), Instructor, Marketing and Logistics*
Subramanian, Hemang C., Ph.D. *(Georgia Institute of Technology), Assistant Professor, Information Systems and Business Analytics*
Surysekar, Krishnamurthy, Ph.D. *(University of Maryland), Professor, Accounting*
Tanenbaum, Jaclyn, M.B.A. *(University of Central Florida), Instructor, Marketing and Logistics*
Tarangelo, Thomas J., J.D. *(University of Florida), Instructor, Accounting*
Taylor, Kimberly, Ph.D. *(University of Pennsylvania), Associate Professor, Marketing and Logistics*
Thibodeau, Mark Ph.D. *(Pennsylvania State University), Assistant Professor, Tibor and Sheila Hollo School of Real Estate*
Tsalikis, John, Ph.D. *(University of Mississippi), Professor, Marketing and Logistics and BMI Professorship in Marketing*
Upadhyay, Arun, Ph.D. *(Temple University), Associate*

Professor, Finance

Vander Meer, Debra, Ph.D. *(Georgia Institute of Technology), Associate Professor, Information Systems and Business Analytics*

Von Glinow, Mary Ann, Ph.D. *(The Ohio State University), Professor and Knight Ridder Eminent Scholar Chair in International Management, International Business*

Vulcheva, Maria, Ph.D. *(Emory University), Associate Professor, Accounting*

Walumbwa, Fred, Ph.D. *(University of Illinois), Associate Professor, International Business*

Wang, Minho, Ph.D. *(Georgia Institute of Technology), Assistant Professor, Finance*

Weinstein, Marc, Ph.D. *(Massachusetts Institute of Technology), Clinical Professor, Global Leadership and Management Business and Academic Director, MSHRM Program*

Weir-Latty, Sheryl, M.S. *(Florida International University), Visiting Instructor, Marketing and Logistics*

Weisman, Miriam, LLM. *(Chicago Kent College), Clinical Professor, Accounting*

Wernick, David, Ph.D. *(Florida International University), University Instructor, International Business and Faculty Director, International Business Honors Society and Honors in International Business Program*

Weisman, Miriam, LLM. *(Chicago Kent College), Clinical Professor, Accounting*

Wheatley, Clark, Ph.D. *(Virginia Polytechnic Institute), CPA, Professor and Director; Accounting*

Wishart, Nicole, Ph.D. *(Florida International University), Senior Instructor, Information Systems and Business Analytics*

Wu, Zhonghua, Ph.D. *(University of Wisconsin – Madison), Associate Professor and Tibor and Sheila Research Fellow, Tibor and Sheila Hollo School of Real Estate*

Xia, Weidong, Ph.D. *(University of Pittsburgh), Associate Professor, Information Systems and Business Analytics*

Yap, Andrew, M.B.A. *(Florida International University), Visiting Instructor, Marketing and Logistics*

College of Communication, Architecture + The Arts

Dean **Brian Schriner**
Associate Dean, Cultural and Community Engagement **John Stuart**
Associate Dean, Faculty + Program Development **Marilys Nepomechie**
Associate Dean, Strategic Communication **Maria Elena Villar**
Assistant Dean, Student Services + Strategic Planning, Executive Director, Finance and Personnel **Lilia Silverio-Minaya**
Principle Gift Officer **Oliver Ionita**
Chair, Architecture Department **Jason Chandler**
Chair, Art and Art History Department **David Chang**
Interim Chair, Communication Department **Aileen Izquierdo**
Chair, Interior Architecture Department **Newton D'Souza**
Chair, Journalism and Media Department **Teresa Ponte**
Interim Chair, Landscape Architecture + Environmental and Urban Design Department **David Rifkind**
Interim Director, School of Music **Karen Fuller**
Chair, Theatre Department **Joel Murray**

The College of Communication, Architecture + The Arts is comprised of eight departments—Architecture, Art and Art History, Communication, Interior Architecture, Journalism and Media, Landscape Architecture + Environmental and Urban Design, Music, and Theatre. The dynamics among the different disciplines make the college unique with programs that focus on art, design, communication, and performance. The college occupies a unique position in South Florida where students can prepare for a career in architecture or the arts within a major research university. Instruction in the college is enriched by a distinguished faculty of artists, designers, journalists, and performers who add dimensions of applicable experience, current issues, and ongoing research to the traditional concepts related to the disciplines and professions within the college.

The college promotes exploration, discovery, and innovation among its different programs and is strongly committed to interdisciplinary education breaking new ground in art, design and performance. Its diverse programs emphasize urban engagement and are informed by current thinking and new technologies.

Developing connections with a wide range of programs and resources in the university, the college is dedicated to being engaged as a leader in art and design as well as in the performing arts in South Florida, neighboring communities, the nation, and internationally. Collaborations with Fairchild Tropical Botanic Garden, the Metropolitan Center, the Wolfsonian-FIU, the Bauhaus-Dessau, the Coconut Grove Playhouse, Florida Keys Land and Sea Trust at Crane Point, the Concert Association of Florida, and the Università degli Studi di Genova offer students the opportunity to expand their ingenuity with a variety of resources.

The fusion of essential disciplines with applied professions in the college provides both depth and liberty in learning. In the fields of architecture, landscape architecture, interior architecture, and art, the major emphases are on creative processes and studio work with a variety of supportive lectures and seminar programs. In art history, the emphasis is on scholarly study of the arts through time; lectures, seminars, and independent research are conducted on campus and in museums and libraries throughout the South Florida area. Music emphasizes skills and knowledge that are fundamental to the entire discipline: music theory, music history, performance, aural and keyboard training, orchestration, composition, conducting, and ensemble participation. Communication focuses on developing skills essential for effective leadership, critical decision making, and strategic influence through interpersonal and mediated communication. Our liberal arts and professional degrees prepare students for successful careers in organizational communication, advertising, and public relations in our diverse communities and our global digital ecosystem. Our graduate programs give students a global perspective in strategic communication to help them prepare for advancement in advertising, public relations, and integrated communications careers. Journalism and Media investigate, analyze, chronicle, and explain the complexities of the world around us. Theatre majors study the arts that contribute to theatre production—acting, costuming, directing, designing sets lighting and sound, writing plays, and theatre administration.

Admission to the College of Communication, Architecture + The Arts is selective and competitive. For information on the College of Communication, Architecture + The Arts, see **http://carta.fiu.edu**. Students seeking to major in any of the college's departments must meet the requirements for admission to the university and the requirements for admission to the major by the respective department. Admission to the above referenced departments' majors is competitive and is not guaranteed. Criteria for selective admission to the departments major include indicators of ability, performance, creativity, and/or talent to complete required work within the desired major. Admission to the department's major will be offered based on space availability to those applicants judged by the respective Department Faculty Admissions Committee to have the greatest potential for successful completion of the program. Florida community college transfer students with Associate in Arts degrees are given equal consideration with FIU students.

Hours of Operation / Location / Contact Information

Monday - Friday, 8:30am - 5:00pm
Paul L. Cejas Architecture Building, PCA 272,
Miami, FL 33199
Phone: (305) 348-7500, Fax: (305) 348-6716

Student Services and Advising Center

Our advisors are here to assist you in the development of a meaningful educational plan that is compatible with your life goals. You can rely upon your academic advisors for information, assistance, and encouragement.

The goals of our advising team are to:

- Provide accurate and customized academic information.
- Educate students on how to plan effectively.

- Help students identify goals and develop education plans to reach them.
- Interpret and assure adherence to CARTA's academic policies and procedures.
- Consult with students experiencing academic difficulty and assist them in identifying reasons for problems and possible solutions.
- Help students understand degree requirements.
- Assist students in the selection and scheduling of courses.

Architecture	Student Services and Advising Center, PCA 272 archadvising@fiu.edu, (305) 348-7500
Art and Art History	Student Services and Advising Center, VH 232, 234 cartaadv@fiu.edu, (305) 348-1734
Communication	Student Services and Advising Center, VH 212 and AC2 320 cartaadv@fiu.edu, (305) 348-1255
Interior Architecture	Student Services and Advising Center, PCA 272 archadvising@fiu.edu, (305) 348-7500
Journalism and Media	Student Services and Advising Center, AC2 230 sjmc@fiu.edu, (305) 919-5625
Landscape Architecture + Environmental and Urban	Student Services and Advising Center, PCA 272 Design archadvising@fiu.edu, (305) 348-7500
Music	Student Services and Advising Center, WPAC 145B cartaadv@fiu.edu, (305) 348-2442
Theatre	Student Services and Advising Center, WPAC 145B cartaadv@fiu.edu, (305) 348-2442

Undergraduate Programs

For students seeking to begin their professional design studies as undergraduates, the Departments of Architecture, Interior Architecture, and Landscape Architecture + Environmental and Urban Design offer the Accelerated Master's programs which integrate pre-graduate coursework in a single curricular path (see appropriate section for each program on pages that follow). The College offers academic programs leading to undergraduate degrees in Art, Art History, Communication, Communication Arts, Journalism + Media, Music, Public Relations, Advertising, and Applied Communication, and Theatre.

Certificate Programs

The college offers academic programs leading to undergraduate certificates in Digital Media Communication and Media; Global Media Communication; History and Theory of Architecture; Landscape Architecture; and Music Business, Music Technology; Strategic Communication and Visual Production.

Minors

Minor programs of study are offered in art; art history; business communication; communication studies; dance; global media communication; international communication; journalism; multimedia production; music; music composition (for music majors only); sacred music; and theatre.

School of Communication and Journalism

Dean **Brian Schriner**
Associate Dean, Cultural and Community Engagement **John Stuart**
Associate Dean, Faculty Development **Shahin Vassigh**
Associate Dean, Strategic Initiatives **Marilys Nepomechie**
Associate Dean, Students **David Rifkind**
Associate Dean, Strategic Communication **Maria Elena Villar**
Director, Finance and Personnel **Lilia Silverio-Minaya**
Director, Facilities and Auxiliary Services **Mark Marine**
Principle Gift Officer **Lisa Merritt**
Interim Chair, Communication Department **Aileen Izquierdo**
Chair, Journalism and Media Department **Teresa Ponte**

The School of Communication and Journalism offers liberal arts and professional degrees which prepare students for successful careers in journalism, digital media, organizational communication, advertising, and public relations in our diverse communities and our global digital ecosystem. Our professional degrees are accredited by Accrediting Council on Education in Journalism and Mass Communications. The faculty and staff of the School are invested in the personal and academic growth of every student and we support individual success through quality teaching – both in the traditional and the digital classrooms – and opportunities for service learning, study abroad, internships and independent research.

Undergraduate Programs

The school offers academic programs leading to undergraduate degrees in Communication Arts, with majors in Organizational Communication, Advertising, Public Relations, Broadcast Media, Digital Media Studies, and Journalism.

Minors

Minor programs of study are offered in Business Communication; Communication Studies; and International Communication.

Certificate Programs

The school offers academic programs leading to undergraduate certificates in Global Media Communication, Digital Communication and Media, Strategic Communication and Visual Production.

School of Music

Karen S. Fuller Veloz, *Interim Director*
Brenton Alston, *Assistant Professor*
Jacob Berglin, *Assistant Professor*
Barry Bernhardt, *Senior Instructor and Director of Marching Band*
Federico Bonacossa, *Instructor*
Jason Calloway, *Instructor*
Gary Campbell, *Professor*
Candice Davenport, *Assistant Professor*
Robert Davidovici, *Professor*
David Dolata, *Professor*
Avi Nagin, *Visiting Instructor*
Karen S. Fuller-Veloz, *Senior Instructor*
Joel Galand, *Associate Professor*
Orlando J. García, *Professor*
Kemal Gekic, *Professor*
James Hacker, *Senior Instructor*
Enrique Caboverde, *Music Librarian*
William Dan Hardin, *Music Librarian*
Fredrick Kaufman, *Professor Emeritus*
Vindhya Khare, *Instructor*
Michael Klotz, *Senior Instructor*
Marcia Littley, *Senior Instructor*
José R. López, *Associate Professor*
Javier José Mendoza, *Assistant Professor*
Jamie Ousley, *Associate Professor*
Mesut Özgen, *Senior Instructor*
Sandra Sanchez-Adorno, *Assistant Professor*
Jacob Sudol, *Associate Professor*
Michael Vitenson, *Instructor*

Freshman/Sophomore Admission

Freshman admission requires an audition and placement test in Music Theory. Contact the School of Music at (305) 348-2896 for an audition appointment.

Transfer Admission

To qualify for admission to the program, FIU undergraduates must meet all the lower division requirements, complete 60 semester hours, and be otherwise acceptable into the program. Music students at the University come from a wide variety of academic backgrounds from Florida, other states, and countries. Because of this diversity, the faculty of music gives basic preliminary examinations in order to assist the student in eliminating any deficiencies: 1. Music History - consisting of all periods of history. 2. Music Theory - consisting of sightsinging, melodic and harmonic dictation and written harmonization and analysis. All transfer music majors entering Fall 2011 or later must satisfy the FIU Global Learning requirement by taking IDS 3336 Artistic Expression in a Global Society – *GL* and MUH 3514 Music of the World – *GL*.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
MUT 1111	MUTX111 or MUTX121
MUT 1112	MUTX112 or MUTX122
MUT 2116	MUTX116 or MUTX126
MUT 2117	MUTX117 or MUTX127
MUT 1221	MUTX221
MUT 1222	MUTX222
MUT 2226	MUTX226
MUT 2227	MUTX227
	MUNXXXX
	MVxXX1X
	MVxXX2X
	XXXXXXX[2]
	Secondary Piano – Proficiency by examination[1]

[1]or MVKX111 & MVKX112 & MVKX121 & MVKX122 OR MVKX111r & MVKX111r & MVKX121r & MVKX121r & MVKX211 & MVKX221 as needed to achieve piano proficiency.
[2]Varies from Track to Track
***PLEASE NOTE:** Duplicate courses such as MVK X111r may be repeated up to 4 times.*

MUN (Ensemble) and MVX (Applied Performance) requirements will transfer based on the required audition.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order

Common Requirements for All Bachelor of Music Degrees

N.B. Students must earn a grade of "C" or better in all courses required for the major. A grade of "C-" or lower is not acceptable in any required course.

University Core Curriculum[1]		33
Music Theory		
MUT 1111	Music Theory I	3
MUT 1112	Music Theory II	3
MUT 2116	Music Theory III	3
MUT 2117	Music Theory IV[1]	3
Sightsinging		
MUT 1221	Sightsinging I	1
MUT 1222	Sightsinging II	1
MUT 2226	Sightsinging III	1
MUT 2227	Sightsinging IV[2]	1
Music History		
MUH 3211	Music History Survey I	3
MUH 3212	Music History Survey II	3
Ethnomusicology		
MUH 3514	Music of the World – *GL*	3

[1]Students in Jazz Performance track replace MUT 2117 (Music Theory IV) with MUT 3171C (Jazz Theory II)
[2]Students in Jazz Performance track replace MUT 2227 with MUT 3XXX (Jazz Ear Training)
[3]Students in Jazz Performance track replace MVK 2121 and MVK 2122 with MKV 3135 (Jazz Piano I) and MVK 3136 (Jazz Piano II).

Class Piano

MVK 1111L	Class Piano I	1
MVK 1112L	Class Piano II	1
MVK 2121L	Class Piano III[3]	1
MVK 2122L	Class Piano IV[3]	1

Music Technology

MUC 1342	MIDI Technology	2

Music Business

MUM 4301	Business of Music	3

Recital Attendance

MUS 1010	Recital Attendance is required each semester enrolled in applied lessons at the freshman/sophomore level	0
MUS 3040	Recital Attendance is required each semester enrolled in applied lessons at the junior/senior level	0

Total University & Music Core **67**

Bachelor of Music

Degree Program Hours: 120

A Bachelor of Music degree is offered with an emphasis in one or more of the following areas: Applied Music, Composition, Jazz Studies, Music Technology, and Music Education.

All entering students must provide evidence of performance ability (vocal or instrumental) through an audition. Contact the School of Music at (305) 348-2896 for more information or to schedule an audition.

Areas of Emphasis

The following are areas of emphasis for music students. Admission to each area is by faculty approval.

Instrumental Performance

Required Courses

Music Theory / History

MUT 3611	Form and Analysis	3
Upper Division MUT or MUH course		3

Ensembles **8**

One major ensemble every semester enrolled in lessons

Additional ensembles (Placement will be determined by area coordinator		8

Major Applied Lessons

Lower Division Major Applied Lessons

Four semesters, 2 credits each semester	8

Upper Division Major Applied Lessons

Four semesters, 3 credits each semester	12

Literature

Music Literature (MUL) course[2]	3

Music Internship

MUM Music Internship	0

[2] To be chosen in consultation with Area Coordinator. Guitarist should take MUL 4400 (Guitar Literature) and string players should take MUL 4500 (Symphonic Literature). Wind players should take MUL 4XXX (Wind Literature) and are strongly encouraged to take MUL 4500 as well.

Conducting

MUG 4101	Basic Conducting	1
MUG 4302L	Instrumental Conducting	1

Recitals

Junior Recital	0
Senior Recital	0

Electives

Music Electives	6
Total	**53**

Vocal Performance

In addition to the UCC requirements, the common requirements for all music degrees, and the required courses for the Vocal Performance track listed below, all voice majors must satisfy the following foreign language requirements.

Students must demonstrate competency at the level of the first semester of an intensive college language sequence or beyond in two of the following languages: French, German, and Italian. Each of these two requirements may be met by:

a) Successfully completing with a grade of 'C' or better (C- does not count): the first semester or higher of a foreign language sequence at FIU from the list of accepted languages.
b) Completing the equivalent at another college, or
c) Presenting acceptable scores in the Advanced Placement Exam, the SAT II, the CLEP exam, or other approved instruments. Recommended equivalencies are available at **https://ugrad.fiu.edu/transfer/Pages/TransferEquivalencyProcess.aspx**.

Elective credits may be used to fulfill the foreign language requirement.

Required Courses

Music Theory

MUT 3611	Form and Analysis	3
Upper Division MUT or MUH course		3

Ensembles

For each semester of lower division applied voice, 1 cr. hour of "major choral ensemble" (MUN 1310 or MUN 1340) as assigned by Director of Choral Studies	4
For each semester of upper division applied voice, 1cr. hour of "major applied ensemble" (MUN 3313 or MUN 3343) as assigned by the Director of Choral Studies	4

Major Applied Lessons

Four semesters; 3 credits each semester	12

Upper Division Major Applied Lessons

Four semesters @ 3 credits each	12

Conducting

MUG 4101	Basic Conducting	1
MUG 4202	Choral Conducting	1

Recitals

MVV 3970L	Junior Recital	0
MVV 4971L	Senior Recital	0

Diction for Singers

Either MUS 2201-2202 (2 credits each) or MUS 2211, 2221, 2231, and 2241 (1 credit each)	4

Vocal Pedagogy

MVV 3630	Vocal Pedagogy	2

Opera Workshop

MUO 4502	Opera Workshop per semester of upper division applied voice	4

Internship

MUM 3942	Music Internship	0

Literature

MUL 3600	Art Song Literature	3

Electives 4

Total 53

Composition

Required Courses

Music Theory/History

MUT 3401	Counterpoint	3
MUT 3611	Form and Analysis	3
MUT 4311	Orchestration	3

Ensembles

Lower level – 4 credits 4
(1 per semester freshman and sophomore years to be selected by principal instrument/voice area director)
Upper level – 2 credits 2
(Junior and senior years 2 semesters of New Music Ensemble; others to be selected by principal instrument/voice area director)

Conducting

MUG 4202	Choral Conducting	1
	or	
MUG 4302L	Instrumental Conducting	1

Principal Applied Lessons

Lower Division Principal Applied Lessons
Four semesters @ 2 credits each 8
Upper Division Principal Applied Lessons
Two semesters @ 2 credits each 4

Composition[3]

MUC 2221	Composition I	2
MUC 2222	Composition II	2
MUC 3231	Composition III	2
MUC 3232	Composition IV	2
MUC 4241	Composition V	2
MUC 4932	Composition Forum– 4 semesters	4

Electronic Music

MUC 2301L	Introduction to Electronic Music	2
MUC 3302	Electronic Music Lab II	2

Recitals[4]

MUS 4910	Research (Composition Recital)	2

Senior Recital (voice instrument) 1

Interdisciplinary Course Electives

Three credits from 3

MUC 4611	Documentary Film Scoring Fundamentals
MUS 4650	Experimental Music and Arts
MUS 4610	Film Scoring Fundamentals

Music Internship

MUM Music Internship 0

Total 53

[4] Composition students must present a 45 minute recital of their work and a 30 minute performance recital. A final oral exam administered after the composition recital must also be successfully completed. Composition students must earn a "B" or better in all theory, composition, and electronic music courses.

Combined BM/MM in Vocal Performance

Admission Requirements

- Current overall GPA of 3.2 or better.
- Completed at least 90 credit hours of course work

Requirements (36 credits)
Senior Year

- In their senior year, students will compete four 5000 level courses (10) credits)
- In their fourth year, students will also complete the exit requirement for the undergraduate Vocal Perfomance major, the Senior Recital, MVV 4971 (0 credit)
- Students must apply for graduation so that they will receive the B.M. at the end of their senior year.

Fifth Year

During their fifth year, students will complete 18 hours of graduate-level work, including the following

MVV 5451	Major Applied Voice (1 semester)	3
MUN 5XXX	Elective Ensemble (2 semesters/1credit each)	2
MVV 5652	Vocal Pedagogy II	2
MUO 5505	Opera Workshop (2 semester/1 credit each)	2
MUS 5711	Music Bibliography	2
MUH 6937	Special Topics in Music History	1
MUS 5906	Master's Recital	6

All students ***must*** complete the M.M credits within one year of receiving the B.M. in Music at FIU.

Minor in Music Composition

A minor in Music Composition is available for students receiving the BM degree in areas of studies other than composition (e.g. jazz studies, applied, music education). In order to receive credit for a minor in composition students must successfully complete the following:

Required Courses

Music Theory

MUT 4311	Orchestration	3

Composition
(beyond Basic Music Composition)

MUC 2221	Composition I	2
MUC 2222	Composition II	2

Electronic Music

MUC 2301L	Introduction to Electronic Music	2

Composition Forum

MUC 4932	Composition Forum (2 semesters)	2

Interdisciplinary Courses 3 credits from the following:

MUS 4650	Experimental Music and Arts	3

MUC 4610	Film Scoring Fundamentals	3
MUC 4611C	Documentary Film Scoring Fundamentals	3
	Total	**14**

Jazz Performance

Required Courses

Music Theory/History

MUT 2641	Jazz Improvisation I	2
MUT 2642	Jazz Improvisation II	2
MUT 3170C	Jazz Theory I	3
MUT 3171C	Jazz Theory II (mus. core)	3
MUT 3XXX	Jazz Ear Training (mus. core)	
MUH 3801	Jazz History	3
MVK 3135	Class Jazz Piano I (mus. core)	1
MVK 3136	Class Jazz Piano II (mus. core)	1
MUT 4353	Jazz Arranging	2

Ensembles

Two credits each semester 16

Major Applied Lessons

Lower Division Major Applied Lessons
Four semesters, 2 credits each semester 8
Upper Division Major Applied Lessons
Four semesters, 3 credits each semester 12

Music Internship

MUM Music Internship 0

Recitals

Junior Recital 0
Senior Recital 0

Electives

Music Electives 5

Total 53

Piano Performance

BM in Piano Performance
Required Courses (120 Credit hours)

University & Music Core 67

Music Theory/History

MUT 3611	Form and Analysis	3
Upper Division MUT or MUH course		3

Literature

MUL 4400	Keyboard Literature I	3
MUL 4401	Keyboard Literature II	3

Ensembles

Major ensembles (2 semesters) 2
Ensembles assigned by the Keyboard Area Coordinator 6

Accompanying

MUN 2510L	Accompanying (four semesters)	4
MUN 4513L	Accompanying (two semesters)	2

Keyboard Harmony

MVK 2180L 1

Major Applied Lessons

Lower Division Major Applied Lessons
Four semesters 2 credits each semester 8
Upper Division Major Applied Lessons
Four semesters 3 credits each semester 12

Piano Pedagogy

MVK 4640	Keyboard Pedagogy	2

Recitals

Junior Recital 1
Senior Recital 1

Electives

Organ (Principal) 2*
*2 credits of Organ can be substituted for 2 crs of additional ensembles and/or Accompanying, as determined by the Keyboard area coordinator.

Total 53

Organ Performance
BM in Organ Performance

Required Courses (120 credit hours)

University & Music Core 67

Music Theory/History

MUT 3611	Form and Analysis	3
Upper Division MUT or MUH course		3

Literature

MUL 4490	Organ Literature	3

Ensembles

Major Ensembles (2 semesters minimum) 2
Ensembles assigned by the keyboard area director 6

Accompanying

MUN 2510 (4 semesters) 4
MUN 4513 (2 semesters) 2

Keyboard Harmony

MVK 2180L 1

Major Applied Lessons

Lower Division Major Applied Lessons
Four semesters @2 credits each 8
Upper Division Major Applied Lessons
Four semesters @ 3 credits each 12

Pedagogy

MVK 4640	Keyboard Pedagogy	2

Music Internship

MUM Music Internship 0

Conducting

MUG 4101	Basic Conducting	1
MUG 4202	Choral Conducting	1

Recitals

Junior Recital 0
Senior Recital 0

Electives

Applied Piano (Principal) 4
Music Electives 4

Total 53

Music Business

Required Courses

Ensembles

Six (6) ensembles of 1 credit each 6

Applied Lessons

Six (6) lessons of 2 credits each 12

Junior Recital 0

Twenty-one (21) credits from:

MUM 3743C	Artist Management	3

MUM 3744C	Career Development for Artists	3
MUM 3734C	Concert Promoter and Venue Management	3
MUM 3742L	Music Production	3
MUM 3XXX	Music Concert Industries	3
MUM 4302	Business of Music II	3
MUM 4724C	Concert Touring	3
MUM 4803	Grant Writing for the Arts	3
MUM 4814C	Leadership in the Arts	3
MUL 4XXX	Music Administration History and Analysis	3

Music Research

MUS 4910	Research Project	2
MUM 4940	Music Internship	6

Electives

Music Electives		6
	Total	**53**

Music Technology

Required Courses

Music Technology

MUC 2301L	Introduction to Electronic Music	2
MUC 3303L	Digital Instrument Design	2
MUC 3333	Sound Reinforcement	3
MUC 3304L	Audio Digital Signal Processing	2
MUC 4404L	Advanced Topics in Music Technology	2
MUS 4910	Senior Thesis	4
MUM 494	Music Internship	0

Ensembles

Major ensemble for four semesters		4
MUN 3024	Laptop Ensemble	3
(for minimum of three semesters)		

Principal Applied Lessons

Four semesters Lower Division 2 credits each semester	8
Two semesters Upper Division 2 credits each semester	4

Conducting

MUG 4101	Basic Conducting	1

Other Music Courses

Two of the following three courses chosen with consultation of advisor		6
MUS 2501	Recording and Production in Pro Tools	
MUS 4611	Documentary Film Scoring Fundamentals	
MUS 4650	Experimental Music and Arts	

Coursework Outside of Music

PHY 3465[2] or one Computer Science elective selected in consultation with advisor	3

Electives

Selected in consultation with Advisor		9
	Total	**53**

[2] May substitute MUS 4324 if PHY 3465 is unavailable

Music Education

(The Bachelor of Music: Major Music Education leads to K-12 Professional Teaching Certification in Music in the State of Florida.)

Bachelor of Music 120

BM Core (67)

UCCs	33
Music Core	34

Music Education Core (53)

Principal Applied Lower Div. Lessons	8
Principal Applied Upper Div. Lessons	4

Ensembles 6

Music Education majors are required to enroll in 1 ensemble each semester enrolled in applied lesson.

MUE Forum (MUE X390)		0

Required each semester enrolled prior to internship.

Junior Recital		0
MUG 4101	Basic Conducting	1
MUG 4201	Instrumental Conducting	1
	OR	
MUG 4202	Choral Conducting	1

Music Education Foundations (27)

MUE 2040	Intro to Music Ed	2
MUE 3340*^	Elementary Music Methods+	3
MUE 3744*^	Assessment and Evaluation in Music Education +	2
MUE 3395*^	Music in Special Education	3
RED 4325*^	Subject Area Reading	3
TSL 4324*^	ESOL Methods K-12 – *GL*	3
MUE 4940	Student Teaching	9
MUE 3411C^	Choral Methods	2
	OR	
MUE 3332^	Secondary Inst. Methods.	2

Music Technique Emphasis (choose 6 credits) **

MVV 3630	Vocal Pedagogy	2
MVS 1116	Guitar Skills	1
MUE 2240	String Techniques	1
MUE 2450	Woodwind Techniques	1
MUE 2460	Brass Techniques	1
MUE 2470	Percussion Techniques	1
MUE 2346	Vocal Techniques	1
MUE 4480	Marching Band Techniques	3
MUS 2211	English Diction	1
MUS 2221	French Diction	1
MUS 2231	German Diction	1
MUS 2241	Italian Diction	1

*Prerequisite: Passing scores on all four (4) parts of the General Knowledge FTCE
^ Certification field hours required
+ Recommended co-requisite
** Techniques may be substituted at discretion of Area Coordinator and Advisor

Bachelor of Arts

Degree Program Hours: 120

The Bachelor of Arts degree is a flexible research-based multidisciplinary degree. In consultation with faculty

advisors, students craft a plan of study tailored to their own particular musical interests, which may also be combined with areas outside of music.

University Core Curriculum	33
Music Theory	**12**
Sight Singing	**4**
Ethnomusicology	**3**
Class Piano	**4**

Same as Bachelor of Music, except that the BA student may substitute a jazz theory course for MUT 2117 Theory IV, Jazz Ear Training for MUT 2227 (Sight Singing IV), or MKV 2121 and MKV 2122 with MKV 3135 (Jazz Piano 1) and MVK 3136 (Jazz Piano II)

Music History		
MUH 3211	Music History Survey I	3
MUH 3212	Music History Survey II	3
Music History or Literature Elective		6
(Choose any two upper-division MUH or MUL course, in consultation with area coordinator)		
Music Technology		
MUC 1342	MIDI Technology	2
Music Business		
MUM 4301	Business of Music	3
Recital Attendance		
MUS 1010	Recital Attendance is required each semester enrolled in applied lessons at the freshman/sophomore level	0
MUS 3040	Recital Attendance is required each semester	0
Principal Applied Lessons		
4 semesters @ 2 credits each		8
Ensembles		
1 credit for every semester enrolled in lessons		4
Internship		
MUM 4940	Internship	0
Other Required Courses		
MUH 3912C	Basic Music Research and Bibliography[5]	2
MUS 4910[6]	Senior Research	4
Restricted Electives[7]		12
Free Electives		17

[5] With approval of area coordinator (s) most closely associated with student's area(s) or research, may substitute another course as preparation for the Senior Project.

[6] Students must complete a significant research paper (e.g. 30 pages) and give a presentation for successful of Senior Research project to two or three full-time instructors

[7] Course chosen in close consultation with area coordinator(s) most closely associated with student's area(s) or research. These electives should support the student's Senior Project or form a coherent program of study, such as a minor.

Entrance Requirements

1. Successful instrumental or vocal audition.
2. Students must pass the Fundamentals Course (MUT 1001) with a minimum grade of "C" or be placed into Theory I prior to taking any academic music courses.

Exit Requirements

Successful completion of significant research paper (e.g. 30 pages) and presentation approved by a School of Music committee of two or three full-time faculty member

Total 120

Minor in Music

Students majoring in any other discipline may minor in music by successfully completing the following curriculum with a grade of "C" or better in each course. Half the credits taken for the Music Minor must be taken at FIU.

Required Courses

Music Theory chosen from:		6
MUT 1101	Fundamentals of Music	
MUT 1111	Theory I	
MUT 1112	Theory II	
MUT 2116	Theory III	
MUT 2117	Theory IV	
Music Appreciation		3
Music History chosen from: MUH 3211 – MUH 3214 (Music History Survey I-IV)		3
Music Electives		12
	Total	**24**

Students must take a Music Fundamentals Test in order to determine the appropriate initial theory class; unless they choose to begin with MUT 1001, for which no test or prerequisite is required. Students must pass an audition at the level of music principal to qualify for the minor in music, whether or not they intend to register for applied lessons or ensembles. It is assumed that students auditioning for applied lessons will have taken private lessons for several years. Music minors registered for applied lessons must register for at least one ensemble every semester they are registered for applied lessons. Admission to applied lessons and participation in ensembles is at the direction of the area advisor.

Minor in Sacred Music

A minor in Sacred Music is available for students receiving the BM degree or the BA in Music degree and is designed to allow music majors to further develop the skills and expertise needed to work successfully in the area of sacred music.

REQUIRED COURSES:

MUG 4202	Choral Conducting	1
MUM 4940	Music Internship	3
	Applied Elective *(organ, piano, guitar, or voice lessons with a focus on sacred music)*	2
Music History and Literature		3
Chosen from the following:		
MUL 4643	Choral Literature	

MUL 4490	Survey of Organ Literature	
MUH 4680	Special Topics in Music History*	

*This course is offered on a variety of topics, to fulfill the requirements for the minor, students must enroll in the section titled: Origins of Sacred Polyphony

Religious studies		3

Chosen from the following:

REL 3398	Rhythms of the Sacred	
REL 3308	Studies in World Religion	
	Total credits	**12**

Certificate in Music Business

Students majoring in Music or any other discipline may receive a certificate in Music Business by successfully filling out an application and seeing the Music Advisor and completing the following curriculum with a grade of "C" or better in each course. At least six (6) of the credits for the Certificate in Music Business must be taken at FIU

Required Courses:

MUM 3744C	Career Development for Artists	3
MUM 4301	Music Business I	3
MUM 4814C	Leadership in the Arts	3
MUL 4427	Music Administration History & Analysis	3
MUM 4803	Grant Writing for the Arts	3
	and	
MUM 3XXX	Music Concert Industries	3
	or	
MUM 4302	Music Business II	3
	or	
MUM 3743C	Artist Management	3
	Total credits	**18**

Certificate in Music Technology

The Certificate will only be available to students enrolled in a degree program at FIU. Students not enrolled in a degree program will not be allowed to enroll in the Certificate in Music Technology.

Music Technology Courses

MUC 2301L	Introduction to Electronic Music	2
MUC 3303L	Digital Instrument Design	2
MUC 3304L	Audio Digital Signal Processing	2
MUC 4404L	Advanced Topics in Music Technology	2

Ensembles

MUN 3024	Laptop Ensemble	2

Interdisciplinary Music Courses (6 credits total)

Two of the following four courses chosen with consultation of advisor

MUS 2501	Recording and Production in Pro Tools	3
	or	
MUC 3333	Sound Reinforcement	3
	or	
MUS 4611	Documentary Film Scoring Fundamentals	3
	or	
MUS 4650	Experimental Music and Arts	3

Additional Music Technology Courses (2 credits total)

One of the following two courses chosen with consultation of advisor

MUM 4940	Music Internship	2
	or	
MUS 4910	Senior Research	2
	Total credits	**18**

Course Descriptions

Definition of Prefixes

IDS-Interdisciplinary Studies; MUC-Music: Composition; MUE-Music: Education; MUG-Music: Conducting; MUH-Music: History/Musicology; MUL-Music: Literature; MUM-Music: Commercial; MUN-Music: Ensembles; MUO-Music: Opera/Musical Theatre; MUS-Music; MUT-Music: Theory; MVB-Applied Music/Brass; MVJ-Applied Music/Jazz; MVK-Applied Music-Keyboard; MVO-Applied Music: Other; MVP-Applied Music/Percussion; MVS-Applied Music/Strings; MVV-Applied Music/Voice; MVW-Applied Music/Woodwinds.

Courses that meet the University's Global Learning requirement are identified as GL.

IDS 3336 Artistic Expression in a Global Society – *GL* (3). Exploration of the interrelatedness of societies and culture through language, music and art are explored to appreciate how individuals convey thought and respond to events from various perspectives.

MUC 1101 Basic Music Composition (2). Elementary principles of composition including the performance of composition projects. Course includes calligraphy and notation skills. Course may be repeated for credit. Prerequisites: Freshman music majors; permission of the instructor.

MUC 1342 Introduction to MIDI Technology (2). Introduction to the MIDI protocol and MIDI-based software, including music notation, sequencing, patch editing, ear training, and keyboard skills software. Prerequisites: Music major or permission of the instructor.

MUC 2221 Composition Seminar I (2). Creative writing utilizing 20th century compositional techniques in Impressionism, Neoclassicism, Post-Webern Serialism, Indeterminacy, Minimalism, Mixed, Multi and Inter-media, etc. Prerequisite: MUT 1112. Corequisite: MUT 2116 or permission of instructor.

MUC 2222 Composition Seminar II (2). Continuation of MUC 2221. Prerequisite: MUC 2221. Corequisite: MUT 2117 or permission of instructor.

MUC 2301L Introduction to Electronic Music (2). Introduction to the field of electronic music including the history, aesthetics, digital studio techniques, analog studio techniques, digital synthesis, and analog synthesis. Prerequisite: MUC 1342.

MUC 3231 Composition III (2). A continuation of Composition I to further the development of students compositional abilities through the writing of more evolved works with regard to duration, instrumentation. Prerequisites: MUC 2222 and admission to composition area.

MUC 3232 Composition IV (2). Continuation of MUC 3231. Prerequisite: MUC 3231.

MUC 3302 Electronic Music Lab II (2). A continuation of Electronic Music Lab I with an emphasis on advanced MIDI applications including samplers, digital sequencing, digital signal processing and interactive MIDI software. Includes one large composition project. Prerequisite: Electronic Music Lab I.

MUC 3400 Electronic Music Lab III (2). Special projects in advanced computer music programming focusing on sound synthesis. Includes two large composition projects. Can be repeated four times. Prerequisites: Electronic Music Lab II and permission of the instructor.

MUC 4241 Composition V (2). Continuation of MUC 3232. Prerequisite: MUC 3232.

MUC 4242 Composition VI (2). Continuation of MUC 4241. Prerequisite: MUC 4241.

MUC 4404L Advanced Topics in Music Technology (2). A topic based course focusing on specific state of the art research in music technology, including subjects such as surround sound, phase vocoders, microcomputers and sensors, and plugin design. Prerequisites: MUC 2301L, MUC 3302.

MUC 4610 Film Scoring Fundamentals (3). Introduction to basic fundamentals of film scores in the 20th and 21st century as well as scoring techniques used by film composers in acoustic music as well as scores created with new technologies. Prerequisites: Undergraduate standing in the School of Music and successful completion of 4 semesters of undergraduate music theory and MUC 1342.

MUC 4611C Documentary Film Scoring Fundamentals (3). A basic overview of major documentary film scores in the 20th and 21st century and basic scoring techniques used by film composers in acoustic music and scores created with new technologies. Prerequisites: Permission of the instructor and/or undergraduate upper level standing in music composition.

MUC 4932 Composition Forum (1). Student composers' works are critiqued by faculty; topics of interest to composers are discussed. Required of all students taking Composition III and higher. Prerequisite: Admission to Composition Program.

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 creation of music. Prerequisite: MUC 3400.

MUC 5407 Electronic Music V (2). Students develop new hardware and/or software for uses related to musical composition. Prerequisite: MUC 5406.

MUC 5614C Documentary Film Scoring (3). The examination of documentary film scores in the 20th and 21st century and scoring techniques used by documentary film composers in both acoustic music and scores created with new technologies. Prerequisites: Graduate standing in the MM in composition and/or permission of the instructor.

MUC 5615 Film Scoring (3). An in-depth analysis of film scores in the 20th and 21st century as well as scoring techniques used by film composers in acoustic music as well as scores created with new technologies. Prerequisites: Graduate standing in the School of Music and successful completion of 4 semesters of undergraduate music theory.

MUC 5635 Computer Music Seminar I (3). Introduces students to the historical contributions of computer music composers and engineers. Prerequisites: MUC 6305, MUC 6306. Corequisite: MUC 6405.

MUC 5636 Computer Music Seminar II (3). Introduces students to the compositional procedures used by computer music composers. Prerequisites: MUC 6305, MUC 6306, MUC 6405. Corequisite: MUC 5406.

MUC 5637 Computer Music Seminar III (3). Introduces students to the research technologies for making interactive sound projects including installations and exhibits. Prerequisites: MUC 6305, MUC 6306, MUC 6405, MUC 5406.

MUC 5935 Composition Forum (1). 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.

MUE 2040 Introduction to Music Education (2). This course will provide an overview to the basic principles of music education. Topics will include standards, history, philosophy, school organization, classroom management, and assessment.

MUE 2346 Vocal Techniques (1). This course is designed to give basic technical and pedagogical vocal skills necessary for both solo and choral settings.

MUE 2440C String Techniques (1). Class instruction of string instruments; tuning and care of instruments; teaching techniques, fingerings, bowings; violin, viola, cello, and double bass.

MUE 2450L Woodwind Techniques (1). Class instruction of woodwind instruments; tuning and care of instruments. Teaching techniques. Single reed instruments, double reed instruments, and flute. Class one hour, laboratory one hour.

MUE 2460L Brass Techniques (1). Class instruction of brass instruments; tuning and care of instruments. Teaching techniques. Piston and valve instruments, French horn, and trombone. Class one hour, laboratory one hour.

MUE 2470L Percussion Techniques (1). Class instruction of percussion instruments; sticking techniques; care of instruments; teaching techniques. Drum and mallet instruments. Class one hour, laboratory one hour.

MUE 3210 Content and Methods of Teaching Elementary Music (3). Provides content and methods of teaching elementary music as a mode of communication and creative expression to elementary students of diverse backgrounds. (F,S,SS)

MUE 3332 Secondary Instrumental Music Methods (2). Wind, percussion, and string teaching methods for middle and high school level students in a large classroom

setting. Field experience is required. Prerequisite: MUE 2040

MUE 3340 Elementary School Teaching Methods (3). Development of instructional skills, techniques, and strategies for elementary school classroom music for the music teacher. Laboratory and field work required. Prerequisite: MUE 2040; Passing scores on all four (4) parts of the General Knowledge FTCE; Corequisite: MUE 3744.

MUE 3395 Music in Special Education (3). The study of musical experiences for students with disabilities in mainstreamed and self-contained special education music classes. Appropriate musical adaptations and modifications are emphasized. Prerequisites: Upper division music major, DEP 2000.

MUE 3411C Choral Methods (2). Designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for leadership. Prerequisite: Permission of the instructor. Prerequisites: MUE 2040.

MUE 3744 Assessment and Evaluation in Music Education (2). Discover and apply foundations of assessment and evaluation approaches in music education. Combined field experience required. Prerequisite: MUE 2040; Passing scores on all four (4) areas of FLDOE General Knowledge FTCE exam. Corequisite: MUE 3340.

MUE 3921 Choral Conducting Workshop (3). The study of various topics related to choral literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 3922 String Workshop (3). The study of various topics related to string literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 3923 Instrumental Conducting Workshop (3). The study of various topics related to instrumental ensemble literature, conducting, and techniques. Prerequisite: Permission of the instructor.

MUE 3924 Jazz Workshop (3). The study of various topics related to jazz literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 3925 Dalcroze Workshop (1) Intensive workshop as a study of Dalcroze pedagogical methods for use in K-12 music education courses.

MUE 4094 Middle & Secondary School Vocal & Instrumental (3). Development of instructional skills and rehearsal technique, skills and strategies for teaching music in the middle school or senior high school. Laboratory and field work required. (F)

MUE 4480 Marching Band Techniques (3). A study of show design and concepts; marching band management and organizational procedures including booster organizations, inventory, handbooks, grading procedures and rehearsal fundamentals. Prerequisite: Permission of Instructor.

MUE 4646 Progressive Music Methods (2). Current trends and approaches outside of the traditional performance ensemble settings-emphasis on informal learning, popular music, composition, improvisation, and technology. Prerequisite: MUE 2040 and Passing scores on all four (4) parts of the General Knowledge FTCE.

MUE 4940 Student Teaching in Music Education (9-12). Supervised teaching in an elementary and secondary school. Prerequisite: Admission to the program.

MUE 5485 Marching Band Techniques (3). A study of show design and concepts; marching band management and organizational procedures including booster organizations, inventory, handbooks, grading procedures, rehearsal techniques. Prerequisite: Permission of Instructor.

MUE 5695 Landscape of 21st Century Performing Arts (3). This course examines the ways in which, using critical thinking, creativity and communication proficiency, students will be able to recognize the challenges that face today's performing arts educator, artist and organization. It aims to develop multiple ways to articulate and discuss new ways of teaching, performing and working within the arts. The objective is to guide students to innovative and multiple ways to apply their musical experiences to fit today's challenges and adaptive arts landscape.

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 4101L Basic Conducting (1). A basic conducting course to gain fundamental technique and interpretation. A prerequisite for both advanced instrumental and choral conducting.

MUG 4202 Choral Conducting (1). With a background in basic theory, and having performed in ensembles, the student will develop techniques of group conducting including madrigal, glee, choir, etc. A survey of choral literature will be included. Prerequisite: MUG 4101L.

MUG 4302L Instrumental Conducting (1). With a background in basic theory, and having performed in ensembles, the student will develop a knowledge of baton technique, score reading, and interpretation. Prerequisite: MUG 4101L. Corequisites: Orchestra or wind ensemble or both.

MUG 4303 Advanced Orchestral Conducting (3). Advanced study of orchestral conducting, including rehearsal techniques, interpretation, score analysis, and repertoire. May be repeated. Prerequisites: MUG 4302 and permission of the instructor.

MUG 5105L 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 (3). Advanced study of choral conducting, including gesture, rehearsal techniques, and repertoire. Prerequisites: Graduate standing and permission of the instructor.

MUG 5307 Graduate Applied Wind Conducting (3). Advanced study of wind conducting, including gesture, rehearsal techniques, and repertoire. Prerequisites: Graduate standing and permission of the instructor.

MUG 5935 Conducting Seminar (1). An examination of the principal issues of conducting, emphasizing score reading and study, rehearsal, interpretation, and contemporary techniques. Prerequisites: Graduate standing and/or permission of the instructor.

MUH 1560 African American Music (3). Examines the historical influence and development of African American music from its African roots to its dominance in the American popular culture.

MUH 2010 Music History Overview (3). A survey of the main historical musical periods through a concise analysis of the main representatives of these periods and their milestone works.

MUH 2022 History of Rock Music (3). This course traces the historical origins, characteristics and stylistic developments of rock music from a musical and sociological perspective.

MUH 2051 World Music Cultures (for non-music majors) (3). This course provides an introductory survey of traditions and transformations of music in global perspective, exploring music both as a phenomenon of sound and a phenomenon of culture.

MUH 2018 Evolution of Jazz (3). A history course that surveys jazz styles from mid-19th century to the present. A sociological and musical look at jazz, the personalities and their experience.

MUH 2370 The History of The Beatles (3). This course traces the development of The Beatles from their beginnings to their solo work. The discussions begin in America with the Blues, Rockabilly and the birth of Rock 'n' Roll. The paramount role of The Beatles in the revolutionary decade of the 1960s will be explored in detail, both from a musical and sociological perspective.

MUH 3025 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 3060 Latino Music in the United States (3). Survey of Latin American musical tradition brought through immigration. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 3061 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.

MUH 3062 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 3073, 5075 Women in Music (3). Introduces students to women musicians including performers, composers, and researchers in all genres.

MUH 3211 Music History Survey I (3). A survey of music from antiquity to 1600. Lectures on historical styles will be supplemented with recordings and musical analysis. Prerequisites: Music majors or minors only.

MUH 3212 Music History Survey II (3). A survey of music from 1600 to 1800. Lectures on historical styles will be supplemented with recordings, and musical analysis. Prerequisites: MUH 3211 or permission of the instructor.

MUH 3213 Music History Survey III (3). A survey of music from 1800 to 1945. Lectures on historical styles will be supplemented with recordings and musical analysis. Prerequisites: MUH 3211 and MUH 3212 or permission of the instructor.

MUH 3214 Music History Survey IV (3). The fourth semester of the music history sequence covers the history of music from 1945 to the present and includes the detailed study of its literature through critical listening and analysis. Prerequisites: MUH 3211, MUH 3212, MUH 3213 or permission of the instructor.

MUH 3220 History of Musical Theatre (3). A survey of the history of English language musical theatre from its development at the end of the 19th century to present day. Prerequisites: MUH 3211, MUH 3212, MUH 3213.

MUH 3514 Music of the World – *GL* (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. Prerequisite: Major in music.

MUH 3541 Music of Latin America: Folklore and Beyond (3). An overview of the orchestral, chamber, solo, vocal, and electronic music from Latin America written in the 20th century and its relationship to the folk music of the region.

MUH 3570 Survey of Asian Music (3). Examines the major Asian musical traditions within the cultural framework of history, arts, and traditions.

MUH 3801 Jazz History (3). An in-depth study of jazz music from its inception to the present day. Specifically designed for music majors, in particular Jazz Studies students. Prerequisites: MUT 1112, MUT 1222.

MUH 3813 History of Afro-Cuban Jazz (3). A study of the history and evolution of Afro-Cuban Jazz, including Cuban popular music and traditional dance forms, folkloric music of African origin, influences from American popular music and early American Jazz, as well as other music from the Caribbean.

MUH 3912C Basic Music Research and Bibliography (2). This course will familiarize the student with major sources for research in music, develop the ability to research and write a term paper or thesis, and document those findings in a scholarly format. Prerequisite: Music majors.

MUH 4341 Music of the Baroque Period (3). Survey of the major genres, styles, and composers of the Baroque period within the wider context of Baroque aesthetics and culture. Introduction to Baroque performance practice. Prerequisites: MUH 3211, MUH 3212.

MUH 4681 Music History Seminar II (2). Emphasizes both historical and theoretical analysis. Scholarly work under faculty direction, develops written skills and research methods. Written project required. Prerequisites: 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.

MUH 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 5075 Women in Music (3). Introduces students to women musicians including performers, composers, and researchers from all genres.

MUH 5219 Graduate Music History Survey (1-3). Music history overview for entering graduate students. Prerequisite: Music history placement test.

MUH 5345 Musical Style and Practice in the Baroque Era (3). Detailed treatment of the genres, styles, and composers of the Baroque period within the wider context of Baroque aesthetics and culture. Exploration and application of Baroque performance practice.

MUH 5546 Music of the Americas (3). An exploration of the folk, popular, and art music of Latin America.

MUH 5575 Survey of Asian Music (3). Examines the major Asian musical traditions within the cultural framework of history, arts, and traditions.

MUH 5685 Graduate Music History Review I (1-3). Examination of music history achievements from Antiquity through the Renaissance. Musical structures and composers from these eras are studied through lectures supplemented by recordings and musical analysis. Prerequisites: Graduate standing and permission of the instructor.

MUH 5686 Graduate Music History Review II (1-3). Examination of music history achievements of the Baroque and Classical eras. Musical structures and composers from these eras are studied through lectures supplemented by recordings and musical analysis. Prerequisites: Graduate standing and permission of the instructor.

MUH 5687 Graduate Music History Review III (1-3). Examination of music history achievements from the Romantic era to the present. Musical structures and composers from these eras are studied through lectures supplemented by recordings and musical analysis. Prerequisites: Graduate standing and permission of the instructor.

MUH 5688 Graduate Music History Review IV (2). The fourth semester of the music history sequence covers the history of music from 1945 to the present, and includes the detailed study of its literature through critical listening and analysis. Prerequisite: Music majors.

MUH 5815 Jazz History: The Innovators (2). Advanced analysis of key jazz figures at the graduate level.

MUL 1010 Music Literature/Music Appreciation (3). Lives and creations of great composers in various periods of history. A multimedia course.

MUL 3551 Wind Literature (3). This course is a study of intermediate and advanced wind repertoire. Emphasis is placed on the history of wind music, and the music that creates the cornerstone of wind literature.

MUL 3600 Art Song Literature (3). A chronological survey of solo vocal literature from the Medieval period to the national schools of the contemporary era.

MUL 3470 The History and Repertoire of the String Quartet (2). The History and Repertoire of the String Quartet provides a broad-based overview of the origins of and literature for string quartet, through listening, discussion, analysis, and live performance.

MUL 4400 Keyboard Literature I (3). Study of solo works for the keyboard from historical beginnings to 1828. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works. Prerequisites: MUH 3211, MUH 3212.

MUL 4401 Keyboard Literature II (3). Study of solo works for the keyboard from 1828 to the present. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works. Prerequisite: MUL 4400.

MUL 4430 Guitar Literature (3). Survey of solo, chamber, and concerto guitar literature from the 16th century to the present. Repertoires will be examined from historical, analytical, pedagogical, and text-critical perspectives.

MUL 4490 Survey of Organ Literature (3). Survey of organ literature, history, performance practice, and organ

design. Includes historic sound recordings. Prerequisite: Permission of instructor.

MUL 4500 Symphonic Literature (3). Survey of symphonic literature from the 17th century to present day. Analysis and illustrations of representative works. Prerequisites: MUH 3211, MUH 3212.

MUL 4602 Vocal Literature I (2). A survey of solo vocal literature from the Renaissance, Baroque, and Classical periods. Corequisite: MUS 2241.

MUL 4604 Vocal Literature II (2). A survey of the German Lied and its poetry. Corequisite: MUS 2231.

MUL 4608 Vocal Literature IV (2). A survey of solo vocal literature of the twentieth century. Corequisite: MUS 2211.

MUL 4630 Symphonic/Chamber Vocal Literature (1). Corequisites with MUL 4500 Symphonic Literature. A practicum surveys Symphonic & Chamber vocal music from 17th Century to present day. Includes selection of personal repertory and ensemble performance.

MUL 4643 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. Prerequisites: MUH 3211, 3212, 3213, MUH 3213, MUH 3214, Upper Division music major standing.

MUL 4662 History and Literature of Opera (3). Chronological survey of opera literature from the 17th century to present day. Analysis and performance of representative works. Prerequisites: MUH 3211, MUH 3212.

MUL 4722C Cuban Piano Music (2). The course is a survey of music written for the piano in Cuba from the XIX-XXI centuries. Cuba's diverse cultural and political history will be examined in detail, accompanied by musical examples and analysis.

MUL 5405 Keyboard Literature I (3). Study of solo works for the keyboard from historical beginnings to 1828. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works.

MUL 5406 Keyboard Literature II (3). Study of solo works for the keyboard from 1828 to the present. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works. Prerequisite: MUL 5405.

MUL 5435 Guitar Literature (3). Survey of solo, chamber, and concerto guitar literature from the 16th century to the present. Repertoires will be examined from historical, analytical, pedagogical, and text-critical perspectives.

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 5495 Survey of Organ Literature (3). Survey of organ literature, history, performance practice and organ design. Includes historic sound recordings and in-class performance. Prerequisite: Permission of instructor.

MUL 5496 Organ Literature I (3). Survey of organ literature from antiquity to 1750 in the German, French, Italian schools.

MUL 5497 Organ Literature II (3). Survey of organ literature from 1750 to the present in the German, French, and American schools.

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. Prerequisites: Graduate standing in Music and permission of instructor.

MUL 5607 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 5609 Survey of Art Song Literature (3). An historical survey of the literature for solo voice from the medieval period to the national schools of the contemporary era.

MUL 5624 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. Prerequisite: Graduate standing.

MUL 5625 Vocal Literature III (2). The French Melodie. 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. Prerequisite: Graduate standing.

MUL 5626 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.

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 5671 Opera Literature (3). A chronological survey of operatic literature from the 17th century to the present day. Emphasis placed on the historical milieu in which the operatic form evolved through the ages.

MUL 5728C Survey of Cuban Piano Music (2). The course is an in-depth survey of Cuban piano music written during the XIX and XX centuries, accompanied by an examination of Cuba's cultural and political heritage.

MUM 1401 Music Calligraphy (3). The correct procedures for music penmanship, the notation of notes and chords for music parts and scores.

MUM 3601 Audio Techniques I (3). Basic sound engineering, including the basic workings of P.A. equipment and the interplay between the various components.

MUM 3602 Audio Techniques II (3). Studio recording techniques, microphone placement, taping and mixing.

MUM 3734C Concert Promoter and Venue Management (3). This course introduces the student to

the basics of concert promotion and venue management including promotion and advertising, talent buying, budgeting, concert production and administration.

MUM 3742L Music Production (3). This course allows for the student to acquire a hands-on experience in producing concerts. The student will stage manage and produce concerts covering running rehearsals, marketing, and performance.

MUM 3743C Artist Management (3). This course explores the role of an artist manager, the impact the manager has on an artist's career, and why an artist should consider a particular artist manager.

MUM 3744C Career Development for Artists (3). This course offers methods to apply creative abilities in practical and business settings. Students develop a creative project proposal and learn strategies to implement their creative concept.

MUM 3942 Music Internship Experience (0). Experience in music industry practice learned through work with professionals in the music industry.

MUM 4301 Business of Music (3). Principles and practices of modern publishing techniques; copyright laws; wholesale and retail distribution of music. Performance rights; agreements and relations between producers directors, performers, writers, personnel managers, and booking agents. Prerequisite: Permission of the instructor.

MUM 4302 Business of Music II (3). Continuation of principles and practices of modern publishing techniques; copyright laws; wholesale and retail distribution of music. Performance rights; agreements and relations between producer, directors, performers, writers, personnel managers, booking agents. Prerequisite: MUM 4301.

MUM 4724C Concert Touring (3). This course addresses the component of a successful tour including assembling a management team, music industry tour deals, contracts and revenue, as well as merchandising and promotions techniques.

MUM 4802C Music Administration History and Analysis (3). This course introduces the student to the history of music administration in the U.S. The course includes topics such as governance structures and management positions of symphony orchestras and venues.

MUM 4803 Grant Writing for the Arts (3). Designed to familiarize the student with the fundamental tools and techniques in writing a successful grant proposal for the arts. Focuses on the basics of grant writing, where to find funding sources and grant evaluation procedures.

MUM 4814C Leadership in the Arts (3). Designed to develop leadership skills related specifically to the performing and fine arts industry. Artistic conception and direction as well as performance/exhibition analysis will be emphasized.

MUM 4940 Music Internship (VAR). Practical experience utilizing music theory, composition, and history in the commercial music industry. The precise nature of the work will be determined in consultation with an advisor. Prerequisite: Permission of the instructor.

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 producers. Prerequisites: 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. Prerequisites: 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. Prerequisites: 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. Prerequisites: MUM 5796 and permission of the graduate advisor.

MUM 5808 Grant Writing for the Arts (2). Designed to familiarize the student with the tools and techniques in writing a successful grant proposal. Focuses on the perspective of the arts manager/administrator in relation to grant writing and grant management.

MUM 5809 Music Production Seminar (3). Explores issues and practical applications in the management of music centers, arts organizations and arts centers. Includes examination of local arts centers, local arts councils, music venues, performing arts venues, arts organizations, and arts service organizations. Prerequisites: Graduate standing or permission of instructor.

MUM 5946 Performance Arts Internship (1-9). 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.

MUN 1100L, 4103L, 5105L FIU Marching Band (3). A study and performance of pop, jazz, and rock musical

selections for the instrumental medium. Students will demonstrate what they have learned by performing and through individualized playing examinations. Prerequisite: Permission of the instructor.

MUN 1120L, 3123L, 5125L Symphony Band (1). Concert Band ensemble for music majors on secondary instruments and non-music majors. Various types of concert band literature covered from differing grade levels. Course open to anyone who has previous experience playing a wind or percussion instrument.

MUN 1140L, 4143L, 5145L Symphonic Wind Ensemble (1). Readings and performances of wind ensemble music from the 18th century to the present. Open to wind and percussion instrumentalists. Prerequisite: Permission of conductor.

MUN 1210, 4213, 5215 Orchestra (1). An instrumental ensemble performing works from the symphonic repertory. Prerequisites: Previous experience and permission of conductor.

MUN 1310, 3313, 5315 Concert Choir (1). A choral ensemble performing music written and arranged for mixed voices. Prerequisite: Permission of the instructor.

MUN 1340, 3343, 5345 University Chorale (1). A mixed choir performing repertoire from Renaissance to Modern, as well as multicultural works. Prerequisite: Permission of conductor.

MUN 1380L, 3383L, 5385L University Singers (1). A chorus performing a repertoire primarily from great choral works. Large orchestral accompaniment as well as various instrumental ensembles will be utilized. Prerequisite: Permission of conductor.

MUN 1430, 3433L, 5435L University Brass Choir (1). A study and performance of literature written for the brass medium (trumpet, horn, trombone, euphonium, and tuba) from the pre-baroque, baroque, classical, romantic and contemporary periods. May be repeated. Prerequisite: Permission of the instructor.

MUN 1460, 3463, 5465 Chamber Music (1). Small ensemble in the performing of chamber music literature. Prerequisite: Permission of conductor.

MUN 1471 Collegium Musicum (1). Collegium Musicum provides a forum for the study and performance of the musical literature of the Medieval, Renaissance, and Baroque eras. Prerequisite: Permission of the instructor.

MUN 1481, 2482, 3484, 4486 Jazz Guitar Ensemble (1). Ensemble consists of five or more electric guitars performing arrangements, accompanied by bass and drums. Emphasis placed on sight reading, styles, phrasing, dynamics, ensemble blend, swing, etc.

MUN 1710, 3713, 5715 Studio Jazz Ensemble (1). An ensemble to provide creative professional-level experience in the contemporary popular idiom. Permission of conductor.

MUN 1790 Latin Jazz Ensemble (1). An ensemble to provide creative professional-level experience in the salsa/Latin jazz idiom. Prerequisite: Permission of the instructor.

MUN 2240L, 4243, 5245 String Ensemble (1). Performance of orchestra literature for large string ensembles. Prerequisite: Permission of instructor.

MUN 2320, 4323, 5325 Women's Chorus (1). A choral ensemble performing music written or arranged for women's voices. Prerequisite: Permission of the instructor.

MUN 2330, 4333, 5335 Men's Chorus (1). A choral ensemble performing music written or arranged for men's voices. Prerequisite: Permission of the instructor.

MUN 2440, 4443L, 5445L Percussion Ensemble (1). A study and performance of music literature characteristic of the percussion ensemble. Prerequisite: Permission of the instructor.

MUN 2450L, 4453L, 5455L Piano Ensemble (1). The presentation and performance of music literature characteristic of piano and pianos in ensemble.

MUN 2480, 4483, 5485 Guitar Ensemble (1). The presentation and performance of music literature characteristic of the Guitar Ensemble. Prerequisite: Permission of conductor.

MUN 2490, 4493, 5496 New Music Ensemble (1). A chamber group of varying instrumentation and size performing art music from the 20th century with emphasis on music from the past 20 years. Explores electronics, multimedia works, etc. Prerequisite: Permission of the instructor.

MUN 2510L, 4513L, 5515L Accompanying (1). Accompanying instrumental and vocal students in studio and recital situations.

MUN 2711, 4714, 5716 Jazz Combo Class (1). Harmonic practice, formal procedures, rhythmic and improvisational practices of jazz performance in the small group. Prerequisite: Permission of conductor.

MUN 2720, 4723, 5725 Jazz Vocal Ensemble (1). Students learn to perform both as a soloist and ensemble singer. Expectations are progressive in accordance with student's class level. Ensemble includes a rhythm section to accompany the vocalists.

MUN 2820, 4823, 5826 Latin American Music Ensemble (1). Study and performance of one or more folk and/or popular musical styles from Latin America.

MUN 3024 Laptop and Electronic Arts Ensemble (1). Explores new combinations of live electronics with acoustic instruments and other media by performing a diverse repertoire of music and new works. Repeatable. Prerequisite: MUC 1342.

MUN 3474 Collegium Musicum (1). Collegium Musicum provides a forum for the study and performance of the musical literature of the Medieval, Renaissance, and Baroque eras. Sources research and programming are an additional component. Prerequisite: Permission of the instructor.

MUN 3793, 5795 Latin Jazz Ensemble (1). An ensemble to provide professional-level experience in the salsa/Latin jazz idiom. May be repeated. Prerequisite: Permission of the instructor.

MUN 3890 Klezmer Ensemble (1). An ensemble for the study and performance of Jewish Folk Music (Klezmer music). Various forms of Klezmer music will be explored, and harmonic and melodic structure will be studied. Prerequisites: Music majors, by audition.

MUN 4784, 5785 Jazz Ensemble Rehearsal Techniques (1). An ensemble that provides its members a creative approach to jazz ensemble rehearsal techniques, literature, improvisation and related materials. Prerequisite: Permission of the instructor.

MUN 5477 Collegium Musicum (1). Collegium Musicum provides a forum for the study and performance of the musical literature of the Medieval, Renaissance, and Baroque eras. Participation in the composition of program notes and rehearsal direction are additional components. Prerequisite: Permission of the instructor.

MUO 1501, 4502, 5505 Opera Workshop (1). The presentation and performance of music literature indigenous to the opera stage. Prerequisite: Permission of the instructor.

MUO 2001 Music Theater Workshop-Voice (2). Introduction to musical comedy performance; integration of dramatic, musical and movement components studied through work on selected scenes and songs. Particular emphasis on vocal training. Corequisite: TPP 3250.

MUO 3603 Elements of Stage Production (2). Aspects of technical theatre will be examined such as stage design and lighting, costumes and make-up, stage direction, prop construction, prompting, and Opera Theatre administration.

MUO 4503 Opera Theatre I (3). Culmination of opera courses with emphasis on accumulation of repertoire, systematic development of a role, and rehearsal procedures and discipline. Student may perform self-directed scenes. Permission of the instructor.

MUO 4504 Opera Theatre II (3). Continuation of Opera Theatre I. Student may participate in staged operatic production as performer or technical personnel. Prerequisites: MVV 4561, MVV 4451, and MVV 3931 or permission of the instructor.

MUR 3941, 5946 Organ Practicum (2). Study of practical aspects of organ performance as it pertains to employment within a sacred chamber music setting.

MUS 1010, 3040 Recital Attendance (0). Students attend concerts and recitals as a corequisite to applied music. Required of music majors each semester.

MUS 2201 Diction I (2). To develop skills in the proper enunciation of Italian, French and Latin diction as applied to singing in opera, oratorio, and art song.

MUS 2202 Diction II (2). Develop skills in the proper enunciation of English, German and Spanish language in the performance of art song, oratorio, and opera literature.

MUS 2211 English Diction (1). Develop the skills in the proper enunciation of the English language as used in opera, oratorio, and art song literature. Corequisites: All applied MVV.

MUS 2221 French Diction (1). Develop the skills in the proper enunciation of the French language as used by singers in opera, oratorio, and art song literature. Corequisites: All applied MVV.

MUS 2231 German Diction (1). Develop the skills in the proper enunciation of the German language as used by singers in opera, oratorio, and art song literature. Corequisites: All applied MVV.

MUS 2241 Italian Diction (1). Develop the skills in the proper enunciation of the Italian language as used by singers in opera, oratorio, and art song literature. Corequisites: All applied MVV.

MUS 2501 Introduction to Digital Audio Production (3). A project-oriented class with assignments in basic audio editing, plug-ins, and sound effects.

MUS 3331 Recording and Production in Pro Tools (3). A project-oriented class in audio recording and editing using the Pro Tools application. Prerequisite: MUS 2501.

MUS 3333 Sound Reinforcement (2). Students gain hands-on experience with the music technology required for recording, mixing, and processing digital signals. Prerequisite: MUC 1342.

MUS 3905, 4905, 5905 Directed Study (VAR). Designed to provide areas of exploration and specialization beyond the basic selected study programs, such as electronic music, religious music literature, sound techniques, etc. Prerequisite: Permission of the instructor.

MUS 3910, 4910, 5910 Research (VAR). Research composition or performance projects, under the guidance and direction of the music faculty. (May be repeated). Prerequisite: Permission of the instructor.

MUS 4624 Musical Acoustics (3). A basic introduction to the physics of sound; the mechanisms of how humans hear sound; and how sounds are captured, reproduced, and manipulated through analogue and digital technology. Prerequisites: MUT 1111 and ability to do basic algebra.

MUS 4650 Experimental Music and Arts (3). The history of interdisciplinary art created in the 20th century is covered, giving students from different areas the opportunity to create interdisciplinary works.

MUS 4949 Cooperative Education in Performing Arts (VAR). A student majoring in Performing Arts may spend several semesters fully employed in industry or government in a capacity relating to the major.

MUS 5205 Graduate Review Diction I (2). To review the rules and methods of correct pronunciation of Italian, French, and Latin lyric diction as applied to singing opera, oratorio, and art song.

MUS 5206 Graduate Review Diction II (2). A review of the rules and skills for proper enunciation of English, German, and Spanish language in the performance of classical vocal music.

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: Permission of the graduate advisor.

MUS 5527 Laptop and Electronic Arts Ensemble (1). The Laptop and Electronic Arts Ensemble explores new combinations of live electronics with acoustic instruments and other media by performing a diverse repertoire of music and new works. May be repeated. Prerequisites: MUC 2301L/MUC 6305.

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 5711 Music Bibliography (2). Library research methods and materials; documentation of research results in bibliographic style. Develops critical thinking and evaluative skills regarding sources of information, print and online. Prerequisite: Graduate standing.

MUS 5906 Master's Recital (1-6). For students working on a recital for Master in Music. To be completed under the supervision of a faculty member. Prerequisite: Graduate standing.

MUS 5971 Thesis (1-6). Research and/or performances towards completion of master's thesis work. Prerequisite: Permission of graduate area advisor.

MUT 1001 Fundamentals of Music (3). A beginning music theory course in the basic elements of music rhythms, meter notation, key signatures, scales, intervals, and triads.

MUT 1111 Music Theory I (3). This course is designed to promote and develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. Prerequisites: MUT 1001 or departmental placement test, or a score of 3 or better on the AP Music Theory Examination. Priority given to music majors and minors.

MUT 1112 Music Theory II (3). This course is designed to promote and develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. The second semester is a continuation of Theory I. Prerequisite: MUT 1111.

MUT 1221 Sightsinging I (1). Development of Basic Musicianship through aural perception, sightsinging, and ear training exercises.

MUT 1222 Sightsinging II (1). Development of Basic Musicianship through aural perception, sightsinging and ear training exercises. The second semester is a continuation of Sightsinging I. Prerequisites: MUT 1111, MUT 1221.

MUT 2116 Music Theory III (3). Continuation of Music Theory II. It seeks to promote and further develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. Prerequisite: MUT 1112.

MUT 2117 Music Theory IV (3). This course further develops those skills acquired in Music Theory III. Prerequisite: MUT 2116.

MUT 2226 Sightsinging III (1). Continuation of Sightsinging II through aural perception, sightsinging, and ear training exercises. Prerequisites: MUT 1112, MUT 1222.

MUT 2227 Sightsinging IV (1). Continuation of Sightsinging III through aural perception, sightsinging, and ear training exercises. Prerequisites: MUT 2226, MUT 2116.

MUT 2641 Jazz Improvisation I (2). A beginning course in Jazz improvisation that teaches fundamental aspects, chord structures and extensions, chord scales, melodic patterns, and tunes. Course will involve both theory and practical application. A concert will be held at conclusion of the term.

MUT 2642 Jazz Improvisation II (2). A follow-up course that both reinforces and extends all materials learned in Jazz Improvisation I. Course stresses more complex chord structures, scales, and tunes. A concert will be held at conclusion of the term. Prerequisite: MUT 2641.

MUT 3170C Jazz Theory I (3). This 3-credit course is designed to streamline the jazz curriculum by replacing 'Jazz Eartraining', 'Introduction to Jazz Studies', and 'Jazz Styles and Analysis'. It is a required course for all jazz performance majors. Prerequisite: MUT 1112.

MUT 3171C Jazz Theory II (3). Advanced jazz theory/harmony and ear-training. This is a required course for all jazz performance majors. Prerequisite: MUT 3170C.

MUT 3363L Jazz Ear Training (3). Development of Basic aural skills for jazz performance majors. Prerequisite: MUT 1221, MUT 1222, MUT 2226 Corequisite: MUT 3171C

MUT 3401 Counterpoint (3). A study of linear writing through species counterpoint. Two and three-part instrumental and vocal counterpoint of the 18th century: Canon, inventions, fugues. Emphasis will be placed on formal analysis. Prerequisites: MUT 2117, 2227.

MUT 3611 Form and Analysis (3). Study and analysis from the smaller forms of musical composition to multimovement forms. Prerequisites: MUT 2117, MUT 2227.

MUT 4141 Comprehensive Music Systems (3). An introduction to the applied techniques of recent comprehensive theoretical approaches to musical analysis. Prerequisites: MUT 3611 or permission of the instructor.

MUT 4311 Orchestration (3). With a background of basic theory, the student will explore the techniques of writing and arranging for instruments in performing organizations. Prerequisites: MUT 2117, MUT 2227.

MUT 4312 Advanced Orchestration (3). A follow-up course to Orchestration that teaches students advanced techniques in scoring for orchestral instruments as utilized by composers of western art music from classical to present times. Prerequisites: MUT 4311 or permission of the instructor.

MUT 4353 Jazz Arranging (2). This course teaches the fundamental aspects of jazz arranging: instrumentation, transposition, section and ensemble writing, chord voicing,

counterpoint, and form and analysis. The performance of an original arrangement is required as a final project.

MUT 4354 Advanced Jazz Arranging (2). Advanced arranging and orchestration techniques for large jazz ensemble. Prerequisite: MUT 4353.

MUT 4628 Atonal Analysis (3). A continuation of Music Theory IV, this course introduces students to the basic concepts and procedures for set-theoretic analysis of atonal and serial techniques used in 20th-century music. Prerequisites: MUT 2117, MUT 2227, or permission of the instructor.

MUT 4643 Jazz Improvisation III (2). A continuation of Jazz Improvisation II, this course teaches chromatic chords, advanced scales and progressions, patterns, repertoire. Individual and ensemble performance is required as a final project. Prerequisite: MUT 2642.

MUT 4664 Jazz Styles and Analysis II (2). An extensive study of the significant styles and performers in jazz history from its origins to the present. Includes instruction in layered listening, various analyses, and transcribing. Continuation of Jazz Styles and Analysis I. Prerequisites: Permission of the instructor.

MUT 5051 Graduate Theory Survey (1-3). Analytical, theoretical and aural skills required for successful graduate studies in music. Prerequisites: Placement exam or permission of the instructor.

MUT 5152 Comprehensive Musical Systems (3). Examination of various comprehensive theoretical systems utilized in the analysis of music. Prerequisites: Graduate standing or permission of the instructor.

MUT 5316 Advanced Orchestration (3). Examination of orchestrational techniques utilized by composers from the Baroque era through current times. Prerequisites: Graduate standing or permission of the instructor.

MUT 5355 Advanced Jazz Arranging and Composition (2). Scores and recordings of various sized jazz ensembles are studied for technique and style. Students' compositions and arrangements are performed. Topics include: forms, voicing techniques, instrumentation-live performance vs. recording session. Prerequisites: MUT 4353; 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. Prerequisites: Graduate standing in the Department 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. Prerequisites: MUN 4784; MUT 4643; 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. Prerequisites: Graduate standing in the Department of Music or permission of the instructor.

MUT 5627 Schenkerian Analysis (3). Advanced studies in Schenkerian analysis of tonal music. Prerequisites: Graduate standing in the Department of Music or permission of the instructor.

MUT 5628 Atonal Analysis (3). Advanced studies in set theory and serial techniques of twentieth-century music. Prerequisites: Graduate standing in the Department 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. Prerequisites: Placement exam or permission of the instructor.

MUT 5930 Special Topics (3). Examination of composers, compositional schools, or other areas of specialization and/or interest to the theory/composition faculty. Prerequisites: Graduate standing in the Department of Music or permission of the instructor.

MUT 5646 Advanced Jazz Techniques I (3). 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 (3). A continuing study of topics related to jazz performance. Includes analyzing solos of jazz masters, development of repertoire, style, and aesthetic concepts. Prerequisite: MUT 5646.

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. Prerequisites: 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. Prerequisites: Graduate standing in Music and permission of instructor.

MVB 1211, 2221, 3231, 4241, 5251 Secondary Applied Trumpet (1). Individual instruction in applied music on trumpet as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 1212, 2222, 3232, 4242, 5252 Secondary Applied French Horn (1). Individual instruction in applied music on French horn as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 1213, 2223, 3233, 4243, 5253 Secondary Applied Trombone (1). Individual instruction in applied music on trombone as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 1214, 2224, 3234, 4244, 5254 Secondary Applied Baritone Horn (1). Individual instruction in applied music

on baritone horn as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 1215, 2225, 3235, 4245, 5255 Secondary Applied Tuba (1). Individual instruction in applied music on tuba as a secondary instrument. Prerequisite: Permission of the instructor.

MVB 1311, 2321, 3331, 4341, 5351 Principal Applied Trumpet (2). Individual instruction in applied music on trumpet as a principal instrument. Music majors only.

MVB 1312, 2322, 3332, 4342, 5352 Principal Applied French Horn (2). Individual instruction in applied music on French horn as a principal instrument. Music majors only.

MVB 1313, 2323, 3333, 4343, 5353 Principal Applied Trombone (2). Individual instruction in applied music on applied trombone as a principal instrument. Music majors only.

MVB 1314, 2324, 3334, 4344, 5354 Principal Applied Baritone Horn (2). Individual instruction in applied music on baritone horn as a principal instrument. Music majors only.

MVB 1315, 2325, 3335, 4345, 5355 Principal Applied Tuba (2). Individual instruction in applied music on tuba as a principal instrument. Music majors only.

MVB 1411, 2421 Major Applied Trumpet (2). Individual instruction in applied music on trumpet as a major instrument. Music majors only.

MVB 1412, 2422 Major Applied French Horn (2). Individual instruction in applied music on French horn as a major instrument. Music majors only.

MVB 1413, 2423 Major Applied Trombone (2). Individual instruction in applied music on trombone as a major instrument. Music majors only.

MVB 1414, 2424 Major Applied Baritone Horn (2). Individual instruction in applied music on baritone horn as a major instrument. Music majors only.

MVB 1415, 2425 Major Applied Tuba (2). Individual instruction in applied music on tuba as a major instrument. Music majors only.

MVB 3431, 4441, 5451 Major Applied Trumpet (3). Individual instruction in applied music on trumpet as a major instrument. Music majors only.

MVB 3432, 4442, 5452 Major Applied French Horn (3). Individual instruction in applied music on French horn as a major instrument. Music majors only.

MVB 3433, 4443, 5453 Major Applied Trombone (3). Individual instruction in applied music on trombone as a major instrument. Music majors only.

MVB 3434, 4444, 5454 Major Applied Baritone Horn (3). Individual instruction in applied music on baritone horn as a major instrument. Music majors only.

MVB 3435, 4445, 5455 Major Applied Tuba (3). Individual instruction in applied music on tuba as a major instrument. Music majors only.

MVB 3970L Junior Recital - Brass (0). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVB 4971L Senior Recital - Brass (0). All music majors must present, before graduation, at least one half (full recital performance for majors) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVJ 1011 Principle Applied Jazz Voice (2). Individual instruction in the Jazz Vocal Idiom, includes healthy vocal technique, vocal jazz and related styles, development of repertoire, and general aspects of strong public performance.

MVJ 1013 Jazz Guitar Techniques (2). The Electric Guitar Techniques specifically addresses the needs of guitar students working within the music technology area. Prerequisite: Music majors only.

MVJ 1210, 2220, 3230, 4240, 5250 Secondary Jazz Piano (1). Individual instruction in applied jazz music on piano. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1213, 2223, 3233, 4243, 5253 Secondary Jazz Guitar (1). Individual instruction in applied jazz music on guitar. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1214, 2224, 3234, 4244, 5254 Secondary Jazz Bass (1). Individual instruction in applied jazz music on bass. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1215, 2225, 3235, 4245, 5255 Secondary Jazz Flute (1). Individual instruction in applied jazz music on flute. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1216, 2226, 3236, 4246, 5256 Secondary Jazz Saxophone (1). Individual instruction in applied jazz music on saxophone. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1217, 2227, 3237, 4247, 5257 Secondary Jazz Trumpet (1). Individual instruction in applied jazz music on trumpet. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1218, 2228, 3238, 4248, 5258 Secondary Jazz Trombone (1). Individual instruction in applied jazz music on trombone. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1219, 2229, 3239, 4249, 5259 Secondary Latin Jazz Percussion (1). Individual instruction in applied jazz music on percussion. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1310 Principal Applied Jazz Piano (2). Individual instruction in applied music on jazz piano as a principal level. Prerequisite: Music majors only.

MVJ 1311 Principal Applied Jazz Drums (2). Individual instruction in applied music on jazz drums as a principal instrument. Prerequisite: Music majors only.

MVJ 1313, 2323, 3333, 4343, 5353 Principal Applied Jazz Guitar (2). Individual instruction in applied jazz music

on guitar. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1314, 2324, 3334, 4344, 5354 Principal Applied Jazz Bass (2). Individual instruction in applied jazz music on bass. Prerequisites: Preceding course in sequence or permission of the instructor.

MVJ 1316, 2326, 3336, 4346 Principal Applied Jazz Saxophone (2). Individual instruction on major instrument. An in-depth study of overall instrumental technique, styles, and other performance practices particularly relevant to jazz. Prerequisite: Audition.

MVJ 1317, 2327, 3337, 4347 Principal Applied Jazz Trumpet (2). Individual instruction in applied music on jazz trumpet at a principal level. Prerequisite: Music majors only.

MVJ 1318, 2328, 3338, 4348 Principal Applied Jazz Trombone (2). Individual instruction in applied music on jazz trombone at a principal level. Prerequisite: Music majors only.

MVJ 1410, 2420 Major Applied Jazz Piano (2). Individual instruction in applied music on jazz piano as a major level. Prerequisite: Music majors only.

MVJ 1411 Major Applied Jazz Drums (2). Individual instruction in applied music on jazz drums as a major instrument. Prerequisite: Music majors only.

MVJ 1412, 2422, 3432 Major Applied Jazz Voice (2). Individual instruction in the Jazz Vocal Idiom. Study includes health and vocal technique, advanced development of repertoire, specific and necessary skills for compelling public performance.

MVJ 1413 Major Applied Jazz Guitar (2). Individual instruction in applied music on jazz guitar at a major level. Prerequisite: Music majors only.

MVJ 1414, 2424 Major Applied Jazz Bass (2). Individual instruction in applied music on jazz bass at a major level. Prerequisite: Music majors only.

MVJ 1416, 2426 Major Applied Jazz Saxophone (2). Individual instruction on major instrument. An in-depth study of overall instrumental technique, styles, and other performance practices particularly relevant to jazz. Prerequisite: Audition.

MVJ 1417, 2427 Major Applied Jazz Trumpet (2). Individual instruction in applied music on jazz trumpet at a major level. Prerequisite: Music majors only.

MVJ 1418, 2428 Major Applied Jazz Trombone (2). Individual instruction in applied music on jazz trombone at a major level. Prerequisite: Music majors only.

MVJ 2310, 3330, 4340 Principal Applied Jazz Piano (2). Individual instruction in applied music on jazz piano at a principal level. Prerequisite: Music majors only.

MVJ 2321 Principle Applied Jazz Voice (2). Individual instruction in the Jazz Vocal Idiom, includes healthy vocal technique, vocal jazz and related styles, development of repertoire, and general aspects of strong public performance.

MVJ 2329, 3339, 4349, 5359 Principal Applied Jazz Drums (2). Individual instruction in applied music on jazz drums at a principal level. Prerequisite: Music majors only.

MVJ 2423 Major Applied Jazz Guitar (2). Individual instruction in applied music on jazz guitar at a major level. Prerequisite: Music majors only.

MVJ 2425 Major Applied Jazz Drums (2). Individual instruction on jazz drums at the applied level. Prerequisite: Audition.

MVJ 2429 Major Applied Jazz Latin Percussion (2). Individual instruction in applied music on jazz percussion as a major instrument. Prerequisite: Music majors only.

MVJ 3331 Principle Applied Jazz Voice (2). Individual instruction in the Jazz Vocal Idiom includes healthy vocal technique, vocal jazz and related styles, advanced development of repertoire, and general aspects of strong public performance

MVJ 3430, 4440 Major Applied Jazz Piano (3). Individual instruction in applied music on jazz piano as a major level. Prerequisite: Music majors only.

MVJ 3432 Major Applied Jazz Voice (3). Individual instruction in the Jazz Vocal Idiom. Study includes health and vocal technique, advanced development of repertoire, specific and necessary skills for compelling public performance.

MVJ 3433, 4443 Major Applied Jazz Guitar (3). Individual instruction in applied music on jazz guitar at a major level. Prerequisite: Music majors only.

MVJ 3434, 4444 Major Applied Jazz Bass (3). Individual instruction in applied music on jazz bass at a major level. Prerequisite: Music majors only.

MVJ 3436, 4446, 5456 Major Applied Jazz Saxophone (3). Individual instruction on major instrument. An in-depth study of overall instrumental technique, styles, and other performance practices particularly relevant to jazz. Prerequisite: Audition.

MVJ 3435, 4445 Major Applied Jazz Drums (3). Individual instruction in applied music in the jazz idiom. Prerequisite: Audition.

MVJ 3437, 4447, 5457 Major Applied Jazz Trumpet (3). Individual instruction in applied music on jazz trumpet at a major level. Prerequisite: Music majors only.

MVJ 3438, 4448, 5458 Major Applied Jazz Trombone (3). Individual instruction in applied music on jazz trombone at a major level. Prerequisite: Music majors only.

MVJ 3439, 4449, 5459 Major Applied Jazz Latin Percussion (3). Individual instruction in applied music on jazz percussion as a major instrument. Prerequisite: Music majors only.

MVJ 3970 Junior Recital – Jazz (0). All music performance majors must present, during their junior year, at least one-half of a public recital, and pass an oral examination. See areas of emphasis for specific requirements. Prerequisite: Approval of director of Jazz Studies.

MVJ 4341 Principle Applied Jazz Voice (2). Individual instruction in the Jazz Vocal Idiom. Study includes healthy vocal technique, eminent vocal jazz and related musical styles, expanded and advanced development of repertoire, specific and necessary skills for a strong performance.

MVJ 4442 Major Applied Jazz Voice (3). Individual instruction in the Jazz Vocal Idiom. Study includes healthy vocal technique, eminent vocal jazz and related musical styles, expanded and advanced development of repertoire, specific and necessary skills for a strong public performance.

MVJ 4971 Senior Recital - Jazz (0). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

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. Prerequisites: Graduate standing or permission of the instructor.

MVJ 5350 Principal 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 5351 Principle Applied Jazz Voice (2). Individual instruction in the Jazz Vocal Idiom. Study includes health and vocal technique, advanced development of repertoire, specific and necessary skills for compelling public performance.

MVJ 5355 Principal 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 Principal 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 Principal 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 Principal 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 5450 Major Applied Jazz Piano (3). Individual instruction in applied music at the graduate level. Prerequisite: Audition.

MVJ 5451 Major Applied Jazz Voice (3). Individual instruction in the Jazz Vocal Idiom at an advanced graduate level, consistent with the other courses in the MM in Jazz performance degree. Study includes healthy vocal technique, eminent vocal jazz and related musical styles, singing with a microphone, advanced development of repertoire, specific and necessary skills for a strong public and recorded performance.

MVJ 5453 Major Applied Jazz Guitar (3). Individual instruction on major instrument, focusing on the jazz idiom. An in-depth study of overall instrumental technique, eminent styles, and other performance practices that are particularly relevant to jazz and commercial performance. Prerequisite: Music Majors Only.

MVJ 5454 Major Applied Jazz Bass (3). Individual instruction on major instrument, focusing on the jazz idiom. An in-depth study of overall instrumental technique, eminent styles, and other performance practices that are particularly relevant to jazz and commercial performance. Prerequisite: Music Majors Only.

MVJ 5455 Major Applied Jazz Drums (3). Individual instruction in applied music at the graduate level. Prerequisite: Audition.

MVK 1111L Class Piano I (1). A course designed to teach piano skills and competencies to non-piano majors. This is a four-semester sequence for music majors. This course includes: keyboard familiarization, finger exercises and techniques, transposing, and easy literature. Prerequisite: None. Music majors only.

MVK 1112L Class Piano II (1). A continuation of Class Piano I, MVK 1111L. Prerequisite: MVK 1111L. Music majors only.

MVK 1115 Keyboard Studies (1). Course designed to develop the composite keyboard skills and practical training for the piano major/principal to become a proficient sight-reader.

MVK 1211, 2221, 3231, 4241, 5251 Secondary Applied Piano (1). Individual instruction in applied music on piano as a secondary instrument. Prerequisite: Permission of the instructor.

MVK 1213, 2223, 3233, 4243, 5253 Secondary Applied Organ (1). Individual instruction in applied music on organ as a secondary instrument. Prerequisite: Permission of the instructor.

MVK 1311, 2321, 3331, 4341, 5351 Principal Applied Piano (2). Individual instruction in applied music on piano as a principal instrument. Music majors only.

MVK 1313, 2323, 3333, 4343, 5353 Principal Applied Organ (2). Individual instruction in applied music on organ as a principal instrument. Music majors only.

MVK 1411, 2421 Major Applied Piano (2). Individual instruction in applied music on piano as a major instrument. Music majors only.

MVK 1413, 2423 Major Applied Organ (2). Individual instruction in applied music on organ as a major instrument. Music majors only.

MVK 2121L Class Piano III (1). A continuation of Class Piano II. The course includes continued work in finger technique, scales and fingering, transposing, simple accompaniments to folk songs, sight reading cadences,

and simple literature. Prerequisite: MVK 1112L. Music majors only.

MVK 2122L Class Piano IV (1). A continuation of Class Piano III. Prerequisite: MVK 2121L. Music majors only.

MVK 2180L Keyboard Harmony (1). The course develops basic musicianship skills for Piano Majors and Principals through an integrated theoretical-performance approach. Prerequisite: MUT 1111 and MUT 1112. Corequisite: MVK 1411 or MVK 1311.

MVK 3135 Class Jazz Piano I (1). Jazz piano techniques for non-piano majors. Prerequisite: MVK 2122L. Corequisite: MUT 3170C.

MVK 3136 Class Jazz Piano II (1). Intermediate jazz piano techniques for non-piano majors. Prerequisite: MVK 3135. Corequisite: MUT 3171C.

MVK 3431, 4441, 5451 Major Applied Piano (3). Individual instruction in applied music on piano as a major instrument. Music majors only.

MVK 3433, 4443, 5453 Major Applied Organ (3). Individual instruction in applied music on organ as a major instrument. Music majors only.

MVK 3702 Ballet Accompanying (1). Training in the collaborative art form of Ballet accompaniment. Recognition of terminology/movement and appropriate musical accompaniment. Field observation, analysis and individual participation. Prerequisites: Piano majors and principals only.

MVK 3970L Junior Recital - Keyboard (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVK 4640 Keyboard Pedagogy (2). A survey of current teaching methods and techniques in piano pedagogy. Supervised teaching provides hands-on experience.

MVK 4971L Senior Recital - Keyboard (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVK 5651 Piano Pedagogy (2). Survey of current piano teaching methods.

MVK 5605 Organ Pedagogy (2). An overview of historical and modern organ methods, pedagogies and supporting material.

MVK 5712 Survey of Dance Accompaniment (1). Survey of European dance tradition and musical accompaniment. Particular emphasis on the selection, improvisation/composition of musical accompaniment to Classical Ballet. Prerequisite: Graduate Piano Majors.

MVO 5651 Graduate Pedagogy (1). The development of teaching skills required by graduate assistants, including classroom skills, designing examinations, etc. Prerequisite: Graduate Assistants.

MVP 1211, 2221, 3231, 4241, 5251 Secondary Applied Percussion (1). Individual instruction in applied music on percussion as a secondary instrument. Prerequisite: Permission of the instructor.

MVP 1311, 2321, 3331, 4341, 5351 Principal Applied Percussion (2). Individual instruction in applied music on percussion as a principal instrument. Music majors only.

MVP 1411, 2421 Major Applied Percussion (2). Individual instruction in applied music on percussion as a major instrument. Music majors only.

MVP 3431, 4441, 5451 Major Applied Percussion (3). Individual instruction in applied music on percussion as a major instrument. Music majors only.

MVP 3970L Junior Recital - Percussion (0). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVP 4971 Senior Recital - Percussion (0). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVS 1116 Guitar Skills (1). Emphasis on music reading and elementary techniques. Prerequisite: Permission of the instructor.

MVS 1211, 2221, 3231, 4241, 5251 Secondary Applied Violin (1). Individual instruction in applied music on violin as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 1212, 2222, 3232, 4242, 5252 Secondary Applied Viola (1). Individual instruction in applied music on viola as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 1213, 2223, 3233, 4243, 5253 Secondary Applied Cello (1). Individual instruction in applied music on cello as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 1214, 2224, 3234, 4244, 5254 Secondary Applied Double Bass (1). Individual instruction in applied music on double bass as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 2225, 3235, 4245, 5255 Secondary Applied Harp (1). Individual instruction in applied music on harp as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 1216, 2226, 3236, 4246, 5256 Secondary Applied Guitar (1). Individual instruction in applied music on guitar as a secondary instrument. Prerequisite: Permission of the instructor.

MVS 1311, 2321, 3331, 4341, 5351 Principal Applied Violin (2). Individual instruction in applied music on violin as a principal instrument. Music majors only.

MVS 1312, 2322, 3332, 4342, 5352 Principal Applied Viola (2). Individual instruction in applied music on viola as a principal instrument. Music majors only.

MVS 1313, 2323, 3333, 4343, 5353 Principal Applied Cello (2). Individual instruction in applied music on cello as a principal instrument. Music majors only.

MVS 1314, 2324, 3334, 4344, 5354 Principal Applied Double Bass (2). Individual instruction in applied music on double brass as a principal instrument. Music majors only.

MVS 1315, 2325, 3335, 4345, 5355 Principal Applied Harp (2). Individual instruction in applied music on harp as a principal instrument. Music majors only.

MVS 1316, 2326, 3336, 4346, 5356 Principal Applied Guitar (2). Individual instruction in applied music on guitar as a principal instrument. Music majors only.

MVS 1411, 2421 Major Applied Violin (2). Individual instruction in applied music on violin as a major instrument. Music majors only.

MVS 1412, 2422 Major Applied Viola (2). Individual instruction in applied music on viola as a major instrument. Music majors only.

MVS 1413, 2423 Major Applied Cello (2). Individual instruction in applied music on cello as a major instrument. Music majors only.

MVS 1414, 2424 Major Applied Double Bass (2). Individual instruction in applied music on double brass as a major instrument. Music majors only.

MVS 1415, 2425 Major Applied Harp (2). Individual instruction in applied music on harp as a major instrument. Music majors only.

MVS 1416, 2426 Major Applied Guitar (2). Individual instruction in applied music on guitar as a major instrument. Music majors only.

MVS 2226 Intermediate Guitar Skills (1). Emphasis on techniques and styles such as calypso, folk, blues, classical, and jazz. Open to all FIU students. Prerequisite: MVS 1116.

MVS 3431, 4441, 5451 Major Applied Violin (3). Individual instruction in applied music on violin as a major instrument. Music majors only.

MVS 3432, 4442, 5452 Major Applied Viola (3). Individual instruction in applied music on viola as a major instrument. Music majors only.

MVS 3433, 4443, 5453 Major Applied Cello (3). Individual instruction in applied music on cello as a major instrument. Music majors only.

MVS 3434, 4444, 5454 Major Applied Double Bass (3). Individual instruction in applied music on double brass as a major instrument. Music majors only.

MVS 3435, 4445, 5455 Major Applied Harp (3). Individual instruction in applied music on harp as a major instrument. Music majors only.

MVS 3436, 4446, 5456 Major Applied Guitar (3). Individual instruction in applied music on guitar as a major instrument. Music majors only.

MVS 3970 Junior Recital - String (0). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVS 4541, 5545 Orchestral Audition Repertoire (3). This course prepares upper string players, primarily violinists, for professional auditions by coaching them intensively in the standard audition repertoire and by holding mock auditions. Prerequisite: Permission of the instructor.

MVS 4971 Senior Recital - String (0). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVV 1111 Voice Class (1). Class instruction on voice designed to help the student in developing performance skills and increased musical knowledge. Prerequisite: Permission of the instructor.

MVV 1211, 2221, 3231, 4241, 5251 Secondary Applied Voice (1). Individual instruction in applied music on voice as a secondary instrument. Prerequisite: Permission of the instructor.

MVV 1311, 2321, 3331, 4341, 5351 Principal Applied Voice (2). Individual instruction in applied music on trumpet as a principal instrument. Music majors only.

MVV 1411, 2421 Major Applied Voice (2). Individual instruction in applied music on voice as a major instrument. Music majors only.

MVV 2121 Intermediate Voice Class (1). Emphasis on sightsinging, tonal production, interpretation, and other vocal exercises. Particular attention is paid to vocal and acting improvisation. Prerequisite: MVV 1111.

MVV 3431, 4441, 5451 Major Applied Voice (3). Individual instruction in applied music on voice as a major instrument. Music majors only.

MVV 3630 Vocal Pedagogy (2). Research into various philosophies of vocal pedagogy with emphasis on the science of acoustics, anatomy, terminology, psychological factors which apply to the art of singing.

MVV 3970 Junior Recital - Voice (0). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVV 4551 Opera History Practicum (2). A performance course corequisite with History of Opera: MUL 4662 with emphasis on historical development and differentiation of operatic styles through characterization and musical interpretation. Includes ensemble experience.

MVV 4971L Senior Recital - Voice (0). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVV 5651 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 5652 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.

MVW 1071 Bassoon Reed Making (0). This course is part of the Bassoon Studio Private Lessons. It is imperative that our Bassoon students be able to make their own reeds due to the sensitivity of this portion of playing the bassoon. Prerequisites: MVW 1314, or MVW 2324, or MVW 3334, or MVW 4344, or MVW 5354, or MVW 1414, or MVW 2424, or MVW 3434, or MVW 4444, or MVW 5454

MVW 1211, 2221, 3231, 4241, 5251 Secondary Applied Flute (1). Individual instruction in applied music on flute as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 1212, 2222, 3232, 4242, 5252 Secondary Applied Oboe (1). Individual instruction in applied music on oboe as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 1213, 2223, 3233, 4243, 5253 Secondary Applied Clarinet (1). Individual instruction in applied music on clarinet as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 1214, 2224, 3234, 4244, 5254 Secondary Applied Bassoon (1). Individual instruction in applied music on bassoon as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 1215, 2225, 3235, 4245, 5255 Secondary Applied Saxophone (1). Individual instruction in applied music on saxophone as a secondary instrument. Prerequisite: Permission of the instructor.

MVW 1311, 2321, 3331, 4341, 5351 Principal Applied Flute (2). Individual instruction in applied music on flute as a principal instrument. Music majors only.

MVW 1312, 2322, 3332, 4342, 5352 Principal Applied Oboe (2). Individual instruction in applied music on oboe as a principal instrument. Music majors only.

MVW 1313, 2323, 3333, 4343, 5353 Principal Applied Clarinet (2). Individual instruction in applied music on clarinet as a principal instrument. Music majors only.

MVW 1314, 2324, 3334, 4344, 5354 Principal Applied Bassoon (2). Individual instruction in applied music on bassoon as a principal instrument. Music majors only.

MVW 1315, 2325, 3335, 4345, 5355 Principal Applied Saxophone (2). Individual instruction in applied music on saxophone as a principal instrument. Music majors only.

MVW 1411, 2421 Major Applied Flute (2). Individual instruction in applied music on flute as a major instrument. Music majors only.

MVW 1412, 2422 Major Applied Oboe (2). Individual instruction in applied music on oboe as a major instrument. Music majors only.

MVW 1413, 2423 Major Applied Clarinet (2). Individual instruction in applied music on clarinet as a major instrument. Music majors only.

MVW 1414, 2424 Major Applied Bassoon (2). Individual instruction in applied music on bassoon as a major instrument. Music majors only.

MVW 1415, 2425 Major Applied Saxophone (2). Individual instruction in applied music on saxophone as a major instrument. Music majors only.

MVW 3070 Beginning Oboe Reed Making (1). This course is designed to provide students with an in depth examination of the fundamental steps of the reed making process. In addition, this course examines the fundamental components of the reed making process including the reed making equipment, knife sharpening and cane processing. Each student will receive hands on training and upon completion of the course, will be able to independently produce a tied reed, blank, stage 1, stage 2 and stage 3 reed.

MVW 3431, 4441, 5451 Major Applied Flute (3). Individual instruction in applied music on flute as a major instrument. Music majors only.

MVW 3432, 4442, 5452 Major Applied Oboe (3). Individual instruction in applied music on oboe as a major instrument. Music majors only.

MVW 3433, 4443, 5453 Major Applied Clarinet (3). Individual instruction in applied music on clarinet as a major instrument. Music majors only.

MVW 3434, 4444, 5454 Major Applied Bassoon (3). Individual instruction in applied music on bassoon as a major instrument. Music majors only.

MVW 3435, 4445, 5455 Major Applied Saxophone (3). Individual instruction in applied music on saxophone as a major instrument. Music majors only.

MVW 3970L Junior Recital - Woodwind (0). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVW 4971L Senior Recital - Woodwind (0). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

Architecture

Jason R. Chandler, *Chair and Associate Professor*
Alfredo Andía, *Associate Professor*
Biayna Bogosian, *Assistant Professor*
Claudia Busch, *Senior Instructor*
Jaime Canavés, *Professor*
Albert Elias, *Instructor*
Nicholas Gelpi, *Assistant Professor*
Eric Goldemberg, *Associate Professor*
Henry Rueda, *Instructor*
Neil Leach*, Assistant Professor*
Mark Marine, *Instructor and Director of FIU by Design*
Nikolay Nedev, *Senior Instructor*
Marilys R. Nepomechie, *Professor and Associate Dean of Faculty and Program Development*
Eric Peterson, *Senior Instructor*
Gray Read, *Associate Professor*
David Rifkind, *Associate Professor*
Camilo Rosales, *Professor*
Thomas Spiegelhalter, *Associate Professor*
John Stuart, *Professor and Associate Dean for Cultural and Community Engagement, CARTA and Executive Director, Miami Beach Urban Studios*
Shahin Vassigh, *Professor and Director of Technology Research Development*

The Department of Architecture is dedicated to the education of future generations of ethical professionals, creative designers and informed citizens. We believe architecture to be a conceptually based intellectual endeavor and a form of critical inquiry that addresses the physical environment from the scale of the city to the scale of furniture. To realize these objectives, design is taught as a critical and creative enterprise.

The Department of Architecture prepares students for professional practice in the discipline of architecture with emphasis placed upon six thematic areas: architectural design, history/theory, building technologies, digital technology, ethics and professional business practice, and general education.

The program maintains a commitment to excellence in teaching, creative activity, research and scholarship and seeks to attract a diverse student body with a variety of academic backgrounds, experiences and interests. Our students and faculty members reflect the diverse areas of knowledge that play a critical roles in the making of the built environment and the establishment of successful design practices.

Miami is an urban laboratory for the study of architecture. The region provides limitless possibilities for exploring historic architecture and urbanism, as well as contemporary new work by many of the world's leading architects. The challenges of rapid growth and urban development in Miami and the region have created an ideal environment for the study of these timely issues. The program takes advantage of Miami's position as one of the principal academic and commercial gateways to Latin America and Europe.

For students seeking to begin their design studies as undergraduates, The Department offers the **Accelerated Master of Architecture degree (M. Arch)** which integrates pre-graduate and graduate coursework in a single curricular path and which may be taken over five or six years. The accelerated Master of Architecture path begins freshman year with two years of pre-graduate coursework 72 credit hours, students in good standing move directly to 102 credit hours of graduate coursework. The accelerated Master of Architecture degree path concludes with the conferral of the accredited professional Master's degree. Transition to graduate study occurs without the conferral of an undergraduate degree and no bachelor degree is awarded at any point.

Students who have completed the AA in Architectural Studies may apply for transfer admission into the third year of this degree program as junior year transfer students.

Applicants to the Department should plan for the financial aspects of a design education. This includes the costs associated with required access to a laptop computer, as well as the cost of software, travel and field trips, tools and equipment, and modeling supplies. Students in the program must have access to a laptop computer through purchase, lease or other arrangements. Students in the Department of Architecture are encouraged to participate in the Department's study abroad semester during the fourth year. For further information contact the Department.

Admission Requirements

Application Deadline: January 15

The department admits students once a year to begin their coursework in the fall semester; therefore, it is recommended that interested applicants meet with a member of the college's Student Services and Advising Center during the Fall semester prior to the application deadline. Admission to the department is competitive and is not guaranteed. Admission will be offered based on space availability to those applicants judged by the Department Faculty Committee to have the greatest potential for successful completion of the program.

The department offers professional degrees in Architecture. The curriculum is composed of two years of foundational, undergraduate coursework followed by three (or four) years of focused graduate course work leading to the professional accredited Master of Architecture (M. Arch). The department does not award the pre-professional bachelors degree.

Undergraduate students may apply for admission into the first year or the third year of the program. Students of the program are considered undergraduate students until they have accumulated 120 credit hours; therefore, freshman and transfer applicants must apply to both FIU's Undergraduate Admissions Office and to the department. Students accepted for admission in the first year or the third year of the department's program, and who are in good academic standing with a cumulative 3.0 GPA at completion of 120 credit hours, are automatically converted to graduate student status.

First Year Admission Requirements

Applicants must meet the University's admission requirements and submit a design portfolio – please refer to the Design Portfolio Requirements section.

Third Year Transfer Student Admission Requirements

Applicants for third year admission must meet the University's admission requirements and submit a design portfolio – please refer to the Design Portfolio Requirements section. Students who have completed an AA in architectural studies must meet the following requirements: minimum cumulative GPA of 3.0; completed design studio courses 1 through 4 with a grade of 'C' or better; and be judged by the Faculty Admissions Committee to have passed a competitive portfolio review. Only grades of 'C' or higher (2.0 on a 4.0 grading scale) are accepted for transfer of applicable prerequisite and core courses from other institutions.

Transfer Students: University policy allows the transfer of 60 lower division credits. Additional upper-division transfer credits may be accepted. For most transfer students it will be necessary to take a certain number of undergraduate credits at FIU in order to achieve the minimum required to satisfy the degree requirements.

Third Year Native Student Admission Requirements

FIU undergraduate students who wish to change their major to architecture should check program requirements and be advised by the college's undergraduate advisors well in advance of application for admission.

Design Portfolio Requirements

As part of each department's admission review process, all students are required to submit a design portfolio demonstrating the candidate's creative abilities as well as their level of design. The design portfolio is evaluated based on a candidate's demonstrated sense of composition, attention to detail, graphic communication skills, expressive quality, and sense of space, accuracy, and observation. The design portfolio should be formatted on 8.5'' x 11" sheets, bound or carefully packaged, with a maximum thickness of 3". Applicants may also include 11' x 17" sheets provided they are folded to 8.5" x 11". Design portfolios may include two-dimensional storyboards (a sequence of still images that show a story), computer printouts, and photographs of small three-dimensional models/projects. The design portfolio cannot contain slides, videos, computer discs, or other formats that require electric power to view.

First Year Design Portfolio Requirements

All candidates' design portfolios must include a one-page (maximum) statement outlining your intentions, aspirations, and purpose in pursuing a professional degree. In addition, all candidates' design portfolios require three freehand drawings based on accurate observations: (1) a drawing of a stair or stairs, (2) a drawing of a bicycle or bicycles or a part of a bicycle or bicycles, and (3) a drawing of your own choice. These drawings may be in ink, pencil or charcoal. In addition to the three required freehand drawings, the first year design portfolio may contain reproductions of a two-or-three dimensional work.

Third Year Transfer Portfolio Requirements

All candidates' design portfolios must include a one-page (maximum) statement outlining your intentions, aspirations, and purpose in pursuing a professional degree. The design portfolio should include no more than 10 examples of your design work executed within the past two years. Examples include, but are not limited to, studies of buildings that demonstrate your analytical ability. Recent art and/or design projects that an applicant completed in collaboration with others are acceptable as long as the example contains an explanation of the applicant's role in the process. Portfolios should not contain samples of architectural or interior design construction documents either by hand or by computer.

Student Work

Student work submitted to the Department in satisfaction of course or degree requirements becomes the physical property of the Department. However, students retain all rights to the intellectual property of such work. This work may include papers, drawings, models, and other materials. The Department assumes no responsibility for safeguarding such materials. At its discretion, the Department may retain, return, or discard such materials. The Department will not normally discard the materials of current students without giving them a chance to reclaim them.

Students must petition the Department in writing for any deviation from the established policies.

Academic Standards and Policies

1. Progression Requirements: At the conclusion of 72 credit hours of pre-graduate architecture program coursework, students with of an overall cumulative GPA of 3.0 or above move directly to graduate coursework.
2. All students must maintain a minimum cumulative GPA of 2.75 in all undergraduate ARC courses. Students who fail to meet this minimum GPA requirement are subject to an internal academic review and may be delayed in their progression to graduate coursework.
3. No grade below a 'C' will be accepted for graduation in required courses or professional electives.
4. Students must maintain a minimum cumulative 3.0 or higher GPA in graduate level coursework (5000 level or higher).
5. After three semesters or 30 credits of graduate coursework, students who fail to maintain a minimum cumulative 3.00 GPA are subject to an internal academic review, which may result in dismissal from the program.

Undergraduate to Graduate Standing

Students will be evaluated for matriculation to graduate status based upon their graduate GPA at the end of the spring semester of their 4th year (provided they have earned a minimum of 120 total credits). The criteria listed below must be satisfied:

1. A minimum of 120 earned credits (counting no more than 60 lower-division transfer credits),
2. 3.0 or higher GPA in graduate level coursework (5000 level or higher), and
3. Completion of undergraduate coursework.

Master's Project/Thesis Requirement

Graduate students in all masters degree programs are required to undertake a master's project or a master's thesis as part of their course of study in the Department of Architecture.

Academic Travel

The Architecture Department values academic travel both nationally and abroad. Immersion in other cities and cultures provides our students with critical experiences that enhance learning. The firsthand interaction with exemplary completed buildings and sites, as well as those under construction, enrich learning throughout the curriculum. It is a requirement of the academic program in Architecture that each student participate in at least one of the department's travel options before graduation. The department offers three options for travel: 1-Residence abroad for a full semester through our Genoa, Italy, program; 2- International travel through one of the many study abroad programs offered each summer; and 3-Domestic travel outside Miami as part of a design studio. Students must hold a 3.0 or higher cumulative graduate GPA to participate in Study abroad programs.

Miami Beach Urban Studios (MBUS)

MBUS offers architecture students a unique opportunity to study in one of the nation's most vibrant and artistic urban centers. While studying at MBUS, students gain valuable professional experience working with local design practitioners, and with innovative public and private organizations in the area. Located in the iconic 420 Lincoln Road building, MBUS provides architecture students expansive gallery/exhibition spaces, design studios, and classroom space, that encourage collaborative explorations with students studying in other areas of study within the College of Architecture and The Arts, including: Music, Art, Art History, Theater, and Communication Arts. MBUS provides students with a base from which they may explore local fine arts, designs, performances, museums and galleries, including FIU's The Wolfsonian-FIU, located only blocks away. Important areas of study for architecture students at MBUS include, but not limited to, Sustainability, Historic Preservation, Urbanism, Hospitality Design, Community Design, and Architecture and Real Estate Development.

Accelerated Master of Architecture

Degree Program Hours: 174

The accelerated Master of Architecture program provides a seamless course of study leading from undergraduate freshman year to the conferral of the Professional Master of Architecture degree (M. Arch). The Accelerated M. Arch is comprised of 174 credit hours of integrated pre-graduate and graduate coursework. The degree consists of 72 credit hours of pre-graduate coursework which is taken over two years and is followed by 102 credit hours of graduate coursework which can be completed in either three or four years. Students in the accelerated M. Arch program are awarded the professional Master's degree without first having to earn an undergraduate degree. As such, no Bachelor's degree is awarded.

The accelerated path provides the student with a solid base of knowledge in the discipline of architecture and a broadly based general education. The first two years of pre-graduate coursework are characterized by a broad interdisciplinary framework, with emphasis placed upon six thematic areas; general education studies, architectural design studies, architectural history & theory, building & digital technologies, and ethics & professional practice. The goal of the educational experience is to develop critical thinking and synthetic design abilities using creative problem solving, analytic skills and the capacity for speculative design. The program is committed to educating students to form independent design judgments grounded in the larger contexts of intellectual inquiry and the general pursuit of knowledge. The fully integrated pre-graduate and graduate course of study covers the comprehensive knowledge and professional skills required for a professional career in the discipline of architecture. The program remains committed to design excellence by providing its students an unsurpassed professional education in architecture.

NAAB Statement

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 U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Florida International University, College of Architecture and The Arts, Department of Architecture offers the following NAAB-accredited degree programs:

Master of Architecture (72 undergraduate credits + 102 graduate credits)

Master of Architecture (pre-professional degree + 60 graduate credits)

Master of Architecture (non-pre-professional degree + 105 graduate credits)

Next accreditation visit for all programs: 2025

Pre-Graduate Level Course Requirements (72)

ARC 1131	Design Graphics 1	2
ARC 1132	Design Graphics 2	2
ARC 1301	Design Studio 1	4
ARC 1302	Design Studio 2	4
ARC 2303	Design Studio 3	4
ARC 2304	Design Studio 4	4
ARC 1461	Materials and Methods of Design	3
ARC 4586	Structures 1	1
ARC 4586L	Structures 1 Lab	2
ARC 2701	History of Design from Antiquity to the Middle Ages	3
ARC 2702	History of Design from the Renaissance to the XIX Century	3
ARC 4058	Fundamentals of Digital Design	3
ART 2330C	Beginning Figure Drawing	3

Courses are selected from the following categories:

Communication (9)

ENC 1101	Writing and Rhetoric I	3
ENC 1102	Writing and Rhetoric II	3
SPC 2608	Public Speaking	3

Environmental Context (11)

MAC 1114	Trigonometry	3
PHY 2053	Physics without Calculus I	4
PHY 2048L	General Physics Laboratory I	1
EVR 1017	The Global Environment and Society – *GL*	3

In addition to the courses above, students select 14 credit hours from the UCC catalog or electives with Advisor's approval.

Graduate Level Course Requirements (102)

All accelerated M. Arch students must complete the following requirements or their equivalent. A minimum of 102 semester hours are required to graduate:

ARC 5329	Architectural Design 5	6
ARC 5335	Architectural Design 6	6
ARC 5340	Architectural Design 7	6
ARC 5343	Architectural Design 8	6
ARC 5361	Integrated Comprehensive Design	6
ARC 5362	Architectural Design 9: Sustainable Practices	6
ARC 6356	Architectural Design 10	6
ARC 6970	Master's Project	6
ARC 5744	History of Design from the XIX Century to Present	2
ARC 5744L	History of Design from the XIX Century to Present Lab	1
ARC 5249	Introduction to Design Theories	3
ARC 5205	Advanced Design Theories	3
ARC 5554	Structures 2	1
ARC 5554L	Structures 2 Lab	2
ARC 5555	Structures 3	1
ARC 5555L	Structures 3 Lab	2
ARC 5467	Materials and Methods of Construction	3
ARC 5176C	Computer Practices in Design II	3
ARC 5612	Environmental Systems in Architecture 1	3
ARC 5621	Environmental Systems in Architecture 2	3
ARC 5483	Integrated Building Systems	3
ARC 6910	Graduate Seminar	3
ARC 6280	Professional Office Practice	3
ARC 5XXX	ARC Professional Electives	9
SOA XXXX	Open SOA Electives	9
SPC 5066	Presentation Skills for Architects	3

Certificate in the History and Theory of Architecture

David Rifkind, *Associate Professor and Coordinator*

The Architecture Department offers a certificate in the history and theory of architecture to students currently enrolled in any of the school's programs at either the undergraduate or graduate level. In addition, motivated students in related areas of study throughout the university are permitted to pursue this certificate through written application to the Chair of the Architecture Department.

The certificate involves course work in the history and theory of architecture. These courses examine the scope of ideas generated in the discipline in order to reveal and explain the production and reception of architecture. This certificate program focuses upon the historical and theoretical circumstances within the discipline and considers the discipline of architecture through its distinct modes of thought and production and in relation to other spheres of cultural production such as art, technology and politics. By treating architecture as a historical and ideological production as well as a material production, the course work in this certificate program explores the important cultural forces that have conditioned the development and transformation of the discipline of architecture. This certificate program is open to degree-seeking students only.

Certificate Requirements

The certificate requires 12 semester hours of course work in history and or theory. Courses must be selected from the following approved courses or by written petition to the Chair of the Architecture Department.

Program Requirements

ARC 2701	History of Design from Antiquity to the Middle Ages
ARC 2702	History of Design from the Renaissance to the XIX Century
ARC 3243	Introduction to Design Theories
ARC 4030	Film and the Architecture of Modern Life
ARC 4227	Gender and Architecture
ARC 4730	Culture and Art in Italy
ARC 4752	Architectural History of the Americas
ARC 4754	Asian and African Architecture
ARC 4755	Architecture of the City
ARC 4783	History of Design from the XIX Century to Present
ARC 4910	Research Methods
ARC 4799	Architecture and Landscape Architecture of South Florida
ARC 4905	Independent Study

Course Descriptions

Definition of Prefixes

ARC-Architecture; HUM-Humanities

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

Courses that meet the University's Global Learning requirement are identified as GL.

ARC 1001 Introduction to Design (3). A practical introduction to the professional, technical, and aesthetic aspects of architecture, interior design, landscape architecture, and environmental and urban systems.

ARC 1131 Design Graphics I (2). An introduction to the development of graphic skills for the conception and communication of design ideas. Subject areas emphasize orthographic and presentation techniques. Corequisite: ARC 1301. (F)

ARC 1132 Design Graphics II (2). A continuation of Design Graphics I with the exploration of broader graphic tools of conceptual representation. Subject areas

emphasize computer graphics and multiple media. Prerequisite: ARC 1131. Corequisite: ARC 1302 (S)

ARC 1171 Introduction to Computer Applications in Design 1 (3). A practical exploration to introductory computer applications appropriate to design disciplines.

ARC 1172 Introduction to Computer Applications in Design 2 (3). A continuation of introduction to computer applications in Design 1 with a broader exploration of introductory computer applications appropriate to design disciplines.

ARC 1190 Portfolio Design 1 (3). An introduction to creating, binding and reproducing graphic materials for presentation.

ARC 1191 Portfolio Design 2 (3). The second course in Portfolio Design. Students will develop their own portfolios using a variety of techniques. Prerequisite: Portfolio Design 1.

ARC 1213 Design Concepts 2 (3). A continuation of Design Concepts 1 with a broader exploration design principles, environmental and human factors, as well as the examination of design ideas.

ARC 1244 Introduction to Design 2 (3). A continuation of Introduction to Design 1 with broader explorations of professional, technical, and aesthetic aspects of architecture, interior design, landscape architecture, and urban systems. Prerequisite: ARC 1001.

ARC 1301 Design Studio 1 (4). An introduction to concepts, fundamental design elements, and systems of order that inform two and three-dimensional design. Corequisite: ARC 2701. (F)

ARC 1302 Design Studio 2 (4). A continuation of Design 1 (ARC 1301). An introduction to principles of proportion and scale with an emphasis on the relationship between the body and three dimensional space. The design process is emphasized. Prerequisites: ARC 1131, ARC 2701. Corequisite: ARC 2702. (S)

ARC 1461 Materials and Methods of Design (3). An introduction to materials and methods. In this course properties of materials and performance in a variety of light building, interior and environmental assemblies are explored. (F)

ARC 1930 Special Topics/Architectural Design I (4). An introduction to the basic perceptual, social, cultural, environmental and technical issues of architectural design. Basic architectural design projects.

ARC 2210 Design Concepts (3). Introduction to principles of design and perception, study of user's need for relationship with environmental and human factors. Examination of design ideas and their development. (S)

ARC 2303 Design Studio 3 (4). A continuation of Design Studio 2. Site, social, cultural and environmental issues are the generator for design projects with repetitive spatial and programmatic issues. Prerequisites: ARC 1302, ARC 1132, ARC 2702. Corequisites: ARC 1461, ARC 4058. (F)

ARC 2304 Design Studio 4 (4). A continuation of Design Studio 3. Structure, material, design details, human factors and interior architecture are explored for small scale infill urban buildings project. Prerequisite: ARC 4058. Corequisite: ARC 4586. (S)

ARC 2701 History of Design from Antiquity to the Middle Ages (3). Survey of architectural, interior, and landscape design from antiquity to the Middle Ages, including western and non-western traditions. Critical reading and writing course. (F)

ARC 2702 History of Design from the Renaissance to the XIX Century (3). Survey of architectural, interior, and landscape design from the Renaissance to the XIX century, including Western and non-Western traditions. Critical reading and writing course. (S)

ARC 2931 Architectural Design 2 (4). Proportioning systems for architecture students stressing the understanding of human proportions in a three-dimensional space research on modulating techniques and integration of interior and exterior spaces. Prerequisite: ARC 1930.

ARC 3031 Miami in Film (3). How the natural and built environment of South Florida is portrayed in films.

ARC 3057 Computer Graphics in Design (3). An intensive hands-on introduction to software for processing text and graphics, as it relates to the field of graphic design. Various computer applications in design. Prerequisite: CGS 2060.

ARC 3181 Digital Fabrication (3). This course considers digital design and fabrication methodologies and techniques in architecture with an emphasis upon the use of laser cutting, CNC milling and 3d printing. Prerequisite: ARC 4058.

ARC 3182 Design and the Virtual Environment (3). Implementation of real-time, three-dimensional virtual reality technology into existing and proposed design works.

ARC 3192 Design Presentation Graphics (3). Exploration of design presentation techniques and portfolio design through the use of digital photography, digital illustration, desk top publishing and web page.

ARC 3220 Case Studies in Architecture (3). This course explores the vast array of decisions that create the architectural experience of outstanding built works.

ARC 3243 Introduction to Design Theories (3). Introduction to the environmental parameters, morphological concepts and ideological principles that generate form and meaning in architecture and landscape architecture. Prerequisites: ARC 2701 and ARC 2702. (F)

ARC 3310 Building Information Modeling (3). This course will familiarize students with numerous foundational concepts such as parametric modeling, assembly modeling, associativity generative and interactive drafting.

ARC 3380 Architecture and the Performing Arts (3). This seminar will consider what architects might learn from the performing arts, particularly how stagecraft can inform design for social spaces in the city.

ARC 3390 Urban Vertical Surface (3). The study of buildings' vertical surfaces will focus on analyzing the

mechanisms of surfaces: wall section, the bay, frame, grid and their transformations.

ARC 3463 Materials and Methods of Construction 2 (3). A study of the types of construction and materials used in building interiors. How materials are properly installed and inspected, including the use of special equipment, in accordance to drawings, specifications, codes, standards, and agencies' recommendations. Prerequisite: ARC 1461. (S)

ARC 3485 Architectural Installations (3). During this course we will examine the traces of history of architectural fabrications and its relations to the visual arts, media, and technology.

ARC 3622 Design Ecology and Technology (3). This course explores the environmental impact of design decisions, their philosophical underpinnings and the role played by technology.

ARC 3741 Urban Architecture and the 20th Century (3). This course will examine debates on urban architecture surrounding the rise of Modernism in the 1920s and will follow those lines of thought into current discussion of architectural design in cities.

ARC 3775 Modern Architecture - Projects and Polemics (3). This seminar focuses on close readings of primary sources drawn from key works of architectural theory. The course also explores key historical text, architectural theory and criticism. Prerequisite: ARC 4783.

ARC 3797 Hotels: Miami and La Habana at Mid-Century (3). A study of mid-century modern hotels constructed in Miami/Miami Beach, Florida and La Habana, Cuba, just prior to the Cuban revolution.

ARC 3905 Solar Decathlon (3). Research based course to develop the architectural and engineering concepts for the solar decathlon house.

ARC 3919 Architectural Research Methods (3). Survey of research methods applicable to the study of the cultural, spatial, material and aesthetic implications of architecture. The emphasis of the course is on involvement in original research. (F)

ARC 3932 Special Topics Design Studio (4). An architectural design studio based on a particular aspect of architectural design under the direction of appropriate faculty.

ARC 3934 Special Topics (3). Coursework on a particular aspect of architecture under the direction of faculty in a classroom format.

ARC 3937 GreeN: Designing for Sustainability (3). This course will review established and emerging principles of sustainable design/construction and test strategies for their implementation in design practice. Prerequisite: Upper division standing.

ARC 4030 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 4058 Fundamentals of Digital Design (3). Introduction to two dimensional and three dimensional computer-aided design. Focus upon skill and knowledge creation through the analysis and representation of case-studies. (F,S,SS)

ARC 4114 Special Projects (3). Will focus on the development of adequate drawing skills in relationship to the understanding of a building and a site through sketching, graphic analysis, measured drawings, rendering and presentation. The course consists of site visits and workshops.

ARC 4173 3D Computer Modeling (3). This course will explore computer modeling in architecture. Prerequisite: Program approval.

ARC 4174 Computer Rendering in Architecture (3). This course will explore three-dimensional rendering in architecture. Prerequisite: Program approval.

ARC 4183 Architecture and the Virtual Environment (3). Implementation of virtual reality technology in architectural representations of existing and proposed built environments for presentation and design research. Prerequisites: ARC 4173 and ARC 4174.

ARC 4185 Interactive Media (3). Presentation of digital images through an interactive and animated interface online or offline, as well as exploration of ideologies of interactive media.

ARC 4188 Visual Effects (3). Introduction of digital video and audio post-production techniques that add sound, text and visual effects to animations, as well as exploration of ideologies of digital animation.

ARC 4227 Gender and Architecture (3). A theoretical, visual and professional exploration of women's and men's roles, identities, and histories in public and private built environments.

ARC 4270C Professional Office Practice (3). Assignments in office administration, negotiation of contracts, fee structure, professional ethics, client and public relations. Business organization, procedure scheduling and task allocation within design professional practices. Prerequisite: Senior standing. (F)

ARC 4320 Architectural Design 5 (4). Integration of structure and construction techniques in the production of a small to mid-sized public project that incorporates basic consideration of site, structure, materials and assembly systems. Prerequisites: Admission to the major, ARC 2304, ARC 4586.

ARC 4321 Architectural Design 6 (4). Focus upon architectural housing typologies and related issues of inhabitation. Spatial, structural and assembly systems and circulation issues specific to housing as well as context are presented. Prerequisites: Admission to the major, ARC 4320, ARC 3243. Corequisite: ARC 3463.

ARC 4322 Architectural Design 7 (4). A flexible framework for appropriate investigations of complex spatial, programmatic, contextual, constructional, or ethical involved in the architectural design process. Prerequisites: ARC 4321, ARC 4553.

ARC 4323 Architectural Design 8 (4). A continuation of Design 7 with investigations of complex spatial, programmatic, contextual, constructional, or ethical issues

involved in the architectural design process. Prerequisites: ARC 4321, ARC 4553.

ARC 4553 Structural Design 1 (1). Investigation of structural materials, connections and details as outlined by appropriate codes and specifications for conducting analysis and design of structures under gravity loads. Prerequisites: ARC 4586 or BCN 2402, and PHY 2053, and MAC 2233 or MAC 1114 or MAC 1147. (SS)

ARC 4553L Structural Design 1 Lab (2). This lab will provide a venue for application and experimentation with basic structural concepts for designing wood and steel buildings. Prerequisites: ARC 4586 and PHY 2053 and MAC 2233 or MAC 1114 or MAC 1147. Corequisite: ARC 4553.

ARC 4586 Structures 1 (1). Through the study of statics and strength of materials this course provides a scientific basis for understanding structural systems behavior. Completion of ARC 2580 will meet this course requirement. Prerequisites: PHY 2053 and MAC 2233 or MAC 1114 or MAC 1147. (S)

ARC 4586L Structures 1 Lab (2). The lab sessions will supplement lectures through additional practice and hands-on problems designed to enhance the application of structural concepts. Completion of ARC 2580 meets requirement.

ARC 4696 Basic Utilities and Housing (3). The study of the importance of basic utilities (such as roads, sewer and water supply systems) in housing planning and construction. A relative cost analysis. Health problems and sociological effects of lack of basic utilities. Innovative concepts to incorporate basic utilities to all housing projects in developing countries. Prerequisite: Permission of the instructor.

ARC 4730 Culture and Art in Italy (3). Course describes the evolution of culture and aesthetics and their immediate relationship with the creation of these works. Consists of site visits and class lectures.

ARC 4752 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: ARC 2701.

ARC 4754 Asian and African Architecture (3). This course is a comprehensive study of architectural forms, styles, and construction techniques in Asia and Africa. Prerequisites: ARC 4783, ARC 2702.

ARC 4755 The Architecture of the City (3). To analyze the layering that composes urban form and to offer a basis of historical and theoretical information in order to take advantage of particular experience. Different periods of urban history are presented.

ARC 4783 History of Design from the XIX Century to Present (2). Survey of architecture, interior architecture, and landscape architecture from the XIX century to the present, including western and non-western traditions. This is a critical reading and writing course. Corequisite: ARC 4783L. (F)

ARC 4783L History of Design from the XIX Century to Present Lab (1). Laboratory section for ARC 4738. Reading and discussion for course texts and writing assignment. Laboratory work in conjunction with the set lab. Prerequisites: ARC 2701, ARC 2702. Corequisite: ARC 4783.

ARC 4796 Social History of the Built Form (3). The art of urbanism, its roots in society, its techniques and aesthetics. Latest trends and theories. Real urbanism, the appropriate contemporary process to achieve the recovery of place in our society.

ARC 4799 The Architecture and Landscape Architecture of South Florida (3). Overview of the natural resources, cultural traditions and architectural precedents which have fomented the regionalist architecture and landscape architecture of South Florida. Prerequisite: Program approval. (SS)

ARC 4905 Independent Study (1-5). Specialized individual studies under supervision of faculty advisor. Consent of faculty advisor required. Prerequisite: Departmental approval. (F,S,SS)

ARC 4910 Research Methods (3). Survey of architectural research methods that use primary and secondary sources and materials to study historical and contemporary issues involved in the built environment. Prerequisite: ARC 2304. (F)

ARC 4940 Architecture Internship (3). Advanced issues in architecture practice learned through work experience with licensed professionals. Prerequisite: ARC 4321.

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 5036 Miami in Film (3). How the natural and built environment of South Florida is portrayed in films.

ARC 5037 Architecture and Video Media (3). This course will examine intersections between architecture and video media from critical historical and contemporary perspectives.

ARC 5075 Formative Studio (6). Introduction to concept development, spatial expression, and representational techniques in architecture. (F)

ARC 5076 Formative Studio 2 (6). A continuation of architectural design investigations begun in Formative Studio. Prerequisite: ARC 5075. (S)

ARC 5077 Formative Studio 3 (6). An architectural design studio that builds upon concepts and approaches presented in Formative Studio and Formative Studio 2. Prerequisite: ARC 5076.

ARC 5165 Graduate Digital Fabrication (3). This course considers digital design and fabrication methodologies and techniques in architecture with an emphasis upon the use of laser cutting, cnc milling and 3d printing at the graduate level. Prerequisite: ARC 4058.

ARC 5175 Contemporary Digital Strategies (3). Study of advanced digital techniques as generative tools for design and representation. Focus on surface and spatial

modeling and parametric relationships. Prerequisites: ARC 4058, ARC 5176.

ARC 5176C Computer Practices in Design II (3). Advanced study in concepts, issues and methods in computer-aided architectural design. Prerequisites: ARC 4058 or equivalent. Corequisite: ARC 5362.

ARC 5177 Topology and Performance (3). Exploration of the relationship between form and performance through the use of animation and scripting techniques. Prerequisite: Program approval.

ARC 5184 Architecture and the Virtual Environment (3). Implementation of virtual reality technology in architectural representations of existing and proposed built environments for presentation and design research. Prerequisites: ARC 4173, ARC 4174.

ARC 5186 Interactive Media (3). Presentation of digital images through an interactive and animated interface online or offline, as well as exploration of ideologies of interactive media.

ARC 5189 Visual Effects (3). Introduction of digital video and audio post-production techniques that add sound, text and visual effects to animations, as well as exploration of ideologies of digital animation.

ARC 5193 Design Presentation Graphics (3). Exploration of design presentation techniques and portfolio design through the use of digital photography, digital illustration, desk top publishing and web page.

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. (F)

ARC 5249 Introduction to Design Theories (3). Introduction to the environmental parameters, morphological concepts and ideological principles that generate form and meaning in architecture. Explorations of related spheres of cultural production will also be explored in lectures, readings, and student assignments. Corequisite: ARC 5075.

ARC 5311 Building Information Modeling (3). This course will familiarize students with numerous foundational concepts such as parametric modeling, assembly modeling, associativity generative and interactive drafting.

ARC 5329 Architectural Design 5 (6). Integration of structure and construction techniques in the production of a small to mid-sized public project that incorporates site considerations, materials and structure. Prerequisites: ARC 2304, ARC 4586 and admission to the major. (F)

ARC 5335 Architectural Design 6 (6). This studio focuses on housing and related components including the repetitive spatial and structural elements, circulation and contextual considerations. Prerequisites: ARC 3243, BCN 4561. (S)

ARC 5340 Architectural Design 7 (6). A flexible framework for appropriate investigations of complex spatial, programmatic, contextual, constructional and ethical issues involved in design projects. Course content varies with instructor. Prerequisites: ARC 4553, ARC 3463. (F,S,SS)

ARC 5343 Architectural Design 8 (6). Architectural design explorations of site, building codes, community objectives will be undertaken through individual programming, process and design initiatives for a complex building project. (F,S)

ARC 5361 Integrated Comprehensive Design (6). Exploration of arch systems; structural, environmental, life-safety, assembly and enclosure on building form, content and expression. Students will assess and integrate systems into the design process. Corequisite: ARC 5483. (F,SS)

ARC 5362 Architectural Design 9: Sustainable Practices (6). Architectural projects of medium scale. Exploration and application of sustainable practices emphasizing relation of site and environmental issues to architectural production and design methodology. Prerequisites: Graduate standing and ARC 5361. (S)

ARC 5370 Urban Development 1 (3). Introduction to the planning and management of urban development projects.

ARC 5371 Urban Development 2 (3). Advanced planning and management of urban development projects. Prerequisite: ARC 5370.

ARC 5381 Architecture and the Performing Arts (3). This seminar will consider what architects might learn from the performing arts, particularly how stagecraft can inform design for social spaces in the city.

ARC 5392 Urban Vertical Surface (3). Analysis of the mechanisms of surfaces: wall section, the bay, frame, grid, and their transformations.

ARC 5396 Case Studies in Architecture (3). The course explores the vast array of decisions that create the architectural experience of outstanding built works.

ARC 5467 Materials and Methods of Construction (3). Study of the types of construction and materials used in institutional, residential, and office building assemblies. How materials are installed and inspected, including the use of special equipment. Explorations of the theories and histories of construction will be explored.

ARC 5483 Integrated Building Systems (3). Exploration of arch systems integration and specifications in design and construction processes; structural, environmental, life-safety, assembly and enclosure systems are included. Corequisite: ARC 5361. (F)

ARC 5486 Architectural Installations (3). This course will examine the traces of history of architectural fabrications and its relations to the visual arts, media, and technology.

ARC 5554 Structures 2 (1). This is the second course in the structures sequence and will introduce fundamentals of structural analysis and design for timber and steel buildings using quantitative process. Prerequisites: ARC 2580 or ARC 5582 or ARC 4586.

ARC 5554L Structures 2 Lab (2). The lab sessions will supplement lectures through additional practice and hands-on exercise problems that are designed to enhance

the application of structural concepts. Prerequisites: ARC 2580 or ARC 4586 or ARC 5582. Corequisite: ARC 5554.

ARC 5555 Structures 3 (1). This is the third course in the structures sequence. It is focused on analysis and design of reinforced concrete structures and lateral resistive systems. Prerequisite: ARC 5554.

ARC 5555L Structures 3 Lab (2). The lab sessions will supplement lectures through additional practice and hands-on problems that are designed to enhance the application of structural concepts. Prerequisite: ARC 5554. Corequisite: ARC 5555.

ARC 5582 Structures 1 (1). Through the study of statics and strength of materials this course provides a scientific basis for understanding structural systems behavior. Prerequisites: PHY 2053 and MAC 2233 or MAC 1114 or MAC 1147.

ARC 5582L Structures 1 Lab (2). The lab sessions will supplement lectures through additional practice and hands-on problems that are designed to enhance the application of structural concepts. Prerequisites: PHY 2053 and MAC 2233 or MAC 1114 or MAC 1147. Corequisite: ARC 5582.

ARC 5612 Environmental Systems in Architecture 1 (3). This course considers thermal, electrical, mechanical and conveyance systems and their integration in the architectural design process. Prerequisite: ARC 2304.

ARC 5621 Environmental Systems in Architecture 2 (3). This course considers the role of acoustic and luminous behaviors in architecture and the architectural design process. Topics including daylighting, artificial lighting, electrical systems and acoustics. Prerequisite: ARC 2304.

ARC 5623 Design Ecology and Technology (3). This course explores the environmental impact of design decisions, their philosophical underpinnings and the role played by technology.

ARC 5711 History of Design Antiquity to Middle-Ages (3). Survey of architectural, interior, and landscape design from antiquity to the middle ages, including Western and non-Western traditions. Explorations of related and causal ideologies will be covered in lectures, readings, and student assignments. Corequisite: ARC 5075.

ARC 5733 History of Design Renaissance to XIX Century (3). Survey of architectural, interior, and landscape design from the Renaissance to the nineteenth century, including Western and non-Western traditions. Explorations of related and causal ideologies will be covered in lectures, readings, and student assignments. Corequisite: ARC 5076.

ARC 5734 Culture and Art in Italy (3). Course describes the evolution of culture and aesthetics and their immediate relationship with the creation of these works. Consists of site visits and class lectures. Additional readings and project for graduate students.

ARC 5744 History of Design from the XIX Century to Present (2). Survey and advanced analysis of architecture, interior architecture, and landscape architecture from the XIX century to the present, including western and non-western traditions. Explorations of related and causal ideologies will be covered in lecture. Corequisite: ARC 5744L.

ARC 5744L History of Design from the XIX Century to Present Lab (1). Laboratory section for ARC 5744. Reading and discussion of course texts and writing assignment. Laboratory work in conjunction with set lab. Prerequisites: ARC 2701, ARC 2702. Corequisite: ARC 5744.

ARC 5745 Urban Architecture and the 20th Century (3). The course will examine debates on urban architecture surrounding the rise of Modernism in the 1920s and will follow those lines of thought into current discussions of architectural design in cities.

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: Program approval.

ARC 5756 The Architecture of the City (3). To analyze the layering that composes Rome's urban form and to offer a necessary basis of historical and theoretical information in order to take advantage of the Roman experience. Different periods of history of Rome are presented in lectures and site visits. Additional readings and projects.

ARC 5770 Historiographic Methods in Architecture (3). Seminar course designed to introduce graduate students to historiographic methodologies in architecture through close readings of key texts. Prerequisite: Graduate standing.

ARC 5776 Modern Architecture - Projects and Polemics (3). This seminar focuses on close readings of primary sources drawn from key works of architectural theory. The course also explores key historical text, architectural theory and criticism. Prerequisite: ARC 5744.

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 5798 Hotels: Miami and La Habana at Mid-Century (3). A research-based, in-depth study of mid-century modern hotels constructed in Miami/Miami Beach, Florida and La Habana, Cuba just prior to the Cuban revolution.

ARC 5803 Preservation Architecture: Issues and Practices (3). This course explores issues and practices of architectural preservation as an integral concern of architecture.

ARC 5905 Solar Decathlon (1). Research based course to develop the architectural and engineering concepts for the solar decathlon house.

ARC 5933 Special Topics (1-6). Coursework on a particular aspect of architecture under the direction of faculty in a classroom format. Prerequisite: Program approval.

ARC 5935 Special Topics (3). Coursework on a particular aspect of architecture under the direction of faculty in a classroom format.

ARC 5936 Cejas Eminent Scholar Graduate Seminar (1-3). Seminar/workshop course taught by distinguished educators, scholars, and designers. Lectures, critical readings and discussions of thematic topics make up the course.

ARC 5938 Special Topics Design Studio (6). An architectural design studio based on a particular aspect of architectural design and relevant ideologies under the direction of appropriate faculty.

ARC 5939 GreeN: Designing for Sustainability (3). This course will review established and emerging principles of sustainable design/construction, and test strategies for their implementation in design practice. Prerequisite: Graduate standing.

ARC 5941 Internship Experience (0). Experience in architectural practice learned through work with licensed professionals.

ARC 5943 Pedagogy Seminar (3). Seminar course designed to train graduate teaching assistants, who lead discussion sections and evaluate undergraduate student assignments in the accompanying undergraduate history survey course.

ARC 5945 Architecture Internship (3). Advanced issues in architecture practice learned through work experience with licensed professionals.

HUM 3257 Ways of Seeing: Modern Perception in Literature and Architecture (3). Interdisciplinary elective on modern definition of perception in literature, architecture and the arts in the first half of the 20th century.

HUM 5258 Ways of Seeing: Modern Perception in Literature and Architecture (3). Interdisciplinary elective on modern definition of perception in literature, architecture and the arts in the first half of the 20th century.

Art and Art History

David Y. Chang, *Professor and Chair*
Tori Arpad-Cotta, *Associate Professor*
Sharon (Pip) Brant, *Associate Professor*
William Burke, *Professor*
Edouard Duval-Carrié, *Courtesy Professor*
James Couper, *Professor Emeritus*
Guido Fiorato, *Courtesy Professor*
Jahaira Ríos Campos y Gálvez, *Visiting Instructor*
Daniel Guernsey, *Associate Professor*
Clive King, *Professor Emeritus*
Jacek J. Kolasinski, *Associate Professor*
William Maguire, *Professor*
Juan A. Martínez, *Professor Emeritus*
Miriam Mirolla, *Courtesy Professor*
Alpesh Kantilal Patel, *Associate Professor*
Silvia Pease, *Instructor*
Jonathan Perez, *Instructor*
Jennifer Printz, *Assistant Professor*
Gretchen Scharnagl, *Senior Instructor*
Tom Scicluna, *Assistant Professor*
Fereshteh Toosi, *Assistant Professor*
Constantino Torres, *Professor Emeritus*
Barbara Watts, *Associate Professor*
Lidu Yi, *Associate Professor*
Benjamin Zellmer Bellas, *Associate Professor*

Bachelor of Fine Arts in Art

Degree Program Hours: 120

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
ARH 2050	ARHX050[7]
ARH 2051	ARHX051[(3, 7)]
ART 1201C	ARTX201 or ARTXXXX[1]
ART 1203C	ARTX202 or ARTX203 or ARTXXXX[2]
ART 2300C	ARTX300
ART 2330C	ARTX301 or ARTX330[3] or ARTX205[4] or ARTX310[5] or ARTX305[6]
ART 2XXX	ARTXXXX
ART 2XXX	ARTXXXX

[1]2D
[2]Design II, 3D
[3]Figure drawing
[4]Color, color composition
[5]Intermediate drawing
[6]Observational
[7]All courses except ARHX050 and ARHX051 require a "C" or higher.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Lower Division Requirements

ARH 2050	Art History Survey I	3
ARH 2051	Art History Survey II	3
ART 1201C	2-D Design	3
ART 1203C	3-D Design	3
ART 2300C	Beginning Drawing	3
ART 2330C	Beginning Figure Drawing	3
ART 2XXX	Studio Art Elective	3
ART 2XXX	Studio Art Elective	3
Total		**24**

Upper Division Requirements

ARH 4450	Modern Art	3
ARH 4470	Contemporary Art – *GL*	3
ARH Elective (2) (Upper Division)		6
Studio and Art History Electives (Maximum 12 credits in Art History)		27
ART 3820	Visual Thinking I – *GL*	3
ART 3822	Visual Thinking II	3
ART 4952C & 4953C	Thesis I & II	6
Electives outside of the Art Department		6-9
Total		**60**

Admission Requirements

Candidates for the BFA in Art: Digital Arts Track will be required to submit electronically a portfolio of their works alongside with a short statement. A departmental committee will review the portfolios. Not all candidates for the BFA in Art: Digital Arts Track will be accepted. Currently, the CARTA departments utilize the *Get Accepted* service for the portfolio submissions. See the Art and Art History Department website for further information.

BFA in Art: Digital Arts Track

The Digital Arts (BFA) track is designed to prepare students for the technological and conceptual relevance in contemporary digital arts practice. Students will develop skills necessary to responsibly participate in the evolution of digital arts as an interdisciplinary exploration within the field of fine arts.

The program balances practical and technical training with emphasis in fine arts. This track offers an intensive course of study in new media

Degree Program Hours:	**120 credits**
University Core Curriculum (UCC)	36 credits
Lower Division Requirements	33 credits
Upper Division Requirements	51 credits

Lower Division Requirements (33 credits)

ARH 2050	Art History Survey	3
ARH 2051	Art History Survey II	3
ART 1201C	2-D Design	3
ART 1203C	3-D Design	3
ART 2300C	Beginning Drawing	3
ART 2330C	Beginning Figure Drawing	3
ART 2608C	Digital Media Foundation	3
ART 2602C	Digital Imaging	3
ART 2622C	Introduction to Experimental Video Art	3
ART 2648C	Introduction to Digital Art Lab	3
PGY 2800C	Beginning Digital Photography	3

Upper Division Requirements (51 credits)

ARH 4450	Modern Art	3

ARH 4470	Contemporary Art - GL	3
ARH 4771	History of Digital Art	3
ART 3617C	Intermediate Experimental Video	3
ART 3638C	Video Installation	3
ART 3642C	Design Object and Fabrication	3
ART 3665C	Modeling and Prototypes	3
ART 3820	Visual Thinking I - GL	3
ART 3822	Visual Thinking II	3
ART 4636C	Advanced Experimental Video Art	3
ART 4649C	Intermediate Digital Art Lab	3
ART 4650C	Advanced Digital Art Lab	3
ART 4952C	Thesis I	3
ART 4953C	Thesis II	3
Upper Division ART or PGY Electives		9

BFA in Art: Graphic Design Track

The Graphic Design track of the Bachelor of Fine Arts in the Department of Art and Art History aims to offer students a path for the links between practice of traditional visual arts and commercial graphics design and communication. This specialization in design balances practical, intellectual and technical training with emphasis in how visual communication opens possibilities for students to develop collaborations with non-designers, software developers and programmers, and professionals working in diverse fields. This track offers an intensive course of study in contemporary design strategies and theory. This curriculum includes design and typography courses with an emphasis on interactivity, mobility, strategic branding and social media in a network economy. This track capitalizes on a strong base in fine arts and innovative design courses where students will master a strong foundation in design and become innovators for new communication media.

Degree Program Hours: 120

Common Course Prerequisites

Same as those for BFA in Art degree requirements

Additional Lower Division Requirements

ART 2608C	Digital Media Foundation	3
ART 2602C	Digital Imaging	3
GRA 2151C	Illustration	3
GRA 2111	Graphic Design I	3
GRA 2106C	Typography	3

Upper Division Requirements

ARH 4450	Modern Art	3
ARH 4470	Contemporary Art – *GL*	3
ARH 4724	History of Graphic Design	3
ARH Elective (Upper Division)		3
ART 3820	Visual Thinking I	3
ART 3822	Visual Thinking II	3
GRA 3817	Graphic Design II	3
GRA 4818	Graphic Design III	3
ADV 3200	Creative Concepts	3
ADV 4323	Strategic Branding and Social Media	3
GRA 4189C	Thesis I/Portfolio	3
GRA 4940	Graphic Design Internship	3
Electives or Other requirements		9
Total		**60**

Admission Requirements

Candidates for the BFA in Graphic Design will be required to submit electronically a portfolio of their works with a short statement. A departmental committee will review the portfolios. Not all candidates for the BFA will be accepted. Currently, the CARTA departments utilize the Get Accepted service for the portfolio submissions. See the History Department website for further information.

Bachelor of Arts in Art

The Bachelor of Arts in Art program is designed for students who do not wish to become professional artists, but who ultimately desire to teach at a primary or secondary level, or those students wishing to enter the art market other capacities, such as working at galleries or museums. The BA in Art would also be the primary degree for those wishing to pursue a Masters of Art in Art Education, Museum Studies, or Arts Administration.

Degree Program Hours: Minimum 120

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
ARH 2050	ARHX050[6]
ARH 2051	ARHX051[6]
ART 1201C	ARTX201
ART 1203C	ARTX202 or ARTX203[1] or
ART 2300C	ARTX300
ART 2330C	ARTX301 or ARTX330[2] or ARTX205[3] or ARTX310[4] or ARTX305[5]
ART 2XXX	ARTXXXX
ART 2XXX	ARTXXXX

[1]Design II, 3D
[2]Figure drawing
[3]Color, color composition
[4]Intermediate drawing
[5]Observational
[6]All courses except ARHX050 and ARHX051 require a "C" or higher.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Lower Division Requirements

ARH 2050	Art History Survey I	3
ARH 2051	Art History Survey II	3
ART 1201C	2-D Design	3
ART 1203C	3-D Design	3
ART 2300C	Beginning Drawing	3
ART 2330C	Beginning Figure Drawing	3
Studio Art Elective		3
Studio Art Elective		3

Upper Division Requirements

ARH 4450	Modern Art	3
ARH 4470	Contemporary Art – *GL*	3
ART 3820	Visual Thinking I – *GL*	3

ART, PGY, ARH electives	27
(Maximum 6 credits in Art History)	
Electives (upper division)	27
9 credits must be taken outside of ART, PGY, or ARH	

Bachelor of Arts in Art History

The Department of Art and Art History offers a BA in Art History that is designed to introduce methodologies and subjects of Art History from throughout the world. In addition to traditional European and American subjects from ancient to modern times, we offer a strong emphasis on Latin American art from Pre-Columbian to the present. The BA in Art History provides professional education as preparation for careers as art professionals and for further graduate study. The BA compliments our BFA degree program in art and provides significant interaction between artists and historians.

Degree Program Hours: Minimum 120

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
ARH 2050	ARHX050
ARH 2051	ARHX051
ART 1201C	ARTX201[1] or ARTX202[2] or ARTX203[3] or ARTX205[4]
ART 2300C	ARTX300[5] or ARTX301[6] or ARTX310[7]

[1]*Basic design, Design I*
[2]*Design II, 3D, methods and concepts*
[3]*Design II, 3D, concepts & Practices*
[4]*Color, color & composition, color design, color theory*
[5]*Drawing I, drawing foundations*
[6]*Drawing II*
[7]*Intermediate drawing*

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Lower Division Requirements

ARH 2000	Exploring Art	3
ARH 2050	Art History Survey I	3
ARH 2051	Art History Survey II	3
ART 2300C	Beginning Drawing	3

Remarks: Admission to the program requires completion of appropriate General Education Requirements, CORE, or UCC requirements.

Upper Division Requirements

ARH 3811	Studies in the Methodology of Art	3
ARH 4450	Modern Art	3
ARH 4470	Contemporary Art – *GL*	3
ARH Core:		
One course from each of these areas:		
/Renaissance/Baroque		3
18th/19th Century		3
Asian		3
Pre-Columbian/Latin American/Art of the Americas		3
ARH electives(ARH electives may include Core areas and other electives)		15
ART/PGY electives		3
ARH 4970	Art History Thesis	3
Electives		18

(At least 9 of these elective credits must be courses outside the Department of Art and Art History. Students are encouraged to take courses in the humanities that pertain to Art History)

Bachelor of Science in Art Education: Grades K-12

Degree Program Hours: 120

Lower Division: (60)

See the general information section, admission and graduation requirements, and new general education requirements.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
EDF 1005	EDFX005
EDF 2085	EDFX085[1]
EME 2040	EMEX040
ART 2300C	ARTX300
ART 1201C	ARTX201
ART1203C	ARTX202 or ARTX203
ARH 2050	ARHX050
ARH 2051	ARHX051
ART XXXX	ARTX301 or ARTX330 or ARTX205 or ARTX310 or ARTX305

[1]*In addition to EDFX085, a minimum of 6 semester hours with an international or diversity focus is required. Eligible courses will be determined by the community college or university where the student is currently earning the Associate in Arts or baccalaureate degree. Foreign language courses may be used to meet this requirement.*

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, See Common Prerequisite Manual.

Common Prerequisites

EDF 1005	Introduction to Education[1]	3
EDF 2085	Teaching Diverse Populations[1]	3
EME 2040	Introduction to Educational Technology, or acceptable substitute	3

[1]Requires field experience of 15 clock hours outside of class time.

In addition to EDF 2085, students must take six credit hours with an international or diversity focus in lower division. All required courses must be completed with a grade of "C" or higher.

Major Common Prerequisites

ART 1201C	2D Design	3
ART 1203C	3D Design	3
ART 2300C	Beginning Drawing	3
ARH 2050	Art History Survey I	3
ARH 2051	Art History Survey II	3
ART xxxx	Art Studio Electives	6

Upper Division Program: (60)

Subject Matter Specialization: (30)

ARH 4470	Contemporary Art – *GL*	3
ART 3331C	Figure Drawing II	3
ART 3504C	Intermediate Painting	3
ART 3402C	Intermediate Printmaking	3
ART 3702C	Sculpture II	3
PGY 3410C	Intermediate Photography	3
Art History Elective		3
ART 3760C	Intermediate Ceramics	3

Select two of the following three courses:

ARE 4848	Concepts in Art Education	3
EDF 4xxx	Study Abroad	3-6
ARE 4459	New Media/Crafts	3

Professional Education: (30)

EDP 3004	Educational Psychology	3
RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Strategies for Content Teachers – *GL*	3
ARE 4316	Special Teaching Lab Art K-5 (Fall only)	3
ARE 4341	Special Teaching Lab Art 6-12 (Fall only)	3
ARE 4XXX	Special Topics in Art Education or advisor approved electives	3-6
ARE 4940	Student Teaching	9

Special Methods and Student Teaching

Students must complete the 14 semester hours of foundations courses, and all core courses before enrolling in 4000-level Special Teaching Lab courses. ARE 4316 and ARE 4341 must be taken before ARE 4940.

Applications to student teach are due in the office of the Office of Clinical Experiences by June 1 for Spring semester placement.

Bachelor of Science in Art Education Art Education: Career Development Track

Degree Program Hours: 120

Lower Division: (60)

See the general information section, admission and graduation requirements, and new general education requirements.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
EDF 1005	EDFX005
EDF 2085	EDFX085[1]
EME 2040	EMEX040
ART 2300C	ARTX300
ART 1201C	ARTX201
ART1203C	ARTX202 or ARTX203
ARH 2050	ARHX050
ARH 2051	ARHX051
ART XXXX	ARTX301 or ARTX330 or ARTX205 or ARTX310 or ARTX305

[1]In addition to EDFX085, a minimum of 6 semester hours with an international or diversity focus is required. Eligible courses will be determined by the community college or university where the student is currently earning the Associate in Arts or baccalaureate degree. Foreign language courses may be used to meet this requirement.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, See Common Prerequisite Manual.

Common Prerequisites

EDF 1005	Introduction to Education[1]	3
EDF 2085	Teaching Diverse Populations[1]	3
EME 2040	Introduction to Educational Technology, or acceptable substitute	3

[1]Requires field experience of 15 clock hours outside of class time.

In addition to EDF 2085, students must take six credit hours with an international or diversity focus in lower division. All required courses must be completed with a grade of "C" or higher.

Major Common Prerequisites

ART 1201C	2D Design	3
ART 1203C	3D Design	3
ART 2300C	Beginning Drawing	3
ARH 2050	Art History Survey I	3
ARH 2051	Art History Survey II	3
ART XXXX	Art Studio Electives	6

Upper Division Program: (60)

Subject Matter Specialization: (45)

ARH 4470/ ARH 4450	Contemporary Art or Modern Art	3
ART 3331C	Figure Drawing II	3
ART 3504C	Intermediate Painting	3
ART 3402C	Intermediate Photography	3
ART 3702C	Sculpture II	3
PGY 34IOC	Intermediate Photography	3
ARH 3XXX or 4XXX	Art History Elective	3
ART 3760C	Intermediate Ceramics	3
ART 4XXX/ ARE 4XXX	Study Abroad or Approved Electives	6
ARE 4XXX/ ART 4XXX	Art Education / Art Studio Electives	15

Professional Education: (15)

EDP 3004	Educational Psychology	3
RED 4325	Subject Area Reading	3
TSL 4324	ESOL Issues and Strategies for Content Teachers – GL	3

ARE 4316	Special Teaching Lab Art K-5 (Fall Only)	3
ARE 4341	Special Teaching Lab Art 6-12 (Fall Only)	3

Special Methods and Student Teaching
Students must complete the 14 semester hours of foundations courses, and all core courses before enrolling in 4000-level Special Teaching Lab courses.

Minor in Art (18 credit hours)

ARH Elective	3
ART 2300C or ART 2330C Beginning Drawing/Beginning Figure Drawing	3
ART Studio Electives (4)	12
Total	**18**

Note: A minimum of 9 credits must be at FIU, and a minimum of 9 credits must be upper-division (3000-4000 level)

Minor in Art History (18 credit hours)

ARH 4450	Modern Art	3
ARH 4470	Contemporary Art – *GL*	3
ART Studio Elective		3
ARH Electives (3)		9
Total		**18**

Note: A minimum of 9 credits must be at FIU, and a minimum of 9 credits must be upper-division (3000-4000 level)

Course Descriptions

Definition of Prefixes

ARE-Art Education; ARH-Art History; ART-Art; GRA-Graphic Arts; IDS-Interdisciplinary Studies; PGY-Photography.
Courses that meet the University's Global Learning requirement are identified as GL.

ARE 3313 Experiencing Art in the Elementary Schools (3). Knowledge and skills for the development and implementation of art experiences in the elementary curriculum for the elementary classroom teacher. Lab fee required.

ARE 4316 Special Teaching Laboratory: Art in Grades K-6 (3). Development of instructional skills, techniques, and strategies for teaching art in the elementary school. Laboratory and field participation required. Lab fee required.

ARE 4341 Special Teaching Laboratory: Art in Grades 7-12 (3). Development of instructional skills, techniques, and strategies for teaching art in the middle and senior high school. Laboratory and field participation required. Lab fee required.

ARE 4459 New Media - Crafts in the Classroom (3). Understand the role and evolution of crafts in the schools, their function in child development, planning, assessment and basic production techniques with various media. Lab fee required.

ARE 4848 Concepts in Art Education (3). Understand philosophies and events that influenced the development of Art Education and the application of Discipline-Based Art Education and Aesthetic Education to the classroom. (F,SS)

ARE 4920 Advanced Workshop in Art Education – Technology for the Visual Arts Educators (3). Production and application of materials and techniques in art education, in laboratory or field setting. Lab fee required.

ARE 4925 Advanced Workshop in Art Education (3). Production and application of materials and techniques in art education, in a laboratory of field setting. Lab fee required.

ARE 4926 Advanced Workshop in Art Education (3). Production and application of materials and techniques in art education, in laboratory or field setting. Lab fee required.

ARE 4927 Advanced Workshop in Art Education (3). Production and application of materials and techniques in art education, in laboratory or field setting. Lab fee required.

ARE 4928 Advanced Workshop in Art Education (3). Production and application of materials and techniques in art education, in laboratory or field setting. Lab fee required.

ARE 4929 Advanced Workshop in Art Education (3). Production and application of materials and techniques in art education, in laboratory or field setting. Lab fee required.

ARE 4940 Student Teaching in Art (9). Supervised teaching in an elementary and secondary school. (S)

ARE 4944C Community Outreach (3). Through field experience and diverse client contact students will promote community partnership and collaboration.

ARH 2000 Exploring Art – *GL* (3). Offers an introductory, non-chronological approach to the understanding and appreciation of art.

ARH 2050 Art History Survey I (3). A broad survey of the visual arts and architecture from the Paleolithic Period through the Middle Ages.

ARH 2051 Art History Survey II (3). A broad survey of the visual arts and architecture from the Renaissance through the Modern Age.

ARH 3210 Early Christian and Byzantine Art (3). The art of the Byzantine Empire from the early Christian period and the foundation of Constantinople to the Ottoman conquest and afterward (300-1500 A.D.). Prerequisites: ARH 2050 or permission of the instructor.

ARH 3313 The Art of Renaissance Florence (3). Course to accompany student program in Florence will focus on all periods of Italian Renaissance Art with particular emphasis on Florentine Art.

ARH 3350 Baroque Art (3). European art of the 17th and early 18th centuries. Artists to be considered include Bernini, Caravaggio, Velazquez, Vermeer, Rembrandt,

Rubens, Poussin, La Tour, and Watteau. Prerequisite: ARH 2051.

ARH 3511 Introduction to the Visual Arts of the African World (3). Examines the continuities between African arts and the arts of African Diaspora. It traces the visual arts from the earliest cave paintings in Africa to the latest Hip-Hop arts in the United States.

ARH 3676 Caribbean Art: Myth and Reality (3). A survey of the contemporary art of the Caribbean with a brief introduction to its early history and a discussion of its complex social structures from country to country.

ARH 3714 History of Photography of Architecture (3). The history of photography from 1839 to now with strong emphasis on the photography of architecture.

ARH 3811 Studies in the Methodology of Art History (3). To introduce art history majors to the variety of methods scholars have adopted and developed for conveying their perspectives on art history, including aesthetics and art theory. Prerequisites: ARH 2000, ARH 2050, and ARH 2051.

ARH 3839 Fundamentals of Museum Studies (3). Outlines the basic topics and issues associated with different types of American museums. Museums are examined as cultural, political, and educational institutions.

ARH 3873 Women in Latin American Art (3). Introduces women in Latin American art from its Pre-Columbian beginnings through the twentieth century. Emphasis will be on painting and sculpture of the twentieth century.

ARH 3930 Special Topics in Art History (3). Rotating special topics in art history. May be repeated with change of content. Prerequisites: ARH 2050 and ARH 2051 or permission of the instructor.

ARH 4014 History of Decorative Arts (3). A survey of the more important and influential periods in history in the production of ceramics, fabrics, glass, jewelry and silversmithing.

ARH 4131 Greek Art (3). The art of Greece from the Bronze Age through the Classical Period. Prerequisite: ARH 2050.

ARH 4151 Roman Art (3). The art of Ancient Rome from the early Iron Age through the late Roman Empire.

ARH 4254 Late Gothic Art in Italy (3). Examines major monuments and artists of late medieval Italy. Artists considered include Giotto, Duccio, Simone Martinim, and Ambrogio Lorenzetti. Prerequisites: ARH 2050 or ARH 2051.

ARH 4310 Early Italian Renaissance (3). A study of Italian Renaissance art from its origins in the late Gothic period through the 15th century. Artists to be considered include Giotto, Duccio, Masaccio, Ghiberti, Brunelleschi, Donatello, Fra Angelico, Uccello, and Botticelli.

ARH 4311 The Art of Venice: The Rise of a Mediterranean Superpower (3). Analysis of artistic aspects of Venice's growth to power. Emphasis on the Church of St. Mark and the Venetian masters.

ARH 4312 Later Italian Renaissance (3). A study of the late 15th and 16th century Italian art, with emphasis on the High Renaissance and Mannerism. Artists to be considered include Leonardo da Vinci, Michelangelo, Raphael, Andrea del Sarto, Giorgione, Titian, Pontormo, and Parmigianino.

ARH 4355 18th-Century European (3). A study of European academic of art, Rococo, Neoclassicism, and early Romanticism. Artists to be considered include Poussin, Watteau, Hogarth, Reynolds, Barry, Fuseli, and David.

ARH 4413 Enlightenment and Romanticism (3). Examines the art of the European Enlightenment and Romantic movement from 1700 to 1848. Artists to be considered include Watteau, Greuze, David, Goya, Blake, Ingres, Gericault, Delacroix, and Friedrich. Prerequisites: ARH 2051 or permission of the instructor.

ARH 4414 19th-Century European Art (3). A study of Neoclassicism, Romanticism, Realism, and Impressionism. Artists to be considered include David, Ingres, Gericault, Delacroix, Goya, Courbet, Manet, Degas, Monet, and Renoir.

ARH 4430 Art and Politics (3). An investigation into the interrelationship between art and political issues, with emphasis on the 19th and 20th centuries.

ARH 4433 Realism, Impressionism, and Post-Impressionism (3). Examines the widespread engagement with modern life in European art from 1848 to 1900. Artists considered include Courbet, Manet, Monet, Renior, Degas, Seurat, Van Gogh, Gauguin, Cezanne, and Munch. Prerequisites: ARH 2051 or permission of the instructor.

ARH 4435 Modern Art in Europe, 1880-1915 (3). Examines the widespread engagement with modern life in European art from 1880 to 1915. Art movements considered include Post-Impressionism, Symbolism, Expressionism, Fauvism, Cubism, and Futurism.

ARH 4450 Modern Art (3). A survey of European and American art from 1890-1945. Prerequisites: ARH 2051 or permission of the instructor.

ARH 4470 Contemporary Art – *GL* (3). A survey of art from 1945 to the present. Prerequisites: ARH 2051 or ARH 4450 or permission of the instructor.

ARH 4471 Post 1985 Art (3). Examines the changing roles of the arts within the current socio-political context of plurality, corporate sponsorship and mass communications.

ARH 4503 Art and Shamanism (3). An overview of shamanic art and performance since its origins to the present day. It includes a survey of shamanic practices in Siberia, Central Asia, and the Americas.

ARH 4504 Primitive Art (3). An introduction to the art of widely dissimilar groups from areas on the margin or beyond the cultural influences of Europe, the Near East, India, China, and Japan. Emphasis will be placed on African, Oceanic, and North American Indian Art.

ARH 4512 African Diaspora Arts (3). A survey of the origins and transformation of African Diaspora arts, and their regional manifestations across the Americas. It

considers the Harlem Renaissance, Hip Hop, and identity politics.

ARH 4520 African Arts – *GL* (3). A study of the visual arts in Africa from the ancient world to the present. It focuses on the historical transformation and regional variability in art forms and their meanings on the Continent.

ARH 4534 Buddhist Art of Asia (3). This course investigates art, religion and literature in Asia. It examines the close connections between literary history and art history, and doctrines and visual images.

ARH 4552 Arts of China and Japan (3). This course is an introduction to and overview of the arts of China and Japan from antiquity to present covering a wide range of media in their historical, philosophical and religious contexts.

ARH 4553 A Social History of Chinese Painting (3). In examination of the social history of Chinese painting, this course looks into masters, masterpieces and art patrons of the last 3000 years.

ARH 4557 Contemporary Chinese Art (3). This course explores Chinese contemporary arts and artists in their social, economic, political and contexts.

ARH 4600 North American Indian Art (3). A survey of native North American art history with emphasis on the post-contact period. The arts of the far North, Northwestcoast, Southwest, Plains and the Eastern Woodlands.

ARH 4610 American Art (3). A survey of American painting from the Colonial period to the eve of World War I. Artists to be studied include Copley, West, Cole, Whistler, Sargent, Homer, Henri, and Bellows.

ARH 4650 Pre-Columbian Art (3). A survey of Pre-Columbian Art from approximately 2000BCE to 1500CE of Mesoamerica, Intermediate area from Honduras to Colombia and the Andes.

ARH 4652 Pre-Columbian Art of the Andes (3). A survey of Andean Pre-Columbian art and architecture. Basic characteristics of technique, style and iconography inrelation to Andean socioeconomic and cultural patterns.

ARH 4653 Mesoamerican Art History (3). A survey of Meso-American Pre-Columbian art and architecture from the Mexican and Mayan territories, 1500BCE to the Conquest.

ARH 4662 The Art of Spain and Her Colonies (3). 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.

ARH 4670 20th Century Latin American Art (3). The art of Central and South America and the Caribbean of the 20th century.

ARH 4672 A History of Cuban Art (3). A survey of the visual arts in Cuba (sculpture, painting, and prints) with emphasis on the 20th century.

ARH 4710 History of Photography (3). A chronological examination of the work of the world's most significant photographers, from photography's invention in the 1830's to the present.

ARH 4713 History of Photography Since 1945 (3). An examination of the most significant photographic works, critical concepts, and new trends which have arisen since WWII. Prerequisite: ARH 4710.

ARH 4724 History of Graphic Design (3). This course aims to examine the significant designs from the history of visual communications with a concentration on the 20th century.

ARH 4771 History of Digital Art (3). A chronological examination of the work of the world's most significant digital works in the visual arts 1900 to present.

ARH 4804 History of Aesthetics Thought in Europe, 1760-1900 (3). A study of the history of aesthetic thought in Europe from 1760 to 1900. Theorists to be considered include Winckelmann, Lessing, Diderot, Kant, Hegel, Baudelaire, and Nietzsche.

ARH 4831 Introduction to Museum Ethics, Policies and Procedures (3). Introduction to the legal, ethical status of museums and the obligation to the public regarding their governance, policymaking and financial planning.

ARH 4832 Introduction to Exhibition Development (3). This course will examine the history, theory, and practical aspects of museum exhibitions, including exhibition planning, design, and interpretation.

ARH 4834 Introduction to Curatorial Methods and Practices (3). Introduction to museum history and theory; exhibit planning, design and interpretation. Emphasis on contemporary art practices with room for the discussion of other disciplines.

ARH 4844 Spanish Art (3). Explores the art of Spain from 1492 through the early 20th century. Includes painting, sculpture and architecture.

ARH 4856 Introduction to Museum Education (3). Introduction to educational functions of a museum including interpretive principles and techniques, program design and community outreach.

ARH 4871 Women and Art (3). Women in the history of art; past, present and future.

ARH 4905 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 4910 Research (1-6). Art history, criticism, and theory in areas not covered by the present program and that the student wishes to study. Prerequisite: Permission of the instructor. May be repeated.

ARH 4941 Internship (1-6). Students will work under supervision of the Art department. Permission number is required before registering, 60 hours per semester minimum.

ARH 4943 Art History Internship Experience (0). Experience in art historical practice learned through work with licensed professionals.

ARH 4970 Art History Thesis (3). Required for art history majors. Students will research a topic and prepare a serious quality paper. Prerequisite: ARH 3811.

ARH 5325 Graduate Art in Renaissance Florence (3). For study in Florence. Course examines art of Renaissance from its beginnings in Florence with on-site classes. Prerequisite: Graduate standing.

ARH 5362 Baroque Art (3). Baroque art and architecture of the 17th and 18th centuries in Europe. Slide lectures and discussions, advanced research required.

ARH 5363 Graduate 18th-Century Art in Europe (3). A study of European academies of art, Rococo, Neoclassicism, and early Romanticism. Artists to be considered include Poussin, Watteau, Hogarth, Reynolds, Barry, Fuseli, and David. Prerequisite: Graduate standing.

ARH 5421 Graduate Enlightenment and Romanticism (3). Examines the art of the European Enlightenment and Romantic movement from 1700 to 1848. Artists to be considered include Watteau, David, Goya, Blake, Ingres, Gericault, Delacroix, and Friedrich. Prerequisite: Graduate standing.

ARH 5440 Graduate Nineteenth Century Art (3). An advanced survey of 19th-century art in its social, political, and historical context. Includes French, English, Spanish artists. Prerequisite: Graduate standing.

ARH 5441 Graduate Realism, Impressionism, and Post-Impressionism (3). Examines the widespread engagement with modern life in European art from 1848 to 1900. Artists to be considered include Courbet, Manet, Monet, Renoir, Seurat, Van Gogh, Gauguin, Cezanne, and Munch. Prerequisite: Graduate standing.

ARH 5442 Advanced Modern Art in Europe, 1880-1915 (3). Examines the widespread engagement with modern life in European art from 1880 to 1915. Art movements considered include Post-Impressionism, Symbolism, Expressionism, Fauvism, Cubism, and Futurism.

ARH 5465 Modern Art (3). Offers a history of modern art from ca 1880 to 1940. It concentrates on the study of European and American avant-garde visual art movements with emphasis on their art in modern society. For graduate students.

ARH 5482 Graduate Contemporary Art (3). Course examines the visual arts in Europe and the U.S. from the 1960's to the present with focus on major art movements, artists, and artwork. Prerequisite: Graduate standing.

ARH 5532 Beliefs Made Visible (3). This course investigates art, religion and literature in Asia. We will examine the close connections between literary history and art history, and doctrines and visual images.

ARH 5550 Advanced Arts of China and Japan (3). This course is an introduction to and overview of the arts of China and Japan from antiquity to present covering a wide range of media in their historical, philosophical and religious contexts.

ARH 5561 Literati Vision in Chinese Painting (3). In examination of the social history of Chinese painting, this course looks into masters, masterpieces and art patrons of the last 3000 years.

ARH 5663 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. For graduate students.

ARH 5671 Seminar in 20th Century Latin American Art (3). This course will examine the art of the 20th century, in a seminar focusing on painting and sculpture in Europe and America from the end of the 19th century to the present day. For graduate students.

ARH 5675 Graduate History of Cuban Art (3). A study of visual arts of Cuba in the 20th century, within historical, social, and cultural context. Prerequisite: Graduate standing.

ARH 5677 Caribbean Art: Myth and Reality (3). A survey of the contemporary art of the Caribbean with a brief introduction to its early history and a discussion of its complex social structures from country to country.

ARH 5715 History of Photography (3). A chronological examination of the work of the world's most significant photographers from photographic works and ideas from invention to the present. For graduate students.

ARH 5716 History of Photography Since 1945 (3). An examination of the most significant photographic works, critical concepts, and new trends which have arisen since WWII. Prerequisite: ARH 4710. For graduate students.

ARH 5717 History of Photography of Architecture (3). The history of photography from 1839 to now with strong emphasis on the photography of architecture.

ARH 5725 History of Graphic Design (3). This course aims to examine the significant designs from the history of visual communications with a concentration on the 20th century.

ARH 5776C History of Digital Art (3). This course examines major developments in the practice, methods and theories of digital arts in a historical context with focus on art history and visual culture.

ARH 5785 History of Object Design (3). This course aims to examine the significant objects from the history of craft and design with a concentration on the 20th century.

ARH 5797 Museum Education (3). Course examines educational functions of a museum including interpretive principles and techniques, program design and community outreach.

ARH 5805 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. Prerequisites: ARH 4450 and ARH 4470. For graduate students.

ARH 5807 Graduate History of Aesthetic Thought in Europe, 1760-1900 (3). A study of the history of aesthetic thought in Europe from 1760 to 1900. Theorists to be considered include Winckelmann, Lessing, Diderot, Kant,

Hegel, Baudelaire, and Nietzsche. Prerequisite: Graduate standing.

ARH 5837 Exhibition Development (3). This course will examine the history, theory, and practical aspects of museum exhibitions, including exhibition planning, design, and interpretation.

ARH 5845 Graduate Spanish Art (3). Explores the art of Spain from 1492 through the early 20th century. Painting, sculpture and architecture covered in slide lectures.

ARH 5850 Introduction to Museum Studies: History and Philosophy of Museums (3). Introduces the wide range of topics and issues associated with different types of American museums. Museums are examined as cultural, political, and educational institutions. Prerequisite: Graduate standing.

ARH 5851 Museum Ethics, Policies and Procedures (3). The legal, ethical status of museums and the obligation to the public regarding their governance, policy making and financial planning. Includes theoretical and practical discussions with attention to museums. Prerequisites: Graduate standing or permission of the instructor.

ARH 5852 Museum Registration Methods (3). A course in museum registration is designed to provide museum studies students with competency in all areas of object care, registration and information management. Prerequisites: Graduate standing or permission of the instructor.

ARH 5855 Curatorial Methods and Practices (3). This course examines museum history and theory; exhibit planning, design, and interpretation. Emphasis on contemporary art practices with room for the discussion of other disciplines.

ARH 5872 History of Women Artists (3). Surveys the history of women artists with some discussion of the history of images of women. For graduate students.

ARH 5874 Women in Latin American Art (3). Introduces women in Latin American art from its Pre-Columbian beginnings through the twentieth century. Emphasis will be on painting and sculpture of the twentieth century.

ARH 5881 Advanced Art and Politics (3). The course explores the political role of art in Europe and Latin America from ancient Greece to the present. It also traces how the idea of the "political" changed from the ancient to modern periods. Prerequisite: Graduate standing.

ARH 5896 Seminar in the History and Criticism of Art (3). Examines particular periods or subject areas in the history of art. Course content varies from semester to semester, and with a change in theme, the course may be repeated. Prerequisites: Graduate standing or permission of the instructor.

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. Prerequisites: ARH 4450 and ARH 4470. For graduate students.

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 of 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. For graduate students.

ARH 5913 Research (1-6). Art history, criticism, and theory in areas not covered by the present that the student wishes to study. Prerequisite: Permission of the instructor. May be repeated. For graduate students.

ARH 5940 Internship Experience (3). Supervised work experience in approved institution. Prerequisite: Permission of the instructor. May be repeated.

ART 1201C 2D Design (3). Studio course introducing the basic art elements such as line, value, and color to develop the students vocabulary and awareness of two dimensional potential in various media.

ART 1203C 3D Design (3). Studio course introducing the basic elements inherent in three-dimensional works of art. Shape, mass, balance, proportion, and scale are elements which will be explored.

ART 2021C Introduction to 3D Animation (3). This course will introduce students to the fundamental terminology, concepts, and techniques of creating computer generated 3D animation. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 2025C Introduction 2D Animation (3). This course will introduce students to the fundamental terminology, concepts, and techniques of creating traditional and computer generated 2D animation. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820.

ART 2205C Color Theory (3). This course is designed to familiarize the student with the theory and principles of color as it relates to the arts. Lecture, demonstration, and application through assigned projects will be included. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 2300C Beginning Drawing (3). An introduction to the fundamentals of drawing. The course equips the student with a variety of basic skills, approaches and concepts explored through a comprehensive range of media.

ART 2330C Beginning Figure Drawing (3). Drawing from model. Student will study gesture, movement, form, volume, light, and other varied media. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 2400C Beginning Printmaking (3). Introduces the student to a number of processes. Explores primarily one of the following: etching, lithography or screen printing with excursions into relief collagraph, monotype and color as appropriate. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 2500C Beginning Painting (3). Introduction to development of expression, through individual understanding of tools, materials, technique, perception and vocabulary of painting. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 2602C Digital Imaging (3). This is an introduction to digital image manipulation. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 2608C Digital Media Foundation (3). A dynamic, inter-disciplinary approach to the creation of video art and interactive media work. May be repeated. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 2622C Introduction to Experimental Video Art (3). Introduction to basic practices of video media with emphasis on making video/audio work. May be repeated. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 2648C Introduction to Digital Art Lab (3). An introduction in the basic practices of new media for making digital art. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 2701C Beginning Sculpture (3). Beginning sculpture students will be given assigned problems structured to study the forms in nature and the work of other sculptors. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 2705C Beginning Figure Sculpture (3). Introduction to figure sculpture. Basic studio course involving the study and rendering of the human figure using clay as the primary medium.

ART 2750C Beginning Ceramics (3). A beginning course for art and non-art majors that introduces the fundamentals of throwing and glaze applications. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 3008 Introduction to Visual Arts Marketing (3). Introduction to marketing communication and tools; considers business management concerns for the current art practice organization. Completion of this course results in a digital portfolio.

ART 3023C Intermediate Animation (3). A continued study in the practices of animation for making digital art. Prerequisites: ART 2021C or ART 2025C.

ART 3115C Low Temperature Ceramics (3). An in-depth study of low-temperature clays and glazes, and exploration of a variety of glazing and firing techniques, including lustres, residual salt, raku, white and red earthenware, etc.

ART 3158C Small Scale Metal Fabrication and Castings (3). Introduction to the technical and conceptual understanding needed to cast and fabricate soft metals.

ART 3163C Stop Motion and Compositing (3). An introduction to basic practices of new media with emphasis on experiments in animation and basic operations for developing imagery through time. Course may be repeated.

ART 3310C Intermediate Drawing (3). Further development of technical drawing skills. Focus is on experimentation with various materials and processes, with an emphasis on personal direction. May be repeated. Prerequisite: ART 2300C.

ART 3314C Classical Drawing (3). Development of conceptual, perceptual and technical classical drawing skills in various. Emphasis will be given to the understanding of composition, perspective, as well as medium applications. Prerequisite: ART2300C

ART 3332C Intermediate Figure Drawing (3). Further exploration of the live human figure as it determines our understanding of subject, theme, composition and meaning. May be repeated. Prerequisite: ART 2330C.

ART 3335C Portrait Drawing (3). Development of perceptual and technical drawing skills in portraiture with historical perspective. Emphasis will be given to the understanding of mass conception of anatomy and relational proportions. Prerequisite: ART 2300C

ART 3388C Integrative Biological Drawing and Field Notebooks (3). This course integrates drawing with science by developing acute skills in observation, visualizing data, and diagramming, with an emphasis on color, through specimen drawing and field notebooks.

ART 3402C Intermediate Printmaking (3). Exploration and expansion of experimental print processes as they relate to student's own imagery and acquired skills. Greater independence and personal direction. May be repeated. Prerequisite: ART 2400C

ART 3504C Intermediate Painting (3). Intermediate painting with expectation of an extended practice in observational live model painting and exploration of meaning of materials and techniques. May be repeated. Prerequisite: ART 2500C.

ART 3512C Landscape Painting (3). Development of perceptual and technical painting skills in landscape painting as well as the understanding of light and color in the environment, atmospheric perspective and medium applications. Prerequisite: ART 2500C

ART 3515C Still Life Painting (3). Development of perceptual and technical painting skills in still life painting as well as the understanding of light and color, atmospheric perspective and medium applications. Prerequisite: ART 2500C

ART 3560C Figure Painting (3). Development of perceptual and technical painting skills in figure painting. Emphasis will be given to the understanding of the figure palette as well as medium applications. Prerequisite: ART 1201C, ART 2300C, ART 2500C.

ART 3565C Beginning Fiber Based Art (3). Introduces the technology of creating imagery on and with the use of clothing, thread, printmaking, ink, and photography. May be repeated. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 3569C Portrait Painting (3). Development of perceptual and technical painting skills in portraiture. Emphasis will be given to the understanding of the portrait palette as well as medium applications. Prerequisites: ART 2500C and ART 3335C

ART 3593C Collage/Assemblage (3). Addresses content development issues as well as formal design and technical problems concerning collage and assemblages. May be repeated.

ART 3617C Intermediate Experimental Video (3). A continued study in the basic practices of video media with emphasis on video/audio work. Prerequisite: ART 2622C.

ART 3638C Video Installation (3). Explores concepts, history, and methods for production of video artworks. May be repeated.

ART 3642C Design Object and Fabrication (3). This course introduces students to methods used in the process of designing and fabricating art objects using digital components and material exploration. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 3647C Internet Art (3). This course is an introduction to basic practices of Internet art with emphasis on historical, social and cultural contexts of networks, access and distribution. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 3665C Modeling and Prototypes (3). An introduction to the basic practices of 3D digital sculpture and new media with emphasis on digital modeling, 3D printing and assemblage of mixed media. Course may be repeated.

ART 3666C Story Telling and Character Development (3). This class explores methods of storytelling focusing on narrative and character development. Relate traditional mediums and technology to contemporary art production. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 3681C Introduction to Time Art (3). An introduction to the theory and practice of time based media. May be repeated.

ART 3682C Intermediate Stop Motion and Compositing (3). Development of new media and electronic art skills for intermediate students with experience in digital media. May be repeated. Prerequisite: ART 3681C.

ART 3710C Intermediate Sculpture (3). Intermediate sculpture is structured for the student who has acquired basic skills and is ready to test their creative abilities through individualized projects. May be repeated. Prerequisite: ART 2701C.

ART 3713C Intermediate Figure Sculpture (3). A basic sculpture class emphasizing anatomical study with 2 and 3 dimensional rendering in clay, training the student to observe and accurately model the human figure. May be repeated. Prerequisites: ART 2705C or permission of the instructor.

ART 3760C Intermediate Ceramics (3). Intermediate ceramics is designed for the student who has acquired the fundamental skills taught in basic ceramics. Projects are designed to advance technical skills and aesthetic growth. May be repeated. Prerequisite: ART 2750C.

ART 3789C World Ceramics (3). An introduction to clay through studio practice combined with the study of technical and aesthetic developments in ceramics with selected cultures and historical periods throughout the world. May be repeated.

ART 3809C Performance Art (3). A workshop on the history and practice of performance art for the fine arts student. Focus on intersections with other visual arts media and social contexts. Not a course in dance, music or theater. May be repeated.

ART 3820 Visual Thinking I – *GL* (3). VT1 explores media/techniques based practice and introduces global theories, content-based practices, studio disciplines, and the ability to assess their own art practice in a global context. For visual arts majors only.

ART 3822 Visual Thinking II (3). An advanced studio based course with a strong theoretical component where concepts are examined through a variety of approaches and media. Prerequisite: ART 3820.

ART 3837C Materials and Techniques (3). Instruction in the craft of painting. Demonstration and exercise in the following will be included: color, pigments, ground, all major media, studio and equipment. May be repeated.

ART 3843 Land Art/Earth Art and Coastal Environment (3). Explores the history and practice of Land Art. Artistic practice entails collaborative projects that utilize multidisciplinary approaches to address environmental issues and the public role of art. May be repeated.

ART 3850 FIU in New York (3). A study of New York's art world and contemporary artists in New York City. May be repeated.

ART 3930 Special Topics in Studio Art (3). Rotating special topics in studio art. May be repeated with change of content.

ART 3949C Cooperative Education in Visual Arts (3). A student majoring in visual arts may spend several semesters fully employed in industry in a capacity relating to the major. Prerequisite: Permission of the chairperson.

ART 4271C Community Comic Book (3). An outreach course that facilitates the telling of a community story or narrative in the medium of the comic book, which will result in a printed comic book. Course may be repeated. Prerequisites: ART 2300C, ART 1201C, ART 3681C.

ART 4312C Advanced Drawing (3). Students are expected to possess an accomplished level of skills and strong personal direction in order to focus on the development of a consistent body of personal work. May be repeated. Prerequisite: ART 3310C.

ART 4322C Advanced Classical Drawing (3). Further development of conceptual, perceptual and technical classical drawing skills in various mediums, and the visual articulation of textural, spatial and expressive qualities. May be repeated. Prerequisite: ART 3314C

ART 4333C Advanced Figure Drawing (3). Students are expected to possess a developed level of skill in drawing the figure and a strong personal direction. May be repeated. Prerequisite: ART 3332C.

ART 4335C Advanced Portrait Drawing (3). Further Development of perceptual and technical drawing skills in portraiture. Emphasis will be given to the visual articulation of value, morphology and expressive qualities. May be repeated. Prerequisite: ART 3335C

ART 4387C Thinking Through Drawing (3). This course introduces the advanced research student to the process of drawing as an essential tool for thinking, learning, deeper cognition, idea generation, reasoning and visual literacy.

ART 4403C Advanced Printmaking (3). Instructional emphasis will be toward individual solutions. Student expected to independently research technical problems. May be repeated. Prerequisite: ART 3402C.

ART 4505C Advanced Painting (3). Advanced painting with expectation of intense observational practice with a live model, and further investigation into technical and material exploration along with conceptual issues. May be repeated. Prerequisite: ART 3504C.

ART 4514C Advanced Landscape Painting (3). Further development of perceptual and technical painting skills in landscape painting, as well as the visual articulation of color harmony, textural and spatial qualities. May be repeated. Prerequisite: ART 3512C

ART 4516C Advanced Still Life Painting (3). Further development of perceptual and technical painting skills in still life painting, as well as the visual articulation of color harmony, textural and spatial qualities. May be repeated. Prerequisite: ART 3515C

ART 4517C Advanced Portrait Painting (3). Further development of perceptual and technical painting skills in portraiture. Emphasis will be given to the visual articulation of color temperature, textural and spatial qualities. May be repeated. Prerequisites: ART 3569C

ART 4560 Figure Painting (3). This course is designed for students to learn the fundamental skills and knowledge of figure painting. Studio projects will help students understand the basics of painting from life. Prerequisites: ART 1201C, ART 2300C, and ART 2500C.

ART 4566C Intermediate Fiber Based Art (3). Covers fiber based techniques as applied to the context of contemporary art practices. May be repeated. Prerequisite: ART 3565C.

ART 4615C Advanced Animation (3). An advanced study in the practices of animation for making digital art. Prerequisite: ART 3023C.

ART 4636C Advanced Experimental Video Art (3). Advanced aesthetic, conceptual, and technical aspects of visual electronic media. May be repeated. Prerequisite: ART 2622C.

ART 4637 Independent Film Since 1960 (3). Examination of the structural and ideological attributes of narrative and documentary cinema, concentrating on alternatives to the studio system model. Viewing of selective history of independent film, and readings and discussions of theoretical texts. May be repeated.

ART 4649C Intermediate Digital Art Lab (3). A continued study in the basic practices of new media for making digital art. Prerequisite: ART 2648C.

ART 4650C Advanced Digital Art Lab (3). This is an advanced investigation of digital arts. Prerequisite: ART 4649C.

ART 4660C Digital Art Presentation (3). This course covers the use of digital photography for professional use; covering documentation and communications through the use of various technologies. Prerequisites: At least one of the following: ART 3820, ART 3822, and PGY course, ARC 1131 or ARC 1132.

ART 4711C Advance Sculpture (3). Advanced sculpture is structured for students who have acquired intermediate skills and are ready to test their technical skills and conceptual growth beyond the intermediate level. May be repeated. Prerequisite: ART 2701C, ART 3710C

ART 4714C Advanced Figure Sculpture (3). Advanced figure sculpture. Students develop skills in representational structure and anatomy from model and model-making techniques. May be repeated. Prerequisites: ART 3713C or permission of the instructor.

ART 4738C Methods and Materials of Mold Making and Casting (3). Methods and materials of mold making and casting is a studio course designed to provide instruction and "hands-on" experience in the use of a wide range of art mold making and casting materials. May be repeated.

ART 4768C Advanced Ceramics (3). Focuses on the development of a well produced, accomplished body of work that reflects the individual's ideas. May be repeated. Prerequisite: ART 3760C

ART 4842C Installation Art (3). This special topics course explores the genre of installation and site-specific art through history and in terms of its ongoing influence on contemporary visual culture. May be repeated. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 4856 Critical Social Practice (3). Examines both historical and contemporary examples of the intersection of art and social practices. Students will develop and execute collaborative art projects within social contexts. Prerequisite: Permission of the instructor. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 4894 Writing Contemporary Art: A Seminar for Artists, Curators, and Historians (3). Students develop writing skills appropriate to artistic and curatorial practices in a dialog between artists, art historians and curators on contexts influencing art's production and reception. Prerequisites: ART 1201C, ART 1203C, ART 2300C, ART 3820

ART 4906C Directed Study (VAR). A group of students, with the approval of the art faculty, may select a master artist teacher and pursue a course of art study in selected areas such as graphic design, film, multimedia, environmental design, sound, etc. Arrangements must be made at least one semester before course is offered. Maybe repeated.

ART 4910C 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 4940 Art Internship Experience (0). Experience in art practice learned through work with licensed professionals.

ART 4945 Art Gallery and Display (1-3). The study and participation of all aspects of gallery operations, from daily operation to special exhibitions and events. Permission of the Gallery Director. May be repeated.

ART 4949C Cooperative Education in Visual Arts (3). See ART 3949C. May be repeated.

ART 4952C Thesis I (3). The course will expose students to fundamental issues and ideas current in the field of art. An inquiry into the structure of art and its relationship to society, knowledge, and the self. Prerequisites: ART 3822

ART 4953C Thesis II (3). Studio work in student's major area with major professor, resulting in a student exhibit. Arrangements with major professor one semester before graduation. Written thesis required. Prerequisites: Fall and Spring only and ART 4952C.

ART 5017C 2D Animation (3). This course will introduce graduate students to advanced terminology, concepts, and techniques of creating computer generated 2D animation.

ART 5018C 3D Animation (3). This course will introduce graduate students to advanced terminology, concepts, and techniques of creating computer generated 3D animation.

ART 5079 Grant Writing in the Visual Arts (3). This course will address grant writing in the visual arts. The course will focus on government and foundation proposal writing including effective writing techniques and budget procedures.

ART 5135C Graduate Fibers (3). Graduate level studio course, explores issues of the fiber medium and its context in contemporary art practice. Prerequisite: Fiber Based Painting ART 5565C.

ART 5156 Small Scale Metal Casting (3). This course offers an introduction to the technical and conceptual understanding needed to cast and fabricate small scale metals to create objects. May be repeated.

ART 5167C New Media and Experimental Animation (3). Advanced studies to the basic practices of new media with emphasis on fundamental strategies for making experiments in animation, installation and sound art. May be repeated.

ART 5282C Design Object and Fabrication (3). This course offers graduate students techniques and methods used in the process of designing and fabricating art objects. May be repeated.

ART 5390C Drawing (3). Advanced drawing. May be repeated. Prerequisites: ART 4315C, or equivalent, or permission of the instructor. For graduate students.

ART 5391C Figure Drawing (3). Advanced figure drawing. May be repeated. Prerequisites: ART 4333C, or equivalent, or permission of the instructor. For graduate students.

ART 5408C Printmaking (3). Advanced printmaking. May be repeated. Prerequisite: Permission of the instructor. For graduate students.

ART 5580C Painting (3). Advanced painting. May be repeated. Prerequisite: Permission of the instructor. For graduate students.

ART 5583C Graduate Still Life Painting (3). Graduate still life painting focuses on highly developed perceptual and technical painting skills in various aspects of still life painting. May be repeated. Prerequisite: ART 4516C

ART 5655C Digital Art Lab (3). This is an advanced graduate level studio course in the digital arts experimenting with and finding compelling strategies for digital arts production.

ART 5667C Storytelling and Character Development (3). This class explores methods of animation focusing on storytelling and character development at a graduate level. Students will experiment with mixed media, animation, audio and video projects. May be repeated.

ART 5668 3D Digital Sculpture and Experimental Virtual Environments (3). An advanced study of 3D digital sculpture and new media with emphasis on fundamental strategies for making experiments in digital modeling, 3D printing and assemblage of mixed media. May be repeated.

ART 5676C Animation Studio (3). This course is an advanced investigation to the terminology, concepts, and techniques of creating complex computer-generated animation. May be repeated.

ART 5677C Experimental Video Art (3). Graduate level research of digital media with emphasis on fundamental strategies for making video/audio work. May be repeated.

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. Course may be repeated. Prerequisite: ART 3681C. For graduate students.

ART 5740C Sculpture (3). Advanced sculpture. May be repeated. Prerequisite: Permission of the instructor. For graduate students.

ART 5746 Methods and Materials of Mold Making and Casting (3). This course offers graduate students techniques and methods used in the process of mold making and casting. May be repeated.

ART 5790C Ceramics (3). The graduate student will explore all aspects of expression in clay and glaze. Students will be expected to be mostly self-directed. Prerequisite: Permission of the instructor. May be repeated. For graduate students.

ART 5792C Figure Sculpture (3). Advanced figure sculpture. May be repeated. Prerequisite: Permission of the instructor. For graduate students.

ART 5815C Graduate Seminar: Body and Art (3). Focuses on the relationship between the body, materials and space as used in art and exhibitions and examines the social conventions that order our understanding of these issues. Prerequisite: Graduate standing.

ART 5844C Installation Art (3). Explores the genre of installation art and site-specific art through history and provides a context for collaboration with the Wolfsonian Museum as both site and subject for art specific installation by students. Prerequisite: Permission of the instructor.

ART 5853 Visual Arts Marketing (3). Students seeking an advanced degree in studio art will be able to appraise and present a portfolio to an appropriate organization. Prerequisite: Graduate standing.

ART 5855 Graduate FIU in New York (3). A study of New York's art world and contemporary artists in New York City.

ART 5897 Advanced Art Writing: A Seminar for Artists, Curators, and Historians (3). Students write professional venues appropriate to artistic and curatorial practices in a dialog between artists, art historians and curators on contexts influencing art's production and reception. Prerequisites: Current standing as an MFA candidate in the Art & Art History Department or permission of the instructor.

ART 5907C Directed Study (VAR). A course of study in a selected area under the supervision of an appropriate faculty member. Mandatory for MFA students in semester of graduation. Advanced approval by faculty and graduate advisory required (3cr). May be repeated.

ART 5910C Research (1-6). Graduate 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. For graduate students.

ART 5931C New Media Seminar (3). This seminar course examines major developments in the practice, methods and theories of new media in a contemporary context with focus on art history and visual culture. May be repeated.

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. Required for MFA students. Prerequisite: Graduate standing.

ART 5939C Graduate Art Seminar I (3). Graduate 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. Required for MFA students. Prerequisite: Graduate standing.

GRA 2106C Typography (3). Aims to familiarize students with the typographic terms, classical and contemporary fonts and technologies. Students will create typographic compositions and systems while learning to appreciate typography.

GRA 2111 Graphic Design I (3). Foundation skills for the graphic design discipline. Students build their vocabularies in visual communication, working with basic design elements and principles.

GRA 2151C Illustration (3). Aims to provide students with the skills to illustrate using a variety of mediums from traditional to digital illustrations. It is an introduction to visual storytelling.

GRA 3803C Design for Mobility (3). This is an intermediate graphic design course that provides extensive study of the design principles and their applications to interactive mobile solutions for the screen. Prerequisite: GRA 2106C.

GRA 3817 Graphic Design II (3). Intermediate level concepts for the graphic design discipline. Students articulate their vocabularies in visual communication, working with complex design concepts. Prerequisite: GRA 2111.

GRA 4189C Thesis I/Portfolio (3). This course provides the skills to create your printed and web-mobile design portfolio as collateral pieces to send to prospect employers.

GRA 4818 Graphic Design III (3). This course offers advanced concepts for the graphic design discipline. Students master their vocabularies in visual communication, working in complex design concepts. Prerequisite: GRA 3817.

GRA 4940 Graphic Design Internship (3). Students will complete an internship aimed at experiential learning in the context of an art or design related profession. Prerequisite: GRA 4818.

GRA 5535 Typography (3). This is an advanced course where graduate students will master typographic terms, classical and contemporary fonts and technologies. May be repeated.

GRA 5930 Design Seminar I: Methodologies in Design Practice (3). This seminar course examines major developments in the practice, methods and theories design in contemporary context with focus on art history and visual culture.

GRA 5931 Design Seminar II: Experience Design (3). This seminar course examines major developments in the practice, methods and theories of design in a contemporary context with focus on interactivity, technology and culture.

GRA 5932L Design Studio (3). This is an advanced and graduate level research lab for graphic design and object design students. May be repeated.

GRA 5941 Graduate Internship (3). Students will complete an internship aimed at experiential learning in the context of an art or design related profession. May be repeated.

IDS 3336 Artistic Expression in a Global Society – *GL* (3). Exploration of the interrelatedness of societies and culture through language, music and art are explored to appreciate how individuals convey thought and respond to events from various perspectives.

PGY 2110C Beginning Color Photography (3). An introduction to color materials and processing. Frequent critiques of students' work. Prerequisites: PGY 2401C or permission of the instructor.

PGY 2401C Beginning Photography (3). Introduction to the practice of still photography. Includes dark room work and camera skills. Frequent critiques of student work.

PGY 2800C Beginning Digital Photography (3). Introduction to the practice of documentary digital photography. Includes basic digital camera skills, imaging software, ink jet printing and critiques.

PGY 3153C Intermediate Color Photo (3). Intermediate color photography requiring refinement of technique and personal vision. Frequent critiques. May be repeated. Prerequisite: PGY 2110C.

PGY 3410C Intermediate Photography (3). Intermediate photography requiring refinement of technical skills and personal vision. Frequent critiques. May be repeated. Prerequisite: PGY 2401C.

PGY 3411C Photography III (3). Continuing development of skills and personal portfolio projects. Frequent critiques. Prerequisite: PGY 3410C.

PGY 3822C Intermediate Digital Photography (3). Intermediate documentary digital photography, requiring refinement of technical skills and personal vision. Includes image enhancement, scanning, ink jet printing and critiques. May be repeated. Prerequisites: PGY 2800C or PGY 3410C or permission of the instructor.

PGY 4154C Advanced Color Photography (3). Advanced color photography with an expectation of highly skilled technical and carefully evolved concerns that may continue in subsequent semesters. May be repeated. Prerequisite: PGY 3153C.

PGY 4155C Color Photography IV (3). Advanced color photography with portfolio and exhibition project for BFA exhibition. Prerequisite: PGY 4154C.

PGY 4412C Advanced Photography (3). Advanced photography with the expectation of highly skilled technique and a carefully evolved project that might continue into subsequent semesters. May be repeated. Prerequisite: PGY 3411C.

PGY 4413C Photography V Advanced (3). Advanced photography for project and portfolio continuation suitable for BFA exhibition. Prerequisite: PGY 4412C.

PGY 4440C Collaboration in Photography (3). An advanced photography course for majors and accomplished non-majors. Includes introduction to collaborative genres, slide/lectures, demonstrations, fieldwork and intensive critique of student's work. Prerequisites: PGY 3410C and PGY 4412C.

PGY 4611C Digital Photography and Social Media (3). A non-printing digital photo course which offers a critical exploration of the unique opportunities technology provides for producing works of cultural importance.

PGY 4644C Documentary Photography (3). The course provides students with strategies for effective visual communication through digital photography with an emphasis on documentary photography.

PGY 4823C Advanced Digital Photography I (3). Advanced documentary digital photography with an expectation of highly skilled technical ability, evolved personal vision and aesthetic direction. Includes individual and group critiques. May be repeated. Prerequisites: PGY 3822C or permission of the instructor.

PGY 5425C Photography (3). Advanced photography. May be repeated. Prerequisites: PGY 4155C, or equivalent, or permission of the instructor. For graduate students.

PGY 5530C Color Photography (3). Advanced color photography. Course may be repeated. Prerequisites: PGY 4154C or permission of the instructor. For graduate students.

PGY 5649C Advanced Digital Photography II (3). Advanced documentary digital photography, requiring highly evolved technical skill and aesthetic direction. May be repeated. For graduate students who have completed prerequisites. Prerequisites: PGY 4823C or permission of the instructor.

Communication

Aileen Izquierdo, *Instructor and Interim Chair*
Rokeshia Renné Ashley, *Visiting Assistant Professor*
Margo Berman, *Professor*
Joann Brown, *University Instructor*
Cynthia Carrico, *Visiting Instructor*
Davina Clarke, *Instructor*
Jessica Delgado, *Instructor*
Grizelle De Los Reyes, *Senior Instructor*
Nathalie Desrayaud, *Visiting Assistant Professor*
Maria Elena Echarri *Visiting Instructor*
Nicole Kashian*, Assistant Professor*
Nathan Kurland *Visiting Instructor*
Yu Liu, *Assistant Professor*
Maria Ines Marino, *Senior Instructor*
Elizabeth Marsh, *Assistant Professor*
Hugo Ottolenghi, *Visiting Instructor*
David Park, *Associate Professor*
Raquel Perez, *Visiting Instructor*
Mihaela Plugarasu, *Visiting Instructor*
Heather Radi-Bermudez, *Instructor*
Rachel Rashé Reed, *Instructor*
Lilianne Saviñon, *Visiting Instructor*
Crystal Sears, *Visiting Instructor*
Sigal Segev, *Associate Professor*
Brian Siress, *Visiting Instructor*
John Sotham, *Visiting Instructor*
Alfred Soto, *Visiting Instructor*
Carlos Miguel Suris, *Senior Instructor*
Maria Elena Villar, *Associate Professor*
Weirui Wang, *Associate Professor*

The Department of Communication focuses on developing skills that are essential for effective leadership, critical decision making, and strategic influence through interpersonal and mediated communication. Our liberal arts and professional degrees prepare students for successful careers in organizational communication, advertising, and public relations in our diverse communities and our global digital ecosystem. Our graduate programs give students a global perspective in strategic communication to help them prepare for advancement in advertising, public relations, and integrated communication careers.

The Department of Communication offers a liberal arts degree (B.A. in Communication Arts) and a professional degree (B.S. in Public Relations, Advertising and Applied Communication) which prepare students for successful careers in organizational communication, advertising, public relations, and applied communication in diverse environments and digital ecosystems. Our professional degree is accredited by Accrediting Council on Education in Journalism and Mass Communications. Students pursuing the B.A. can select between tracks in Organizational Communication Studies; Arts & Performance Studies; and Media and Design Studies. All programs are available fully online. The faculty and staff of the Department are committed to the personal and academic growth of every student and we support individual success through quality teaching – both in the traditional and the digital classrooms – and opportunities for service learning, study abroad, internships and independent research.

In addition to diverse course offerings, the nationally recognized FIU Debate Team, the Communication Arts Studio, the student chapter of TEDx FIU, the student chapter of Toastmasters FIU and the FIU chapter of Lambda Pi Eta, the national honor society for communication arts students, BOLD: the student strategic communication agency, AdFed and the award winning chapter of PRSSA are all housed within the department.

Lower Division Preparation

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Bachelor of Science in Communication

Degree Program Hours: 120

The aim of the undergraduate communication program at the University is to prepare students who:

1. are broadly educated, demonstrated by a grasp of the liberal arts and an appreciation of the value of knowledge and learning, including exploration in some depth of a specific field of knowledge outside communication;
2. can think clearly and objectively about the complexities of the modern world, formulate concepts and effectively communicate this information to targeted audiences;
3. understand the social, ethical, economic, philosophical, and political aspects of the communication professions in a global society; and
4. are proficient in the basic skills necessary to meet professional requirements at the entry level in one of the tracks offered by the school (for professional degrees). This shall include the ability to write English to professional standards and to master the mechanics of grammar, spelling, and punctuation.

Common Prerequisite Courses and Equivalencies

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Prerequisite for Upper Division

To be able to enroll in the upper division courses in the major, FIU undergraduates and transfer students must complete 60 credits, successfully pass MMC 3003 (Journalism + Media Orientation) and have a minimum cumulative GPA of 2.85 (this includes all transfer work, in addition to current FIU work).

School Requirements: (18 credits)
Students must take the following school requirements:

MMC 3003	Journalism + Media Orientation	0
MMC 3104C	Writing Strategies for Reaching a Mass Audience	3
MMC 3303	Global Media and Society – *GL*	3
MMC 4200	Mass Communication Law and Ethics	3
VIC 3400	Visual Design for Globalized Media – *GL*	3
RTV 3531	Multimedia Production	3
IDS 3309	How We Know What We Know	3

Major Requirements: (18 credits)
Students must take the following major requirements:

ADV 3008	Principles of Advertising	3
PUR 3000	Principles of Public Relations	3
ADV 3200	Creative Concepts	3
MMC 4609	Integrated Communication Research Strategy	3
PUR 4101	Digital Editing and Design	3
MMC 4410	Integrated Communication Campaigns	3

Track Requirements: (6 credits)
Advertising majors must take 6 credits of the following advanced advertising courses:

ADV 4101	Advanced Concepts in Advertising Copy and Design (portfolio development)	3
ADV 4300	Media Planning	3
ADV 4601	Account Planning	3
ADV 4711	Advanced Creativity: Portfolio Workshop	3

OR

Public relations majors must take the following two specialization courses:

PUR 4100	Writing for Public Relations	3
PUR 4106	Advanced Public Relations Writing for Multimedia Platforms	3

Departmental Electives: (6 credits)
(Including but not limited to the following courses)

ADV 4201	Advertising and Society	3
ADV 4322	Mobile Communication and Advertising Strategies	3
ADV 4323	Strategic Branding and Social Media	3
DIG 3001	Introduction to Digital Media	3
DIG 3110	Web Design and Interactive Digital Media	3
DIG 4800	Digital Theories	3
MMC 4304	Strategic Communication Seminar: Multicultural Marketing Communication	3
MMC 4631	Audience Analysis, Public Opinion and New Media	3
MMC 4936	Special Topics	3
MMC 4945	Communication Internship	0-3
PUR 4940	Practicum: BOLD Agency	3

Internship
Internships are available for Advertising majors who want to gain experience in the field. Students who have met all undergraduate requirements, completed MMC 3104C, received consent from the Department Chair and have met all other curricular requirements outlined in the internship packet may elect an internship in consultation with their advisor. The internship requires a minimum of 300 hours of work for 3 academic credits.

Required Area of Concentration: (12 credits)
In consultation with an advisor, students must elect a coherent series of four upper-division courses (12 semester hours) in a non-communication area related to their career emphasis.

B.S. in Public Relations, Advertising, and Applied Communication

Admission Requirements
In order to be eligible to take all major-specific requirements, first time in college and transfer students seeking this degree must successfully pass ENC 1101 Writing and Rhetoric I and ENC 1102 Writing and Rhetoric II with a C, and have a minimum cumulative GPA of 2.85, including any transfer work.

Graduation Requirements
Students must pass with a C or better the following three SCJ required courses that are built into the upper-level 60 credit program requirements:

- MMC 3303 Global Media and Society (which also satisfies one Global Learning requirement),
- MMC 3123 Writing Fundamentals for Communicators
- IDS 3309 How We Know What We Know (which also satisfies the FIU Humanities core requirement and one Global Learning requirement).

Before taking major specific courses, students must pass MMC 3303, MMC 3123 and IDS 3309 with a C or better in order to take the remaining upper division courses, usually at the start of their third semester for first-time students and second semester for transfers.
Students need a minimum of 120 credit hours to be eligible for a Bachelor's degree. To be eligible for graduation, a student must have a minimum 2.75 GPA in all courses required for the degree.

School of Communication and Journalism Core (15 credits)

MMC 3123	Writing Fundamentals for Communicators	3
IDS 3309	How We Know What We Know – *GL/GRW*	3
MMC 3003	Journalism + Media Orientation	3
MMC 3303	Global Media and Society – *GL*	3
MMC 4200	Mass Communication Law and Ethics	3
VIC 3400	Visual Design for Globalized Media –*GL*	3

In order to be eligible to take the advanced (4000-level) major-specific requirements, first time and transfer students seeking this degree must successfully pass MMC 3003 (Journalism + Media Orientation, a zero credit course), and have a minimum cumulative GPA of 2.85, including all transfer work in addition to at least 15 hours of FIU work.

Major Specific Requirements (18 credits):

ADV 3008	Principles of Advertising	3
	or	
PUR 3000	Principles of Public Relations	3
COM 3520	Designing Communication Strategies	3

ADV 4323	Strategic Branding and Social Media	3
COM 4310	Research Methods in Communication	3
	or	
MMC 4609	Integrated Communication Research Strategy	
PUR 4101	Digital Editing and Design	3
COM 4958	Senior Capstone Seminar: Integrated Campaign	3

Specialization Courses (15 credits)
Students will take five courses (15 credits) that are critical to the advertising, public relations or applied Communication area in which they decide to specialize.

ADV 3008	Principles of Advertising	3
ADV 3200	Creative Concepts	3
ADV 4101	Advanced concepts in Creative Design and Copywriting	3
ADV 4201	Advertising and Society	3
ADV 4300	Media Planning	3
ADV 4322	Mobile Advertising	3
ADV 4323	Strategic Branding & Social Media	3
ADV 4711	Portfolio Workshop	3
ADV 4602	Account Planning	3
ADV XXXX	BOLD Practicum- Advertising	3
ADV 4411	Multicultural Marketing Communication	3
ART 3637C	Digital Media Foundation	3
ART 3648C	Introduction to Digital Art Lab	3
COM 3110	Business and Professional Communication	
COM 3471	Social Media's Impact on Communication	3
COM 4022	Health Communication	3
COM 4930	Special Topics or Study Abroad	3
COM 4940	Communication Internship	1-6
DIG 3001	Introduction to Digital Media	3
DIG 4800	Digital Theories	3
GRA 2100C	Introduction to Graphic Design	3
IDS 3917	Vertically Integrated Projects – B	3
JOU 3003	Introduction to Journalism	3
MMC 4302	Social Media and Globalization	3
MMC 4304	Multicultural Marketing Communication	3
MMC 4631	Audience Analysis	3
PGY 4611C	Digital Photography and Social Media	3
PUR 3000	Principles of Public Relations	3
PUR 4100	Writing for PR	3
PUR 4106	Advanced Public Relations Writing for Multimedia Platforms	3
PUR 4940	BOLD Agency Practicum	3
PUR 4XXX	Strategic Presentation of Data	3
RTV 3007	Introduction to Television	3
SPC 3210	Communication Theory	3
SPC 4445	Communication for Effective Leadership	3

Area of Concentration (12 credits)
Students must select or design a 12-hour concentration in a discipline outside the major. The concentration allows students to develop deeper expertise in an area of interest that will supplement and enrich their career aspirations. Several suggested areas are outlined below, but students also may design their own with permission of the department chair. NOTE: CARTA courses used toward specialization as part of the degree may not also be applied to an area of concentration.

Business Communication

COM 3110	Business and Professional Communication	3
SPC 3602	Advanced Public Speaking	3
SPC 4445	Communication for Effective Leadership	3
COM 4462	Conflict Management	3

Communication Arts

COM 4510	Political Communication	3
SPC 3230	Rhetorical Communication	3
SPC 3602	Advanced Public Speaking	3
SPC 3540	Persuasion	3

Social Media and E-Marketing

MAR 3023	Introduction to Marketing – GL	3
MAR 4733	Digital Marketing	3
MAR 4233	Social Media Marketing	3
MAR 4674	Marketing Analytics	3

Marketing

MAR 3023	Introduction to Marketing – GL	3
MAR 4503	Consumer Behavior	3
MAR 4025	Marketing of Small Business Enterprises	3
MAR 4156	International Marketing	3

Hospitality – Event Management

HFT 3741	Planning Meetings and Conventions	3
HFT 3753	Convention and Trade Show Management	3
HFT 4508	Group Business Sales and Services	3
HFT 3754	Exposition and Events Management	3

Hospitality – Travel and Tourism

HFT 3713	International Travel and Tourism – *GL*	3
HFT 3701	Sustainable Tourism Practices – *GL*	3
HFT 3733	Tour Production and Distribution	3
HFT 4509	Tourism Destination Marketing	3

Digital Photography

PGY 2800C	Beginning Digital Photography	3
PGY 3822C	Intermediate Digital Photography *(Prereq: PGY 2800C)*	
PGY 4611C	Digital Photography and Social Media	3
PGY 4823C	Advanced Digital Photography I *(Prereq: PGY 3822C or permission)*	3

Graphic Design

GRA 2100C	Introduction to Graphic Design	3
ART 3637C	Digital Media Foundation	3
GRA 3202C	Typography	3
GRA 2151C	Illustration	3

Social Psychology

SOP 3004	Introductory Social Psychology	3
SOP 3015	Social and Personality Development	3
SOP 4414	Attitudes and Social Behavior	3
SOP 4731	Global Psychology: Cross Cultural Perspectives on Psychological Research and Theories – GL	3

Information Technology (need to check on pre-reqs for these, although none are listed)

CEN 3721	Introduction to Human-Computer Interaction	3
CGS 3767	Computer Operating Systems	3

	OR	
CGS 4285	Applied Computer Networking	3
CGS 4854	Web Site Construction and Management	3
CGS 3095	Technology in the Global Arena – *GL*	3

Bachelor of Arts in Communication Arts

The Bachelor of Arts degree is grounded in a liberal arts tradition and pursues the following aims:

- **Knowledge Acquisition:** Students will be able to identify the crucial role communication plays in relationships and professional and civic contexts.
- **Critical thinking:** Students will be able to examine diverse points of view and reach well-reasoned conclusions, understand the ethical issues involved in the formation of decisions within the communication process, and analyze communication concepts and arguments.
- **Oral and written communication:** Students will be able to apply oral and written communication techniques to various aspects of their academic, social, and professional endeavors.
- **Technology:** Students will be able to effectively use communication technology and critically evaluate how technology affects communication.

Degree Program Hours: Minimum 120

Lower Division Preparation

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
SPC 2608	SPCX608

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, See Common Prerequisite Manual.

Admission Standards

1. Minimum GPA of 2.0 for all lower division courses and upper division non-Communication Arts courses (including transfer coursework).
2. Minimum GPA of 2.0 for ALL FIU courses.

Graduation Requirements

1. Students need a minimum of 120 credit hours to be eligible for a bachelor's degree.
2. Students must have at least a 2.0 FIU grade point average to be eligible for graduation.
3. A grade of "C" or higher is required in all courses in the degree.

Honor Society Requirements – Lambda Pi Eta

1. At least 60 hours of college credit
2. At least 12 hours in Communication Arts
3. An overall GPA of at least a 3.2 or above
4. A GPA of 3.5 in Communication Arts courses

Major Core Courses: 15 credits

COM 1004	Introduction to Communication Arts	0
COM 3120	Organizational Communication (required)	3
COM 3461	Intercultural/Interracial Communication –*GL*	3
COM 4310	Research Methods in Communication Arts	3
SPC 3210	Communication Theory	3
SPC 3602	Advanced Public Speaking	3

Foundational Requirements: Minimum of 15 credits from the list below, including the 2 required courses:

COM 4346	Interviewing Principles and Practices (S) (Required)	3
SPC 3425	Small Group Communication (S) (Required)	3
COM 3110	Business and Professional Communication	3
COM 3230	Crisis Communication	3
COM 3404	Nonverbal Communication	3
COM 3471	Social Media's Impact on Communication	3
COM 4430	International Business Communication –*GL*	3
COM 4462	Conflict Management	3
SPC 3301	Interpersonal Communication	3
SPC 3540	Persuasion	3
SPC 3711	Gender and Communication	3
SPC 4445	Communication for Effective Leadership	3

Track Courses

Organizational Communication Studies Track:

Minimum additional 12 credits selected from any course listed below or above, if not used as a Foundational Course

COM 3417	Communication in Film – *(GRW)* (UCC) (T)	3
COM 3601	Environmental Communication (T)	3
COM 4022	Health Communication (T)	3
COM 4510	Political Communication (T)	3
COM 4620	Ethical Communication (T)	3
COM 4900	Directed Independent Studies in Communication Arts	1
COM 4930	Special Topics in Communication Arts	3
COM 4940	Internship in Communication Arts (S)	1
IDS 3336	Artistic Expression in a Global Society —*GL* (UCC) (if not taken as a core course) (T)	3
SPC 3230	Rhetorical Communication: A Theory of Civil Discourse (T)	3

SPC 3271	Rhetoric and Public Address (T)	3
SPC 3513	Argumentation and Debate (S)	3

Study Abroad Courses

COM 3410	Cultural Communication Patterns of Asia	3
COM 4730	Cultural Communication Patterns of Africa	3
COM 4731	Cultural Communication Patterns of Europe –*GL*	3
COM 4732	Cultural Communication Patterns of Oceania	3
COM 4733	Cultural Communication Patterns of So. America	3
	OR	

Up to 12 credits from the College of Business or Industrial Psychology.

Art & Performance Studies Track: (18 credits)

Major Core Courses: 15 credits

COM 1004	Introduction to Communication Arts	0
COM 3461	Intercultural/Interracial Communication – *GL* (UCC)	3
COM 4310	Research Methods in Communication Arts	3
SPC 3210	Communication Theory (GRW) (UCC)	3
SPC 3602	Advanced Public Speaking	3
IDS 3336	Artistic Expressions – *GL* (UCC)	3

Foundational Requirements: minimum of 21 credits from the list below, including at least 1 skills course (S) and one theory course (T)

COM 3110	Business and Professional Communication (S)	3
COM 3120	Organizational Communication (T)	3
COM 3230	Crisis Communication (T)	3
COM 3404	Nonverbal Communication (T)	3
COM 3417	Communication in Film – *GL* (T)	3
COM 3471	Social Media's Impact on Communication(T)	3
COM 3601	Environmental Communication (T)	3
COM 4022	Health Communication (T)	3
COM 4346	Interviewing Principles and Practices (S)	3
COM 4430	International Business Communication – *GL* (S)	3
COM 4462	Conflict Management (S)	3
COM 4510	Political Communication (T)	3
COM 4620	Ethical Communication (T) 3	
COM 4900	Directed Independent Study in Communication Arts (S)	3
COM 4930	Special Topics in Communication Arts (S)	3
COM 4940	Internship in Communication Arts (S)	3
SPC 3230	Rhetorical Communication: A Theory in Civil Discourse (T)	3
SPC 3271	Rhetoric and Public Address (T)	3
SPC 3301	Interpersonal Communication (T)	3
SPC 3425	Small Group Communication (T)	3
SPC 3513	Argumentation and Debate (S)	3
SPC 3540	Persuasion (T)	3
SPC 3711	Gender and Communication (T)	3
SPC 4445	Communication for Effective Leadership (S)	3

Study Abroad Courses

COM 3410	Cultural Communication Patterns of Asia	3
COM 4730	Cultural Communication Patterns of Africa	3
COM 4731	Cultural Communication Patterns of Europe – *GL*	3
COM 4732	Cultural Communication Patterns of Oceania	3
COM 4733	Cultural Communication Patterns of So. America	3
	OR	

Up to 12 credits in ARH, ART, PGY, GRA, ART, MUH, MUM, MUN, MUT, MUL, MUS, THE, TPP, TPA- if the course was not used to fulfill another requirement, such as a UCC requirement.

Media and Design Studies Track: (18 credits)

Major Core Courses: 15 credits

COM 1004	Introduction to Communication Arts	0
COM 3120	Organizational Communication (required)	3
COM 3461	Intercultural/Interracial Communication – *GL* (UCC)	3
COM 4310	Research Methods in Communication Arts	3
SPC 3210	Communication Theory – *GRW* (UCC)	3
SPC 3602	Advanced Public Speaking	3
	OR	
IDS 3336	Artistic Expressions – *GL* (UCC)	3

Foundational Requirements: minimum of 21 credits from the list below, including at least 1 skills course (S) and one theory course (T)

COM 3110	Business and Professional Communication (S)	3
COM 3120	Organizational Communication (T)	3
COM 3230	Crisis Communication (T)	3
COM 3404	Nonverbal Communication (T)	3
COM 3417	Communication in Film– *GL* (T)	3
COM 3471	Social Media's Impact on Communication(T)	3
COM 3601	Environmental Communication (T)	3
COM 4022	Health Communication (T)	3
COM 4346	Interviewing Principles and Practices (S)	3
COM 4430	International Business Communication – *GL* (S)	3
COM 4462	Conflict Management (S)	3
COM 4510	Political Communication (T)	3
COM 4620	Ethical Communication (T)	3
COM 4900	Directed Independent Study in Communication Arts (S)	3
COM 4930	Special Topics in Communication Arts(S)	3
COM 4940	Internship in Communication Arts (S)	3
SPC 3230	Rhetorical Communication: A Theory in Civil Discourse (T)	3
SPC 3271	Rhetoric and Public Address (T)	3
SPC 3301	Interpersonal Communication (T)	3
SPC 3425	Small Group Communication (T)	3
SPC 3513	Argumentation and Debate (S)	3
SPC 3540	Persuasion (T)	3

SPC 3711	Gender and Communication (T)	3
SPC 4445	Communication for Effective Leadership (S)	3

Study Abroad Courses

COM 3410	Cultural Communication Patterns of Asia	3
COM 4730	Cultural Communication Patterns of Africa	3
COM 4731	Cultural Communication Patterns of Europe – *GL*	3
COM 4732	Cultural Communication Patterns of Oceania	3
COM 4733	Cultural Communication Patterns of So. America	3

OR

Up to 12 credits in ARC, IND, ADV, DIG, JOURN, MMC, or PUR.

Minor in Business Communication

The Business Communication minor helps students develop a high level of competency in oral and visual communication, which are increasingly recognized as vital to success in business. The minor develops students' communication professionalism through theoretical and workshop courses emphasizing creative, workable solutions to challenging communication problems.

The minor promotes the practical use of communication skills in a wide variety of managerial tasks in both profit and non-profit organizations. Key skills taught include facilitating teamwork, managing conflict, interviewing, building employee morale, leadership, public speaking and shaping a company's image. The minor will consist of 15 credits. At least 12 credits must be completed at Florida International University. A grade of "C" or higher is required in all courses in the minor.

Required Courses (15 credits)

COM 3110	Business and Professional Communication	3
	or	
COM 3150	Advanced Communication for Business	3
COM 3135	Managerial Communication	3
COM 4462	Conflict Management	3
SPC 3602	Advanced Public Speaking	3
SPC 4445	Communication for Effective Leadership	3
SPC 4445	Communication for Effective Leadership	3

Minor in Communication Studies

The Communication Studies minor addresses the ways in which people communicate in relationships and in public discourse. Through theory and application, the minor includes the study of the ways in which such processes relate to cultural, gender and racial issues. The degree consists of 15 credits. At least 12 credits must be completed at Florida International University. A grade of 'C' or higher is required in all courses in the minor.

To earn this minor students must take 15 credits:

(a) At least one of the following theory-based courses:

SPC 3210	Communication Theory	3
SPC 3540	Persuasion	3

(b) At least one of the following skills-based courses:

COM 3110	Business and Professional	3
	Or	
COM 3150	Advanced Communication for Business	3
COM 4346	Interviewing Principles and Practices	3
SPC 2608	Fundamentals of Public Speaking	3
SPC 3602	Advanced Public Speaking	3
COM 4940	Internship in Communication Arts	(1-6)

(c) Any three upper division courses with prefixes SPC or COM including the courses listed above.

Minor in International Communication

In the contemporary globalized world, where the tempo and intensity of international contacts are continually strengthening, the role of international communication has become increasingly crucial.

This minor will help students develop an understanding of cross-linguistic and cross-cultural issues involved in international communication. Since different nations are associated with different languages and cultures, international communication is inseparable from intercultural communication – in the era of 'global English' more than ever, because one 'international English' can conceal deep differences in cultural assumptions. This minor will explore issues involved in interaction between speakers from different backgrounds and will equip them with conceptual tools to explore those issues. The minor consists of 12 credits. At least 12 credits must be completed at Florida International University. A grade of "C" or higher is required in all courses in the minor.

Required Courses (12 credits)

COM 3417	Communication in Film – *GL*	3
COM 3461	Intercultural/Interracial Communication – *GL*	3
COM 4430	International Business Communication – *GL*	3
IDS 3336	Artistic Expression in a Global Society – *GL*	3

Certificate Programs

Strategic Communication

Required Courses: 15 credits

ADV 3008	Principles of Advertising	3
	or	
PUR 3000	Principles of Public Relations	3
COM 3520	Designing Communication Strategies	3
ADV 4323	Strategic Branding and Social Media	3

Select 2 of the courses below:

Elective Courses (6 credits)

ADV 3008	Principles of Advertising	3
ADV 3200	Creative Concepts	3
ADV 4101	Advanced Concepts in Creative Design and Copywriting	
ADV 4201	Advertising and Society	3
ADV 4300	Media Planning	3
ADV 4322	Mobile Advertising	3
ADV 4601	Account Planning	3
ADV 4711	Portfolio Workshop	3
ADV 4800	BOLD Practicum 2	3

ADV 4411	Multicultural Marketing Communication	3
IDS 3917	Apps, Arts and Issues	3
PUR 3000	Principles of Public Relations	3
PUR 4100	Writing for PR	3
PUR 4106	Advanced PR Writing for Multimedia Platforms	
PUR 4940	BOLD Agency Practicum	3
PUR 4108	Strategic Presentation of Data	3

Course Descriptions

Definition of Prefixes

ADV-Advertising; COM-Communication; DIG-Digital Media; IDS-Interdisciplinary Studies; JOU-Journalism; MMC-Mass Media Communication; ORI-Oral Interpretation; PUR-Public Relations; RTV-Radio-Television; SPC-Speech Communication; VIC-Visual Communication

Courses that meet the University's Global Learning requirement are identified as GL.

ADV 3008 Principles of Advertising (3). Comprehensive survey of basic principles and practices of advertising emphasizing creative/media strategy decision processes and historical, social, economic, and social influences.

ADV 3200 Creative Concepts (3). Familiarization with the creative process and creative problem solving techniques. Emphasis on group work, brainstorming and idea generation. Will formulate strategies using all communication tools. Prerequisites: MMC 3003, MMC 3303, MMC 3121, MMC 4200, VIC 3400, IDS 3309, ADV 3008 and 2.85 cumulative GPA, or admission to Strategic Communication Certificate

ADV 4101 Advanced Concepts in Advertising Copy and Design (3). Advanced copywriting and graphic design. Lab exercises focusing on concept, layout, type specification and mechanical preparation of print advertising, including outdoor and direct response. Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3104C, IDS 3309, MMC 4200, VIC 3400, ADV 3008, ADV 3200, 2.85 cumulative GPA

ADV 4103 Radio/TV Concepts (3). Theory and practice of producing advertisements for radio and TV. Includes production of a radio and/or TV commercial. Prerequisites: MMC 3104C, ADV 3008, ADV 3200 (with grade of "B" or better), have completed 60 credits, passing score in MMC 3003, 3.0 cumulative GPA, or admission to Advertising minor.

ADV 4201 Advertising and Society (3). The relationship between advertising, economic, political and ethical issues.

ADV 4300 Media Planning (3). Planning, execution, and control of advertising media programs. Emphasis on characteristics of the media, buying and selling processes, and methods and techniques used in campaign planning. Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3104C, MMC 4200, VIC 3400, IDS 3309, ADV 3008, 2.85 cumulative GPA.

ADV 4322 Mobile Communication and Advertising Strategies (3). This course is an introduction to mobile technology and the evolution of the mobile multimedia landscape. The course will examine how mobile marketing and advertising serve diverse purposes. Prerequisites: MMC 3003, MMC 3303, MMC 3123, MMC 4200, VIC 3400, IDS 3309, ADV 3008, and Cumulative 2.85 GPA.

ADV 4323 Strategic Branding and Social Media (3). This course will develop students understanding of the importance of brand equity; how to build, measure and manage brand equity with digital/social media; how to construct the best digital content and distribution strategy to tell a brand's story.

ADV 4411 Multicultural Marketing Communication (3). The focus of this course is on how to communicate effectively and strategically in a multicultural environment. The course covers the impact of culture in marketing communications.

ADV 4601 Account Planning (3). This course introduces the student to contemporary account planning techniques. It stresses the interrelationship between advertising and the consumer and the role of consumer behavior. Prerequisites: Prerequisites: MMC 3003, MMC 3303, MMC 3123 OR MMC3104C, MMC 4200, VIC 3400, IDS 3309, ADV 3008, and cumulative 2.85 GPA

ADV 4711 Advanced Creativity: Portfolio Workshop (3). Focus will be directed on building creative portfolio pieces for multiplication campaigns. Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3104C, IDS 3309, MMC 4200, VIC 3400, ADV 3008, ADV 3200, 2.85 cumulative GPA.

ADV 4800 Bold Practicum 2 (3). This course is the second semester option of PUR 4940, which operates as a student-run agency under faculty supervision. In this advanced course students will learn the workings of a professional agency working with real clients.

COM 1004 Introduction to Communication Arts (0). This course will provide students with a comprehensive overview of academic policies, procedures, and requirements for matriculation and graduation from the Department of Communication Arts.

COM 2000 Introduction to Human Communication (3). A survey course introducing students to theory, research and practical principles associated with human communication.

COM 2460 Introduction to Intercultural Communication (3). This course is an introduction to intercultural communication. It provides an overview to the unique relationship between communication and culture.

COM 3003 Human Communication (3). This course provides theoretical foundations of communication to areas such as interpersonal, small group, organizational, and intercultural communication, providing students an overview to the field.

COM 3110 Business and Professional Communication (3). Identification of communication situations specific to business and the professions. Analysis of variables related to communication objectives and preparation of oral presentations and business correspondence.

COM 3112 Speech and Writing for Business Communication (2). This is a two-credit course designed for Business majors to develop and improve speech and writing techniques applied to business contexts.

COM 3120 Organizational Communication (3). Explores the role of communication in organizations, as well as the role of technology, corporate culture, leadership, teamwork, ethics, and diversity in effective communication among organizations.

COM 3135 Managerial Communication (3). Students examine effective communication in hiring and promoting, in conflict, in community interaction and in the internal communication of an organization.

COM 3150 Advanced Communication for Business (3). Advanced communication course that emphasizes the identification of communication situations specific to business and the professions. Analysis of variables related to advanced business communication. Prerequisites: Full admission to College of Business, SPC 2062 or SPC 2608, or 60+ credit hours.

COM 3230 Crisis Communication (3). This course reviews the latest research, explains how crisis communication can prevent/reduce the threats of a crisis, and provides guidelines for how best to act and react in an emergency situation.

COM 3332 Communication and Technology (3). Explores the role of technology in business trends, information analysis, environmental issues, cultural contexts, and other areas through the means of mass media including television and internet.

COM 3404 Nonverbal Communication (3). Study of nonlinguistic and paralinguistic aspects of communication, including personal space, body language, eye contact, touch, and paralanguage.

COM 3410 Cultural Communication Patterns of Asia (3). Increases cultural awareness by contrasting and comparing communication patterns between Asian and Western cultures.

COM 3417 Communication in Film – *GL* (3). This course will examine the unique relationship between communication and film from the 1920's (the era of silent film) through today.

COM 3461 Intercultural/Interracial Communication – *GL* (3). Students develop the skills to build and maintain relationships across cultures by focusing on similarities and differences in communication behaviors, perceptions, language usage and social practices.

COM 3465 Negotiation in Communication (3). This course will allow students to develop negotiation-focused communication skills experientially and understand negotiation in a variety of useful analytical frameworks.

COM 3471 Social Media's Impact on Communication (3). This course will examine "social media" from a communication perspective; with a focus on how media technologies influence the way we communicate (verbally and nonverbally) with others.

COM 3501 Power of Language (3). Examine how power operates in linguistic practices and how language is used to articulate, maintain and subvert relations of power in society.

COM 3520 Designing Communication Strategies (3). This course develops skills in designing communication strategies - the plans for communicating information related to specific issue, event, situation, or audience.

COM 3601 Environmental Communication (3). Through landmark essays exploring ecological conflicts, land use policy, natural disasters, and ecological movements, this course analyzes the communication applications related to the field.

COM 3611 Persuasion and Arts Advocacy (3). Provide an overview of the role communication plays in the social influence process. Help students understand the techniques and factors that lead to changes in knowledge, attitudes, and behavior. Prerequisite: SPC 3540.

COM 3940 Internship Experience (0). Experience in communication practice learned through work and application in an organization.

COM 4022 Health Communication (3). This course will review health communication through an examination of theoretical frameworks, communication techniques, and technologies that promote the health of individuals and communities.

COM 4310 Research Methods in Communication (3). This course will introduce students to a range of social sciences and communication research methods (quantitative and qualitative) applied to communication professions and scholarship.

COM 4346 Interviewing Principles and Practices (3). This class will prepare students for their professional careers in the areas of information gathering and employment interviews and an online portfolio. Prerequisites: Communication Arts Major, 18 credits completed in Communication Arts coursework, junior standing.

COM 4361 Publishing for Applied Communication (3). This course will lead students through the production of a digital magazine focused on the importance of communication in different industries and professions.

COM 4430 International Business Communication – *GL* (3). This course will provide students with the theoretical and experiential framework for examining the meaning of communication in global business.

COM 4462 Conflict Management (3). Students will analyze conflict management concepts, principles, strategies and techniques, and examine the communication skills needed for productive conflict management or resolution.

COM 4510 Political Communication (3). This course examines the effect of both (free) political news and (paid) political advertising on politics in America.

COM 4620 Ethical Communication (3). Students will examine conceptual perspectives for understanding and evaluating communication ethics in interpersonal relationships, small groups, organizations, and intercultural contexts.

COM 4730 Cultural Communication Patterns of Africa (3). This course will increase understanding of communication differences by contrasting and comparing communication patterns within African cultures.

COM 4731 Cultural Communication Patterns of Europe – *GL* (3). This course will increase understanding of communication differences by contrasting and comparing communication patterns within European cultures.

COM 4732 Cultural Communication Patterns of Oceania (3). This course will increase understanding of communication differences by contrasting and comparing communication patterns within Oceanic cultures.

COM 4733 Cultural Communication Patterns of South America (3). This course will increase understanding of communication differences by contrasting and comparing communication patterns within South American cultures.

COM 4900 Directed Independent Studies in Communication Arts (1-3). Specialized intensive study in a specific area of special interest to the student. Prerequisite: Permission of the department.

COM 4930 Special Topics in Communication Arts (3). Intensive study for a small group of students in a particular topic, or limited number of topics not otherwise offered in the curriculum. Prerequisite: Permission of the department.

COM 4940 Internship in Communication Arts (1-6). Internship credit ranges from 1-6 credits. Three credits max per semester, up to 2 semesters. A 3 credit internship is 12-15 hours per week at job (for a 16 week semester) plus class assignments. Prerequisite: Minimum of 3.0 communication arts GPA.

COM 4958 Senior Capstone Seminar: Integrated Campaign (3). The senior capstone seminar synthesizes the major curriculum components through an integrated communication campaigns working with real organizations and evaluated by communication experts. Prerequisite: MMC 3303, MMC 4200, MMC 3123, IDS 3309, VIC 3400, (ADV 3008 OR PUR 3000), (MMC 4609 OR COM 4310), ADV 4323, COM 3520, 102 earned credits.

COM 5108 Managerial Communication (3). A study of the communication competencies required for successful organizational leadership, including presentations, business writing, meeting management, and utilization of communication technologies.

COM 5415 Intercultural Communication (3). This course examines the role culture plays in communication by examining differences and similarities in communication behaviors between and among diverse cultures.

COM 5606 Environmental Communication (3). This graduate level course is designed to bring theoretical principles and professional skills associated with mass communication together with environmental issues and themes. Prerequisites: Completion of the six-credit project or internship requirement (EVR 5907) and permission of the instructor or department.

DIG 3001 Introduction to Digital Media (3). This course will develop and enhance students' understanding of the practical foundations for digital communication, including an overview of the historical development of digital communication.

DIG 3110 Web Design and Interactive Digital Media (3). The course is designed to give students a solid foundation in Web publishing, JavaScript and app development. Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3104C, IDS 3309, MMC 4200. VIC 3400, RTV 3531, and 2.85 cumulative GPA

DIG 4097 Digital Media Entrepreneurship (3). Capstone course in which students will create digital media business proposals demonstrating their understanding of the needs of advertisers and end users in digital media. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, DIG 3001, DIG 4800, MMC 3250, MMC 4302, MMC 4631, and 2.85 cumulative GPA

DIG 4293 Multimedia Production 2 (3). This is a project-based course that adds to the student's knowledge of multimedia production. There will be and emphasis on video production and streaming, including studio production projects. Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3401C, IDS 3309, MMC 4200, VIC 3400, RTV 3531, and 2.85 cumulative GPA

DIG 4552 Advanced Multimedia Production (3). This capstone course covers advanced techniques associated with interactive media production, including design, digital storytelling, usability theory, and current best practices. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), IDS 3309, MMC 4200, VIC 3400,RTV 3531,(DIG 3001 or RTV 3007),(DIG 4800 or RTV 4101), (DIG 3110 or RTV 4101), (MMC 4302 or RTV 3511,) (RTV 4320 or RTV 3511), (RTV 3007 or MMC 4631), DIG 4293, and 2.85 cumulative GPA.

DIG 4800 Digital Theories (3). This course explores the emerging field of digital media theories through a variety of academic and professional perspectives including technology studies, critical media, and cultural studies. Prerequisites: DIG 3001.

DIG 4940 Digital Media Internship (1-3). The internship is specifically designed to enhance the learning experience through in-depth reflection and critical analysis of the work environment. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, DIG 3001, and 2.85 cumulative GPA

DIG 5167 Social Media Metrics and Evaluation (3). This course introduces strategic aspects of social media analytics by highlighting metrics for assessing effectiveness of social media strategies for global advertising, public relations and marketing.

DIG 5438 Strategic Storytelling and Digital Content Creation (3). This course offers a view of storytelling paradigms and provides the opportunity to apply digital storytelling for strategic purposes using interactive multimedia tools.

DIG 5569 Digital Media Management (3). This course examines various methods and perspectives of managing digital media platforms and content in a strategic communication setting.

IDS 3309 How We Know What We Know – *GL* (3). Merges the skills of global information literacy with the critical perspective to ascertain and measure the authenticity and credibility of information in academic and casual research and writing. Meets the state composition requirement.

IDS 3336 Artistic Expression in a Global Society – *GL* (3). Exploration of the interrelatedness of societies and culture through language, music and art are explored to appreciate how individuals convey thought and respond to events from various perspectives.

JOU 3003 Introduction to Journalism (3). Study and analytical discussion of the history of journalism in America, including its current practice, through intensive readings of primary historical sources as well as broad, direct exposure to current news sources.

JOU 3117 News Reporting and Writing (3). Teaches the fundamentals of reporting, interviewing, public records and arithmetic for journalists, and writing news, the basic skills required for any sort of journalism. Prerequisites: (MMC3123 or MMC 3104C), JOU 3003, MMC 3003 and 2.85 cumulative GPA. Corequisite: JOU 3003 (Supplies fee assessed)

JOU 3121 Finding Stories in Data (3). The class focuses on the use of spreadsheets, database managers and the skillful use of the Internet sources, as well as commercial databases used by journalists. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, JOU 3117, and 2.85 cumulative GPA

JOU 3188 Reporting in a Multi-Ethnic Community (3). This course explores the challenges that face contemporary journalists covering increasingly diverse communities; the class will provide instruction in how to cover multi-ethnic communities. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, JOU 3117, and 2.85 cumulative GPA

JOU 3202 Editing and Layout (3). Editing news copy of accuracy and brevity, including APstyle. Learning the role of news editor, including headline writing and layout. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3117, and 2.85 cumulative GPA

JOU 3300 Advanced News Writing (3). Writing and producing the feature story: human interest, trends, personality profiles, sidebars, backgrounders, color. Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3104C, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, JOU 3117, and 2.85 cumulative GPA.

JOU 3314 Environmental Journalism: Communicating Environmental Issues in South Florida (3). This course is designed to bring science, the environment and journalism together, so that students from a variety of disciplines can develop news stories about issues regarding the environment.

JOU 3405 South Florida News Service: The Newsroom (3). Advanced instruction and practice in research, reporting and writing a variety of complex news stories. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, and 2.85 cumulative GPA.

JOU 4101 In-Depth Reporting (3). Advanced instruction and practice in researching, reporting and writing a variety of complex news stories. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3117, and 2.85 cumulative GPA.. (Supplies fee assessed).

JOU 4341C Senior Multimedia Project (3). Conceptualizing and production of an online publication, including layout, photography, streaming video and audio. The project to be delivered in 3 different formats - print, television, and on-line. Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3104C, IDS 3309, MMC 4200, VIC 3400, RTV3531, JOU 3003, JOU 3117, VIC 4001, JOU 3300 and 2.85 cumulative GPA.

JOU 4447 Magazine Editing and Production (3). Develops skill in writing, editing and design, and a knowledge of planning, typography and graphics. Attention is given to developing formats, selecting copy, photos, graphics, and type. Prerequisites: MMC 3104C, JOU 3003, JOU 3117, RTV 3531, VIC 3400, have completed 60 credits, passing score in MMC 3003 and 3.0 cumulative GPA

JOU 5806 Student Media Advising (3). Designed to assist teachers and advisers 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 adviser. In addition, attention is given to matters pertaining to curriculum and methodology for effective journalistic instruction.

MMC 3003 Journalism + Media Orientation (0). A course designed to provide the students with a comprehensive overview of academic policies, procedures and requirements for matriculation and graduation from the SCJ Journalism + Media Department.

MMC 3021 Grammar Workshop: Preparation for the 21st Century (3). This course provides a much-needed pre-writing workshop for those who need a stronger introduction to language skills or for who simply want to perfect their English grammar.

MMC 3104C Writing Strategies for Reaching a Mass Audience (3). An advanced writing course that applies creative thinking techniques, especially in the generation of ideas for mass media presentation, as well as the careful and compelling use of language. Prerequisite: Passing score on the Language Skills Test. (Supplies fee assessed)

MMC 3123 Writing Fundamentals for Communicators (3). Writing Fundamentals for Communicators applies principles of writing for professional communications in advertising, broadcast, digital media, scholarship, journalism and public relations. Prerequisites: ENC 1101 and ENC 1102

MMC 3132 Ready for Prime Time Presentation Skills (1-3). The students will learn the disciplines, techniques and procedures used by broadcast on-air talent and communications professionals. Prerequisites: MMC 3003, MMC 3303, MMC 3123, and IDS 3309.

MMC 3250 The Communication and Media Industry (3). An examination of the changing business models of the 21st century U.S. media and communications industry.

MMC 3303 Global Media and Society – *GL* (3). The course will familiarize the student with a multi-cultural global perspective of a multi-media world. The aim of the course is to create a foundation of global media literacy.

MMC 3390 Intense Pods (3). Seminars in such topics as investigative, political, business, sports, or minority reporting, and editorials and commentary. Must be taken at least two times. Prerequisites: (JOU 3117 or JOU 3405), 2.85 cumulative GPA, and Chair's consent.

MMC 3650 Media and Sustainability (3). This course introduces students to the study of sustainability from a media studies perspective, examining global mediated discourses associated with sustainability and other environment issues.

MMC 4200 Mass Communication Law and Ethics (3). An in-depth examination of legal and ethical issues confronting professional communicators. Focus on the responsibilities and rights of communicators and the implications for a society entering the 21st century.

MMC 4262 New Technologies of Communication (3). The principal emphasis is upon new technologies in the industry. Prerequisites: RTV 3007, MMC 3104C, have completed 60 credits, passing score in MMC 3003 and 3.0 cumulative GPA.

MMC 4302 Social Media and Globalization (3). Introduces media, law and regulation within digital communications, while exploring implications for access to information and freedom of expression.

MMC 4304 Strategic Communication Seminar: Multicultural Marketing Communication – *GL* (3). Understanding the visual theories behind the design, editing and production of materials for print, broadcast and multimedia. Special attention given to digital pre-production and software skills.

MMC 4401 Science, Health and Environment Communication (3). This undergraduate course is an advanced communication course designed to introduce students to contemporary issues in communicating science, health, environment and risk to the public.

MMC 4410 Integrated Communications Campaigns (3). Capstone course for advertising and public relations students. Students work in teams to identify a client's communication problem. They then research, strategize, design, and present a communications campaign to a client. Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3104C, IDS 3309, MMC 4200, VIC 3400 ADV 3008, PUR 3000, ADV 4323, MMC 4609, 2.85 cum GPA Corequisites: MMC 4936, PUR 4101, PUR 4106, ADV 4101, ADV 4300.

MMC 4500 Media History (3). Development of American media from beginnings in Europe to present day; freedom of the press and its relationships to economic, political, and social trends in society.

MMC 4541 E-Cinema and TV Aesthetics (3). Presentation and study of aesthetic concepts and execution of television and e-cinema. (Supplies fee assessed)

MMC 4609 Integrated Communication Research Strategy (3). Nature and application of research utilized in advertising and public relations. Emphasis on gathering and analyzing primary and secondary data to determine situation analysis and communication strategies. Prerequisites: MMC 3003, MMC 3303, MMC 3123, MMC 4200, VIC 3400, IDS 3309, and 2.85 cumulative GPA, or admission to Strategic Communication Certificate

MMC 4631 Audience Analysis, Public Opinion and New Media (3). The course examines relationships in new media, public opinion, policy and audiences. The means of assessing public opinion in digital media and includes in-depth analysis of digital media audience. Prerequisites: Successful completion of the Quantitative Reasoning of the UCC (University Core Curriculum) requirement.

MMC 4905 Independent Study (1-3). Specialized intensive study in an area of special interest to the student. Consent of instructor is required. (Limit of three credits).

MMC 4936 Special Topics (3). Intensive study for groups of students of a particular topic or limited number of topics, not otherwise offered in the curriculum.

MMC 4940 Media Practicum (3). Structured field-work experience in media environment.

MMC 4945 Communication Internship (0-3). On-the-job learning in activity at selected and approved organizations. Will include newspapers, magazines, radio and TV stations, agencies, and non-profit organizations. Prerequisites: Permission of the Department Chair or Department Internship Advisor.

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.

MMC 5268 Communication in the Digital Age (3). This course is designed to develop and enhance students' understanding of the foundations for digital communication, including an overview of the historical development of digital communication.

MMC 5306 Global Communications (3). This course explores global markets and intercultural communications while providing advanced study, evaluation and application of cultural context, theories, stakeholders, and trends in media, advertising, and public relations. Analysis of ethical, legal, political, and social communications issues around the globe.

MMC 5440 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. (Offered at least once a year).

MMC 5655 Mass Communication and the Environment (3). The course brings theoretical principles and professional skills associated with media communication together with environmental issues. Prerequisites: Graduate standing or permission of the instructor.

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 minicomputers in creative communication.

ORI 3005 Basic Oral Interpretation (3). Development of the voice as an instrument for expressive interpretation of literature.

PUR 1951 PRAAC Orientation (0). This is a zero credit required orientation for students in the Bachelor of Science in Public Relations, Advertising and Applied Communication (PRAAC).

PUR 3000 Principles of Public Relations (3). An introduction to the theory, history, practice, and future of public relations. A comprehensive study of the field.

PUR 4100 Writing for Public Relations (3). Introduction to the content, format and style of multiple public relations tools including newsletters, magazines, brochures and digital media. Emphasis on news releases, AP style and media relations. Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3104C, IDS 3309, MMC 4200, VIC 3400, PUR 3000, 2.85 cumulative GPA, or admission to Strategic Communication certificate.

PUR 4101 Digital Editing and Design (3). Understanding the visual theories behind the design, editing and production of materials for print, broadcast and multimedia. Special attention given to digital pre-production and software skills Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3104C, MMC4200, VIC3400, IDS 3309, ADV 3008, PUR 3000, 2.85 cumulative GPA, admission Strategic Communication Certificate or graphic design track in BFA major. (Supplies fee assessed)

PUR 4106 Advanced Public Relations Writing for Multimedia Platforms (3). Emphasis on the strategic aspects of public relations writing and preparation of more complex vehicles, such as annual reports, policy speeches, position papers, and complex press releases/press kits. Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3104C, IDS 3309, MMC 4200, VIC 3400, PUR 3000, PUR 4100, 2.85 cumulative GPA, or admission Strategic Communications Certificate. (Supplies fee assessed).

PUR 4108 Strategic Presentation of Data (3). This course will develop students' understanding of data visualization for effective presentation of research findings. The course teaches the art and science of using graphics to tell a story or make an argument with data.

PUR 4940 Practicum: BOLD Agency (3). This course operates as a student-run agency that has the infrastructure to train students from SJMC and other majors to run a successful strategic communication agency.

PUR 5406 Multi-Cultural Communications (3). Explores the multi-cultural dimensions of communications with diverse audiences within the United States.

RTV 3007 Introduction to Television (3). Introduction to the history, regulation, industry structure and impact of television.

RTV 3207 Video Directing (3). Studio directing/technical directing and related techniques used in television entertainment shows, commercials, newscasts, documentaries, training and corporate video productions. Students are expected to solve media-related problems during actual productions. Prerequisites: RTV 3531, MMC 3104C, have completed 60 credits, passing score in MMC 3003 and 3.0 cumulative GPA. (Equipment fee assessed)

RTV 3301 Broadcast News Reporting (3). Instruction and practice in news writing, reporting and interviewing for broadcast media. This course meets in an accelerated manner in the first half of the semester to be followed by Electronic News Gathering RTV 4320 for those students wishing to pursue additional training in broadcast journalism. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, and 2.85 cumulative GPA. (Equipment fee assessed)

RTV 3511 Video Studio Production (3). Use of television studio equipment and techniques in production of programs, newcasts, documentaries, commercials, training and video productions. Introduction to basic video directing. Prerequisites: MMC 3003, MMC 3303, MMC 3123 or MMC 3104C, IDS 3309, MMC 4200, VIC 3400, RTV 3531, RTV 3007, RTV 4101, and 2.85 cumulative GPA.

RTV 3531 Multimedia Production (3). Use of ENG/EFP equipment and techniques in production of programs, news, documentaries, music videos, commercials, training and video productions on location. Emphasis on single camera techniques and editing. Prerequisites: Prerequisites: MMC 3003, MMC 3303, MMC 3123, or MMC 3104C, IDS 3309, MMC 4200, and 2.85 cumulative GPA. (Equipment fee assessed)

RTV 3571 Video Post-Production (3). Advanced post production techniques using A & B rolls, complex audio mixes and their preparation and execution. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, DIG 4293, RTV 3511, and 2.85 cumulative GPA (Equipment fee assessed)

RTV 3591 Multimedia Production (3). This is a project-based course to provide all journalism, public relations and advertising students the basic skills needed to successfully develop, produce and publish/broadcast multimedia projects. Prerequisites: MMC 3104C and VIC 3400

RTV 3803 Studio Management (3). Students are introduced to basic studio language and procedures and will do research about duties of the producer, budgets and related topics. Prerequisites: MMC 3104C, have completed 60 credits, passing score in MMC 3003 and 3.0 cumulative GPA.

RTV 4101 Writing for Video Production (3). The course is intended to introduce the student to various types of writing for television and Internet/Journalism videos. This will include storytelling for short videos and short documentaries. Prerequisites: MMC 3003, (MMC 3123 or MMC 3104C), RTV 3007, and 2.85 cumulative GPA Corequisites: RTV 3007 (Supplies fee assessed)

RTV 4521 Videography Advanced (3). Advanced techniques in single camera production, field lighting and sound recording. Advanced techniques using non-linear editor. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, RTV 3007, RTV 4101, DIG 4293, and 2.85 cumulative GPA. (Equipment fee assessed)

RTV 4661C Advanced Video Production Workshop (3). Advanced course where students will be expected to use all the knowledge about television production received in the track. Students produce and perhaps direct programs for broadcast/cablecast. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, RTV 3007, RTV 4101C, DIG 4293, RTV 3511, and 2.85 cumulative GPA (Supplies fee assessed).

RTV 4320 Electronic News Gathering (3). This course is an introduction to the real world of video news. It is designed to teach students to plan, research, report, write and execute electronic news productions from concept to finished product. Prerequisites: MMC 3003, (MMC 3123 or MMC 3104C), IDS 3309, MMC 3303, MMC 4200, VIC 3400, RTV 3531, J0U 3117, 2.85 cumulative GPA (Equipment fee assessed)

RTV 4324 Broadcast News Magazine (3). Students will learn how to research, report, write, shoot, produce, and edit hard news and feature stories for broadcast (capstone course). Prerequisites: MMC 3003, (MMC 3123 or MMC 3104C), IDS 3309, MMC 3303, MMC 4200, VIC 3400, RTV 3531, JOU 3117, RTV 4320, (RTV 4350 or RTV 4332), 2.85 cumulative GPA

RTV 4332 Long-Format TV and Radio (3). This course is an advanced non-fiction broadcasting course. Students will plan, research, report, write and execute multiplatform long-format broadcast non-fiction productions. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, JOU 3117, RTV 4320, and 2.85 cumulative GPA (Supplies fee assessed)

RTV 4350 Broadcast and Digital Newscast Production (3). This course will emphasize instruction on producing newscasts by learning to position news stories based on journalistic news values, newsroom leadership skills and knowledge of the market. Prerequisites: MMC 3003, (MMC 3123 or MMC 3104C) IDS 3309, MMC 3303, MMC 4200, VIC 3400, RTV 3531, JOU 3117, and 2.85 Cumulative GPA.

RTV 5801 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 5425 Seminar in New Mass Communication Technologies (3). Discussion of new communication technologies and their influence on the society. Prerequisites: Graduate standing or permission of the instructor.

SPC 1017 Fundamentals of Speech Communication (3). The study of speech communication fundamentals-interpersonal skills; critical listening; small group problem-solving; verbal and nonverbal communication; persuasion; and public speaking.

SPC 2050 Voice and Diction (3). Effective voice production, articulation, acceptable pronunciation, accent reduction, intonation, rhythm and phrasing.

SPC 2062 Public Speaking in a Business Context (3). This course is designed to provide business students with experiences in business and sales presentations with common presentational software programs. Prerequisite: Admittance into the College of Business Administration.

SPC 2065 Communication for Business (3). A communication course that emphasizes oral communication skills necessary for the business and professional communities. Concentration on interviewing, public speaking, problem-solving, and leadership skills.

SPC 2300 Fundamentals of Interpersonal Communication (3). Through an awareness of one's self-concept students explore the role communication plays in maintaining healthy relationships in areas such as: romantic relationships, friendships, families.

SPC 2511 Fundamentals of Argumentation and Debate (3). Lectures and activities concerned with audience-centered reasoning. One will learn the nature of arguments consisting of analysis, reasoning, evidence, values, and building and refuting arguments.

SPC 2608 Public Speaking (3). Study of the principles of ethical and effective public speaking, with practice in the construction and delivery of original speeches before an audience.

SPC 3210 Communication Theory (3). Comprehensive introduction to the study of human communication processes including verbal and nonverbal modalities. Key historical and contemporary definitions and concepts in communication theory are reviewed.

SPC 3230 Rhetorical Communication: A Theory of Civil Discourse (3). Students study how spoken and written language shapes human thought and influences the humanities.

SPC 3271 Rhetoric and Public Address (3). The course explores the ways in which prominent figures have sought to define the nation and address major political controversies over the course of U.S. history through rhetorical public address.

SPC 3301 Interpersonal Communication (3). Through an awareness of self-concept students explore the role communication plays in maintaining healthy relationships in areas such as: romantic relationships, friendships, families and colleagues.

SPC 3425 Small Group Communication (3). The study of group development, group roles, decision-making, leadership, power, and conflict management.

SPC 3540 Persuasion (3). A study of attitude formation and change are explored to identify how individuals process and act on information. Social influence theories/techniques and their ethical implications are examined.

SPC 3513 Argumentation and Debate (3). Lectures and activities concerned with audience-centered reasoning. Topics include: Nature of argument, analysis, reasoning, evidence, values, and building and refuting arguments. Prerequisites: SPC 2608 or permission of the instructor.

SPC 3514 Argumentation and Debate II (3). Study of all styles of formal and informal debate. Emphasis on construction and use of the brief, debate strategy and delivery. Prerequisites: SPC 2608, SPC 3513 and permission of the instructor.

SPC 3602 Advanced Public Speaking (3). Examines public speaking as a workplace activity and provides students with practical experience. Emphasis is placed on incorporating technology into the different types of speeches. Prerequisite: At least a “C” grade in SPC 2608.

SPC 3711 Gender and Communication (3). Using text and films, this course examines the different styles of verbal and non-verbal communication of men and women in various settings.

SPC 4068 Professional Presentations for Architects (3). This course is designed to provide architecture students with experiences in academic, business, and sales presentations as well as experience with a common presentational software program.

SPC 4445 Communication for Effective Leadership (3). Leadership is given to those who speak well, inspire change, and motivate others. Leadership communication empowers students to become effective leaders ready to engage a global world.

SPC 5066 Presentation Skills for Architects (3). This course provides architecture students with experiences delivering formal presentations. Participants will learn techniques for enhancing academic and professional presentations.

VIC 3400 Visual Design for Globalized Media – *GL* (3). The course explores the relationship between images and messages in global media and the primary role that visual design plays in globalized media presentations.

VIC 4001 News Visualization (3). The course is designed to teach journalism students how to tell a story using the visual toolset to get a story right on multiple platforms, including television, radio and online. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, JOU 3117, and 2.85 cumulative GPA.

Interior Architecture

Newton D'Souza, *Associate Professor and Chair*
Philip Abbott, *Senior Instructor*
Katie Rothfield, *Senior Instructor*
Darci Pappano, *Instructor*
Janine King, *Associate Professor*

Florida International University's Department of Interior Architecture is situated within two very compelling conditions: the diverse international community within South Florida and the rich interdisciplinary environment in the College of Communication, Architecture + The Arts. This unique context inspires our interpretation of the interior design profession as an occupation that exercises many types of knowledge and operates within complex social, cultural, technological, and artistic settings.

FIU's Department of Interior Architecture provides students with a value added education that consists of small student-to-faculty ratios, studio facilities where students have their own workspace, study abroad options, and computer and fabrication labs offering advanced technology. The Department of Interior Architecture is an ideal setting where students are actively involved in learning and exploring the current and future roles of the interior design profession within a global society. More particularly, this context challenges our students to critically investigate the diverse roles of interior design, and inspires us to explore new avenues of thought and attitudes toward why and how we make human environments.

The Accelerated Master of Interior Architecture (MIA) program provides a seamless course of study leading from undergraduate freshman year to the conferral of the Professional Master of Interior Architecture degree. The Accelerated MIA is comprised of 160 credit hours of integrated pre-graduate and graduate coursework. The degree consists of 73 credit hours of pre-graduate coursework taken over two years followed by 87 credits hours of graduate coursework. At the conclusion of 73 credit hours of pre-graduate study, students move directly to graduate study. A transition from undergraduate to graduate standing occurs during the fourth year after completion of 120 credits. Students must be in good standing with a minimum graduate GPA of 3.0 or better. A Bachelor degree is not awarded at any point in the program.

Admission Requirements

Undergraduate students may apply for admission into the first year or the third year of the program. The department admits students once a year in Spring Semester in order to begin their course work in the following Summer or the Fall semester. We recommend that interested applicants meet with a member of the college's Student Services and Advising Center during the Fall semester prior to the application deadline. Admission to the department is competitive and is not guaranteed. Admission will be offered based on space availability to those applicants judged by the Department Faculty Committee to have the greatest potential for successful completion of the program.

First Year Admission Requirements

Applicants must meet the University's admission requirements and submit a design portfolio – please refer to the Design Portfolio Requirements section.

Third Year Transfer Student Admission Requirements

Applicants for third year admission must meet the University's admission requirements and submit a design portfolio – please refer to the Design Portfolio Requirements section. Students who have completed an AA in interior design or architecture must meet the following requirements: minimum cumulative GPA of 3.0; completed design studio courses 1 through 4 with a grade of 'C' or better; and be judged by the Faculty Admissions Committee to have passed a competitive portfolio review. Only grades of 'C' or higher (2.0 on a 4.0 grading scale) are accepted for transfer of applicable prerequisite and core courses from other institutions. No grade below a 'C' will be accepted for graduation in required courses or required electives.

University policy only allows the transfer of 60 lower division credits. Additional upper-division transfer credits may be accepted. Thus, for most transfer students it will be necessary to take a certain number of undergraduate credits at FIU in order to achieve the minimum required to satisfy the degree requirements.

Third Year Native Student Admission Requirements

FIU undergraduate students who wish to change their major to Interior Architecture should check program requirements and be advised by the college's undergraduate advisors well in advance of application for admission.

Design Portfolio Requirements

As part of each department's admission review process, all students are required to submit a design portfolio demonstrating the candidate's creative abilities as well as their level of design. The design portfolio is evaluated based on a candidate's demonstrated sense of composition, attention to detail, graphic communication skills, expressive quality, and sense of space, accuracy, and observation. The design portfolio should be formatted on 8.5'' x 11" sheets, bound or carefully packaged, with a maximum thickness of 3". Applicants may also include 11' x 17" sheets provided they are folded to 8.5" x 11". Design portfolios may include two-dimensional story boards (a sequence of still images that show a story), computer printouts, and photographs of small three-dimensional models/projects.

First Year Design Portfolio Requirements

All candidates' design portfolios must include a one-page (maximum) statement outlining intentions, aspirations, and purpose in pursuing a professional degree. Candidates seeking admission into the first year of the curriculum should submit design portfolios that contain three freehand drawings based on accurate observations: (1) a drawing of a stair or stairs, (2) a drawing of a bicycle or bicycles or a part of a bicycle or bicycles, and (3) a drawing of your own

choice. These drawings may be in ink, pencil or charcoal. In addition to the three required freehand drawings, the first year design portfolio may contain reproductions of a two-or-three dimensional work.

Third Year Design Portfolio Requirements

All candidates' design portfolios must include a one-page (maximum) statement outlining your intentions, aspirations, and purpose in pursuing a professional degree. The design portfolio should include no more than 10 examples of your design work executed within the past two years. Examples include, but are not limited to, studies of buildings that demonstrate your analytical ability. Recent art and/or design projects that an applicant completed in collaboration with others are acceptable as long as the example contains an explanation of the applicant's role in the process. Portfolios may not contain samples of architectural or interior design construction documents either by hand or by computer.

Student Work

Student work submitted to the department in satisfaction of course or degree requirements becomes the physical property of the department. However, students retain all rights to the intellectual property of such work. This work may include papers, drawings, models, and other materials. The department assumes no responsibility for safeguarding such materials. At its discretion, the department may retain, return, or discard such materials. The department will not normally discard the materials of current students without giving them a chance to reclaim them.

Students must petition the department in writing for any deviation from the established policies.

Study Abroad

Study abroad is an important component of the Department of Interior Architecture. Our study abroad center is located in Genoa, Italy. The Genoa center is ideally situated in the historic center of the city in a renovated former convent dating from the 13th century. During the semester abroad in Italy, students are afforded an opportunity to study those artistic, architectural, landscape and interior spaces and artifacts that have long been acknowledged for their exceptional and enduring value to design culture.

Accelerated Master of Interior Architecture

Degree Program Hours: 157

The accelerated degree program consists of a two year pre-graduate foundation and a three year professional graduate program. The pre-graduate classes and studios focus on the interdisciplinary study of design, graphic communication, history/theory and technologies. The graduate curriculum focuses upon professional knowledge and skills required for an interior design career.

Pre-Graduate Preparation

Students should enroll in pre-graduate design courses the first semester they attend FIU or their progress through the curriculum will be prolonged. Seats in pre-graduate design courses are limited and cannot be guaranteed to all students.

Undergraduates admitted with fewer than 36 semester hours must meet all of the Department of Interior Architecture pre-foundation requirements.

Progression Requirements

No grade below a C' will be accepted for graduation in required courses or professional electives.

Academic Standards and Policies

1. Progression Requirements: At the conclusion of 72 credit hours of pre-graduate architecture program coursework, students with of an overall cumulative GPA of 3.0 or above move directly to graduate coursework.
2. All students must maintain a minimum cumulative GPA of 2.75 in all undergraduate ARC/IND courses. Students who fail to meet this minimum GPA requirement are subject to an internal academic review and may be delayed in their progression to graduate coursework.
3. No grade below a 'C' will be accepted for graduation in required courses or professional electives.
4. Students must maintain a minimum cumulative 3.0 or higher GPA in graduate level coursework (5000 level or higher).
5. After three semesters or 30 credits of graduate coursework, students who fail to maintain a minimum cumulative 3.00 GPA are subject to an internal academic review, which may result in dismissal from the program.

Pre-Graduate Level Course Requirements (73)

ARC 1131	Design Graphics 1	2
ARC 1132	Design Graphics 2	2
ARC 1301	Design Studio 1	4
ARC 1302	Design Studio 2	4
IND 2237	Design Studio 3	4
IND 2238	Design Studio 4	4
IND 2420	Materials and Methods for Interior Architecture	3
ARC 4586	Structures 1	1
ARC 4586L	Structures 1 Lab	2
ARC 2701	History of Design from Antiquity to the Middle Ages	3
ARC 2702	History of Design from the Renaissance to the XIX Century	3
IND 3306	Fundamental Digital Media for Interior Architecture	3
ART 2330C	Beginning Figure Drawing	3

Course requirements also include 35 credits of general education coursework.
Courses are selected from the following categories:

Verbal Communication (9)

ENC 1101	Writing and Rhetoric I	3
ENC 1102	Writing and Rhetoric II	3
COM 3110	Business and Professional Communication	3

Environmental Context (11)

MAC 1147	Pre-Calculus Algebra and Trigonometry	4
PHY 2053	Physics without Calculus I	4
EVR 1017	The Global Environment and Society – *GL*	3

In addition to the courses above, students select 15 credit hours from the UCC catalog with Advisor's approval.

Graduate Level Course Requirements (84)

IND 6255	Graduate Design 1	6
IND 5427	Construction Documents in Interior Architecture	3
IND 5486	Materials for Interiors	3
IND 5615	Building Systems for Interiors	3
IND 6256	Graduate Design 2	6
IND 5438	Lighting Design	3
IND 5508	Professional Practice	3
IND 5138	History of Modern Interiors (online)	3
IND 6257C	Graduate Design 3	6
IND 5485	Advanced Construction Documents in Interior Architecture	1
IND 5454L	Advanced Construction Documents in Interior Architecture Lab	2
IND 5626	Project Programming	3
IND 5325	Color Theory and Application for the Built Environment	3
IND 6970	Masters Project	6
IND 5628	Sustainable Practices in Interior Architecture	3
IND 6258C	Graduate Design 4	6
IND 6616C	Interior Architecture Theory I (online)	3
IND 5475	Computer Applications in Design	3
IND 5937	Special Topics	3
IND 6639	Research Methods	3
IND 6259C	Graduate Design 5	6
Directed Elective (Internship)		3

Course Descriptions

Definition of Prefixes

IND-Interior Design
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

IND 1932 Special Topics/Interior Design I (4). An introduction to the basic perceptual, social, cultural, environmental and technical issues of interior design. Basic interior design projects.

IND 2022 Introduction to Interior Architecture (3). Explore the profession of interior design through history and processes. Learn the basics of how to design an interior space.

IND 2237 Interior Architecture Design Studio III (4). Introduction to Interior Architecture. Explore site, building, social, cultural and environmental issues that generate spatial and programmatic responses in designing interior architecture.

IND 2238 Interior Architecture Design Studio IV (4). Investigations in how structure, materiality, and human factors affect the vertical and horizontal composition of space within the interior architecture of small infill urban building projects.

IND 2420 Materials and Methods for Interior Architecture (3). Introduction to construction systems, interior material assemblies and finish application. Identification of sources and materials used in the development of an interior design project.

IND 3131 History of Modern Interior Design (3). Analysis of the 20th century architectural interiors, furniture and decorative arts from 1890-present. Prerequisites: ARC 2701, ARC 2702.

IND 3215 Interior Design 5 (4). Analysis, programming and design of commercial facilities including hospitality and retail. Students research the functions, and requirements of the project, design the interior spaces, develop architectural details and work on the selection of furniture and finishes. Corequisites: IND 3451C, IND 3423C. (F)

IND 3216 Interior Design 6 (4). Consideration and application of design criteria with an emphasis on planning and design of interior for the work environment. Students develop programs, work on space planning, as well as furniture selection, illumination and selected architectural details. Prerequisites: IND 3215, IND 3480. Corequisites: ARC 4270C or IND 4501. (S)

IND 3306 Fundamental Digital Media for Interior Architecture (3). Introduction to digital media used within the interior design process. Students will learn how to represent the built environment using two and three-dimensional digital media software.

IND 3308 Visual Notation for Interior Design (3). Course will focus on technique, through exercise and assignments of varying degrees of complexity will explore and develop the range of skills necessary to develop confidence in drawing in interior design. Prerequisite: Program approval.

IND 3451C Interior Design Construction Drawing 1 (3). Development of Interior Design working drawings with emphasis on detailing and cabinetry. Prerequisites: ARC 1461, ARC 4586. Corequisites: IND 3215, IND 3480.

IND 3469 Computer Applications in Interior Design (3). Advanced application of computer tools used in interior design process and communication. Prerequisite: ARC 4058.

IND 3511C Lighting Design (3). A fundamental course in lighting with emphasis on interaction with the design of an interior space. Prerequisites: IND 3215 or Architectural Design 5 (ARC 5329).

IND 3930 Special Topics Design Studio (4). An interior design studio based on a particular aspect of interior design under the direction of appropriate faculty.

IND 3936 Cejas Eminent Scholar Seminar (1-3). This is a seminar/workshop course taught by distinguished educators, scholars, and designers. Lectures, critical readings, and discussions of thematic topics make up the methodology of the course.

IND 4225 Interior Design 7 (4). Analysis of the human condition in design. Topics include the behavioral and environmental sciences, ergonomics, and ecology and their impact on design. Prerequisite: IND 3216. Corequisite: IND 4943C. (F)

IND 4226 Interior Design 8 (4). The final studio involves projects of increased scale and complexity. The studio emphasizes the diversity of aspects that integrate the design process from conceptual formulations and

programming to the full development of the design thesis. Prerequisites: IND 4225 and IND 4943C. (S)

IND 4303 Interior Architecture Visual Communication (3). This course introduces graphic tools, techniques, and conventions used for effective visual communication in interior design.

IND 4311 Color Theory (3). Use of color in the built environment including principal color systems, methods of color harmony, effects of visual phenomena, and various psychological, cultural and historical implications. Prerequisites: ARC 1132, ARC 2304.

IND 4441C Furniture Design (4). Introduction to the human factors, concepts, function, materials and techniques of furniture design. Prerequisite: ARC 4058.

IND 4455C Advanced Construction Documents (4). Advanced production of construction documents. Includes design of architectural details, material specification, integration of building systems, and application of life safety-accessibility issues. Prerequisites: IND 3451C, IND 3423C, IND 3216.

IND 4501 Interior Design Practice (3). The student will be introduced to the specific skills necessary to succeed in the preparation of legal documents and specifications. Prerequisite: IND 3215.

IND 4543 Design at Sea (3). Study spatial, material, and regulatory issues associated with marine design while aboard a transatlantic cruise.

IND 4627 Sustainable Interior Design Practices (3). Students study and apply knowledge of the theoretical, practical, and professional issues involved in designing sustainable interior environments. Prerequisite: IND 3215.

IND 4904 Service Learning and Independent Study (3). Directed independent study focused on explorations of interior architecture processes, topics, or applications that are not otherwise available within the curriculum. Prerequisite: Students must have permission from the Department Chair.

IND 4940 Interior Design Internship (3). Advanced issues in interior design practice learned through work experience with licensed professionals. Prerequisites: ARC 4270C or IND 4501, IND 3451C, IND 3480, IND 3511C.

IND 4943C Programming (3). Preparation of program for the final interior design studio project. Instruction on methods of information gathering, analysis, and evaluation. Environment and behavior theories will be explored. Prerequisite: IND 3216. Corequisite: IND 4225. (F)

IND 5029 Art in Public Interiors (3). Examination of the creative place making and the integration of artwork into the interior architecture of public places.

IND 5138 History of Modern Interiors (3). An analysis of the history of architectural interiors, furniture and decorative arts from the Neo-Classical period to the present time.

IND 5164 History of 21st Century Furniture Design (3). Students will research and analyze the social, political, technical economic and theoretical forces that contribute to new movements in late 20th century and early 21st century furniture design.

IND 5235 Formative Studio 1 (6). Introduction to concept development, spatial expression, and representational techniques in architecture.

IND 5285 Design Foundations (3). The course is a rigorous introduction to design fundamentals. It builds a design language through lectures, practical exercises, exploring techniques, materials, skills, making and critical thinking. Prerequisite: Program approval.

IND 5319 Visual Notation for Interior Design (3). Course will develop drawing skills in multiple media, actively engaging in projects of drawing as a medium of investigation, documentation, memory, observation and presentation for interior design. Prerequisite: Program approval.

IND 5325 Color Theory and Application for the Built Environment (3). Use of color in the built environment including principal color systems, methods of color harmony, effects of visual phenomena, and various psychological, cultural and historical implications.

IND 5418 Design at Sea (3). Study of Interior Architecture of Cruise Vessels. Students learn spatial material and regulatory issues associated with marine design.

IND 5427 Construction Documents in Interior Architecture (3). Conceptual framework for design of building assemblies, understanding of construction technologies and properties of interior building materials. Construction drawings and specifications are produced. Prerequisite: Graduate standing.

IND 5428 Materials and Methods (3). Research and analysis of building materials and methods. Properties of materials and performance in a variety of light building, interior and environmental assemblies are investigated.

IND 5438 Lighting Design (3). Exploration of theories and applications of lighting design. Emphasis on studying research about interactions between light, people and articulation of interior space.

IND 5445C Furniture Design (3). Providing a general overview of furniture design process, this design/build studio course teaches students about ergonomics, scale, space, structure and materiality related to furniture design.

IND 5446 Professional Practice and Entrepreneurship in Furniture Design (3). Learn about industry standards and entrepreneurial strategies that successful designers and furniture companies use when bringing new designs to different markets.

IND 5447C Advanced Furniture Design (6). Research, analyze and design furniture using wood, metals and plastics. Instruction will include advanced technical skills and emphasis on qualitative and conceptual aspects of design.

IND 5475 Computer Applications in Design (3). Study of computer software packages applicable to the architecture office environment, with particular emphasis on CAD software, graphics packages and desktop publishing.

IND 5477 Computer Applications in Design II (3). Intermediate study of computer software applicable to the architecture and interior design office environment, with particular emphasis of CADD software, graphics packages and desktop publishing.

IND 5485 Advanced Construction Documents in Interior Architecture (3). Experimental approach to new materials and methods applicable to the field of construction. Field and laboratory exercises in the evaluation of technical support assemblies for buildings.

IND 5486 Materials for Interiors (3). Analysis and research of critical issues affecting selection and application of interior finish materials.

IND 5508 Professional Practice (3). Advanced study of office administration, contract negotiation, fee structure, professional ethics, client and public relations. Investigations and analysis of business organizations and project management. Prerequisite: Program approval.

IND 5513 Managing the Design Project (3). Principles and methods of managing design projects including, buildings, interiors and landscape projects. Content covers planning, scheduling, organizing, and controlling complex design projects.

IND 5615 Building Systems for Interiors (3). Study of building environmental systems and building performance issues that impact the design of building interiors and affect the health, safety, welfare, and performance of building occupants. Prerequisite: IND 5628.

IND 5625 Interior Architecture Theory II (3). Overview of the environmental parameters, morphological concepts and ideological principles that generate form and meaning in interior design, architecture, and landscape architecture.

IND 5626 Project Programming (3). Students perform pre-design research and analysis aimed at programming the design of a specific facility. Students ultimately prepare a program of requirements for their master's project. Prerequisites: IND 5937, IND 6639. Corequisite: IND 6259C.

IND 5628 Sustainable Practices in Interior Architecture (3). Analysis and application of theoretical, practical, and professional issues involved in designing sustainable interior environments.

IND 5629 Computer Applications in Design III (3). Students learn advanced techniques in digital design through using 3 dimensional modeling and rendering software within the design process.

IND 5645 Structures 1 (1). Through the study of statics and strength of materials this introductory course provides a scientific basis for analysis of how various structural systems work and withstand loading. Prerequisites: PHY 2053 and MAC 2233 or MAC 1114 or MAC 1147.

IND 5645L Structures 1 Lab (2). The lab sessions will supplement lectures through additional practice and hands-on problems that are designed to enhance the application of structural concepts. Prerequisites: PHY 2053 and MAC 2233 or MAC 1114 or MAC 1147. Corequisite: IND 5645.

IND 5937 Special Topics (3). Examination of the conceptual framework supporting the theory, and research applications in specialized area of interior design. Prerequisite: Program approval.

IND 5938 Cejas Eminent Scholar Seminar (1-3). This is a seminar/workshop course taught by distinguished educators, scholars, and designers. Lectures, critical readings, and discussions of thematic topics make up the methodology of the course.

IND 5941 Internship Experience (0). Experience in interior design practice learned through work with licensed professionals.

IND 5948 Interior Architecture Graduate Internship (3). Advanced issues in professional practice learned through work experience with design professionals.

IND 5950 Interior Architecture Travel, Culture, and Design (3). Study of Interior Architecture through travel. Adopting a global view, students learn to weigh design decisions within the parameters of ecological, socio-economic, and cultural contexts.

Journalism and Media

Teresa Ponte, *Associate Professor and Chair*
Karla Kennedy, *Visiting Instructor and Associate Chair*
Jose Alejandro Alvarado, *Associate Professor*
Mario Diament, *Associate Professor*
Daniel Evans, *Visiting Associate Professor*
Leonardo Ferreira, *Professor*
Susan Jacobson, *Assistant Professor*
Katherine V. MacMillin, *Assistant Professor*
Lilliam Martinez-Bustos, *Assistant Professor*
Neil Reisner, *Associate Professor*
Allan Richards, *Associate Professor*
Michael Sheerin, *Associate Professor*
Lorna Veraldi, *Associate Professor*
Mercedes Vigon, *Associate Professor*
Charles Strouse, *Instructor and Digital Director of South Florida Media Network*

The Department of Journalism + Media (J+M) in the School of Communication + Journalism (SCJ) offers professional, hands-on programs dedicated to training the next generation of journalists, broadcasters and digital professionals for successful careers in media. Our graduate program in Spanish-language Journalism with a bi-lingual track offers native and non-native Spanish speakers an opportunity to acquire multimedia and digital skills leading to careers in national and international newsrooms.

The distinguished faculty teaches students to think critically, write professionally and incorporate the most up-to-date technologies needed to produce compelling 21st-century broadcast and multiplatform journalism. Our degree is accredited by the Accrediting Council on Education in Journalism and Mass Communication.

Through the Department's project-oriented, real-world approach to education, students learn the core values and principles of journalism, broadcasting, communication and media, digital media and the practical skills needed to succeed. This is accomplished by placing great emphasis on internships at top quality companies and organizations, as a complement to course work and by providing an opportunity for students to develop leadership and networking skills through the chapters of the National Association of Hispanic Journalists, and the award-winning student chapter of the Society of Professional Journalists. The nationally-recognized student-operated South Florida News Service provides all students with an opportunity to immerse in a multimedia digital production.

Bachelor of Science in Communication

Degree Program Hours: 120

The degree from the Department of Journalism + Media is accredited by the Accrediting Council on Education in Journalism and Mass Communications. Only 25 percent of all programs in journalism and mass communication in the United States are accredited. The aim of the undergraduate communication program at the University is to prepare students who:

1. are broadly educated, demonstrated by a grasp of the liberal arts and an appreciation of the value of knowledge and learning, including exploration in some depth of a specific field of knowledge outside communication;
2. can think clearly and objectively about the complexities of the modern world, formulate concepts and effectively communicate this information to targeted audiences;
3. are proficient in the basic skills necessary to meet professional requirements at the entry level in one of the tracks offered by the school. This shall include the ability to write English to professional standards and to master the mechanics of grammar, spelling, and punctuation; and
4. understand the social, ethical, economic, philosophical, and political aspects of the communication professions in a global society.

Academic Advising

Academic advising is available for all students pursuing a major in Journalism, Broadcast Media (broadcast journalism and television production), and Digital Communication and Media. Those students interested in our majors and/or certificate programs are encouraged to meet with an advisor. Advisors are available to help students understand the academic curriculum, procedures, and policies, create and refine short and long term educational goals, select areas of study, including majors and concentrations, connect with faculty members and university resources, address academic difficulties and ensure that students are on the correct path to timely degree completion.

Common Prerequisite Courses and Equivalencies

Courses that form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, See Common Prerequisite Manual.

Undergraduate Requirements

To meet the undergraduate requirements for the program (which allows a student to fully enter and complete their major and degree), FIU undergraduates and transfer students must pass **MMC 3003** (Journalism + Media Orientation) and have a minimum **cumulative GPA of 2.85** (this includes all transfer work, in addition to current FIU work). The GPA waiver requirement will not be waived.

Writing Proficiency

All students in each of the majors are expected to demonstrate proficiency in writing. Students are required to enroll in Writing Fundamentals (MMC 3123) and earn a 'C' or higher.

Transfer Credit

Transfer students may receive credit for comparable Florida state communication courses in accordance with Statue 1007.24(7) or for a maximum of six semester hours of communication courses previously taken at non-Florida

state institutions with a grade of 'B' or higher in each course.

Grade Policy

Only grades of 'C' or higher in SCJ courses, the student's area of concentration, and other courses as required by the School shall apply for graduation. A 'C-' or lower is unacceptable. A "P" grade is unacceptable, unless the required course is zero credits. In order to take courses, students must have completed all prerequisites for the course with a grade of 'C' or better. Any student found not to have completed the specific prerequisite requirements as stated in the catalog and the course outline will be administratively dropped if the student does not drop the course prior to the end of the drop period. Students who are late or absent on the first day of class may be dropped from high demand courses at the instructor's discretion.

Graduation Policy

To be eligible for graduation, a student must have a minimum **2.75** GPA in all SCJ courses and the area of concentration required by the major.

Broadcast Media (60 credits)

Students in the Broadcast Media major must satisfy all the following requirements as instructed.

School Requirements: (15 credits)

Students in the Broadcast Media Major may choose Broadcast Journalism or Television Production. In addition to the individual major requirements, students must take the following school requirements:

MMC 3003	Journalism + Media Orientation	0
MMC 3303	Global Media and Society – GL	3
MMC 4200	Mass Communication Law and Ethics	3
VIC 3400	Visual Design for Globalized Media – GL	3
MMC 3123	Writing Fundamentals for Communicators	3
IDS 3309	How We Know What We Know – GL, GRW	3

Broadcast Media Major Specific Requirements: (18 credits) (Select one track)

Broadcast Journalism Sub-Track

REQUIRED COURSES (18 CREDITS)

JOU 3003	Introduction to Journalism	3
JOU 3117	News Reporting and Writing	3
RTV 3531	Multimedia Production	3
RTV 4320	Electronic News Gathering	3
RTV 4350	Broadcast and Digital Newscast Production	3
RTV 4324	Broadcast News Magazine	3

OR

Television Production Sub-Track

REQUIRED COURSES (18 CREDITS)

RTV 3007	Introduction to Television	3
RTV 3531	Multimedia Production	3
RTV 4101	Writing for Video Production	3
RTV 3511	Video Studio Production	3
DIG 4293	Multimedia Production 2	3
DIG 4552	Advanced Multimedia Production (capstone)	3

School of Communication and Journalism Track Electives (15 credits):

MMC 3932C	Intense PODS	1-3
Choose any SCJ courses at the 3000/4000 level from ADV, COM, DIG, JOU, MMC, PUR, RTV, SPC		12

Area of Concentration: (12 credits)

In consultation with an advisor, students must elect a coherent series of four upper-division courses (3000/4000 level) in a non-communication area that can be related to their career.

Journalism (60 credits)

Students in the Journalism major must satisfy all the following requirements as instructed.

School Requirements: (15 credits)

Students in the Journalism major must satisfy all the following requirements as instructed:

MMC 3003	Journalism + Media Orientation	0
MMC 3123	Writing Fundamentals for Communicators	3
MMC 3303	Global Media and Society – *GL*	3
MMC 4200	Mass Communication Law and Ethics	3
VIC 3400	Visual Design for Globalized Media – *GL*	3
IDS 3309	How We Know What We Know – *GL, GRW*	3

Journalism Major Specific Requirements: (18 credits)

JOU 3003	Introduction to Journalism	3
JOU 3117	News Reporting and Writing	3
JOU 3300	Advanced News Writing	3
JOU 4341C	Senior Multimedia Project	3
RTV 3531	Multimedia Production	3
VIC 4001	News Visualization	3

School of Communication and Journalism Track Electives (15 electives):

MMC 3932C	Intense PODS	1-3
Choose any SCJ courses at the 3000/4000 level from ADV, COM, DIG, JOU, MMC, PUR, RTV, SPC		12

Area of Concentration: (12 credits)

In consultation with an advisor, students must elect a coherent series of four upper-division courses (3000/4000 level) in a non-communication area related to their career emphasis.

Bachelor of Science in Digital Communication and Media

Degree Program Hours: 120

Students in the Digital Communication and Media major must satisfy all the following requirements as instructed.

School Requirements (15 credits): All students in this degree must complete a degree core that includes five courses:

MMC 3003	Journalism + Media Orientation	0

MMC 3303	Global Media and Society – *GL*	3
MMC 3123	Writing Fundamentals for Communicators	3
IDS 3309	How We Know What We Know – *GL, GRW*	3
MMC 4200	Mass Communication Law and Ethics	3
VIC 3400	Visual Design for Globalized Media –*GL*	3

In order to be eligible to take advanced (4000-level) major-specific requirements, first time and transfer students seeking this degree must successfully pass MMC 3003 (Journalism + Media Orientation, a zero credit course), and have a minimum cumulative GPA of 2.85, including all transfer work in addition to at least 15 hours of FIU work.

Before taking the advanced major-specific courses, students must pass with a C or better the following required courses: MMC 3303, MMC 3123 and IDS 3309. IDS 3309 also satisfies the FIU Humanities Group 2 core requirement and a Global Learning requirement, while MMC 3303 satisfies a discipline-specific Global Learning requirement.

Major Specific Requirements (24 Credits):

DIG 3001	Introduction to Digital Media	3
DIG 3110	Web Design and Interactive Digital Media	3
MMC 4302	Social Media and Globalization	3
MMC 4631	Audience Analysis, Public and New Media	3
DIG 4800	Digital Theories	3
RTV 3531	Multimedia Production	3
DIG 4293	Multimedia Production II	3
DIG 4552	Advanced Multimedia Production [CAPSTONE]	3

School of Communication and Journalism Track Electives (9 electives)

Choose any SCJ courses at the 3000/4000 level from ADV, COM, DIG, JOU, MMC, PUR, RTV, SPC 9

Areas of Concentration (12 credits)

In consultation with an advisor, students must select a coherent series of four upper-division courses (3000/4000 level) in a noncommunication area that can be related to their career emphasis.

Journalism + Media 4+1 Combined Degree Program

With approval of their academic advisor and the graduate program director, students from undergraduate majors may apply to the 4 + 1 Combined Degree Program. If accepted, students will be allowed to take up to 12 credits of graduate courses which will apply toward both their undergraduate and their master's degree program (M.S. in Mass Communication – Global Strategic Communication or Spanish Language Journalism track).

The admissions requirements are:

- Current enrollment in an approved bachelor's degree program at FIU
- Completed between a minimum of 75 and a maximum of 90 undergraduate credits
- Current GPA of 3.2 or higher
- Complete the separate 4 + 1 application, including signed approval by the director, coordinator or designee of the graduate program.

Certificate Programs

To officially pursue a certificate(s), students must complete the requisite paperwork. Please visit the Office of Student Services for more information. Students majoring in one of the SCJ programs (Advertising, Broadcast Media, Digital Media Studies, Journalism and Public Relations) can pursue any of the certificates offered by the School of Communication + Journalism and/or another Department. These certificate programs are open to degree-seeking students only.

Global Media Communication

Required Courses: 15 credits

MMC 3303	Global Media and Society – *GL*	3
IDS 3309	How We Know What We Know – *GL*	3
VIC 3400	Visual Design for Globalized Media – *GL*	3

Select 2 of the courses below:

ADV 3008	Principles of Advertising	3
DIG 3001	Introduction to Digital Media	3
JOU 3003	Introduction to Journalism	3
PUR 3000	Principles of Public Relations	3
RTV 3007	Introduction to Television	3
COM 3461	Intercultural/Interracial Communication – *GL*	3
IDS 3336	Artistic Expression in Global Society – *GL*	3

Digital Communication and Media

Required Course: 15

IDS 3309	How We Know What We Know - GL	3
DIG 3001	Introduction to Digital Media	3
DIG 4800	Digital Theories	3
MMC 4302	Social Media and Globalization	3
MMC 4631	Audience Analysis, Public Opinion and New Media	3

Visual Production

Required Courses: 15 credits

MMC 3303	Global Media and Society - GL	3
MMC 3123	Writing Fundamentals for Communicators (Prereqs: Successful pass with a grade of C or better in ENC1101 and ENC 1102)	3
VIC 3400	Visual Design for A Globalized Media - GL	3
RTV3531	Multimedia Production *(Prereqs: (MMC3123 or MMC3104C), VIC3400 [(MMC3003, and 2.85 cumulative GPA,) or admission to Visual Production Certificate] Corequisite: VIC3400*	3

Select 1 (one) of the courses below:

ADV3008	Principles of Advertising	3
DIG3001	Introduction to Digital Media	3

IDS3309	How We Know What We Know - GL	3
JOU3003	Introduction to Journalism	3
PUR3000	Principles of Public Relations	3
RTV3007	Introduction to Television	3

Course Descriptions

Definition of Prefixes

ADV-Advertising; COM-Communications; DIG-Digital Media; IDS-Interdisciplinary Studies; JOU-Journalism; MMC-Mass Media Communication; PUR-Public Relations; RTV-Radio- Television; VIC-Visual Communication

Courses that meet the University's Global Learning requirement are identified as GL.

ADV 3008 Principles of Advertising (3). Comprehensive survey of basic principles and practices of advertising emphasizing creative/media strategy decision processes and historical, social, economic, and social influences.

ADV 3200 Creative Concepts (3). Familiarization with the creative process and creative problem solving techniques. Emphasis on group work, brainstorming and idea generation. Will formulate strategies using all communication tools.

ADV 4101 Advanced Concepts in Advertising Copy and Design (3). Advanced copywriting and graphic design. Lab exercises focusing on concept, layout, type specification and mechanical preparation of print advertising, including outdoor and direct response.: Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), IDS 3309, MMC 4200, VIC 3400, ADV 3008, ADV 3200, 2.85 cumulative GPA

ADV 4103 Radio/TV Concepts (3). Theory and practice of producing advertisements for radio and TV. Includes production of a radio and/or TV commercial. Prerequisites: MMC 3104C, ADV 3008, ADV 3200 (with grade of "B" or better), have completed 60 credits, passing score in MMC 3003, 3.0 cumulative GPA, or admission to Advertising minor.

ADV 4201 Advertising and Society (3). The relationship between advertising, economic, political and ethical issues.

ADV 4300 Media Planning (3). Planning, execution, and control of advertising media programs. Emphasis on characteristics of the media, buying and selling processes, and methods and techniques used in campaign planning. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), MMC 4200, VIC 3400, IDS 3309, ADV 3008, 2.85 cumulative GPA.

ADV 4322 Mobile Communication and Advertising Strategies (3). This course is an introduction to mobile technology and the evolution of the mobile multimedia landscape. The course will examine how mobile marketing and advertising serve diverse purposes.

ADV 4323 Strategic Branding and Social Media (3). This course will develop students understanding of the importance of brand equity; how to build, measure and manage brand equity with digital/social media; how to construct the best digital content and distribution strategy to tell a brand's story. Prerequisites: Admission to Advertising, Public Relations or Graphic Design majors or permission of the instructor.

ADV 4601 Account Planning (3). This course introduces the student to contemporary account planning techniques. It stresses the interrelationship between advertising and the consumer and the role of consumer behavior. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC3104C), MMC 4200, VIC 3400, IDS 3309, ADV 3008, cumulative 2.85 GPA.

ADV 4711 Advanced Creativity: Portfolio Workshop (3). Focus will be directed on building creative portfolio pieces for multiplication campaigns. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), IDS 3309, MMC 4200, VIC 3400, ADV 3008, ADV 3200, 2.85 cumulative GPA.

COM 5606 Environmental Communication (3). This graduate level course is designed to bring theoretical principles and professional skills associated with mass communication together with environmental issues and themes. Prerequisites: Completion of the six-credit project or internship requirement (EVR 5907) and permission of the instructor or department.

DIG 3001 Introduction to Digital Media (3). This course will develop and enhance students' understanding of the practical foundations for digital communication, including an overview of the historical development of digital communication.

DIG 3110 Wed Design and Interactive Digital Media (3). The course is designed to give students a solid foundation in Web publishing, JavaScript and app development. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), IDS 3309, MMC 4200. VIC 3400, RTV 3531, and 2.85 cumulative GPA

DIG 4097 Digital Media Entrepreneurship (3). Capstone course in which students will create digital media business proposals demonstrating their understanding of the needs of advertisers and end users in digital media. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, DIG 3001, DIG 4800, MMC 3250, MMC 4302, MMC 4631, and 2.85 cumulative GPA.

DIG 4293 Multimedia Production 2 (3). This is a project-based course that adds to the student's knowledge of multimedia production. There will be and emphasis on video production and streaming, including studio production projects. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3401C), IDS 3309, MMC 4200, VIC 3400, RTV 3531, and 2.85 cumulative GPA

DIG 4552 Advanced Multimedia Production (3). This capstone course covers advanced techniques associated with interactive media production, including design, digital storytelling, usability theory, and current best practices. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), IDS 3309, MMC 4200, VIC 3400, RTV 3531,(DIG 3001 or RTV 3007),(DIG 4800 or RTV 4101), (DIG 3110 or RTV 4101), (MMC 4302 or RTV 3511,) (RTV 4320 or RTV 3511), (RTV 3007 or MMC 4631), DIG 4293, and 2.85 cumulative GPA.

DIG 4800 Digital Theories (3). This course explores the emerging field of digital media theories through a variety of academic and professional perspectives including technology studies, critical media, and cultural studies. Prerequisite: DIG 3001.

DIG 4940 Digital Media Internship (1-3). The internship is specifically designed to enhance the learning experience through in-depth reflection and critical analysis of the work environment. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, DIG 3001, and 2.85 cumulative GPA.

DIG 5167 Social Media Metrics and Evaluation (3). This course introduces strategic aspects of social media analytics by highlighting metrics for assessing effectiveness of social media strategies for global advertising, public relations and marketing.

DIG 5438 Strategic Storytelling and Digital Content Creation (3). This course offers a view of storytelling paradigms and provides the opportunity to apply digital storytelling for strategic purposes using interactive multimedia tools.

DIG 5569 Digital Media Management (3). This course examines various methods and perspectives of managing digital media platforms and content in a strategic communication setting.

IDS 3309 How We Know What We Know – *GL* (3). Merges the skills of global information literacy with the critical perspective to ascertain and measure the authenticity and credibility of information in academic and casual research and writing. Meets the state composition requirement.

JOU 3003 Introduction to Journalism (3). Study and analytical discussion of the history of journalism in America, including its current practice, through intensive readings of primary historical sources as well as broad, direct exposure to current news sources.

JOU 3117 News Reporting and Writing (3). Teaches the fundamentals of reporting, interviewing, public records and arithmetic for journalists, and writing news, the basic skills required for any sort of journalism. Prerequisites: (MMC3123 or MMC 3104C), JOU 3003, MMC 3003 and 2.85 cumulative GPA. Corequisite: JOU 3003

JOU 3121 Finding Stories in Data (3). The class focuses on the use of spreadsheets, database managers and the skillful use of the Internet sources, as well as commercial databases used by journalists. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, JOU 3117, and 2.85 cumulative GPA.

JOU 3188 Reporting in a Multi-Ethnic Community (3). This course explores the challenges that face contemporary journalists covering increasingly diverse communities; the class will provide instruction in how to cover multi-ethnic communities. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, JOU 3117, and 2.85 cumulative GPA.

JOU 3202 Editing and Layout (3). Editing news copy for accuracy and brevity, including AP style. Learning the role of news editor, including headline writing and layout. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3117, and 2.85 cumulative GPA. (Supplies fee assessed)

JOU 3300 Advanced News Writing (3). Writing and producing the feature story: human interest, trends, personality profiles, sidebars, backgrounders, color. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, JOU 3117, and 2.85 cumulative GPA.

JOU 3314 Environmental Journalism: Communicating Environmental Issues in South Florida (3). This course is designed to bring science, the environment and journalism together, so that students from a variety of disciplines can develop news stories about issues regarding the environment.

JOU 3405 South Florida News Service: The Newsroom (3). Advanced instruction and practice in research, reporting and writing a variety of complex news stories. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, and 2.85 cumulative GPA.

JOU 4101 In-Depth Reporting (3). Advanced instruction and practice in researching, reporting and writing a variety of complex news stories. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3117, and 2.85 cum GPA.

JOU 4447 Magazine Editing and Production (3). Develops skill in writing, editing and design, and a knowledge of planning, typography and graphics. Attention is given to developing formats, selecting copy, photos, graphics, and type. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3117, and 2.85 cum GPA

JOU 4341C Senior Multimedia Project (3). Conceptualizing and production of an online publication, including layout, photography, streaming video and audio. The project to be delivered in 3 different formats - print, television, and on-line. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), IDS 3309, MMC 4200, VIC 3400, RTV3531, JOU 3003, JOU 3117, VIC 4001, JOU 3300 and 2.85 cumulative GPA.

JOU 5806 Student Media Advising (3). Designed to assist teachers and advisers 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 adviser. In addition, attention is given to matters pertaining to curriculum and methodology for effective journalistic instruction.

MMC 3003 Journalism + Media Orientation (0). A course designed to provide the students with a comprehensive overview of academic policies, procedures and requirements for matriculation and graduation from the SCJ Journalism + Media Department.

MMC 3021 Grammar Workshop: Preparation for the 21st Century (3). This course provides a much-needed pre-writing workshop for those who need a stronger introduction to language skills or for who simply want to perfect their English grammar.

MMC 3104C Writing Strategies for Reaching a Mass Audience (3). An advanced writing course that applies creative thinking techniques, especially in the generation of ideas for mass media presentation, as well as the careful and compelling use of language. Prerequisite: Passing score on the Language Skills Test. (Supplies fee assessed)

MMC 3123 Writing Fundamentals for Communicators (3). Writing Fundamentals for Communicators applies principles of writing for professional communications in advertising, broadcast, digital media, scholarship, journalism and public relations. Prerequisites: ENC 1101 and ENC 1102.

MMC 3132 Ready for Prime Time Presentation Skills (3). The students will learn the disciplines, techniques and procedures used by broadcast on-air talent and communications professionals. Prerequisites: MMC 3003, MMC 3303, MMC 3123, and IDS 3309.

MMC 3250 The Communication and Media Industry (3). An examination of the changing business models of the 21st century U.S. media and communications industry.

MMC 3303 Global Media and Society – *GL* (3). The course will familiarize the student with a multi-cultural global perspective of a multi-media world. The aim of the course is to create a foundation of global media literacy.

MMC 3650 Media and Sustainability (3). This course introduces students to the study of sustainability from a media studies perspective, examining global mediated discourses associated with sustainability and other environment issues.

MMC 3932C Intense Pods (1). This course aims to provide intensive instruction on a particular topic or skills not otherwise offered in the curriculum. This course is repeatable.

MMC 4200 Mass Communication Law and Ethics (3). An in-depth examination of legal and ethical issues confronting professional communicators. Focus on the responsibilities and rights of communicators and the implications for a society entering the 21st century.

MMC 4253 Advanced Media Management (3). A senior level course dealing with case studies of media organizations. Prerequisites: MMC 3250, MMC 3104C, have completed 60 credits, passing score in MMC 3003 and 3.0 cumulative GPA.

MMC 4262 New Technologies of Communication (3). The principal emphasis is upon new technologies in the industry. Prerequisites: RTV 3007, MMC 3104C, have completed 60 credits, passing score in MMC 3003 and 3.0 cumulative GPA.

MMC 4302 Social Media and Globalization (3). Introduces media, law and regulation within digital communications, while exploring implications for access to information and freedom of expression.

MMC 4304 Strategic Communication Seminar: Multicultural Marketing Communication – *GL* (3). Understanding the visual theories behind the design, editing and production of materials for print, broadcast and multimedia. Special attention given to digital pre-production and software skills.

MMC 4350 Broadcast and Digital Newscast Production (3). This course will emphasize instruction on producing newscasts by learning to position news stories based on journalistic news values, newsroom leadership skills and knowledge of the market. Prerequisites: MMC 3003. MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, JOU 3117, RTV 4320, and 2.85 cumulative GPA

MMC 4410 Integrated Communications Campaigns (3). Capstone course for advertising and public relations students. Students work in teams to identify a client's communication problem. They then research, strategize, design, and present a communications campaign to a client. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), IDS 3309, MMC 4200, VIC 3400 ADV 3008, PUR 3000, ADV 4323, MMC 4609, 2.85 cum GPA Corequisites: MMC 4936, PUR 4101, PUR 4106, ADV 4101, ADV 4300.

MMC 4500 Media History (3). Development of American media from beginnings in Europe to present day; freedom of the press and its relationships to economic, political, and social trends in society.

MMC 4541 E-Cinema and TV Aesthetics (3). Presentation and study of aesthetic concepts and execution of television and e-cinema. (Supplies fee assessed)

MMC 4609 Integrated Communication Research Strategy (3). Nature and application of research utilized in advertising and public relations. Emphasis on gathering and analyzing primary and secondary data to determine situation analysis and communication strategies.

MMC 4631 Audience Analysis, Public Opinion and New Media (3). The course examines relationships in new media, public opinion, policy and audiences. The means of assessing public opinion in digital media and includes in-depth analysis of digital media audience.

MMC 4905 Independent Study (1-3). Specialized intensive study in an area of special interest to the student. Consent of instructor is required. (Limit of three credits).

MMC 4936 Special Topics (3). Intensive study for groups of students of a particular topic or limited number of topics, not otherwise offered in the curriculum.

MMC 4940 Media Practicum (0-3). Structured field-work experience in media environment.

MMC 4941C Journalism + Media Internship (0-3). This internship is designed to enhance the learning experience through intense critical analysis and skills building in a relevant work environment. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, DIG 3001, JOU 3003, RTV 3007, 2.85 cumulative GPA.

MMC 4945 Communication Internship (0-3). On-the-job learning in activity at selected and approved organizations. Will include newspapers, magazines, radio and TV stations, agencies, and non-profit organizations. Prerequisites: Permission of the Department Chair or Department Internship Advisor.

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.

MMC 5268 Communication in the Digital Age (3). This course is designed to develop and enhance students' understanding of the foundations for digital communication, including an overview of the historical development of digital communication.

MMC 5306 Global Communications (3). This course explores global markets and intercultural communications while providing advanced study, evaluation and application of cultural context, theories, stakeholders, and trends in media, advertising, and public relations. Analysis of ethical, legal, political, and social communications issues around the globe.

MMC 5440 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. (Offered at least once a year).

MMC 5655 Mass Communication and the Environment (3). The course brings theoretical principles and professional skills associated with media communication together with environmental issues. Prerequisites: Graduate standing or permission of the instructor.

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 minicomputers in creative communication.

PUR 3000 Principles of Public Relations (3). An introduction to the theory, history, practice, and future of public relations. A comprehensive study of the field.

PUR 4100 Writing for Public Relations (3). Introduction to the content, format and style of multiple public relations tools including newsletters, magazines, brochures and digital media. Emphasis on news releases, AP style and media relations. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), IDS 3309, MMC 4200, VIC 3400, PUR 3000, 2.85 cumulative GPA, or admission to Strategic Communication certificate (Supplies fee assessed)

PUR 4101 Digital Editing and Design (3). Understanding the visual theories behind the design, editing and production of materials for print, broadcast and multimedia. Special attention given to digital pre-production and software skills. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), MMC4200, VIC3400, IDS 3309, ADV 3008, PUR 3000, 2.85 cumulative GPA, admission Strategic Communication Certificate or graphic design track in BFA major. (Supplies fee assessed)

PUR 4106 Advanced Public Relations Writing for Multimedia Platforms (3). Emphasis on the strategic aspects of public relations writing and preparation of more complex vehicles, such as annual reports, policy speeches, position papers, and complex press releases/press kits. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), IDS 3309, MMC 4200, VIC 3400, PUR 3000, PUR 4100, 2.85 cumulative GPA, or admission Strategic Communications Certificate. (Supplies fee assessed)

PUR 4940 Practicum: BOLD Agency (3). This course operates as a student-run agency that has the infrastructure to train students from SJMC and other majors to run a successful strategic communication agency.

PUR 5406 Multi-Cultural Communications (3). Explores the multi-cultural dimensions of communications with diverse audiences within the United States.

RTV 3007 Introduction to Television (3). Introduction to the history, regulation, industry structure and impact of television.

RTV 3207 Video Directing (3). Studio directing/technical directing and related techniques used in television entertainment shows, commercials, newscasts, documentaries, training and corporate video productions. Students are expected to solve media-related problems during actual productions. Prerequisites: RTV 3531, MMC 3104C, have completed 60 credits, passing score in MMC 3003 and 3.0 cumulative GPA. (Equipment fee assessed)

RTV 3301 Broadcast News Reporting (3). Instruction and practice in news writing, reporting and interviewing for broadcast media. This course meets in an accelerated manner in the first half of the semester to be followed by Electronic News Gathering RTV 4320 for those students wishing to pursue additional training in broadcast journalism. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, and 2.85 cumulative GPA.

RTV 3511 Video Studio Production (3). Use of television studio equipment and techniques in production of programs, newscasts, documentaries, commercials, training and video productions. Introduction to basic video directing. Prerequisites: MMC 3003, MMC 3303, (MMC 3123 or MMC 3104C), IDS 3309, MMC 4200, VIC 3400, RTV 3531, RTV 3007, RTV 4101, and 2.85 cumulative GPA (Equipment fee assessed)

RTV 3531 Multimedia Production (3). Use of ENG/EFP equipment and techniques in production of programs, news, documentaries, music videos, commercials, training and video productions on location. Emphasis on single camera techniques and editing. Prerequisites: (MMC3123 or MMC3104C), VIC3400 [(MMC3003, and 2.85 cumulative GPA), or admission to Visual Production Certificate] Corequisite: VIC3400. (Equipment fee assessed)

RTV 3571 Video Post Production (3). Advanced post production techniques using A & B rolls, complex audio mixes and their preparation and execution. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, DIG 4293, RTV 3511, and 2.85 cumulative GPA. (Equipment fee assessed)

RTV 3803 Studio Management (3). Students are introduced to basic studio language and procedures and will do research about duties of the producer, budgets and related topics. Prerequisites: MMC 3104C, have completed 60 credits, passing score in MMC 3003 and 3.0 cumulative GPA.

RTV 4101 Writing for Video Production (3). The course is intended to introduce the student to various types of writing for television and Internet/Journalism videos. This will include storytelling for short videos and short documentaries. Prerequisites: MMC 3003, (MMC 3123 or MMC 3104C), RTV 3007, and 2.85 cumulative GPA Corequisites: RTV 3007 (Supplies fee assessed)

RTV 4320 Electronic News Gathering (3). This course is an introduction to the real world of video news. It is designed to teach students to plan, research, report, write and execute electronic news productions from concept to finished product. Prerequisites: MMC 3003, (MMC 3123 or MMC 3104C), IDS 3309, MMC 3303, MMC 4200, VIC 3400, RTV 3531, J0U 3117, 2.85 cumulative GPA (Equipment fee assessed)

RTV 4324 Broadcast News Magazine (3). Students will learn how to research, report, write, shoot, produce, and edit hard news and feature stories for broadcast (capstone course). Prerequisites: MMC 3003, (MMC 3123 or MMC 3104C), IDS 3309, MMC 3303, MMC 4200, VIC 3400, RTV 3531, JOU 3117, RTV 4320, (RTV 4350 or RTV 4332), 2.85 cumulative GPA

RTV 4332 Long-Format TV and Radio (3). This course is an advanced non-fiction broadcasting course. Students will plan, research, report, write and execute multiplatform long-format broadcast non-fiction productions. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, JOU 3117, RTV 4320, and 2.85 cumulative GPA. (Supplies fee assessed)

RTV 4350 Broadcast and Digital Newscast Production (3). This course will emphasize instruction on producing newscasts by learning to position news stories based on journalistic news values, newsroom leadership skills and knowledge of the market. Prerequisites: MMC 3003, (MMC 3123 or MMC 3104C) IDS 3309, MMC 3303, MMC 4200, VIC 3400, RTV 3531, JOU 3117, and 2.85 cumulative GPA.

RTV 4521 Videography Advanced (3). Advanced techniques in single camera production, field lighting and sound recording. Advanced techniques using non-linear editor. Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, RTV 3007, RTV 4101, DIG 4293, and 2.85 cumulative GPA. (Equipment fee assessed)

RTV 4661C Advanced Video Production Workshop (3). Advanced course where students will be expected to use all the knowledge about television production received in the track. Students produce and perhaps direct programs for broadcast/cablecast. Corequisite: RTV4521 Prerequisites: MMC 3003, MMC 3303, MMC 3123, IDS 3309, MMC 4200, VIC 3400, RTV 3531, RTV 3007, RTV101, DIG 4293, RTV 3511, and 2.85 cum GPA (Supplies fee assessed)

RTV 5801 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. Prerequisites: 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. Prerequisites: Graduate standing or permission of the instructor.

VIC 3400 Visual Design for Globalized Media – *GL* (3). The course explores the relationship between images and messages in global media and the primary role that visual design plays in globalized media presentations.

VIC 4001 News Visualization (3). The course is designed to teach journalism students how to tell a story using the visual toolset to get a story right on multiple platforms, including television, radio and online. Prerequisites: MMC 3003, MMC 3303, MMC 3123, or MMC 3104C, IDS 3309, MMC 4200, VIC 3400, RTV 3531, JOU 3003, JOU 3117, and 2.85 cumulative GPA.

Landscape Architecture + Environmental and Urban Design

David Rifkind, *Interim Chair*
Juan Antonio Bueno, *Professor*
Ebru Ozer, *Associate Professor*
Roberto Rovira, *Associate Professor*

The Landscape Architecture + Environmental and Urban Design (LAEUD) Department focuses on the development of the basic knowledge, skills, and abilities appropriate to the practice of landscape architecture, with a special emphasis on tropical and sub-tropical environments and urban design. Situated between two of the richest coastal and inland ecosystems in the world, Miami presents unparalleled opportunities as an important design laboratory. The city's multilingual, diverse, and ever-expanding needs reflect what many parts of the world will look like in the coming decades. Our focus on leveraging landscape architecture in urbanized regions and especially in tropical and subtropical environments makes for a program that is profoundly relevant to addressing the issues that will affect the estimated six of the ten billion people who will live in similar parts of the world by 2100.

Our goal is to educate individuals who can serve and lead the community through the aesthetic, meaningful, and sustainable design of the physical environment. Our program focuses on design and draws from art, science and technology via a rich design studio sequence that benefits from small student-to-faculty ratios, cutting edge technology, individual workspaces, and study abroad options. Students explore environmental, ecological and urban issues, and propose innovative solutions in the design of public spaces, infrastructure, urban planning, industrial reclamation, ecotourism, environmental mitigation, and many other areas at the center of the relationship between human beings and their surroundings.

For students seeking to begin their professional design studies as undergraduates, the Landscape Architecture Department offers the Accelerated **Master of Landscape Architecture** (MLA). The Accelerated Master of Landscape Architecture program provides a seamless course of study leading from undergraduate freshman year to the conferral of the Master of Landscape Architecture professional degree. The Accelerated MLA is comprised of 155 credit hours of integrated pre-graduate and graduate coursework. The degree consists of 71 credit hours of pre-graduate coursework taken over two years followed by 84 credit hours of graduate coursework.

The department maintains close ties with the architecture, and interior architecture departments in the college, and with landscape architecture professionals. Professional advisory boards regularly review the curriculum to maintain program relevance.

Applicants should plan for the financial aspects of a design education. This includes the costs of computers, software, travel and field trips, tools and equipment, and modeling supplies. Students must also have continuing access to a laptop computer through purchase, lease or other arrangements. For further information contact the CARTA Student Services & Advising Center.

The first professional Master of Landscape Architecture (MLA) degree is fully accredited by The Landscape Architectural Accreditation Board (LAAB), an autonomous committee of the American Society of Landscape Architects.

Admission Requirements

Admissions decisions are made on a rolling basis as applications are completed and all supporting documents are received. You may apply as early as July of your senior year. In order to be scholarship eligible you must submit your Fall application by **November 1**. Check the department website for updated application deadlines: http://carta.fiu.edu/landscape/academics/undergraduate/admissions/

The department admits students once a year to begin their course work in the fall semester; therefore, it is recommended that interested applicants meet with a member of the college's Student Services and Advising Center during the Fall semester prior to the application deadline. Admission to the department is competitive and is not guaranteed. Admission will be offered based on space availability to those applicants judged by the Department Faculty Committee to have the greatest potential for successful completion of the program.

The department offers professional degrees in Landscape Architecture. The curriculum is composed of two years of foundational, undergraduate coursework followed by three years of focused graduate course work leading to the accredited Master of Landscape Architecture (MLA) professional degree. The department does not award the pre-professional bachelors degree.

Undergraduate students may apply for admission into the first year or the third year of the program. Students of the program are considered undergraduate students until they have accumulated 120 credit hours; therefore, freshman and transfer applicants must apply to both FIU's Undergraduate Admissions Office and to the appropriate department.

Undergraduate Admissions
http://admissions.fiu.edu

Department of Landscape Architecture
http://carta.fiu.edu/landscape/

First Year Admission Requirements

Applicants must meet the University's admission requirements and submit a design portfolio – please refer to the Design Portfolio Requirements section.

Third Year Transfer Student Admission Requirements

Applicants for third year admission must meet the University's admission requirements and submit a design portfolio – please refer to the Design Portfolio Requirements section. Students who have completed an AA in architectural studies must meet the following requirements: minimum cumulative GPA of 3.0; completed design studio courses 1 through 4 with a grade of 'C' or better; and be judged by the Faculty Admissions Committee to have passed a competitive portfolio review.

Only grades of 'C' or higher (2.0 on a 4.0 grading scale) are accepted for transfer of applicable prerequisite and core courses from other institutions. No grade below a 'C' will be accepted for graduation in required courses or required electives.

Transfer Students: University policy allows the transfer of 60 lower division credits. Additional upper-division transfer credits may be accepted. For most transfer students it will be necessary to take a certain number of undergraduate credits at FIU in order to achieve the minimum required to satisfy the degree requirements.

Third Year Native Student Admission Requirements

FIU undergraduate students who wish to change their major to landscape architecture should check program requirements and be advised by the college's undergraduate advisors in advance of application for admission. Departmental approval is required.

Design Portfolio Requirements

All applicants must meet University admissions requirements. Applicants to the Landscape Architecture + Environmental and Urban Design Department degree programs must also submit a portfolio for departmental review that demonstrates the candidate's creative aptitudes. The design portfolio is evaluated based on a candidate's demonstrated sense of composition, attention to detail, graphic communication skills, expressive quality, and sense of space, accuracy, and observation.

Design portfolios may include two-dimensional storyboards (a sequence of still images that show a story), computer printouts, and photographs of three-dimensional models/projects.

Digital design portfolios should be formatted to fit on 8.5" x 11" pages within a single, multi-page PDF file. Please refer to the departmental website for submission details.

Portfolios submitted after the Application Deadline will be considered if studio space is available. Details on portfolio requirements can be reviewed through the departmental website.

First Year Design Portfolio Requirements

All candidates' design portfolios must include a one-page statement outlining your intentions, aspirations, and purpose in pursuing a professional degree in landscape architecture. In addition, all candidates' design portfolios require three freehand drawings based on accurate observations: (1) a drawing of a stair or stairs, (2) a drawing of a bicycle or bicycles or a part of a bicycle or bicycles, and (3) a drawing of your own choice. These drawings may be in ink, pencil or charcoal. In addition to the three required freehand drawings, the first year design portfolio may contain reproductions of a two or three-dimensional work.

Third Year Design Portfolio Requirements

All candidates' design portfolios must include a one-page (maximum) statement outlining your intentions, aspirations, and purpose in pursuing a professional degree in landscape architecture. The design portfolio should include no more than 10 examples of your design work executed within the past five years. Examples include, but are not limited to, studies of buildings or landscapes that demonstrate your analytical ability. Recent art and/or design projects that the applicant completed in collaboration with others are acceptable as long as the example contains an explanation of the applicant's role in the process. Portfolios may not contain samples of architectural or interior design construction documents either by hand or by computer.

Ownership of Student Work

Student work submitted to the department in satisfaction of course or degree requirements becomes the physical property of the department. However, students retain all rights to the intellectual property of such work. This work may include papers, drawings, models, or other materials. The department assumes no responsibility for safeguarding such materials and at its discretion may retain, return, or discard such materials. Students must petition the department in writing for any deviation from these established policies.

Study Abroad

Study abroad is an important component of the degree program. Our study abroad center is located in Genoa, Italy. The Genoa center is ideally situated in the historic center of the city in a renovated former convent dating from the 13th century. During the semester abroad option in Italy, students are afforded an opportunity to study those artistic, architectural, landscape and interior spaces and artifacts that have long been acknowledged for their exceptional and enduring value to Western design culture. Other travel options may be available. Departmental approval is required for participation.

Accelerated Master of Landscape Architecture

Degree Program Hours: 155

The accelerated Master of Landscape Architecture program provides a seamless course of study leading from undergraduate freshman year to the conferral of the Professional Master of Landscape Architecture degree (MLA). The Accelerated MLA is comprised of 155 credit hours of integrated pre-graduate and graduate coursework. The degree consists of 71 credit hours of pre-graduate coursework taken over two years followed by 84 credit hours of graduate coursework.

Pre-Graduate Preparation

Students should enroll in Lower Division design courses the first semester they attend FIU or their progress through the curriculum will be delayed. Seats for the Pre-Graduate course of study are limited and cannot be guaranteed to all students.

Progression Requirements

No grade below a 'C' will be accepted for graduation in required courses or required electives.

Undergraduate to Graduate Standing

Students will be evaluated for matriculation to graduate status based upon their graduate GPA at the end of the spring semester of their 4th year (provided they have earned a minimum of 120 total credits). The criteria listed below must be satisfied:

1. A minimum of 120 earned credits (counting no more than 60 lower-division transfer credits),
2. 3.0 or higher GPA in graduate level coursework (5000 level or higher), and
3. Completion of undergraduate coursework.

No Bachelor degree is awarded in the accelerated MLA degree path.

Pre-Graduate Level Course Requirements (71)

ARC 1131	Design Graphics 1	2
ARC 1132	Design Graphics 2	2
ARC 1301	Design Studio 1	4
ARC 1302	Design Studio 2	4
ARC 2303	Design Studio 3	4
ARC 2304	Design Studio 4	4
ARC 1461	Materials and Methods of Design	3
ARC 4586	Structures 1	1
ARC 2701	History of Design from Antiquity to the Middle Ages	3
ARC 2702	History of Design from the Renaissance to the XIX Century	3
ARC 4058	Fundamentals of Digital Design	3
ART 2330C	Beginning Figure Drawing	3

Course requirements also include 33 credits of general education coursework.
Courses are selected from the following categories:

Verbal Communication (9)

ENC 1101	Writing and Rhetoric I	3
ENC 1102	Writing and Rhetoric II	3
COM 3110	Business and Professional Communication	3

Environmental Context (9)

MAC 1114	Trigonometry	3
PHY 2023	Survey of General Physics	3
EVR 1017	The Global Environment and Society – *GL*	3

Cultural Context (9)

HUM 3306	History of Ideas	3
PHI 2103	Critical Thinking	3
PHI 2600	Introduction to Ethics	3

Creative Context (9)

ARH 4450	Modern Art	3
ARH 4470	Contemporary Art – *GL*	3

and one course selected from:

ART 2300C	Beginning Drawing	3
ART 2500C	Beginning Painting	3
ART 2750C	Beginning Ceramics	3

Graduate Level Course Requirements (84)

All accelerated MLA students must complete the following requirements or their equivalent. A minimum of 84 semester hours is required to graduate:

LAA 5653	Landscape Architecture Graduate Design 1	6
LAA 6654	Landscape Architecture Graduate Design 2	6
LAA 6655	Landscape Architecture Graduate Design 3	6
LAA 6656	Landscape Architecture Graduate Design 4	6
LAA 6363	Landscape Architecture Graduate Design 5	6
LAA 5716	History of Landscape Architecture	3
LAA 5374	Computer Practices in Landscape Architecture II	3
LAA 5541	South Florida Landscapes	3
LAA 5381	Computer Practices in Landscape Architecture III	3
LAA 6382	Analysis Methods	3
LAA 6521	Tropical Landscapes	3
LAA 5422	Landscape Development	3
LAA 5425	Landscape Documentation	3
LAA 5235	Theory of Landscape Architecture	3
LAA 6916	Research Methods	3
LAA 5423	Landscape Construction	3
LAA 6910	Graduate Seminar	3
LAA 6970	Master's Project	6
	or	
LAA 6971	Master's Thesis	6
LAA 6215	Professional Practice in Landscape Architecture	3
Directed Electives		9

Certificate in Landscape Architecture

The Certificate in Landscape Architecture offers students the ability to explore the design, planning, and management of regional landscapes. This program is developed to serve undergraduate students within the School of Architecture and in related fields such as Environmental Science and Biological Sciences who would like to seek to expand their academic experience with this area of specialized study. Focused on landscape design and development, the certificate seeks to extend students' skills, knowledge, and critical thinking about the design, making, and managing of existing and built landscape environments. Students who wish to earn the Certificate in Landscape Architecture should contact a School of Architecture undergraduate advisor in advance of pursuing this course of study. Certificate Requirements Students earning this certificate must accumulate 18 credit hours with a satisfactory grade from the following list of available courses. This certificate program is open to degree-seeking students only.

Program Requirements

LAA 3372L	Computer Applications in Landscape Architecture
LAA 3333	Site Analysis and Design
LAA 4242	Modern Landscape Architecture
LAA 3232	Theory of Planting Design
LAA 3712	Image of the Garden: Nature and Culture
LAA 3602	South Florida Landscapes
LAA 3802	Landscape Development
LAA 4546	Tropical Landscapes
LAA 3420	Landscape Construction
LAA 5235	Theory of Landscape Architecture
LAA 3212	Landscape Documentation

Courses on the list may require prerequisites and/or program approval.

Course Descriptions

Definition of Prefixes

LAA-Landscape Architecture; URP-Urban and Regional Planning
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

LAA 3212 Landscape Documentation (3). Production of landscape construction documents, including drawings and project manual with bidding documents, contract documents and technical specifications on the computer. Prerequisites: LAA 3802, LAA 3420, ARC 4058 or equivalent.

LAA 3232 Theory of Planting Design (3). An introduction to the study of principles and methods related to the ecological, functional, and aesthetic use of vegetation in landscape architecture. Prerequisite: Program approval.

LAA 3248 Catalysts of the Urban Canvas (3). Seminar-based course exploring the relationship of focused landscape and architectural interventions in the evolution and development of the urban fabric and its physical context.

LAA 3333 Site Analysis and Design (3). Introduction to ecological, functional, and aesthetic considerations in site analysis, planning and design.

LAA 3341 Visual Notation in Landscape Architecture I (3). Course will focus on technique, through exercise and assignments of varying degrees of complexity to explore and develop a range of skills necessary to develop confidence in drawing landscape architecture. Prerequisite: Program approval.

LAA 3350C Landscape Architecture Design 5 (4). Landform as a design element. Integration of landform design and structure. Small to mid-sized scale projects of limited complexities. Prerequisite: ARC 2304. Corequisites: LAA 3712, LAA 3802.

LAA 3354C Landscape Architecture Design 6 (4). Development of design proposals applying principles and methods in landscape architecture within a tropical and sub-tropical context. Regional mid-sized to large scope scale projects. Prerequisites: LAA 3712, LAA 3802. Corequisites: LAA 3420, LAA 3602.

LAA 3372L Computer Applications in Landscape Architecture (3). Advanced study of computer software packages applicable to the architecture office environment, with particular emphasis on CAD software, graphics packages and desktop publishing. Prerequisite: Program approval.

LAA 3377C GIS Applications in Landscape Modeling (3). Introduction to modeling capabilities of GIS in the planning process addressing the natural and cultural characteristics of the landscape. Prerequisite: Program approval.

LAA 3420 Landscape Construction (3). Technical aspects of the design and specification of sitework, including materials, products, and methods of installation used in landscape construction. Prerequisites: LAA 3802, ARC 4058 or equivalent.

LAA 3430 Landscape Structures (3). Production of landscape construction details for structures and systems used in landscape architecture. Prerequisite: Program approval.

LAA 3602 South Florida Landscapes (3). Study of the structure, function, and change in the natural and cultural landscapes of tropical and subtropical regions. Prerequisite: Program approval.

LAA 3712 Image of the Garden: Nature and Culture (3). Exploration of garden traditions as symbiotic expressions of nature and culture. Emphasis on European gardens, Islamic courtyards, Japanese gardens, and modernist and contemporary gardens and parks. Prerequisites: ENC 1101 and ENC 1102.

LAA 3802 Landscape Development (3). Technical aspects of the design and specification of earthwork, including materials, products, and methods of installation used in landscape development. Prerequisites: ARC 4058 or equivalent.

LAA 3905C Special Topics Design Studio (4). A landscape architectural design studio based on a particular aspect of landscape architectural design under the direction of appropriate faculty.

LAA 3936 Cejas Eminent Scholar Seminar (1-3). This is a seminar/workshop course taught by distinguished educators scholars, and designers. Lectures, critical readings, and discussions of thematic topics make up the methodology of the course.

LAA 4210 Professional Office Practice (3). An introduction in office administration, negotiation of contracts, fee structure, professional ethics, client and public relations. Business organization, procedure scheduling and task allocation. Prerequisite: Program approval.

LAA 4230 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: Program approval.

LAA 4242 Modern Landscape Architecture (3). Critical review of the origins and development of modern and post modern expressions in landscape architecture.

LAA 4344 Italian Design and Culture (3). Course to develop practical facility with the Italian language for conducting everyday tasks, engaging socially and increasing the qualitative depth of the work to be accomplished in the course. Corequisites: LAA 4354C, LAA 4345.

LAA 4345 Landscape Architecture of the City (3). The study of urban landscape architecture in Genoa, Italy, with emphasis on analysis and representation using manual drawing, digital photography, and conceptual model. Corequisites: LAA 4344, LAA 4354C.

LAA 4354C Landscape Architecture Design 7 (4). Exploration of form, circulation and spatial contexts for the design of urban sites. Consideration of cultural and natural

factors addressing intermediate to large scale complexity. Prerequisites: LAA 3420, LAA 3602. Corequisite: LAA 4375C.

LAA 4355C Landscape Architecture Design 8 (4). Exploring contemporary landscape architecture issues through the design of projects varying in scale and complexity. Prerequisite: LAA 4354C. Corequisites: LAA 4210, LAA 3212.

LAA 4375C Computer Modeling (3). This course will explore computer modeling in landscape architecture. Prerequisite: Program approval.

LAA 4546 Tropical Landscapes (3). The study of the structure, function, and change in the natural and cultural landscapes of tropical and subtropical regions. Prerequisite: Program approval.

LAA 4940 Landscape Architecture Internship (3). Advanced issues in professional practice learned through work experience with a licensed practitioner. Prerequisites: LAA 3350C, LAA 3354C, LAA 4354C.

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 5249 Catalysts of the Urban Canvas (3). Seminar-based course exploring the relationship of focused landscape and architectural interventions in the evolution and development of the urban fabric and its physical context.

LAA 5331 Site Analysis and Design (3). Introduction to ecological, functional, and aesthetic considerations in site analysis, planning and design. Prerequisite: Program approval.

LAA 5346 Visual Notation in Landscape Architecture I (3). Course will develop drawing skills in multiple media, actively engaging in projects of drawing as a medium of investigation, documentation, memory, observation and presentation for landscape architecture. Prerequisite: Program approval.

LAA 5371 Computer Practices in Landscape Architecture 1 (3). Computer applications of graphics, modeling, and animation techniques used in landscape architecture. Prerequisite: Program approval. (SS)

LAA 5374 Computer Practices in Landscape Architecture 2 (3). Computer application of drafting and design techniques used in landscape architecture. Prerequisites: LAA 5371, Program approval. (F)

LAA 5378 GIS Applications in Landscape Modeling (3). Introduction to modeling capabilities of GIS in the environmental planning process addressing the natural and cultural characteristics of the landscape. Prerequisite: Program approval. (SS)

LAA 5381 Computer Practices in Landscape Architecture 3 (3). Contemporary methods of digital representation for landscape architecture. Intensive exploration if three dimensional modeling and rendering techniques. Prerequisites: LAA 5371, LAA 5374, program approval.

LAA 5422 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 5423 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 5422. (S)

LAA 5425 Landscape Documentation (3). Production of landscape documents including drawings and project manual, bidding documents, contract documents and technical specifications on the computer. Prerequisite: LAA 5423. (F)

LAA 5427 Landscape Structures (3). Production of landscape construction details for structures and systems used in landscape architecture. Prerequisite: LAA 5423. (F)

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 5541 South Florida Landscapes (3). Study of structure, function, and change in the natural and cultural landscapes of tropical and subtropical Florida. Prerequisite: Program approval. (S)

LAA 5605 Design Foundations (3). The course is a rigorous introduction to design fundamentals. It builds a design language through lectures, practical experiences, exploring techniques, materials, skills, making and critical thinking. Prerequisite: Program approval. Corequisites: LAA 5346 and LAA 5371.

LAA 5652 Formative Studio (6). Introduction to concept development, spatial expression, and representational techniques in landscape architecture. Prerequisite: LAA 5346 and LAA 5XXX Computer Applications in Landscape Architecture. (F)

LAA 5653 Landscape Architecture Graduate Design 1 (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 5905C Special Topics Design Studio (6). A landscape architectural design studio based on a particular aspect of landscape architectural design and relevant ideologies under the direction of appropriate faculty.

LAA 5938 Cejas Eminent Scholar Seminar (1-3). This is a seminar/workshop course taught by distinguished educators, scholars, and designers. Lectures, critical readings, and discussions of thematic topics make up the methodology of the course.

LAA 5940 Landscape Architecture Internship (3). Advanced issues in professional practice learned through work experience with a licensed professional.

LAA 5945 Internship Experience (0). Experience in landscape architecture practice learned through work with licensed professionals.

URP 5316 Environmental and Urban Systems (3). Overview of basic issues and principles of environmental and urban planning and design systems. Emphasis will be placed on multi-disciplinary linkages.

URP 5912 Research Methods (3). Methods of information search, data interpretation, and hypotheses formulation used in the field.

Theatre

Joel Murray, *Chair and Artistic Director*
Phillip Church, *Associate Professor*
Rebecca Covey, *Associate Professor*
Anthony Galaska, *Associate Professor*
Christopher Goslin, *Senior Instructor*
Jennifer Ivey, *Assistant Professor*
Ivan Lopez, *Instructor*
Daniel Mitan, *Senior Instructor*
Stephen Neal, *Instructor*
Marina Pareja, *Assistant Professor*
Wayne Robinson, *Associate Professor*
Lesley-Ann Timlick, *Associate Professor*
Michael Yawney, *Associate Professor*

Adjunct Faculty
Angie Esposito
Israel Garcia
Terry Hardcastle
Evelyn Saavedra
Brian Valencia
Pioneer Winter

The goal of the Theatre Program is to provide intensive theatre training through classes and productions, conducted with professional theatre discipline and the highest possible aesthetic standards. In addition to completion of course work, theatre majors are required to participate in all major productions.

B.A. candidates will complete the core theatre courses and select an additional 18 elective theatre credits from the approved list of theatre courses. B.F.A. candidates will complete their core theatre courses plus a specialization in either performance or design. In conjunction with specified courses in the College of Education the Department offers all of the courses required for the student to be eligible for teacher certification in Theatre Education.

The degree requirements represent a four year program. Upper division transfers must have their lower division preparation evaluated by the university and by the Department and will be advised accordingly.

An audition or portfolio review and/or interview is required of all candidates wanting to enter the theatre program. Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Candidates for whom English is a second language must have a minimum TOEFL score of at least 550, plus an interview with department personnel to determine adequacy of their English writing and speaking skills.

Bachelor of Arts in Theatre

Degree Program Hours: 120

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
THE 2000*Theatre Appreciation	THE X000
TPP 1110 Acting I	TPP X110
TPA 2210 Stagecraft	TPA X210
TPA 2248 Makeup	THE/TPA/TPP XXXX
TPA 2220 Lighting	THE/TPA/TPP XXXX
TPA 2332 Costume Technology	THE/TPA/TPP XXXX
TPA 2290L Technical Theatre Lab 1	TPA X290
TPP 2653 Playscript Analysis	THE X305/X300
THE 4950 Internship (1 credit)	THE X925

*This course will satisfy general education/core curriculum but is not a course required for the degree.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**. Search Program Listing by Alphabetic Order.

THE 4110	Theatre History I – *GL*	3
THE 4111	Theatre History II	3
THE 4314	Classical Dramatic Literature	3
THE 4370	Modern Dramatic Literature	3
TPA 2010	Introduction to Design	3
TPA 2210	Stagecraft I	3
TPA 2220	Stage Lighting I	3
TPA 2290L	Technical Theatre Lab I	1
TPA 2291L	Technical Theatre Lab II	1
TPA 2292L	Technical Theatre Lab III	1
TPA 2332	Costume Technology	3
TPP 1110	Acting I	3
TPP 2111	Acting II	3
TPP 2160	Theatre Voice and Movement I	3
TPP 2653	Playscript Analysis	3
TPP 3310	Directing I	3
Choose 1 course from the following – 3 credits		
TPA 3226C	Lighting Design I	3
TPA 3045	Costume Design I	3
TPA 3060	Scenic Design I	3
Choose 15 credits from these electives:		
FIL 2000	Introduction to Filmmaking	3
SPC 2050	Voice and Diction	3
THE 4760	Methods of Teaching Theatre	3
THE 4916	Research	1-5
THE 4950	Internship	1-6
TPA 2211	Stagecraft II	3
TPA 2248	Stage Makeup	3
TPA 3002	Period Styles in Theatre Design	3
TPA 3060	Scenic Design I	3

TPA 3230	Costume History	3
TPA 3400	Stage Management	3
TPA 3930	Special Topics in Theatre	1-3
TPP 2112	Acting III	3
TPP 2161	Theatre Voice and Movement II	3
TPP 3113	Acting IV	3
TPP 3530	Stage Combat I	3
TPP 3730	Dialects	3
TPP 3923	Musical Theatre Workshop I	3
TPP 4311	Directing II	3
TPP 4532	Stage Combat II	3
TPP 4564	Mime	3
TPP 4600	Playwriting I	3
TPP 4601	Playwriting II	3
TPP 4920	Advanced Actor's Workshop I	3

Bachelor of Fine Arts

Degree Program Hours: 128

Common Prerequisite Courses and Equivalencies

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

Same as those for the Bachelor of Arts in Theatre Degree requirements.

Performance Specialization (80)

THE 4110	Theatre History I – *GL*	3
THE 4111	Theatre History II	3
THE 4370	Modern Dramatic Literature	3
	OR	
THE 4314	Classical Dramatic Literature	3
THE 4971	Senior Projects	1
TPA 2010	Introduction to Design	3
TPA 2210	Stagecraft I	3
TPA 2290L	Technical Theatre Lab I	1
TPA 2291L	Technical Theatre Lab II	1
TPA 2292L	Technical Theatre Lab III	1
TPA 2332	Costume Technology	3
TPP 1110	Acting I	3
TPP 2111	Acting II	3
TPP 2112	Acting III	3
TPP 2160	Theatre Voice and Movement I	3
TPP 2161	Theatre Voice and Movement II	3
TPP 3113	Acting IV	3
TPP 3164	Theatre Voice and Movement III	3
TPP 3165	Theatre Voice and Movement IV	3
TPP 3310	Directing I	3
TPP 4114	Acting V	3
TPP 4117	Acting VI	3
TPP 4195L	Upper Division Production and Performance	1
TPP 4224	Acting VII	3
TPP 4265	Acting VIII	3

Electives selected with advisor approval

Select 18 credits (6 courses) from the following:

THE 4370	Modern Dramatic Literature	3
	OR	
THE 4314	Classical Dramatic Literature	3
THE 4916	Research	1-5
THE 4950	Internship	1-6
TPA 2220	Stage Lighting I	3
TPA 2248	Stage Makeup	3
TPP 2653	Playscript Analysis	3
TPA 3226C	Lighting Design I	3
TPA 3002	Period Styles in Theatre Design	3
TPA 3045	Costume Design I	3
TPA 3060	Scenic Design I	3
TPA 3230	Costume History	3
TPA 3400	Stage Management	3
TPA 3930	Special Topics in Theatre	3
TPP 3530	Stage Combat I	3
TPP 3730	Dialects	3
TPP 3923	Musical Theatre Workshop I	3
TPP 4166	Voice and Movement V	3
TPP 4253	Advanced Musical Theater Studies	3
TPP 4311	Directing II	3
TPP 4532	Stage Combat II	3
TPP 4564	Mime	3
TPP 4600	Playwriting I	3
TPP 4601	Playwriting II	3
TPP 4920	Advanced Actor's Workshop I	3
TPA 4930	Special Topics in Theatre Performance	1-3

University Common Course Requirements 36 credits

Additional Theatre or University Electives 12 Credits

Design Specialization (81)

THE 4110	Theatre History I – *GL*	3
THE 4111	Theatre History II	3
THE 4314	Classical Dramatic Literature	3
	or	
THE 4370	Modern Dramatic Literature	3
THE 4950	Internship	6
THE 4971	Senior Projects	1
TPA 2010	Introduction to Design	3
TPA 2210	Stagecraft I	3
TPA 2220	Stage Lighting I	3
TPA 2332	Costume Technology	3
TPA 3226C	Lighting Design I	3
TPA 3002	Period Styles in Theatre Design	3
TPA 3045	Costume Design I	3
TPA 3060	Scenic Design I	3
TPA 3073	Stage Rendering	3
TPA 3296	Advanced Technical Project I	2
TPA 4912	Portfolio 1	1
TPA 4297	Advanced Technical Project II	2
TPP 1110	Acting I	3
TPP 2653	Playscript Analysis	3
TPP 3310	Directing I	3

Electives selected with advisor approval

Select twenty-one credits (7 courses) from the following:

TPA 2248	Stage Makeup	3
TPA 3230	Costume History	3
TPA 3930	Special Topics in Theatre: Computer-Aided Drafting	3
TPA 3930	Special Topics in Theatre: Scene Painting	3
TPA 3930	Special Topics in Theatre: TBA	3
TPA 3930	Special Topics in Theatre: Costume Crafts	3
TPA 3930	Special Topics in Theatre: Costume Patterning	3
TPA 4041	Costume Design II	3
TPA 4061	Scenic Design II	3

TPA 4221	Stage Lighting II	3
TPA 3400	Stage Management	3

Technical Production Credits

TPA 2290L	Technical Theatre Lab I	1
TPA 2291L	Technical Theatre Lab II	1
TPA 2292L	Technical Theatre Lab III	1

University Common Course Requirements 36 credits

Additional Theatre or University Electives 11 Credits

Minor in Theatre

Required Courses: (15)

THE 2000	Theatre Appreciation – *GL*	3
TPA 2210	Stagecraft	3
	or	
TPA 2220	Stage Lighting	3
	or	
TPA 2332	Costume Technology	3
	or	
TPA 2010	Introduction to Design	3
TPP 2100	Introduction to Acting	3
Theatre Electives		6

Please note: *Theatre minors are not permitted to take TPP 2111 Acting II.*

Course Descriptions

Definition of Prefixes

FIL-Film; THE-Theatre; TPA-Theatre Production and Administration; TPP-Theatre- Performance and Performance Training F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.
Courses that meet the University's Global Learning requirement are identified as GL.

FIL 2000 Film Appreciation (3). For the beginning student of filmmaking. Survey of the origins and development of cinematography as an art form. Presentation and technical analysis of selected films.

THE 1020 Introduction to Theatre for Majors (1). An orientation to the study, theory, and practice of theatre for freshman theatre majors. It provides the foundation for theatre study at more advanced levels. Prerequisite: Permission of the instructor. (F)

THE 2000 Theatre Appreciation – *GL* (3). A study of theatre: process and product, introducing the past of theatre, its literature and traditions; and the means by which theatre is produced: acting, directing and visual design. (F,S)

THE 3243 History of Musical Theatre in America (3). A study of textual, visual and musical sources tracking the development of Musical Theatre; the conventions, key people and cultural forces that shaped this most American of art forms.

THE 3436 Cuban History and Dramatic Literature (3). Plays from pre- and post-revolutionary Cuba are examined as examples of dramatic literature and related to the historical changes influencing the playwrights.

THE 3940 Internship Experience (0). Experience in theatrical services gained through work with professionals. Prerequisites: Theatre Major and permission of the advisor.

THE 4110 Theatre History I – *GL* (3). The development of the theatre from its origins to the early 19th century. (F)

THE 4111 Theatre History II (3). The development of the theatre from early 19th century to the present. (S)

THE 4314 Classical Dramatic Literature (3). Intensive play reading and discussion of plays from the classical canon, including Greek, Roman, Medieval, Renaissance and Restoration dramas.

THE 4330C Shakespeare on Film (3). An exploration of selected Shakespeare plays that have been adapted for film.

THE 4370 Modern Dramatic Literature (3). Intensive play reading and discussion from early modern through contemporary. (F)

THE 4760 Methods of Teaching Theatre (3). Theory and practice in developing skills as a high school director/teacher. Review texts and resource materials, develop a theatre education philosophy and practice teaching strategies. Prerequisite: Permission of the instructor.

THE 4910 Thesis Research for the B.A. in Theatre (2). Independent research for writing a B.A. thesis in Theatre. Prerequisite: Permission of the advisor.

THE 4916 Research (1-5). Supervised individual investigation of special research projects. Credit will vary with the nature and scope of the project. May be repeated.

THE 4950 Theatre Internship (1-6). Supervised internship in a professional company in acting, directing, stage management, design, technical theatre, or theatre management. Repeatable one time for credit. Prerequisite: Permission of the instructor.

THE 4971 Senior Projects (1). Final preparation and performance or presentation of a creative project in the student's area of emphasis under the direction of a faculty advisor. Theatre majors only.

THE 4972 Senior Thesis (1). Research and writing of a thesis dealing with an aspect of theatre history and/or theory. Prerequisite: THE 4910.

TPA 2001L Production Participation Lab (1). Students perform technical work on theatre productions. Required each term for theatre majors not taking a technical production course. Must be repeated for a total of 2 credits.

TPA 2010 Introduction to Design (3). An introduction to the concept of basic design elements and development of visual vocabulary as a prerequisite for Scenic, Lighting and Costume Design. Lecture and Laboratory. (F, S)

TPA 2210 Stagecraft I (3). An introduction to construction techniques used in stage. Direct experience with wood and metal working tools, blueprint reading, and various materials including wood, metal, plastics and fabrics. Lecture and laboratory. Prerequisite: Permission of advisor. (F,S)

TPA 2211 Stagecraft II (3). Advanced problems in the construction and movement of scenery, properties, and special effects. Prerequisite: TPA 2210.

TPA 2220 Stage Lighting (3). Familiarization with stage lighting equipment, purposes, and aesthetics of stage lighting; development of an approach to designing lighting; practical experience in the use of equipment. Lecture and laboratory.

TPA 2248 Stage Make-up (3). Facial analysis, color matching, makeup design and application techniques of makeup for the stage. Includes character analysis and history of makeup styles. Prerequisite: Permission of the instructor. (S)

TPA 2290L Technical Theatre Lab I (1). Supervised crew work in construction, painting, lighting, costuming, and running major productions. Required of Theatre majors. (F,S)

TPA 2291L Technical Theatre Lab II (1). Supervised crew work. Required of Theatre majors. Prerequisite: TPA 2290L. (F,S)

TPA 2292L Technical Theatre Lab III (1). Supervised crew work. Required of Theatre majors. Prerequisite: TPA 2291L. (F,S)

TPA 2332 Costume Technology (3). Practical instruction in costume construction and care, along with theatrical wardrobe organization. Prerequisite: Permission of the advisor.

TPA 3002 Period Styles in Theatre Design (3). An introduction to period styles and ornament and how it applies to Theatre Design. Prerequisite: TPA 2010.

TPA 3045 Costume Design I (3). The theory and practice of designing stage costumes through play and character analysis, research, and translation of this information into effective stage costume designs. Prerequisites: TPA 2010 and TPA 2332.

TPA 3060 Scenic Design I (3). Nontraditional approaches to the development of design elements for the stage. Prerequisites: TPA 2210 and TPA 2010.

TPA 3073 Stage Rendering (3). An introduction to the Techniques used in rendering scenery and costume design concepts. Recommended as preparation for TPA 3060. Prerequisite: TPA 2210, TPA 2010.

TPA 3077 Scene Painting (3). A hands-on study of the basic techniques and processes used by scenic artists. Prerequisites: TPA 2010 and TPA 2210.

TPA 3226C Lighting Design I (3). Theory and practice in the application, methods and principles of lighting for theatrical productions. Prerequisites: TPA 2010 and TPA 2220.

TPA 3230 Costume History (3). Fashion from Ancient to Modern Times in correlation to society and theatrical styles. Prerequisite: Permission of the instructor. (F,S)

TPA 3293L Technical Theatre Lab IV (1). Supervised crew work. Required of Theatre majors. Prerequisite: TPA 2292L. (F,S)

TPA 3296 Advanced Technical Project I (2). Advanced practical projects in theatre design and technology in support of produced departmental productions. Projects are assigned to the student on the basis of emphasis and experience. Prerequisite: Permission of the instructor.

TPA 3400 Stage Management (3). A two part course introducing practical methods of stage management and aspects of theatre administration: marketing, budgeting, box office, fundraising.

TPA 3930 Special Topics in Theatre (1-3). Lecture-lab studies in particular areas of theatre production, one area per semester, including prop making, sound design, and special effects. May be repeated 3 times for up to 9 credits. Prerequisites: TPA 2010 and TPA 2210 and TPA 2332.

TPA 4041 Costume Design II (3). A continuation of Costume Design I, with increased emphasis on refining skills developed at first design level, plus developing a personal design style and more advanced construction skills. Prerequisite: TPA 3045.

TPA 4061 Scenic Design II (3). Advanced skills in setting the mood of, and creating movement through a theatrical space. Emphasis will be placed upon rendering Techniques and model making. Prerequisite: TPA 3060.

TPA 4221 Stage Lighting II (3). Advance work in lighting of the stage. Emphasis is on practical training and experience through drafting of light plots accompanied by discussion and evaluation. Prerequisite: TPA 2220.

TPA 4297 Advanced Technical Project II (2). Advanced practical projects in theatre design and technology in support of produced departmental productions. Projects are assigned to the student on the basis of emphasis and experience. Prerequisite: Permission of the instructor.

TPA 4298 Advanced Technical Project III (2). Advanced practical projects in theatre design and technology in support of produced departmental productions. Projects are assigned to the student on the basis of emphasis and experience. Prerequisite: Permission of the instructor.

TPA 4912 Portfolio I (1). Supervised individual investigation of special research projects in design and technology. Projects are designed to enhance the student's portfolio. Prerequisite: Permission of the instructor.

TPA 4913 Portfolio II (1). Supervised individual investigation of special research projects in design and technology. Projects are designed to further enhance the student's portfolio. Prerequisite: Permission of the instructor.

TPA 5025 Performance Lighting (2). An introduction to lighting for entertainment art's performances such as those presented at theme parks, concerts and outdoor performances. Prerequisite: Permission of graduate area advisor.

TPP 1110 Acting I (3). Introduction to acting process using Spolin-based improvisational approach. Includes the study, theory and practice of theatre as it relates to performance. Majors only. (F)

TPP 2100 Introduction to Acting (3). An introduction to the acting process. Self awareness, physical and vocal control, basic stage techniques and beginning scene work will be studied. Intended for the student with little or no acting experience. (F,S)

TPP 2111 Acting II (3). Stanislavsky techniques with an emphasis on making actable choices through rehearsal and text analysis. Scene work using the plays of Anton Chekhov. Majors only. Prerequisites: TPP 1110 and permission of the advisor. (S)

TPP 2112 Acting III (3). Continuation of scene study using Meisner technique. Majors only. Prerequisite: TPP 2111. (F)

TPP 2160 Theatre Voice and Movement I (3). Development of the actor's voice and body for the demands of clear performance. An exploration of proper vocal production and movement fundamentals. Corequisite: TPP 2111.

TPP 2161 Theatre Voice and Movement II (3). A continuation of development of the actor's voice and body for clear performance. Emphasis on the Linklater Voice Progression, the International Phonetic Alphabet and applying physical and vocal choices to text. Prerequisite: TPP 2160. Corequisite: TPP 2112.

TPP 2653 Playscript Analysis (3). Detailed playscript examination for directors, actors and designers, focusing on identification of those elements upon which successful theatre production depends. Prerequisite: Permission of the advisor. (F)

TPP 3113 Acting IV (3). Continuation of the development and training of acting skills with emphasis on transformational character choices. Scene work in modern styles from playwrights such as O'Neill, Williams, Fornes, and Lorca. Majors only. Prerequisites: TPP 2112 and permission of the instructor. (S)

TPP 3164 Theatre Voice and Movement III (3). Laban, Feldenkrais, and Neutral Mask will be studied to improve self-use and body articulation. Emphasis on handling heightened texts such as Shakespeare. Prerequisite: Audition for B.F.A. program. Corequisite: TPP 4114. (F)

TPP 3165 Theatre Voice and Movement IV (3). Exploration of physical and vocal approaches to heightened texts and verse. Emphasis on the 2nd part of the Linklater Voice Progression, scansion, rhetorical structures and clear speech. Prerequisite: TPP 3164. Corequisite: TPP 4117. (S)

TPP 3265 Introduction to Acting/Directing for TV/Film (3). An introduction to the fundamentals of acting/directing for TV/Film through practical exercise and creative assignments.

TPP 3310 Directing I (3). Basic principles of play direction; including problems of selecting, analyzing, casting, and rehearsing plays, script analysis. (F,S)

TPP 3530 Stage Combat I (3). A study of combat techniques for the stage including unarmed and rapier fighting.

TPP 3730 Dialects (3). A study of dialects common to western theatre. Prerequisites: TPP 2161 or permission of the advisor.

TPP 3923 Musical Theatre Workshop I (3). An introduction to Musical Comedy performance: integration of the dramatic, musical and movement components will be studied through work on selected scenes. Prerequisite: Permission of the instructor.

TPP 4114 Acting V (3). Classical styles of acting focusing on Shakespeare and the Restoration. BFA majors only. Prerequisites: TPP 3113 and permission of the instructor. Corequisite: TPP 3164. (F)

TPP 4117 Acting VI (3). A comprehensive course in the study of acting, writing and directing for the camera-documentary, dramatic scenes, commercials - offered in conjunction with Channel 17. BFA majors only. Prerequisites: TPP 4114 and permission of the instructor. Corequisite: TPP 3165. (S)

TPP 4166 Voice and Movement V (3). The Study of dialects, vocal characterization and voice-over. Complex physical characterization exploration using character mask work. Prerequisite: TPP 3165.

TPP 4195L Upper Division Production and Performance (1). Exploration of the acting process through rehearsal and performance of a play. Class must be repeated 3 times for 3 credits. Prerequisite: Permission of the instructor.

TPP 4224 Acting VII (3). Audition techniques through preparation and presentation of audition material. Includes an exploration of professional actor training and actor business protocol. BFA majors only. Prerequisites: TPP 4117, TPP 3165 and permission of the advisor. (F)

TPP 4253 Advanced Musical Theatre Studies (3). Prepares students to audition for all types of musical theatre productions. Class format is a master class. Prerequisites: BFA student and TPP 3923.

TPP 4265 Acting VIII (3). Survey of techniques used in solo performance and one-actor productions, featuring practical application of these techniques to original materials. BFA majors only. Prerequisite: TPP 4224. (S)

TPP 4311 Directing II (3). A continued study of directing Techniques culminating in the preparation of a play for public performance. Prerequisites: TPP 3310 and permission of the advisor.

TPP 4532 Stage Combat II (3). Advanced study of combat techniques for the stage focusing on armed combat, including quarterstaff and broadsword. Prerequisites: TPP 3530 or permission of the instructor.

TPP 4564 Mime (3). A movement course to teach the actor the physical skill of mime. This course will improve the students attention, strength, balance, dexterity and clarity.

TPP 4600 Playwriting I (3). Study of the theory and principles of writing plays for the stage. Practice in writing either the short or long play. May be repeated.

TPP 4601 Playwriting II (3). A continuation of the study of the theory and principle of writing plays for the stage. Actual practice in writing plays. Prerequisite: TPP 4600.

TPP 4920 Advanced Actor's Workshop I (3). This course will concentrate on the acting demands of a specific period, style, genre, or playwright. Prerequisites: TPP 4114 or permission of the advisor.

TPP 4930 Special Topics in Theatre Performance (1-3). Studio sessions covering selected topics of current interest in theatre performance. Prerequisite: Permission of the instructor.

TPP 5615 Graduate Playwriting Workshop I (3). A graduate course in playwriting focusing on structure, character development, conflict dialogue, and dramatic action. Students work through a series of exercises exploring different techniques leading to the development of a 10 minute play and a full length play. Students read and discuss scenes in class. Prerequisite: Permission of the instructor.

TPP 5616 Graduate Playwriting Workshop II (3). For graduate students in the Creative Writing program who wish to continue with a second playwriting class. Students work on exercises and scenes leading to the development of a full length play. Prerequisites: One course in playwriting or screenwriting.

TPP 5617 Graduate Playwriting Workshop III (3). A graduate course in playwriting focusing on the development of a full length play with special attention to structure, character development conflict, dialogue, and dramatic action. Students work through a series of scenes leading to the development of a full length play. Prerequisite: TPP 5616.

Minor in Dance 15 credits

The Minor in Dance is designed to meet the needs of liberal arts students who wish to pursue dance for the purpose of increasing creative development, artistic awareness, and intercultural understanding.

Requirements for Minor

Nine credits in dance technique courses

DAA 1100	Modern Dance Technique I	3
DAA 1200	Ballet Techniques I	3
DAA 2610	Dance Composition I	3

Three credits in dance theory courses

DAN 2100	Dance Appreciation	3

Three credits in theatre courses

TPP 2100	Introduction to Acting	3

Course Descriptions

Definition of Prefixes

DAA-Dance Activities; DAE-Dance Education; DAN-Dance Theory

DAA 1100 Modern Dance Techniques I (3). Development of techniques and understanding of the art of contemporary dance includes theoretical component of studies in dance science or history. May be repeated.

DAA 1200 Ballet Techniques I (3). Development of techniques and understanding of ballet, includes theoretical component of studies in dance science or history. May be repeated.

DAA 1341 African Diaspora Dance I (3). An introductory course in African and African diaspora dance techniques. Includes readings and discussions of historical and cultural contexts of the dance. May be repeated.

DAA 1500 Jazz Dance Technique I (3). Development of the dance techniques and understanding of jazz dance. May be repeated.

DAA 2104 Modern Dance Techniques II (3). A continuation of techniques in modern dance with emphasis on increased complexity, musicality and readings in dance history. May be repeated. Prerequisites: DAA 1100 or permission of the instructor.

DAA 2131 Dance in Modern American Culture (3). Survey/lecture course that investigates dance as a cultural phenomenon in America; 1895-present.

DAA 2204 Ballet Techniques II (3). Continuation of Ballet Techniques I with increasing complexity in technical presentations. Emphasis on execution of movement, musicality and readings in ballet history. May be repeated. Prerequisites: DAA 1200 or permission of the instructor.

DAA 2333 African Diaspora Dance II (3). A beginning/intermediate technique class in African and African diaspora influenced dance. Emphasis on increased complexity and musicality. Readings in African Dance and Culture. May be repeated. Prerequisite: Permission of the instructor.

DAA 2350 Spanish Dance I (3). Explores the basics of theatre styles of Spanish dance. Readings and attendance at performance may be required. May be repeated.

DAA 2504 Jazz Dance Techniques II (3). A continuation of Jazz I with emphasis on quickness and musicality when executing complex combinations of movements. May be repeated.

DAA 2520 Tap Dance Techniques (3). Designed for students interested in learning the skills and techniques of tap dancing. May be repeated.

DAA 2610 Dance Composition I (3). Introduction course in dance composition. Improvisation, movement invention and basic choreographic forms are introduced and explored. Prerequisite: Permission of the instructor.

DAA 2611 Dance Composition II (3). Choreographic devices are explored for movement invention and organized in choreographic forms. Solo and small group choreography emphasized. Prerequisites: DAA 2610 or permission of the instructor.

DAA 3094 Dance Studio (2). An in-depth studio focus on specific dance genres to vary each semester. May be repeated.

DAA 3108 Modern Dance Techniques III (3). A continuation of Modern Dance I and II with an emphasis on skills in movement style and phrasing necessary to perform modern dance repertory. Prerequisites: DAA 2104 or permission of the instructor. May be repeated.

DAA 3208 Ballet III (3). A continuation of Ballet I & II with an emphasis on developing strength & coordination in more complex movement. Additional work on phrasing, quality of movement, musicality and performance style.

Prerequisites: DAA 2204 or permission of the instructor. May be repeated.

DAA 3224 Pointe Techniques (1-2). Introduction of fundamentals for development of pointe techniques. May be repeated. Prerequisite: Permission of the instructor.

DAA 3344 African Diaspora Dance III (3). An intermediate level technique class in African and African Diaspora influenced dance techniques. May be repeated. Prerequisites: DAA 2333 or permission of the instructor.

DAA 3345 Caribbean Dance (3). Studio exploration of popular and traditional dance genres and rhythms of the Caribbean region. Includes discussions of historical and cultural context of the dances. May be repeated.

DAA 3346 Haitian Dance (3). Explores through studio practice, discussion, and readings a variety of Haitian folkloric dance styles within their broader religious, historical, political, and cultural contexts. May be repeated.

DAA 3347 West African Dance (3). A studio exploration of selected dance styles and rhythms attributed to the classical societies of Western Africa. Genres are discussed within broad cultural context. May be repeated.

DAA 3354 Spanish Dance II (3). A continuation of Spanish Dance I stressing the development of musicality while working with rhythms associated with Spanish Dance. Readings and attendance at performances may be required. May be repeated. Prerequisites: DAA 2350 or permission of the instructor.

DAA 3395 Cultural Dance Forms (3). An in-depth focus on specific cultural dance styles (Haitian, Afro-Cuban, etc.) to vary each semester. Studio course. May be repeated.

DAA 3508 Jazz Dance Techniques III (3). A continuation of jazz dance techniques and skills with increased emphasis on developing complex dance combinations and full routines. May be repeated.

DAA 3614 Dance Composition III (3). A further exploration of choreography for the group form. Students will be required to take a concept and complete a work for showing and critique. Prerequisites: DAA 2611 or permission of the instructor.

DAA 3654 Dance Repertory (1). The study and practice of works in repertory. May be repeated. Prerequisite: Permission of the instructor.

DAA 3655 Dance Repertory III (2). The continuation of study and practice of selected works of dance repertory. Prerequisite: Demonstration of competence is required. May be repeated.

DAA 3684 Dance Practicum (1). Dance studio explorations on varied topics. May include repertory, improvisations and technical experiences. Permission of the instructor. May be repeated.

DAA 4110 Modern Dance Techniques IV (3). Advanced modern dance techniques with the major focus on dance as an art form using the body as a medium of expression. Prerequisites: DAA 3108 or permission of the instructor. May be repeated.

DAA 4210 Ballet Techniques IV (3). Further development of strength and form with emphasis placed on perfecting the execution of the classical ballet techniques. Prerequisites: DAA 3208 or permission of the instructor. May be repeated.

DAA 4356 Spanish Dance III (3). A continuation of Spanish Dance II, stressing the development of musicality while working with rhythms associated with Spanish dance. Readings and attendance may be required. May be repeated. Prerequisite: DAA 3354.

DAA 4615 Dance Composition IV (3). Students work on extended choreographic projects with an eye toward developing material for their senior project. Prerequisites: DAA 3614 or permission of the instructor.

DAA 4656 Dance Repertory IV (2). The continuation of study and practice of selected works of dance repertory. Prerequisite: Demonstration of competence is required. May be repeated.

DAA 4905 Directed Study (3-12). Individual study by students under the direction of a faculty member. Topics vary; they are usually selected on an individual basis.

DAA 4930 Special Topics (3). Centers around topics of current interest to the field of dance. Topics vary from semester to semester.

DAA 5348 Advanced African Diaspora Dance (3). Advanced African Diaspora Dance is a studio class, which offers an extensive experience in all elements of Afro-Brazilian dance through the exploration of traditional and contemporary dance forms. Prerequisites: DAA 1341 or DAA 2333 or permission of the instructor.

DAE 3385 Building Community Through the Arts (3). Preparation for arts field experience in a variety of community settings. Students will gain an overall view of community-based art and curriculum design.

DAE 4302C Teaching Dance – Arts (3). Practical experience in creating and teaching arts based dance for specific age and developmental groups. Prerequisites: DAN 3714 or permission of the instructor.

DAN 1600 Music for Dance (3). Introductory course in relationships between dance and music. Musical forms, cultural influences and basic accompaniment practices will be covered. Prerequisite: Permission of the instructor.

DAN 2100 Dance Appreciation (3). An overview of dance from a variety of cultural and traditional perspectives. Through film, lecture, and movement, this course explores the diverse ways in which we organize and interpret our life experience as human beings through dance.

DAN 2160 Entry Seminar (1). An introductory course for those considering majoring in dance: an exploration of curricular requirements; courses; aesthetics; and other relevant topics.

DAN 2500 Dance Production I (2). This course prepares dancers for all aspects of dance concert production including lighting, costuming, props, set designs, budget management, and publicity.

DAN 2580 Production Practicum I (1). Practical assignments in working on dance and theatre productions.

DAN 2602 Sound and Accompaniment for Dance (3). An introductory course for sound and accompaniment for

dance. Students learn basic accompaniment techniques and how to develop and create original sound scores. Prerequisites: DAN 1600 or permission of the instructor.

DAN 3150 Contemporary Issues in Dance Aesthetics (3). Introduction to theoretical aspects of Dance as a form of art and discussion of contemporary dance, philosophy, and aesthetics. Prerequisite: Permission of the instructor.

DAN 3394 Dance and Culture of Latin America and the Caribbean (3). Team-taught interdisciplinary course offered as a summer institute focusing on Latin America and the Caribbean. Lecture, panels, and studio classes.

DAN 3504 Dance Production II (3). Continuation of theory and practice in elements of dance production.

DAN 3584 Production Practicum II (1). Practical experience in dance production.

DAN 3714 Dance Kinesiology (3). Concert dance is the referent model for studying and analyzing human movement. Anatomy, physiology and individual differences considered. Prerequisite: Permission of the instructor.

DAN 3724 Anatomy for Dance (3). An overview of the anatomy and physiology of the body explaining how certain anatomical structures and physiological processes interact to execute movement in a safe and effective manner.

DAN 3724L Anatomy for Dance Lab (1).

DAN 4125 Contemporary Issues in Choreography (3). Explores the complex historic and current social, political and cultural issues that contemporary choreographers reference in the creation of new works. Prerequisite: DAA 3614.

DAN 4136 Global Perspectives in Dance and Culture I: Theory (3). Cross-cultural, comparative survey of historic and contemporary world dance. Varied topics are explored within a broad cultural context. Team-taught, interdisciplinary methodology.

DAN 4137 Global Perspective in Dance and Culture II: Theory (3). Cross-cultural, comparative survey of historic and contemporary world dance. Exploration of varied historic and geographic regions of world culture.

DAN 4180 Senior Dance Seminar (2). Capstone course in which senior students articulate and plan senior thesis project. Prerequisites: DAN 4137 or permission of the instructor.

DAN 4396 Dance Ethnology (3). A special topics course which will study a specific dance culture from an historical, sociological and anthropological viewpoint. Topic will vary from semester to semester.

DAN 4905 Independent Study (3-12). Individual study by students under the direction of a faculty member. Topics vary; they are usually selected on an individual basis.

DAN 4910 Research (1-5). Supervised individual investigation of special research projects. Credit will vary with the nature and scope of the project. May be repeated.

DAN 4930 Special Topics (3-12). The course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester.

DAN 4940 Field Experience (3). Practical application in varied community settings utilizing knowledge's acquired in the dance major. Students design an outreach community-based project.

DAN 4970 Senior Thesis (1). Presentation of Senior Thesis project under the direction of faculty advisor. Prerequisite: DAN 4180.

DAN 5388 Dance Ethnology (3). A special topics course which will study a specific dance culture from an historical, sociological and anthropological viewpoint. Topic will vary from semester to semester.

DAN 5398 Latin American and Caribbean Dance and Culture (3). An intensive course offered through a Summer Institute focusing on Latin American and Caribbean dance and culture through seminars, performance techniques, and academic classes.

DAN 5399 Latin American and Caribbean Dance and Culture II (3). An intensive course focusing on Latin American and Caribbean dance and culture through seminars, performance technique, and academic classes.

DAN 5905 Independent Study (3-12). Individual study by students under the direction of a faculty member. Topics vary; they are usually selected on an individual basis.

College of Communication, Architecture +The Arts

Dean **Brian Schriner**
Associate Dean, Cultural and Community Engagement **John Stuart**
Associate Dean, Faculty + Program Development **Marilys Nepomechie**
Associate Dean, Strategic Communication **Maria Elena Villar**
Assistant Dean, Student Services + Strategic Planning, Director, Finance and Personnel **Lilia Silverio-Minaya**
Principle Gift Officer **Oliver Ionita**
Chair, Architecture Department **Jason Chandler**
Chair, Art and Art History Department **David Chang**
Interim Chair, Communication Department **Aileen Izquierdo**
Chair, Interior Architecture Department **Newton D'Souza**
Chair, Journalism and Media Department **Teresa Ponte**
Chair, Landscape Architecture + Environmental and Urban Design Department **David Rifkind**
Chair, School of Music **Karen Fuller**
Chair, Theatre Department **Joel Murray**

Faculty

Abbott, Phillip, MID *(University of Florida), Senior Instructor, Interior Architecture*
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Segev, Sigal, Ph.D. *(University of Leicester), Associate Professor, Communication*
Sheerin, Michael, M.S. *(Florida International University), Associate Professor, Journalism and Media*
Shumow, Moses, Ph.D. *(University of Miami), Associate Professor, Journalism and Media*
Siress, Brian, MA *(New York University), Visiting Instructor, Communication*
Sotham, John, MMAS *(Air Command and Staff College), Visiting Instructor, Communication*
Soto, Alfredo, MA *(Florida International University), Visiting Instructor, Communication*
Spiegelhalter, Thomas, MDes *(Berlin University of the Arts), Associate Professor, Architecture*
Strouse, Charles, MS, *(Florida International University), Instructor, Journalism and Digital Director of South Florida Media Network*
Stuart, John A., MArch, AIA *(Columbia University), Professor, Architecture and Associate Dean, College of Communication, Architecture + The Arts, Executive Director Miami Beach Urban Studios*
Sudol, Jacob, Ph.D., ABD *(University of California at San Diego), Assistant Professor, Music Technology, Music*
Suris, Carlos, M.L.S. *(University of South Florida), Senior Instructor, Communication*
Timlick, Lesley-Ann, MFA *(University of California-Davis), Associate Professor, Theatre*
Vassigh, Shahin, MArch *(University of Buffalo), Professor, Architecture and Director of Technology Research Development*
Vega, Jessica, MBA *(Baruch College, Zicklin School of Business), Visiting Instructor, Communication*
Veraldi, Lorna, J.D. *(New York School of Law), Associate Professor, Journalism and Media*
Vigon, Mercedes, Ph.D. *(University of Miami), Associate Professor, Journalism and Media*
Villar, Maria Elena, Ph.D. *(University of Miami), Associate Professor, Communication and Associate Dean, Strategic Communication*
Vitenson, Michael, MM *(The Julliard School), Instructor, Violin, Instrumental Performance, Artist-in-Residence, Amernet String Quartet, Music*
Wang, Weirui, Ph.D. *(Pennsylvania State University), Associate Professor, Communication*
Watts, Barbara, Ph.D. *(University of Virginia), Associate Professor, Art History, Art and Art History*
Yawney, Michael, MFA *(Columbia University), Associate Professor, Theatre*
Yi, Lidu, Ph.D. *(University of Toronto, Canada), Assistant Professor, Art and Art History*

College of Engineering and Computing

Dean **John L. Volakis**
Associate Dean for Academic Affairs **Anthony J. McGoron**
Associate Dean for Research **Osama Mohammed**
Associate Dean for Undergraduate Education **Mark A. Weiss**

The College of Engineering and Computing is committed to **educate** professionals who can **serve industry and the community at large** in a wide variety of fields, as well as **conduct innovative basic and applied research** that meets the technical needs of industry and government, improves the quality of life, and contributes to the economic viability of Florida, the Nation, and the world.

The College of Engineering and Computing consists of three schools: School of Computing and Information Sciences, School of Universal Computing, Construction and Engineering Education and Moss School of Construction, Infrastructure and Sustainability, and four academic departments: Biomedical Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, and Mechanical and Materials Engineering. These academic departments offer programs leading to the Bachelor of Arts, Bachelor of Science, Master of Science and Doctor of Philosophy degrees.

The College has two institutes and thirteen centers supporting its academic and research programs. The institutes are the Advanced Materials Engineering Research Institute (AMERI) and the Telecommunications and Information Technology Institute (IT2). The centers are the Bioinformatics Research Group (BioRG), Center for Advanced Distributed Systems Engineering, Center for Advanced Technology and Education (CATE), Center for Diversity in Engineering and Computing (CDEC), Center for Emerging Technology for Advanced Information Processing and High-Confidence Systems, Center for the Study of Matter at Extreme Conditions (CeSMEC), Distributed Multimedia Information Systems Laboratory, Engineering Manufacturing Center (EMC), High Performance Database Research Center and the Lehman Center for Transportation Research (LCTR). Two major university centers, the Applied Research Center (ARC) and International Hurricane Research Center (IHRC) work very closely with the College of Engineering and Computing with many joint appointments at the faculty level.

The College houses an open-access Motorola Nanofabrication Research Facility to conduct research in nanoelectronics, bio/nanosensors and nanomaterials. In addition, the FIU College of Engineering and Computing has developed many collaborations with the industry and hospitals in Florida and across the nation.

Bachelor of Science degree programs in the College of Engineering and Computing are offered in the following fields of study:

- Biomedical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science (also B.A.)
- Construction Management
- Electrical Engineering
- Environmental Engineering
- Information Technology (also B.A.)
- Interdisciplinary Engineering
- Internet of Things
- Mechanical Engineering

Undergraduate Professional Certificates are available in:

- Aerospace Engineering
- Heating, Ventilation and Air Conditioning Design
- Robotics Engineering
- Sustainable Construction

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 a high level of technical 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 also participate in a variety of basic and applied research projects in areas such as energy, transportation, solid waste disposal, biomedical devices and instrumentation, computer engineering, artificial intelligence, manufacturing, robotics, telecommunications, microelectronics, structural systems, biotechnology, systems modeling, information technology, environmental sciences and engineering, image processing engineering education, etc. Undergraduate students are given the opportunity to participate in many of these research projects.

Educational Objectives for Computer Science

The computer science program is designed to give our students an outstanding education. To illustrate the excellence of our program, please note the educational objectives below that are met in our program.

1. To provide our graduates with a broad-based education that will form the basis for personal growth and life-long learning.
2. To provide our graduates with a quality technical education that will equip them for productive careers in the field of Computer Science.
3. To provide our graduates with the communication skills and social and ethical awareness requisite for the effective and responsible practice of their professions.
4. To prepare students for BS level careers or continued graduate education.

Educational Objectives for Engineering

All engineering programs in the college are designed to give our students an outstanding education. To illustrate the excellence of our program, please note the educational objectives below that are met in every Engineering program.

1. Develop within our graduates a basic foundation in the fundamental areas of engineering and to provide the technical proficiency needed for the professional practice of engineering.

Our graduates will be able to:
A. Design a system, component, or process to meet desired needs related to the major technical areas encompassed by engineering.
B. Design and conduct experiments and analyze and interpret data related to at least two of the major technical areas encompassed in engineering.
C. Identify, formulate, and solve a wide range of engineering problems.
D. Apply knowledge of mathematics, science and engineering to solve a wide range of engineering problems.
E. Utilize the techniques, skills, and modern scientific tools necessary for contemporary engineering practice.

2. Develop within our graduates the ability to communicate their ideas effectively within the technical community and to the general public.

   Our graduates will demonstrate an acceptable level of proficiency in:
   A. Written communication
   B. Oral communication
   C. Working with others as part of a multidisciplinary team.

3. Prepare our graduates to take their places in society as responsible citizens.

   Our graduates will demonstrate an appreciation for and an understanding of:
   1. Contemporary issues facing society as a whole.
   2. The local and global historical, social, economic, and political context and impact of engineering solutions to societal problems.

4. Provide our graduates with the basis for, and instill within them an appreciation for enthusiasm for life-long scientific inquiry, learning and creativity.

   Our graduates will:
   A. Understand that graduation is but a beginning step in the development of professional engineering competency.
   B. Appreciate the need for life-long learning to maintain and enhance the professional practice of engineering.
   C. Be equipped with the basic knowledge and approach to learning that will allow them to benefit from continued scientific inquiry and learning.

5. Foster within our graduates the development of an understanding for the need to maintain the highest ethical standards in their personal and professional lives.

   Our graduates will:
   A. Demonstrate an understanding of professional integrity and ethical responsibilities.
   B. Demonstrate an understanding of professional responsibility issues as they relate to public interest, health, and safety.

Educational Objectives for Construction Management

The construction management program is designed to give our students an outstanding education. To illustrate the excellence of our program, please note the educational objectives below that are met in our program.

1. To educate undergraduate construction management majors through a program of academic learning designed to provide the management and technical knowledge required for entry level professional positions in the construction industry.
   A. Have a good understanding of principles of management.
   B. Have knowledge of economics, accounting and business law.
   C. Have knowledge of building codes and standards.
   D. Have technical knowledge and ability to identify and understand civil, electrical, mechanical and structural systems.

2. To furnish the graduate construction management majors an advanced level of education designed to provide the management and analytical knowledge required for managerial positions in the construction industry.
   A. Have ability to analyze construction problems.
   B. Have knowledge to solve construction problems.
   C. Have ability to plan, estimate and schedule construction projects.
   D. Have ability to manage construction projects and processes.

3. Develop within our graduates the ability to communicate their ideas effectively within the technical community and to the general public. Our graduates will have an acceptable level of proficiency in:
   A. Written communication
   B. Oral communication
   C. Working with other in a project team

4. Foster within our graduates the development of an understanding for the need to maintain the highest ethical standards in their personal and professional lives.

   Our graduates will:
   A. Demonstrate an understanding of professional integrity and ethical responsibilities.
   B. Demonstrate an understanding of professional responsibility issues as they relate to public interest, health, and safety.

Educational Objectives for Information Technology

1. To provide our graduates with a broad-based education that will form the basis for personal growth and life-long learning.
2. To provide our graduates with a quality technical education that will equip them for productive careers in the field of Information Technology.
3. To provide our graduates with the communication skills and social and ethical awareness requisite for the effective and responsible practice of their professions.

Accreditation for Computer Science

The School of Computing and Information Sciences offers curricula leading to the degree of Bachelor of Arts and Bachelor of Science in Computer Science, Bachelor of

Arts and Bachelor of Science in Information Technology. The Bachelor of Science in Computer Science is accredited by the Computing Accreditation Commission, ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, Telephone: (410) 347-7700.

Accreditation for Engineering

The Engineering Accreditation Commission of ABET, Inc., accredits engineering programs on a nationwide basis. Students wishing more information about accreditation should consult their respective departmental office or the Office of the Dean. The following baccalaureate engineering programs in the college are currently accredited by the Engineering Accreditation Commission of ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, Telephone: (410) 347-7700: Biomedical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Environmental Engineering, Mechanical Engineering. The College has started new online delivery paths for Computer Engineering and Electrical Engineering degrees. Although the online delivery courses for these degrees follow the same curriculum as our onsite courses, the online pathways have not yet been reviewed by the ABET accreditation board.

Accreditation for Construction Management

The American Council for Construction Education (ACCE) accredits construction management programs on a nationwide basis. The baccalaureate construction management program in the College is accredited by the ACCE.

The subjects basic to all fields of engineering are generally studied while the student is in the first two years of undergraduate study in a pre-engineering curriculum. Specialized or departmental courses are taken in the third or fourth years with additional interspersed mathematics and humanistic-social studies. To earn a bachelor's degree in engineering, a student must complete the approved curriculum requirements, and must have a cumulative GPA of at least 2.0 on all engineering courses taken at the University.

The engineering programs include a strong engineering core foundation designed to prepare the prospective engineer not only with a broad base of fundamental courses in mathematics, sciences and technical knowledge, but also with a solid cultural background in humanities, social sciences and English. In addition to the core subjects, the student must complete an engineering discipline specialization under the direction of the respective academic department.

Admission Preparation

Prospective students who are considering engineering should follow an academic program to meet engineering prerequisites. The student planning to transfer to the engineering program as a junior should follow a pre-engineering program in the first two years of college work. Many courses required by the engineering curriculum are specialized in their content and students need to select lower division courses with care. The normal maximum number of credits transferred from a community college is 60 semester credits.

Freshman admission to the University is determined by the University and College admission standards. The freshmen should have had high school preparation of considerable depth and breadth. Specifically, students interested in engineering should have preparation in mathematics (algebra, geometry, trigonometry, analytical geometry, or pre-calculus) and chemistry. Physics and introduction to computers are recommended, but not required. Admitted freshmen students planning to major in an engineering program should contact an advisor in their respective discipline as early as possible.

Engineering and Computer Science Admission Policy

The student must be able to place in MAC 2281/2311 (Calculus I) or higher, in order to declare major in biomedical engineering, civil engineering, computer engineering, computer science (Bachelor's of Science), electrical engineering, environmental engineering, or mechanical engineering. Students who desire to pursue these majors but are not able to place in MAC 2281/2311 (Calculus I) are conditionally admitted to the College but must meet the admission requirements for the major for which admission is being sought. If effective progress is not made by the student towards meeting the admission requirements the student may be redirected to another major that better fits to the student's skills, abilities and interests.

In order to enroll into upper division Engineering and Computer Science courses, a student must earn a grade of "C" or higher in all Calculus courses, Differential Equations, Physics I with Calculus, Physics II with Calculus, and Chemistry I.

The admission policy for freshmen and transfer students are different and the policies may vary in each department. (Refer to the Admission Policy in the department of your choice.)

FIU Freshmen

Freshmen applicants who have satisfied general University requirements for admission are accepted based on a pathway designed to fit their academic history and goals. Admission decisions are made on a space-available basis – if one pathway fills up the student may be accepted through the next. Detailed information regarding admission pathways for FIU admission can be found at https://admissions.fiu.edu/admission-standards/freshman-pathways/index.html .

Students admitted to the University through the Four Year Fall or Early Fall Pathways who have placed in Calculus I (MAC 2311 / MAC 2281) or higher according to FIU's math placement system will be able to declare major in biomedical engineering, civil engineering, computer engineering, computer science (Bachelor's of Science), electrical engineering, environmental engineering, or mechanical engineering.

Students admitted through other pathways or who have not placed in Calculus I according to the math placement system will be able to declare major once they have met the admission requirements for the specific program. Requirements vary from program to program and are not limited to Calculus I placement.

Transfer Students

All transfer students must meet the general University requirement for admission. The student must be able to place in MAC 2311 (Calculus I) or higher in order to

declare major in biomedical engineering, civil engineering, computer engineering, computer science (Bachelor's of Science), electrical engineering, environmental engineering, or mechanical engineering. Students must have a grade of "C" or higher in all Calculus courses, Differential Equations, Physics I with Calculus, Physics II with Calculus, and Chemistry I. Requirements vary from program to program.

There is a two-step process in the evaluation of transfer credits.

a. The Office of Admissions will make a preliminary evaluation of the student's background for general compliance and determination of applicable Core Curriculum courses taken.
b. The specific department will determine the exact transfer of applicable credit. The departmental evaluation is the final word in this matter.

FIU adheres to the Florida Department of Education Articulation Agreement between the Universities and Community Colleges of the State of Florida. Therefore, transfer of credit from Florida Community Colleges is facilitated.

Preference is given to Associate of Arts degree holders from Florida Community Colleges. For holders of other degrees, it is suggested that application is made about three months prior to the beginning of the term.

For specific course requirements, see the departmental sections, shown later in the catalog.

College of Engineering and Computing Dismissal Policy

A student who has been dismissed from the University for the first time may see his/her 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. 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. 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.

Any student who is dismissed a second time from FIU will not be readmitted under any circumstances. Institutional policy is that students may appeal to the Dean's Office, but only a first dismissal appeal is considered in the College of Engineering and Computing; a second dismissal appeal will not be accepted.

The College of Engineering and Computing will uphold the following institutional policies:

Academic Salvage

A student who is dismissed and subsequently receives an AA degree from another Florida public institution of higher learning can appeal to the department and may be readmitted to the program. The student's GPA will be recalculated.

Academic Amnesty

After 6 years of NOT taking courses at any College or University, an FIU undergraduate may reapply to the program. If readmitted, a student's FIU GPA will be set at 0.0. However, credit for previous University courses in which the student received a minimum grade of "C" may be applied toward the degree, (not the GPA), subject to determination by the department through which the student is attempting to earn the degree.

For more information or to find out if you are eligible, see your advisor.

Transfer of Courses to Engineering Programs

Courses from ABET-accredited universities will be transferred under the discretion of the engineering department. Course equivalencies will be determined solely by the department advisor, associate chairperson, or chairperson. Any other faculty member in the Department, College, or University cannot officially grant transfer credits under any circumstances.

Courses from non-ABET accredited programs (including foreign institutions) will only be accepted as long as all of the following requirements are met:

a. The College/University is recognized and accredited by the appropriate governing bodies (to be determined by our office of admissions)
b. For courses that are not offered directly from the student's Engineering department at FIU, a memo must be obtained by the student from the appropriate FIU department stating that the course is equivalent to the required course at FIU.
c. Any engineering course considered for transfer must be a 100% engineering science course at FIU. **If the course is partially or completely designated as an engineering design course at FIU, it cannot be transferred**. All transferred engineering courses must have the consent of the chairperson or associate chairperson of the student's department.
d. The student must earn the equivalent grade to what is required in the courses here at FIU (i.e., if a department requires a "C" in Physics, then the student must have a grade equivalent to a "C" at their university of origin).
e. **Technology credits and life experience credits will not be accepted as engineering credits under any circumstances.**

Student Success Services

The office of Student Success Services is responsible for the coordination of academic advising and student services activities at the University. This area is also responsible for keeping students informed of educational opportunities such as scholarships, tuition waivers, internships, Co-op studies and campus resources.

A student who has been accepted to a degree program in the College must obtain and consult an advisor prior to the first class enrollment. An advisor may be seen by contacting the Department in which an academic major is desired. Continued contact (at least once per semester) with the advisor is required to review progress and select

courses for each succeeding semester. Such contact is required until an approved program of study is completed.

In addition to the university wide scholarships the College of Engineering and Computing offers scholarships as listed below: Most are restricted to students who are United States citizens or permanent residents.

Apply for scholarships on the website **fiu.academicworks.com/**.

Adalio Sanchez Scholarship – All Engineering and Computing Majors: Up to $2,000 per academic year / unmet need U.S. Citizens. Minimum 3.0 GPA.

Balfour Beatty Construction Scholarship – Construction Management Junior or Senior: Up to $2,000 per academic year. U.S. Citizens or Permanent Residents. Resident of Miami Dade, Broward or Palm Beach Counties. Minimum 3.0 GPA.

Biomedical Engineering Excellence Scholarship – Biomedical Engineer – Merit-based scholarship is now available for FIU Undergraduates as well as transfer students with at least 60 credit hours. There are several $5,000 scholarships for an allocation of $1,250 over a period of four semesters. 3.0 GPA is required for eligibility and retaining of the award, while student's SAT score and a written statement will also be considered for the award. Before receiving the scholarship, students must declare Biomedical Engineering as their major. For more information, please call (305) 348-6950

Bruce A. Freiburger Scholarship – Electrical or Computer Engineering Major: Up to $1,000 per academic year. U.S. Citizens or Permanent Residents. Minimum 3.0 GPA

Leonard Kauffman Endowed Scholarship: Graduate Engineering Management student. This is a one time award of $500. There are two awards per academic year.

HNTB Scholarship in Civil Engineering – Civil Engineering Under-Represented Minority: Full-time Undergraduate or Graduate Civil Engineering students. Award: $500 per academic year. U.S. Citizen or permanent resident of Miami Dade, Broward or Palm Beach Counties.

Sergio Martinez Endowed Scholarship: Graduate Engineering Management student. This is a one time award of $500. There is one award per academic year.

Randall L. Nida Memorial/Cordis Corporation Scholarship – Undergraduate Engineering student, U.S. Citizen, Award: $1,000 per academic year.

Chevron First Generation Scholarships – All Engineering and Computing Majors: Up to $4,000 per academic year. Recipients must be the first generation in their family to attain a college degree (students whose siblings have attained or are pursuing a degree are also eligible). Recipients must demonstrate financial need by completing the national Free Application for Federal Student Aid (FAFSA) and be eligible for a Pell Grant. Resident of State of Florida. Visit cec.fiu.edu for other eligibility requirements. Minimum 3.3 GPA.

Condotte-American/MDX: Requirements are a CM major, financial need, leadership, etc. Applications available at CM Department. Applications normally due by mid-April, award of scholarship for next academic year made in July. Amount of scholarship is currently $2,000 for one academic year, and not automatically renewable.

Construction Association of South Florida Scholarship: Scholarships are awarded annually to students enrolled in construction schools throughout the country who are considering pursuing their careers in South Florida. Selections are conducted by the Scholarship committee on behalf of the membership and board of directors.

Consul-Tech/CSA Group Scholarship –Under-Represented Minority Civil Engineering Major: Up to $1,000 per academic yea. U.S. Citizens or Permanent Residents. Minimum 3.0 GPA.

Cordis Corporation- Randall Nida Memorial Scholarship – All Engineering Majors: Up to $1,000 per academic year. Undergraduate. Minimum 3.0 GPA.

FACERS Skillman Civil Engineering Scholarship – Construction Management of Civil Engineering Junior or Senior: Up to $1,000 per academic year. Resident of State of Florida. Minimum 3.0 GPA.

Florida-IT-Pathways to Success/FLIT-PATH – Computer Science, Computer Engineering and IT Majors: U.S. citizen. Visit cec.fiu.edu for eligibility requirements. Must file FAFSA and show financial need.

Keith and Schnars Civil Engineering Scholarship – Civil Engineering undergraduate: Up to $1,000 per academic year. U.S. citizen or resident of Miami Dade, Broward or Palm Beach Counties. Minimum 2.5 GPA.

Kelly Foundation Construction and Engineering Scholarship – Construction Management of Civil Engineering Undergraduates: Up to $2,000 per academic year. U.S. Citizens or Permanent Residents, or international students from the Caribbean Basin or South America. Minimum 2.5 GPA.

Mickey Dane/Walter Dane Memorial Scholarship – All Engineering and Computing Majors: Full-time undergraduate student. Up to $2,000 per academic year. Minimum 3.2 GPA.

NACME – All Engineering and Computing Majors: Up to $2,000 per academic year. Must be of African American, American Indian or Hispanic American descent. U.S. citizen or permanent resident. Visit cec.fiu.edu for eligibility requirements. Must file FAFSA and show financial need.

School of Construction - Construction Management Scholarship – Construction Management Junior or Senior: Up to $1,000 per academic year. U.S. Citizens or Permanent Residents. Minimum 3.0 GPA.

Southern Gear Scholarship – Mechanical: Up to $1,000 per academic year / unmet need U.S. Citizens or Permanent Residents. Resident of Miami Dade County All levels. Minimum 3.0 GPA. Scholarship applications are available at the College of Engineering and Computing website (**www.eng.fiu.edu**).

Walter K. Brown Scholarship – Computer Science Majors: Up to $2,000 per academic year. Upper division. Minimum 3.0 GPA.

Please note that in most cases, neither the college nor the department administer the scholarship funds listed below nor do they select the recipients. Additionally, we need the contact info for these scholarship opportunities/applications.

Associated General Contractors of America Scholarship: Requirements are for a full time student. Applications are available online or from the Department. Applications are available in July and must normally be submitted by November 01. Award amounts are $2,000 annually for undergraduate students, renewable up to $8,000 total, and $7,500 annually for graduate students. Graduate student scholarship is not renewable.

ASHRAE Scholarships – Mechanical Engineering: Scholarships are available to undergraduate engineering, engineering technology and graduate students enrolled full-time in a curriculum approved by the Accreditation Board for Engineering and Technology (ABET) or other accrediting agency recognized by ASHRAE.

SAE Scholarships – Mechanical Engineering: Money is available for both undergraduate and graduate engineering students through generous contributions from various corporations and universities. These scholarships are funded through the SAE Foundation.

ASME Scholarship – Mechanical Engineering: Through the efforts of the ASME Board of Governors, ASME Foundation, the ASME Auxiliary, ASME Councils on Education, Engineering and Member Affairs, over $500,000 is awarded annually in low-interest student loans, scholarships and fellowships.

Astronaut Scholarship – Mechanical Engineering: Scholarship candidates must be nominated by faculty or staff, and they must be a junior, senior, or graduate student at one of a select group of schools. Students may not apply directly for the scholarship.

FGLSAMP – Florida Georgia Louis Stokes Alliance for Minority Participation (Legislature): Undergraduate, full time students in the areas of Physics, Biology, Computer Science, Mathematics, Chemistry, Engineering, minimum GPA 2.75, must be a U.S. citizen or resident.

Hispanic College Fund, Inc. – Must be a U.S. citizen of Hispanic background residing in the fifty states or Puerto Rico. Must be pursuing a bachelor's degree in business, computer science, engineering or business-related major.

Non-Residents and International Undergraduate Students – For more detailed information on these scholarships, applicants should contact the Office of Admissions, PC 140 Modesto A. Maidique Campus, (305) 348-4100.

FMI – Florida Mexico Institute – Out of state tuition waivers – Students Who Are Eligible: Students who have been admitted or who meet admission requirements to any university or community college of the public education system of the state of Florida. Preference will be given to graduate students. Mexican citizens studying in Florida with student visas. Students who make a commitment to return to Mexico after the completion of their studies for a length of time equal to their exemption period, as required by the scholarship program.

Academic Requirements: GPA (3.0) and SAT, ACT, CLAS, GRE, GMAT and/or TOEFL scores appropriate for admission to Florida community colleges and universities. Proof of test scores must accompany applications. Evidence of good academic standing for all previous and current levels of study, as well as a sufficiently good record to be admitted to intended educational program of study. Since this is a merit scholarship program, the level of academic achievement is important.

FCI – Florida Caribbean Institute – Out of state tuition waivers: The Florida Caribbean Institute (FCI) is a state-funded program co-directed by Florida International University and Daytona Beach Community College. Its purpose is to expand cultural, educational and commercial ties between the state of Florida and the countries of the Caribbean Basin. FCI offers out-of-state tuition waivers for qualified Caribbean students to attend any of Florida's public universities or community colleges. It also pursues exchange programs and sister university relationships between members of the Florida State University System and counterparts in the Caribbean, including the University of the West Indies (Jamaica and Trinidad campuses) and institutions in the Dominican Republic. In addition, and FCI scholarship program makes it possible for Florida school teachers to attend FIU's Haitian Summer Institute.

Non-Florida Residence Scholarship Award

Dean's Merit Scholarship – For residents and nonresidents. Must be a full-time student in junior standing with a minimum GPA of 3.5. All engineering disciplines welcomed.

Student Organizations and Clubs

Student organizations and clubs enrich the campus in so many ways. They provide an outlet for learning outside the classroom, for meeting other people, for sharing interests, for broadening one's horizons, for developing life, work & leadership skills, for gaining experience, and for engaging students as citizens of the campus community. At FIU College Engineering and Computing, we follow the philosophy that education is not something to be confined to the classroom. Students grow intellectually and socially by engaging in a broad range of activities. One of the best ways to start this exploration is by participating in student organizations. Our campus has deep traditions of active involvement and student leadership, and student organizations play a significant role in helping to nourish those traditions. By participating in these groups, students not only enrich their own experiences, but those of their peers, and that is the ideal of shared learning. Listed are some of our currently active student organizations and clubs.

AAEES- American Academy of Environmental Engineers & Scientists, Miami Student Chapter
ACM- Association for Computing Machinery
ACE – Association of Cuban-American Engineers
AGC – Associated General Contractors of America
AHMB – Alpha Eta Mu Beta Biomedical Engineering Honor Society
AER- Aerospace and Aviation Engineering Club
ANS – American Nuclear Society
ASCE – American Society of Civil Engineers
ASHRAE – American Society of Heating, Refrigeration & A/C Engineers
ASM/TMS/American Ceramic Society – American Society of Metals, Minerals Metal and Materials (Materials Advantage)
ASME – American Society of Mechanical Engineers
BMES – Biomedical Engineering Society
ECE-GSA- Electrical & Computer Engineering, Graduate Student Association

ECC- Engineering Campus Council
EWB – Engineers Without Borders
FES – Florida Engineering Society
FWEA – Florida Water Environment Association
HKN – ETA KAPPA NU – Electrical Engineering Honor Society
IAARC- Int'l Associate for Automation and Robotics in Construction
IEEE – Institute of Electrical and Electronics Engineers
ITE – Institute of Transportation Engineers
NSBE – National Society of Black Engineers
SAE – Society of Automotive Engineers
SLX – SIGMA LAMBDA CHI – International Construction Honor Society
SHPE – Society of Hispanic Professional Engineers
SWE – Society of Women Engineers
TBPi – TAU BETA PI – National Engineering Honor Society
THETA TAU OMEGA- Co-ed Professional Engineering Fraternity
UPE- Upsilon Pi Epsilon, Computer Science Honors Society
WiCS- Women in Computer Science
All of these student organizations and clubs have a link on our FIU website, **http://www.fiu.edu**.

Women in CEC

The Women of CEC is an initiative launched by the college to increase the number of women pursuing STEM careers, particularly in engineering. Additionally, the effort hopes to improve the overall graduation and retention rates of the college's existing female students. Although women fill nearly half of all jobs in the U.S. economy, they hold less than 25 percent of STEM jobs. The Women of CEC initiative consists of: Kick-off luncheons: Held in the fall and spring to demonstrate to new students that the college is fully invested in their success. FCA Women in Engineering: Held in the fall for this corporate partner to meet and recruit female students. FCA hosted a panel discussion, a design challenge, and a networking reception. JP Morgan Chase: A spring event that included a panel discussion with four female executives and students. Breaking Barriers: A monthly online feature highlighting women engineers, computer scientists, and construction professionals paving the way for women in the field.

International Students

Florida International University (FIU) is a multicultural environment where differences in culture are not only welcome but required. This allows all FIU students to be more culturally knowledgeable and prepared for global challenges in the work place. The International Student and Scholar Services provide information and services to international students. It also provides helpful tips on registration, the cashiers office and even travel. Please visit our website at **www.fiu.edu** for more information.

General Requirements for a Baccalaureate Degree

In order to obtain a Bachelor's degree from the College, each student must satisfy the following minimum requirements:

1. Obtain the minimum number of semester credits required by the specific program. Specific requirements are described in the sections devoted to the various departments in the College.
2. Complete at least 35 semester credits in the upper-division at FIU.
3. Attain a minimum grade point average of 2.0 in all courses taken at the University.
4. Satisfy the core curriculum requirements of the State of Florida for the Bachelor's degree.
5. Satisfy the particular requirements for his or her own major and all University requirements for graduation.

Scientific Laboratory Fee

Scientific laboratory fees are 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.

Prerequisites

Students must have met the prerequisites and co-requisites to register for any course. Otherwise, the student will be dropped from the course before the end of the term, resulting in a grade of 'DR' or 'DF'. Students should refer to the Catalog or see an advisor to determine course prerequisites.

Course Repeats

This varies depending upon the particular program. For more information consult your advisor.

Policies, Requirements, and Regulations

The University, the Graduate School, and the College of Engineering and Computing have a set of guidelines to protect the student's rights and to ensure a timely graduation. Students must become familiar with all university, Graduate School, and College's graduate procedures. These procedures are described in the University's Student Handbook.

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

Florida International and the College adhere to 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 nationality. Additionally, the University is committed to the principle of taking positive steps necessary to achieve the equalization of educational and employment opportunities.

Department-Specific Information

Please refer to your selected department in this catalog for additional information, or call the department:

Biomedical Engineering	(305) 348-6950
Civil and Environmental Engineering	(305) 348-2824
Moss School of Construction, Infrastructure and Sustainability	(305) 348-3172
Electrical and Computer Engineering	(305) 348-2807
Mechanical and Materials Engineering	(305) 348-2569
School of Computing and Information Sciences	(305) 348-2744
SUCCEED – School of Universal	(305) 348-9995

Computing Construction, and Engineering Education

Important Contact Information

Web site: **http://www.cec.fiu.edu**

Admissions	(305) 348-2363
College of Engineering and Computing – Undergraduate Admissions	(305) 348-1635
Campus Resources	(305) 348-6929
Career Services	(305) 348-1281
Financial Aid	(305) 348-7000
Graduate School	(305) 348-2455
International Student Services	(305) 348-2942
Registrar's Office	(305) 348-2320
Scholarships	(305) 348-6929
Tuition Waivers	(305) 348-7000

Professional Certificate in Sustainable Construction

This interdisciplinary Professional Certificate provides both traditional students and practicing professionals with a unique learning experience that enhances their design and management capabilities in the emerging field of sustainable building design and construction. The program focuses on an integrated system approach to apply basic engineering science/architectural principles to practical applications through interdisciplinary teamwork. Interested applicants must contact the Program Coordinator prior to registering for the program. This certificate program is open to both degree- and non-degree seeking students.

The Certificate will be awarded to a student who successfully demonstrates competency in:

Four Core Courses

EML 4460	Mechanical Engineering Systems and Energy Utilization	3
BCN 4570	Sustainable Approach to Construction	3
ARC 3937/5939	GreeN: Designing for Sustainability	3
CGN 4510	Sustainable Building Engineering	3

One Interdisciplinary Design Course

(registered under one of the following discipline courses)

EML 4905	Senior Design Project – *GL*	3
BCN 4910	Senior Project	3
ARC 4114	Special Projects	3
CGN 4802	Senior Design Project	3

One Elective

(choose one of the following courses)

EML 4911	Undergraduate Research Projects	3
BCN 4911	Special Projects	3
CGN 4911	Undergraduate Research Projects	3
ARC 3622/5623	Design Ecology and Technology	3
IND 4627/5628	Sustainable Interior Design Practices	3

NOTE: The program is co-listed in the undergraduate program catalogs under both College of Engineering and Computing and College of Architecture and The Arts.

Course Descriptions

Definition of Prefixes

EGN - Engineering General; EGS-Engineering Support; EIN - Engineering: Industrial; ESI - Engineering Systems Industrial; IDS-Interdisciplinary Studies.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

Courses that meet the University's Global Learning requirement are identified as GL.

EGN 3124 Computer Assisted Drawing and Design (3). Application of computer assisted design technology to product design, feasibility study and production drawing. (F,SS)

EGN 3910 Socio-technical Systems Design (3). A collaborative, projects-based introduction to interdisciplinary design using systems thinking and human-centered design principles.

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 3124 or equivalent.

EGN 5540 Quality and EH&S Management Systems (3). Design of management control systems for quality, environmental, and occupational health and safety requirements. Principles and process of auditing. Review of related standards. Prerequisite: EIN 5226.

EGN 5550 Risk Analysis in Business Concept Development for Engineers and Entrepreneurs (3). It integrates assumptions, risk/forecasting with engineering approach to new business development. The course uses exercises, cases and projects to develop practical experience with course theories.

EGN 5644 Commercializing Innovation (3). Product development/process, innovation, commercialization; needs analysis; market segmentation; value proposition; prototyping, packaging and branding; modeling costs and margins; hands-on practice. Prerequisite: Permission of the instructor.

EGS 3913 Research Methods in Engineering and Computing (3). Student will learn the foundations of research across disciplines, including developing a research question and hypothesis or objective, experimental design, and responsible conduct of research

EGS 5620 Enterprise Systems Configuration (3). Enterprise systems overview; major enterprise functions; standard operation procedures; system configuration and parameters; master data; user interfaces and reports; and hands-on experience. Prerequisite: Permission of the instructor.

EGS 5621 Enterprise Systems Collaboration (3). Collaborative engineering and environment; decision processes; changes management; virtual enterprise operation systems; and hands-on experience with a commercial enterprise operation system. Prerequisite: EGS 5622.

EGS 5622 Enterprise Systems Integration (3). Enterprise architectures; work flow modeling and design; systems integration methodology; vertical and horizontal integration; master data analysis and integration; and hands-on experience. Prerequisite: EGS 5620.

EGS 5623 Enterprise Systems Optimization (3). Supply networks overview; interactive supply network planning; optimal systems and process design; optimization techniques and heuristics; master and transaction data transfer; and hands-on experience. Prerequisite: EGS 5622.

EIN 1396C Basic Industrial Shop and Manufacturing Practices (3). Fundamentals of basic capabilities and requirements for a modern shop or industrial manufacturing facilities. Rudiments of safety requirements, wood technology, metal technology and plastic technology.

EIN 2100 Introduction to Industrial and Systems Engineering (1). A historic review of ISE origins, definition of role, functions and contributions of the IE in industry. Professional development opportunities. Practice communication skills. Seminars.

EIN 3235 Evaluation of Engineering Data I (3). Analysis of industrial data and subsequent characterization of industrial processes. Prerequisite: MAC 2312. (F,S,SS)

EIN 3331 Quality Control (3). Modern concepts for managing the quality function of industry to maximize customer satisfaction at minimum quality cost. The economics of quality, process control, organization, quality improvement, and vendor quality. Prerequisite: EIN 3235. (S,SS)

EIN 3365 Facilities Planning and Materials Handling (3). Application of methods and work measurement principles to the design of work stations. Integration of work stations with storage and material handling systems to optimize productivity. Prerequisites: EGN 3124 and ESI 3321. (F)

EIN 3600 Industrial Automation (2). Basic concepts of industrial automation and robotics. Performance characteristics, criteria for use, planning, selection, and implementation of computer automated equipment. Open to non-majors. Prerequisite: ESI 3161. Corequisite: EIN 3600L. (F)

EIN 3600L Industrial Automation Lab (1). Experiments in the use of CNC machines and robots demonstrating performance characteristics of CNC equipment and robotic arms. Corequisite: EIN 3600. (Lab fees assessed). (F)

EIN 3949 Industrial Engineering Co-Op (1-3). Entry level work experience as an Industrial Engineering intern. Jointly supervised by IE and industry personnel. Written report required. Student must obtain approval from IE faculty and sign up for course before starting work. Prerequisite: Approval of advisor. (F,S,SS)

EIN 4102 Collective Bargaining in Industrial Systems (3). A comprehensive study of collective bargaining with emphasis upon the private sector. Included will be negotiations and scope of contracts, day-to-day contract administration, and major bargaining issues. Prerequisite: Senior Standing (SS)

EIN 4103 Fundamentals of Engineering Regulation (3). A survey of the legal and regulatory requirements encountered by engineers. Included will be patents, antitrust, safety environmental, compliance, labor laws, product liability and global issues. Prerequisite: Senior standing.

EIN 4104 Introduction to 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. Prerequisite: Permission of advisor.

EIN 4116 Industrial Information Systems (3). The integration of information flows and data bases with the production planning and control systems into productive and manageable systems. Prerequisite: Programming language. (S)

EIN 4122 Industrial Marketing (3). The performance of business activity that directs the flow of goods and services from producer to industrial user. Covers new product development, marketing research, sales engineering, pricing, distribution, and promotion. (F)

EIN 4214 Safety in Engineering (3). Introduces occupational safety and health hazards associated with mechanical systems, materials handling, electrical systems, and chemical processes. Illustrates controls through engineering revision, safeguarding, and personal protective equipment. Emphasis placed on recognition, evaluation and control of occupational safety and health hazards. Prerequisites: EIN 4314 or permission of the instructor. (S)

EIN 4220 Introduction to Total Quality Management (3). Fundamentals of TQM and its historical development. Integration of QC and management tools, QFD, Benchmarking for scientific management. Prerequisite: Permission of advisor.

EIN 4243 Human Factors Engineering (2). Examination of the ways to fit jobs and objects better to the nature and capacity of the human being. Lectures will review man's performance capability, singly and in groups, in interacting with his work environment. Stresses the practical application of human factors principles. Prerequisite: EIN 4314. Corequisite: EIN 4243L. (F)

EIN 4243L Human Factors in Engineering and Design Laboratory (1). Experiments are conducted which measure human factors indicators and differences by age, sex, and race, as well as physiological and anatomical differences. Corequisite: EIN 4243. (Lab fees assessed). (F)

EIN 4314 Work Design and Industrial Ergonomics (2). The analysis, design, and maintenance of work methods. Study of time standards, including Pre-Determined time standards and statistical work sampling. Prerequisites: EGN 3124, EIN 3235 or equivalent. Corequisite: EIN 4314L. (S)

EIN 4314L Work Design and Industrial Ergonomics Laboratory (1). Experiments in the different Work Design techniques including Performance Sampling, Time Studies, Pre-Determined Time Systems and Workplace Design. Corequisite: EIN 4314. (Lab fees assessed). (S)

EIN 4326 Industrial Research and Development (3). Research and development for new product strategies, technological assessment, patent and product liability, and sales engineering. An independent study product will be required by each student. Prerequisite: Senior status.

EIN 4328 Introduction to Engineering Entrepreneurship (3). Fundamentals of engineering entrepreneurship; entrepreneurial process, identification of opportunities, starting and managing the venture, and development of business plans.

EIN 4333 Productivity Planning (3). The improvement of productivity as a functional activity of the enterprise. Productivity definitions, measurement, methodologies, and reporting systems. Prerequisites: EIN 4314, ESI 3161, and statistics.

EIN 4334 Production Planning and Control (3). Production systems, demand forecasting, capacity planning, master production planning, material requirements planning, shop floor control, and assembly line balancing. Prerequisites: EGN 3613 and ESI 3321. (S)

EIN 4387 Technology Assessment (3). Development of systematic efforts to anticipate impacts on society that may occur when a technology is introduced, extended, or modified. Prerequisites: Senior standing in Engineering, ESI 3161 and Statistics.

EIN 4389 Technological Forecasting (3). Emphasis on forecasting future trends and specific developments in the area of capabilities and needs. Prerequisites: Senior standing in Engineering and EIN 4334.

EIN 4391 Concurrent Engineering (3). Overview of product and process design. Principles of design for manufacturing. Manufacturability evaluation methods. Computer aided design for manufacturing techniques and strategies. Prerequisites: EIN 3600 and EIN 3390.

EIN 4395 Computer Integrated Manufacturing (3). The integration of computer aided design and computer aided manufacturing. Development of a common data base for design and manufacturing. Developments of flexible manufacturing systems. Prerequisites: EIN 3600 and ESI 3523.

EIN 4440 Introduction to Technology Entrepreneurship (3). An introduction to theories, concepts, and practices of entrepreneurship. Students will produce feasibility analyses, learn to develop and analyze new ventures, and be introduced to business plans.

EIN 4451 Lean Production Systems (3). Design and analysis of lean manufacturing systems, small lot production, setup-time reduction, continuous improvement, six-sigma, push and pull manufacturing, production planning and scheduling. Prerequisites: ESI 3321, EIN 3235.

EIN 4933 Special Topics in Industrial Engineering (2-3). Permits in-depth study in areas relating to specific student interests, recent advances, and problems in industrial technology or systems. Prerequisites: Senior standing, consent of faculty advisor and approval of department chairman.

EIN 4941 Undergraduate Industrial and Systems Engineering Internship (1). To provide undergraduate students with work experience under approved industrial supervision. Prerequisite: Department chairperson's approval.

EIN 4949 Co-op Work Experience (1-3). Practical Co-op work experience under approved industrial supervision. Written report required at the conclusion of the work assignment. Prerequisite: Permission of department chairperson.

EIN 5106 Regulatory Aspects of Engineering (3). A survey of the legal and regulatory requirements encountered by engineers. Included OSH Act, NIOSH, ADA, EEOC, Worker's Compensation and Product Liability. (SS)

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 5244 Cognitive Engineering (3). Advanced topics in human factors and cognitive engineering. Theoretical aspects of applied situation awareness and decision making, and applications in a variety of engineering domains. Prerequisite: EIN 4243.

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. Prerequisites: EIN 4314 Work Design and Industrial Ergonomics or equivalent. (S)

EIN 5256 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. Prerequisite: Permission of Instructor.

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. Prerequisites: EIN 3331 or equivalent. (S)

EIN 5346 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 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: EGN 3613. (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.

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.

ESI 1622 Introduction to Engineering Software Applications (3). Hands-on experience with software packages such as Autocad, MS Word, Excel, PowerPoint, Access, Windows XP, and industrial applications of the Internet. Prerequisite: High school students in dual enrollment programs.

ESI 3161 Software Tools for ISE (3). Basic concepts of microprocessors; an overview of computer architecture, local area networks, micromainframe linking, and operating systems as they apply to industrial systems.

ESI 3321 Operations Research I: Deterministic Models (3). Modeling principles with emphasis on linear programming and extensions. The simplex procedure and its application through computer software packages. The analysis and interpretation of results in decision making. Prerequisites: MAC 2312, permission of the instructor. (F)

ESI 3523 Simulation Models of Industrial Systems (2). Simulation methodology, design of simulation experiments, implementation of simulation effort through computer software. Application to the solution of industrial and service system problems. Prerequisites: COP 2270 or equivalent, ESI 3161, ESI 3321 and EIN 3235 or equivalent. Corequisite: ESI 3523L. (S)

ESI 3523L Simulation Models of Industrial System Laboratory (1). Simulation Modeling on a microcomputer. Analyze and validate design models using both a general purpose programming language and a special-purpose simulation language. Corequisite: ESI 3523. (S)

ESI 4244 Evaluation of Engineering Data II (3). Application of statistical analysis in engineering practice, design of engineering experiments, and decision making. Study of prediction, tolerance intervals. Use of computer tools. Prerequisites: EIN 3235 or equivalent.

ESI 4322 Operations Research II: Stochastic Models (3). Modeling principles with emphasis on applications of Markov Chains, queuing models, systems reliability, Bayesian decision analysis. Prerequisites: ESI 3321, EIN 3235 or equivalent. (S)

ESI 4452 Project Management Systems Design (3). Project planning, scheduling and control using activity network logic. System development techniques and strategies. Prerequisite: Permission of the instructor. (F)

ESI 4554 ISE Systems Design (3). To integrate all prior ISE required courses into a cohesive and consistent professional philosophy. Prerequisite: Permission of instructor. (S)

ESI 4556 Industrial and Systems Engineering in the Office (3). Paperwork reduction, overhead and expense cost containment, and white collar productivity through office automation and systems analysis.

ESI 5010C Forecasting and Demand Management (3). Forecasting overview. Times series methods. Regression methods. Advanced forecasting models. Demand planning. Pricing and revenue optimization with capacity constraints. Case studies. Prerequisite: Permission of the instructor.

ESI 5456 Productivity Management in the Global Organization (3). Analysis of productivity management strategies. Major issues in performance and productivity management, domestic and global outsourcing, international labor standards and trade policies. Prerequisites: EIN 4214 or equivalent.

ESI 5522 Simulation Models of Engineering Systems (3). Simulation Methodology; design and implementation of models of engineering systems using computer software; case studies. Prerequisites: STA 3033 or EIN 3235 or equivalent and COP 3175 or equivalent.

ESI 5602 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. Prerequisite: Permission of Instructor.

ESI 5603 Advanced Software Tools for ISE (3). Algorithms and principles to integrate heterogeneous tools. Principles of XML, ASP, and other tools. Development of programming projects.

IDS 3163 Global Supply Chains & Logistics – *GL* (3). Global supply chains and their interactions with all facets of business and society. Design issues and operation issues are investigated using simulation models and case studies.

Research, Development and Training Centers

Advanced Materials Engineering Research Institute (AMERI)

Arvind Agarwal, *Director and Chairperson & Professor, Mechanical and Materials Engineering*

The Advanced Materials Engineering Research Institute provides an open access equipment infrastructure to support materials research and engineering over a broad range of technology and capabilities. The Institute provides analytical instrumentation, materials characterization, and process development laboratories to support faculty and industry in the development and characterization of new materials over the continuum from the nanoscale to bulk materials.

The Analytical Instrumentation Laboratory contains two field emission scanning electron microscope (FESEM), a 200 kev Transmission Electron Microscope (TEM), Focused Ion Beam (FIB), Atomic Force Microscope (AFM), X-ray diffraction, thermal (DSC, TGA, DMA, dilatometer flush diffusion, and multi-scale mechanical testing (microhardness, nanoindentation, tensile/compression testing, in-situ mechanics). Process Development laboratories for ceramic processing (sol-gel, tape casting, milling), 3D-printing, and thermal processing (air, vacuum, hydrogen, controlled atmosphere furnaces) are available to support faculty and student researchers.

The Institute consists of the **Motorola Nanofabrication Facility** which is supported by a class 100 clean room and nanofabrication capabilities including e-beam lithography and optical photolithography. Fabrication of nano/micro

electromechanical systems (N/MENS) can be accomplished by a combination of nanolithography, focused ion beam (FIB) micro machining, nano imprinting, reactive ion etching, and thin film deposition by a variety of techniques (e-beam, sputtering, filament evaporation, cvd).

In addition to supporting research within the graduate program in materials science within the Department of Mechanical and Materials Engineering, the Institute supports faculty across all departments (physics, chemistry, geology, biology, electrical and computer engineering and biomedical engineering) in materials based research.

Research and Support Staff

Arvind Agarwal, Director and *Professor, Mechanical and Materials Engineering*
Chunlei (Peggy) Wang, *Professor, Mechanical and Materials Engineering*
Benjamin Boesl*, Assistant Director and Associate Professor, Mechanical and Materials Engineering*
Bilal El-Zehab, *Assistant Professor, Mechanical and Materials Engineering*
Jiuhua Chen, *Professor, Mechanical and Materials Engineering*
W. Kinzy Jones, *Professor Emeritus, Mechanical and Materials Engineering*
Chenzhong Li, *Professor, Biomedical Engineering*
Wenzhi Li, *Professor, Physics*
Norman Munroe, *Professor, Mechanical and Materials Engineering*
Surendra Saxena, *Professor Emeritus, Mechanical and Materials Engineering*
Shekhar Bhansali, *Chairperson and Professor, Electrical and Computer Engineering*
Sakhrat Khizroev, *Professor, Electrical and Computer Engineering and College of Medicine*
Nezih Pala*, Associate Professor, Electrical and Computer Engineering*
Yuriy Vlasov, *Research Engineer*
Yesim Darici, *Associate Professor, Physics*
Watson Lees, *Associate Professor, Chemistry*
Kevin O'Shea, *Professor, Chemistry*
Patrick Roman, *AMERI Manager*
Alexander Franco, *Research Assistant Professor*
Daniela Radu, *Associate Professor, Mechanical and Materials Engineering*
P.M. Raj, *Associate Professor, Biomedical Engineering*

Applied Research Center (ARC)

Ines R. Triay, Ph.D. *Executive Director*
Leonel Lagos, Ph.D., PMP *Director of Research and Workforce Development*
Dwayne McDaniel, Ph.D., *Principal Scientist*
David Roelant, Ph.D. *Principal Scientist, Leads FIU Interdisciplinary Nuclear Research Program*
Himanshu Upadhyay, Ph.D., *Sr. Research Scientist*
Gloria Dingeldein, *Associate Director of Administrative Services*

ARC's **mission** is to be the leading international university-based research institution providing value-driven, real-world solutions, which will enable Florida International University to acquire, manage, and execute educationally relevant and economically sound research programs.

ARC's **vision** is to lead, integrate, and deliver multidisciplinary research and development solutions in environment, energy, and information technology to meet customer commitments on time and at cost. In carrying out this mission, ARC is committed to providing training opportunities to the University's uniquely diverse student body under the mentorship of the Center's internationally recognized engineers and scientists.

Environment & Energy – ARC has been performing research and technology development for the environmental cleanup of the U.S. Department of Energy (DOE) nuclear weapons complex sites since 1995. ARC engineers, scientists and students apply specialized knowledge and skills in state-of-the-art research facilities to understand the underlying science and develop and deploy technology solutions to complex environmental challenges while training the environmental workforce of tomorrow. For energy research, ARC collaborates with FIU's College of Arts, Sciences, and Education to develop R&D and support the growth of: the radiochemistry and health physics academic programs; and the FIU Nuclear Scholars and Nuclear Fellows programs for students.

Green & Sustainable Technologies: ARC is researching ways to improve technologies to use less electrical energy and natural resources in production and in operations while reducing waste and pollution. ARC is developing green buildings by improving technologies for heating and cooling buildings, a major source of energy usage in buildings. Improvements in heating, cooling and ventilation (HVAC) is one area of research. Another area is sustainable remediation which seeks to lower the green house gas footprint of operations while also reducing electrical energy use and other resources.

Soil & Groundwater Remediation: Increasing concentrations of heavy metals and radionuclides in the global environment require a focus on contaminant fate, transport, and persistence in soils and groundwater. ARC carries out research and development of applications with a focus on soil and groundwater remediation. For the last twenty years, ARC has developed programs and trained outstanding engineers and scientists to conduct advanced and applied research in areas that are vital to national and international needs in the areas of environmental engineering and soil and groundwater remediation. ARC's projects incorporate biogeochemical cycling, fate and transport of contaminants, and water and wastewater treatment. Researchers use data for testing, evaluation, and validation for new and innovative technologies to support DOE and industry.

Water Resources: ARC's water resources research is established to address key issues in hydrology at local and regional scales, primarily through the development and implementation of state-of-the-art integrated, data assimilating hydrological/transport models. The aim is to create hydrological models that are scalable to the regional, national and global extents which serve as effective tools for water resources management and monitoring.

Geographic Information Systems: Geographic information systems (GIS) technology is an integral part of many of ARC's research and development activities as an analysis tool, its application spanning various areas of

applied research including water resources management; soil and groundwater remediation; environmental assessment; nutrient, chemical and radioactive contaminant fate and transport; assessment of renewable energy resources; assessment and impacts of land use change; and climate change analysis. ARC researchers have extensive experience utilizing GIS for mapping and geospatial analysis; geodatabase development; integrated surface and groundwater modeling; air dispersion modeling; storm water modeling; geospatial data and metadata development; web-based and mobile application development; conversion of computer-aided design and drafting (CADD) data; and development of waste information management systems applications.

Radiochemistry and Nuclear Power: Nuclear research and education was launched in 1990 at FIU. FIU developed a radiochemistry Ph.D. track which launched in Aug. 2015 and a health physics specialty under the B.S. in physics launched in Aug. 2016. Over this period, many new faculty, staff and students have engaged in nuclear related R&D. Presently, over 110 faculty and staff and 75 students are active in nuclear research.

Deactivation & Decommissioning: ARC has over 20 years of experience in performing research in the area of D&D of nuclear facilities, having participated in over 300 projects since 1995 in support of the DOE's Office of Environmental Management (DOE EM). As part of this support, ARC has evaluated baseline and innovative technologies for D&D applications; to date, over 150 technologies have been assessed at ARC's facilities in Miami, at DOE sites, and at technology vendors' facilities.

Cyber Security & Data Science

(ARC) performs applied and advanced research in the areas of enterprise systems, cyber security and data science. The solutions are tailored to deliver critical information to federal, state, local governments and the private sector clients, keeping them well informed, connected and secure. ARC shares the commitment and responsibility to securing information and information networks with integration of people, operations, and technology.

Data Science: ARC performs extensive research in the area of data science to provide analytical solutions in the area of nuclear and cybersecurity to federal/state governments and national research laboratories. Current research is focused on machine learning, data analytics and visualization.

Cyber Security: ARC performs sponsored research in the areas of cyberspace architecture and framework, virtualization, memory forensics, ethical hacking and cyber analytics to support the Department of Defense – Test Resource Management Center and the Department of Energy – Office of Environmental Management. Cyber research allows for the training of FIU STEM (science, technology, engineering, and math) undergraduate and graduate students with diverse technical background through the Cyber Fellows (Cyberspace Work Force Development) program. ARC also participates as an active member of the core team of *Cybersecurity@FIU*, which has been designated by FIU as an emerging preeminent program with high potential to demonstrate extraordinary success in providing unique learning opportunities, pioneering research and engagement while expanding FIU's financial base.

Enterprise Solutions: ARC has extensive experience in building custom enterprise systems in the areas of waste management, knowledge management, database management, content management and mobile systems, using the latest technologies for various clients like DOE EM and the U.S. Department of Defense (DOD) – Test Resource Management System.

Aerospace & Defense

At ARC, both applied and basic research are being conducted in areas of mechanical and materials engineering that provide support and solutions to a number of industries including aerospace and defense. Some of the fundamental efforts that include computational mechanics and composites can impact other disciplines as well, including energy, biomedical, marine and nuclear.

Robotics: Advancement in computer, material and design technologies has provided an avenue for robotic systems to be utilized in a number of engineering applications that includes manufacturing, inspection, and even simple household functions. At ARC, robotic systems are being developed to provide a means to inspect areas that may be difficult to obtain access to or unsafe for people to enter. These tools are being designed with sensor systems that can provide valuable information including the health of structures or the status of the area's environment.

Composites: Use of composite materials continues to increase in today's engineering applications due to improved strength to weight ratios, its resistance to corrosion and the reductions in repair and maintenance costs. At ARC, engineers have focused research efforts on understanding how composite structures can be joined using adhesive bonding. In particular, ARC is investigating quality control procedures for bonding, the durability of the bonds and how contamination may affect bonds.

Computational Mechanics: Advances in simulation software will improve the ability for engineers to effectively simulate engineering processes without having to develop and test systems with costly experimental facilities. Engineers at ARC utilize finite element analysis to aid in the design of complex structures, and computational fluid dynamics software to assist in addressing complex challenges related to simulating fluid flow processes that further expand the capability of the simulation software. Some issues currently being addressed include modeling of mixing processes of multi-phase flows and using reduced-order models to efficiently capture the salient features of the flow.

Workforce Development and Training – The DOE-FIU Science and Technology Workforce Development program is an innovative program to create a "pipeline" of FIU STEM underrepresented students specifically trained and mentored to enter the DOE workforce in technical areas of need. The main objective of the program is to provide a unique integration of FIU course work, DOE field work, and "hands on" training and mentoring at ARC. It is envisioned that once the DOE Fellows graduate from this program they will enter DOE-EM's Professional Development Corps Program and/or work for DOE's contractor firms. To date, over 142 FIU underrepresented students have joined the program. The students are officially inducted into the program and vested with the name of DOE Fellows in a special induction ceremony celebrated during the fall semester. DOE Fellows also have internship opportunities at DOE national research laboratories and DOE sites around the country. Since the

program's initiation in 2007, over 119 DOE Fellows have participated in research internships at locations such as Oak Ridge National Laboratory, Idaho National Laboratory, Pacific Northwest National Laboratory, and DOE-HQ in Washington DC. In addition, DOE Fellows directly support DOE contractors performing environmental remediation around the DOE Complex. DOE Fellows have presented over 208 technical research posters at the Waste Management Symposia and other national/international conferences. Furthermore, this program enables undergraduate students to pursue M.S. and Ph.D. degrees by providing research assistantships.

ARC has also developed a Cyberspace Workforce Development Program as part of our support to the DOD to perform cyberspace technology research. This program trains FIU STEM undergraduate and graduate students with diverse technical backgrounds to develop and integrate new cyberspace systems for DOD test applications. The Cyberspace Workforce Development Program actively recruits top minority and underrepresented students at FIU to perform research, attend summer internships, and apply for job opportunities at DOD.

ARC is committed to the education and development of FIU students and has developed a Student Steering Committee (SSC) that oversees the academic and research progress of each student. This committee also conducts interviews and evaluates applicants for the workforce development programs.

Doing Business with the Applied Research Center – ARC's employees are drawn from a wide segment of the commercial, government, and academic arenas to collectively utilize their experience and expertise to support the needs of FIU's clients. ARC's operating philosophy recognizes and accommodates the critical performance characteristics of government and commercial activities, while exercising the benefit of its cost structure in a way that serves both client interests and those of the University and its students. Our staff is fully engaged in the project and program activities assigned. The critical difference in the ARC's structure is the project management and administrative processes and structures that have been put in place to serve its clients. The Center has executed work for federal agencies, state and local governments, and commercial entities. For more information on FIU's ARC, please visit **www.arc.fiu.edu** or call (305) 348-4238

Bioinformatics Research Center (BioRG)

Giri Narasimhan, *Director and Professor, School of Computing and Information Sciences*

The mission of this research group is to work on problems from the fields of Bioinformatics and Biotechnology. The group's research projects includes Pattern Discovery in sequences and structures, micro-array data analysis, primer design, probe design, phylogenetic analysis, image processing, image analysis, and more. The group builds on tools and techniques from Algorithms, Data Mining, Computational Statistics, Neural Networks, and Image Processing.

Center for Advanced Distributed Systems Engineering

Xudong He, *Director and Professor, School of Computing and Information Sciences*

Another of our research efforts is the Center for Advanced Distributed System Engineering (CADSE). Its mission is to establish a streamlined research, technology exploration and advanced training program in the field of distributed and Internet-based computing. The Center's R&D cover both theoretical and practical aspects of distributed software engineering, i.e. using engineering methods and technologies to tackle development problems of complex, reliable, and/or real-time distributed systems.

Center for Advanced Technology and Education (CATE)

Malek Adjouadi, *Director and Electrical and Computer Engineering*

Mission

The mission of the NSF-funded CATE center at FIU is to foster cross-disciplinary research as a catalyst for our students to train and develop their creative thinking by bringing in synergy the fields of image and signal processing with application to neuroscience and assistive technology research. In the merging of these technologies, we see a productive ground for the development of new methodologies and designs that (1) meet the impending needs in neuroscience as we elicit both the functional mapping of the brain, and the causality of key brain disorders; and (2) design assistive technology tools that address effectively the issue of "Universal Accessibility", focusing on visual impairment and motor disability. The premise is to translate new theoretical findings into the realm of real-world applicability

Major Research Themes

- Image and signal processing
- Neuroimaging
- Machine learning
- Brain Mapping
- Informatics and big data
- Web interfaces
- Brain Stimulation for Therapeutic/Curative interventions

Major Activities of the CATE Center

- Establish a research platform for the cohesive study of the human brain by bringing together several hospitals and academic institutions in a consortium that will instigate multi-site collaborative studies with a large number of patients in accordance to standardized protocols and tests.
- Create an environment that supports cross-disciplinary initiatives, joint collaborations and programs with access to modern equipment and facilities of unprecedented sophistication and integration.
- Extend the scientific reach of these interdisciplinary efforts to overcome the primary barriers in identifying the different factors that influence the functional organization of the brain, as new paradigms and new findings will come to benefit the scientific community as a whole, and to provide critical help to hundreds of patients yearly.

- Provide a consolidated infrastructure for neuroimaging that will come in support of a new cohort of Ph.D. students and to a well-trained and skilled workforce able to bridge engineering and computing know-how to the fields of medicine and the biosciences.

Faculty

Faculty and Co-Principal Investigators

Mercedes Cabrerizo, *CATE Co-Director, Electrical and Computer Engineering*

Armando Barreto, *Professor, Electrical and Computer Engineering*

Sergio M Gonzalez-Arias, *Executive Associate dean for Clinical Affairs and Professor, Herbert Wertheim College of Medicine*

Angela R Laird, *Professor, Physics*

Naphtali D Rishe, *Professor, School of Computing and Information Sciences*

Raul Gonzalez, *Associate Professor, Psychology, Center for Children and Families*

Joseph S. Raiker, *Assistant Professor, Psychology, Center for Children and Families*

Laboratory and Infrastructure Manager

Niovi Rojas, *Research Specialist I*

Coordinator, Student Recruitment, Broadening Participation in Computing

Stephanie Strange, *Associate Director Academic Support Services, Office of Student Access and Success*

Consultants

Ranjan Duara, *Medical Director, Wien Center for Alzheimer's Disease and Memory Disorders at Mount Sinai.*

David Loewenstein, *Center on Aging, Department of Psychiatry & Behavioral Sciences, University Miami Miller Medical School*.

Prasanna Jayakar, *Founding Chair, Brain Institute, Nicklaus Children Hospital*

William D. Gaillard, *Children's National Medical Center, George Washington University, and Georgetown University*.

Ilker Yaylali, *Neurology, Oregon Health and Science University*.

Alberto Pinzon, *Director, Epilepsy Program at Baptist Hospital*

Evaluator

Sarah Hug, *Alliance for Technology, Learning and Society (ATLAS) Institute at the University of Colorado at Boulder.*

Center for Diversity and Student Success in Engineering and Computing (CD-SSEC)

Andres Tremante, *Director and Senior Instructor, Mechanical & Materials Engineering*

Andrew Green, *Associate Director*

Julieta Vallejos, Program Coordinator

South Florida's distinction as a multi-cultured, multi-lingual region has long been a diverse source of talent for FIU, particularly in the College of Engineering and Computing. In response to the challenge of attracting this diverse community to science and engineering, the College of Engineering and Computing has created a special center for Diversity in Engineering and Computing.

By building sound foundations in sciences and mathematics, the Center helps to prepare young students to deal with the rigors of higher-level education, and Engineering and Computing in particular. Currently the Center is actively engaged in a number of special programs as a service to the community and the University:

Florida Action for Minorities in Engineering (FLAME) This is a cooperative program between Miami Coral Park Senior High School and Florida International University aimed at introducing the profession of engineering to high school students, and to identify, select, enroll and retain minority students in the engineering field. Senior High School students also registered for dual enrollment classes at FIU.

Florida/Georgia Louis Stokes Alliance for Minority Participation (FGLSAMP) This is a National Science Foundation funded program in association with Florida Agricultural and Mechanical University (FAMU), the leading institution. This program focuses on engineering, math chemistry, biology, physics, and computer science undergraduate students. Participants receive scholarships, during the entire academic year based on high GPA and being a full time student. Opportunities for summer internships are available.

Junior Engineering Technical Society (JETS) (TEAMS) The JETS **Test of Engineering Aptitude, Mathematics and Science (TEAMS)** is an academic problem-solving competition, that serves all public and private high schools within our geographical area with focus on a one day activity at Florida International University.

(UNITE) A collaborative effort between Florida International University, the U.S. Army, and the Junior Engineering Technical Society. The JETS UNITE Program's goal is to increase the number of underrepresented students in the field of engineering, to improve the performance of the students in their SAT/ACT exams, develop resourceful, self-motivated well rounded graduates who will be responsible and well adjusted citizens.

ENLACE/MIAMI The Children Trust This program is funded by The Children Trust and provide after school and summer programs for 650 children (ages 7-17) residing in the Sweetwater, Doral and West Kendall areas. The after school program will offer literacy support through individualized software-based increasing intervention, social skills development, and health fitness education. The summer program will offer students the unique opportunity to attend classes on a university campus.

GEAR UP Homestead The GEAR UP Homestead project assists a maximum number of students living within the Homestead area achieve a college career, while implementing a self-sustaining system to continuously duplicate the process. Homestead Florida is faced with serious issues that require assistance from other communities, such as poverty, lack of jobs, and problems related to disadvantaged societies. Fortunately, with the development of the GEAR UP Homestead Partnership Plan as well as the aide to public, private and governmental institutions, the targeted cohort students of the Homestead area will be able to reach their maximum potential through a college education. Partners such as the US Department of Education will supply a vast portion

of the resources needed to perform this project. Aspira, a non-profit organization, is dedicated to creating leadership through education for those who are disenfranchised, or socially and economically disadvantaged. Another important team player is the Non-Violence Program of Miami, contributing the idea that knowledge is the best weapon against violence, and motivating young people to engage in positive action to make our communities safer.

The GEAR UP project is made of several components that contribute to a wider reach into insuring that a maximum result is gained by everyone involved. Among these components are in-school tutoring and assistance programs. The Summer Enrichment Program offers an alternative way of spending those long summer days. The teacher training Development Program, as well as PRISM (Program of Industry Supported Mentorship's) enrich teachers with the right preparation to confront all kinds of situations. Perhaps the most important aspect that will contribute to the outcome of the child is the parental influence and family involvement into their success. In a fast-paced and demanding society, this is often a difficult threshold to cross. Parent Involvement Program (PIP) encourages parents to have a positive active role in their child's every day awareness of the future. Education begins in the home and ends in the child's decision to instill a safe and productive future. The powerful drive needed to assist the process of growth and awareness is the very reason for the existence of programs such as GEAR UP.

The mission of the partnership addresses the needs of the student by bringing the necessary awareness and readiness for a successful college education. To succeed such advancement, GEAR UP has established a mission, goals, objectives and outcomes that will serve as the foundation for a successful program. The dedication of the partnership as well as a Vision Statement that clearly unifies the community to serve its future provides an inspiration: that the education of today paves the road towards tomorrow's success.

Center for the Study of Matter at Extreme Conditions (CeSMEC)

Jiuhua Chen, *Director and Professor, Mechanical and Materials Engineering*
Surendra Saxena, *Professor Emeritus, Mechanical and Materials Engineering*
Andriy Durygin, *Research Coordinator*
Vadym Drozd, *Research Assistant Professor*

CeSMEC's mission is to study the behavior of materials at high pressures and temperatures. The range of research activities includes the study of planetary interiors and of matter at extreme industrial conditions. CeSMEC is one of few facilities in the country where pressures are created to many million atmospheres and temperatures to several thousand degrees; the material is studied under such condition with x-ray and electroscopic techniques.

All materials are subject to three fundamental variables – the variables of temperatures, chemical composition, and pressure. Modern science has vigorously used only the first two variables in exploring nature and creating several amenities of modern civilization. Pressure, the third fundamental variable altering all states of matter, has been for years a relatively minor esoteric sub-field. The creation of this center is providing FIU's graduate students and faculty the opportunity to perform fundamental and applied research in high-pressure physics, high-pressure chemistry, and materials science. The center is raising the infrastructure at FIU to the level required to initiate world-class research in an emerging area of science and engineering.

With recent additions of a Hydrogen-Storage Materials Research Facility and a large volume high pressure-high temperature equipment, researchers can perform synthesis of novel materials for a variety of industrial applications.

Distributed Multimedia Information Systems Laboratory

Shu-Ching Chen, *Director and Professor, School of Computing and Information Sciences*

The mission of the Distributed Multimedia Information System Laboratory (DMIS) is to conduct leading edge research in multimedia database systems, data mining, networking and wireless, GIS and Intelligent Transportation Systems. Other research areas of this effort include Multimedia Communications and Networking, Digital Library, 3D Animation, and Distributed Computing.

Division of External Programs

Mercedes Rueda Schott, *Director*

The Division of External Programs (DEP) develops, promotes and manages academic programs offered under the rubric of Executive Engineering Education, Continuing Education, and Distance Learning in the College of Engineering and Computing.

The DEP is managed by a director reporting to the Dean of Engineering & Computing. The director and staff of the DEP work with department chairs, center directors and faculty members to identify corporate and global partners; develop, promote and manage Executive Education Programs; weekend graduate programs for professionals, Distance Learning Programs, and Continuing Education Programs; and identify new opportunities and new markets for all programs that are offered by the College of Engineering and Computing. Various categories of programs in which the DEP is involved include the following:

Global Programs

DEP partners with Universities around the world to provide international students the opportunity to study at the College of Engineering & Computing. Global programs include degree and non-degree opportunities for undergraduate study, post graduate study, and post graduate professionals through the CEC's complete range of programs. Students may choose to study abroad at FIU, participate in a student exchange with a partner university, or study in an overseas-based degree program.

Dual-Degree and Graduate Pipeline Programs. The Dual-degree Program offers undergraduate bachelor's students and post-graduate master's students from an FIU international partner university the opportunity to complete two degree programs in almost the same amount of time

as completing one. The program allows participants with the opportunity of studying on two different campuses in two different countries. Upon completion of both programs' graduation requirements, students receive two degrees - one from their home institution and one from FIU. The Graduate Pipeline Program offers post-graduate students from an FIU international partner university the opportunity to complete a Master's degree at a competitive tuition from the College of Engineering and Computing.

In-bound Short Courses and Seminars. DEP, in cooperation with our partner universities, develops short courses and seminars for interested international participants. These participants can benefit from one- or two-week short courses, along with site visits, designed to provide them with the opportunity to increase their field knowledge and advance their skillset. Our short courses and seminars provide quality training on the latest industry innovations in a classroom environment. Following the classroom instruction, visits are scheduled with corporate representatives to complement and provide practicality to the lecture topics. Upon completion of all lectures and site visits, participants are awarded with a certificate of completion.

International Student Exchange Programs. International students at both the undergraduate and graduate level from a partner university may apply to study at FIU for one to two semesters either in the Fall or Spring terms as non-degree seeking students. In order to participate in the International Student Exchange Program at FIU, they must be a student at one of our partner institutions. As part of the application process, students are required to obtain approval from their academic advisor at their home institution. Exchange students pay tuition and fees at their home institution and receive a tuition waiver at FIU. The only fees that are paid at FIU are for Housing, health insurance, and the student ID card.

Overseas Programs. Students interested in pursuing a professional FIU graduate degree while studying in their home country may apply for the overseas program. These FIU graduate degree programs are offered during weekend classroom sessions in collaboration with a reputable university or institution that can support the delivery of the program by providing campus resources, administrative staff and lecture facilities. The programs are designed in consultation with the faculty of the partner university and the industry representatives in the host country.

Executive Education Programs

The Executive Education Programs include certificate or short-term executive development programs that are designed for working professionals. They provide these individuals with the tools needed to advance their career, increase earning potential, and make critical business process improvements. The programs are conducted at the College of Engineering and Computing facilities, or at corporate sites upon request. On-site programs are designed to meet the specific educational and training needs of the corporate clients. Currently, we offer the following engineering certificate programs: "Lean Six Sigma", "Six Sigma Green Belt", "Six Sigma Black Belt", "ISO 9001", and "Supply Chain Management" certification program every semester.

Continuing Education Programs

The Continuing Education Programs are designed to meet the licensing and certification needs of individual professionals in the engineering and construction fields. The programs are delivered at various locations around Florida and online. The Continuing Education Programs can be conducted on-site for companies, or at the College of Engineering and Computing facilities. Currently, we offer the following continuing education programs: FDOT Construction Training and Qualification Program (CTQP), FDOT Maintenance of Traffic in Construction Zones (MOT), Professional Engineering (PE) Licensing Exam Review Courses for the NCEES PE Civil, PE Mechanical, PE Electrical, and PE Structural exams, Fundamentals of Engineering Exam (FE) Review Course, Florida General Contractor's Exam (GC) Review Course, OSHA Training Certification Courses, LEED Exam Prep Course, Florida Laws and Rules Seminars, and Continuing Education Seminars (for PEs and GCs)".

Weekend Graduate Programs for Professionals

DEP offers professionals in South Florida the ability to complete their master's degrees in an accelerated one-year program that is conveniently offered on Saturdays in Broward County and the Modesto Maidique Campus in Miami. These programs are specifically designed for working professionals who aspire to a graduate degree without interrupting their careers. DEP currently offers the Professional MS in Engineering Management and Professional MS in Information Technology degree programs in this lock-step format.

Distance Learning Programs

The Office of Distance Education (ODE) provides access to graduate and undergraduate level engineering courses and programs to individual students anywhere and anytime, whether it is at home or the workplace. Courses are delivered through streaming video over the Internet..

ODE offers engineering students and professionals with work and family responsibilities the flexibility to take courses around their busy schedules. It also provides convenience to those who are not within driving distance of an academic institution. It allows them to continue their professional development, which plays an important role in the growth of high technology industries.

Currently, students can select the necessary courses from ODE in Civil Engineering, Environmental Engineering, Electrical Engineering, Computer Engineering, and Computer Science.. Select undergraduate courses are also available for the following undergraduate degree programs: Civil Engineering, Construction Management, Mechanical Engineering, Electrical Engineering, Computer Engineering and Computer Science.

A student taking a course through ODE 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 non-degree seeking student who intends to seek admission to a program should be aware that no more than twelve (12) graduate or fifteen (15) undergraduate credits are allowed to be transferred into a program.

Engineering Information Center (EIC)

Steve Luis, *Executive Director for Technology and Industry Relations*

Provide technology that will help save lives, simulate an electronic circuit, design a bridge, create your own website or just browse the Internet. The possibilities are endless at Engineering Information Center.

EIC helps faculty, scientists, researchers, and students to conduct cutting edge research and work on system designs, programming, 3D Modeling, simulations, and several other computer and software applications.

The Center manages an array of Micro Focus, Windows, and UNIX network servers that provide faculty, staff and students with the capacity to share valuable resources; therefore, fostering an atmosphere where collaboration and instruction grow with a synergy that is unique. Beyond the college community, EIC participates in sponsoring special outreach programs for the Miami-Dade County Public Schools by exposing young minds to latest technologies.

Provides additional services such as campus-wide desktop support, printing services (black-and-white, color, and large-format posters) at an economical price, free laptop rentals and access to a digital signage system, which allows faculty, staff, and student organizations easily place announcements for all to see. Also hosts a Citrix farm with a virtualization environment that allocates more than 45 engineering suites.

EIC strives to equip the Engineering community with technological means; either software, hardware and network infrastructure, adequate to continue studying, investigating and producing both scientific knowledge and direct results with a high social impact.

Engineering Manufacturing Center (EMC)

Ibrahim Tansel, *Director and Professor, Mechanical and Materials Engineering*
Mario Sanchez, *Senior Engineer and Manager*
Richard Zicarelli, *Senior Engineer II*

The Engineering Manufacturing Center provides technical expertise in manufacturing to anyone in need of assistance. Typically the Center supports researchers, graduate and undergraduate students with projects requiring high-precision quality fabrication and requiring expert technical guidance. Undergraduate engineering students represent the largest group served. Students of all academic departments benefit directly through help with class projects, such as Senior Design (capstone) courses, critical components of all ABET accredited Engineering programs in the College. Other major undergraduate projects supported include the Mini-Baja, Mini-Submarine and Robot Competitions. Graduate students regularly request fabrication assistance with experimental devices, tools and fixtures. The Center's main facility supports the College's academic departments' general fabrication needs, including equipment repair, assembly, fixturing, installation, etc. An auxiliary EMC-supervised machine shop is available for student hands-on project work.

The Center also provides technical services to the outside community such as entrepreneurial consulting in product design and development and sub-contract fabrication work. Companies served by the EMC range from entrepreneurial to the well-established, some of which include aerospace, automotive, marine, medical and consumer product manufacturers. The Center runs state-of-the-art CAD/CAM software and operates a diverse array of rapid prototyping equipment combined with CNC capabilities providing a wide variety of fabrication processes. In addition, the Center can perform inspection, measurement and reverse engineering capabilities through its automated measurement equipment.

For more information, contact the EMC by calling Mr. Richard Zicarelli (305) 348-6557 or Mr. Mario Sanchez (**sanchem@fiu.edu**), or refer to the center's website at **http://www.eng.fiu.edu/emc/**.

Florida Center for Cyber Infrastructure Education and Research for Trust and Assurance

S. S. Iyengar, *Director and Ryder Distinguished University, Professor, School of Computing and Information Sciences*

Cyberspace, the ubiquitous collection of interconnected IP networks and hosts that has proliferated over the last two decades, has become the nervous system of the country. Healthy functioning of Cyberspace is essential for the proper operation of numerous critical infrastructures, such as telecommunication, energy and transportation. It is also necessary to support the ever-expanding business infrastructure, including commerce and banking. The increasing reliance on Cyberspace has been paralleled by a corresponding increase in the variety, frequency and impact of attacks from a range of assailants. Both commercial companies and government agencies face continuous and increasingly more sophisticated cyber-attacks ranging from data exfiltration and spear phishing to sophisticated worms and logic bombs. The targets include not only computer information systems, but also the network communication infrastructure and power grids. Moreover, commercial companies and government agencies are themselves engaging in information gathering whose implications for privacy are disturbing.

Therefore, there is an increasing need of a concerted and cooperative effort on the part of the government and the private sector to address these attacks and threats. Research and education are the main ways to help detect, react, and reduce the impact of cyber threats and attacks. There is a dearth of educational cyber security programs at universities, despite a very strong demand for qualified graduates. Moreover, Miami's status as a gateway for international commerce, tourism, and immigration, especially with Latin America, makes it a particularly appropriate host location for a research and education consortium focusing on cyber infrastructure.

Our goal of this center is two-fold—first, to inspire a new generation of cyber research warriors and cyber savvy intelligence agents to take up the torch, to better understand our need for smart intelligence, and to defend the homeland. Since their work cannot be done alone, our second goal is to advance technology through the concept of subliminal contextual information in the production of subliminal contextual intelligence.

High Performance Database Research Center

Naphtali Rishe, *Director and Eminent Scholar Chaired Professor, School of Computing and Information Sciences*

One of our research efforts is the High-Performance Database Research Center (HPDRC). HPDRC conducts research on such theoretical and applied issues as Internet-distributed heterogeneous databases, database design methodologies, database design tools, information analysis, multi-media databases, database languages, data compression, spatial databases, and data visualization. The Center also designs specific database systems for highly complex applications.

Industry-University Cooperative Research Center for Advanced Knowledge Enablement (CAKE)

Naphtali Rishe, *Director and Eminent Scholar Chaired Professor, School of Computing and Information Sciences*

The National Science Foundation's (NSF) FIU-FAU-Dubna Industry/University Cooperative Research Center for Advanced Knowledge Enablement (CAKE) was established to develop long-term partnerships among industry, academe and government. The Center is supported primarily by industry center members, with NSF taking a supporting role in its development, evolution, and core funding. The Center hosts the NSF "AIR" Ecosystem to Pipeline Research at FIU.

The Center's mission is to conduct industry-relevant studies and deployments in the representation, management, storage, analysis, search and social aspects of large and complex data sets, with particular applications in geospatial location-based data, disaster mitigation, healthcare, transportation, and town planning.

International Hurricane Research Center (IHRC)

Richard Olsen, *Director*
Kegi Zhang, *Laboratory for Coastal Research, Director*
Shahid Hamid, *Laboratory for Insurance, Financial and Economic Research, Director*
Arindam Chowdhury, *Laboratory for Wind Engineering Research, Director, and Associate Professor, Civil and Environmental Engineering*

Florida International University's International Hurricane Center has officially changed its name to the International Hurricane Research Center (IHRC). The change was made to better reflect the Center's research initiatives.

Serving the state of Florida, the IHRC is a Type I interdisciplinary research center focused on the mitigation of hurricane damage to people, the economy, and the built and natural environments. This designation makes the IHRC Florida's official hurricane research center for 11 universities comprising the state university system.

The citizens of the U.S. East and Gulf Coasts and Caribbean Islands are severely impacted by hurricanes, and IHRC promotes an interdisciplinary, large-scale disaster research agenda to address this vulnerability. Disciplines such as architecture, business, economics, engineering, finance, geosciences, insurance, political science, sociology, and urban planning are involved in a long-term, integrated research program that helps Florida, the nation, and its regional neighbors to mitigate hurricane exposure.

The Center developed as a result of a public-private partnership between the We Will Rebuild Foundation, an organization formed to spearhead the rebuilding of Dade County in 1992 after Hurricane Andrew, and FIU. The IHRC works in conjunction with the National Hurricane Center, which is also located at the FIU Modesto A. Maidique Campus in West Miami-Dade.

Lehman Center for Transportation Research (LCTR)

Mohammed Hadi, *Director and Professor, Civil and Environmental Engineering*
Albert Gan, *Deputy Director and Professor, Civil and Environmental Engineering*
Fabian Cevallos, *Transit Program 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 '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, operation and maintenance of transportation systems, including intelligent transportation systems, public transportation, highway transportation, aviation, and freight; as well as 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.

Titan America Structures and Construction Testing Laboratory

Atorod Azizinamini, *Director, Chair and Professor, Civil and Environmental Engineering,*
David Garber, *Deputy Director and Assistant Professor, Civil and Environmental Engineering,*
Armin Mehrabi, *Associate Professor, Civil and Environmental Engineering,*
Francisco Jimenez, *Lab Manager*

The Titan America Structures and Construction Testing Laboratory was established in the Department of Civil and Environmental Engineering to provide hands-on educational experience for students; to research and development of innovative hurricane-resistant and durable construction materials, structural systems and

components; to serve the construction industry; to contribute to the engineering community in South Florida, and to advance the safety, durability, and economy of our civil infrastructure.

The Titan America Structures and Construction Testing Laboratory was built through the help of a consortium of 21 industry partners who donated materials, services, and cash in excess of $250,000. It is one of the largest facilities in the State of Florida and is equipped with a full-scale structural testing system (FSST). The FSST consists of a 15 ft tall testing frame that stands above a 35 ft × 65 ft strong concrete floor with 4 ft thickness and 100,000 lbs capacity tie-downs on a 3 ft × 6 ft pattern. The steel frame is capable of testing full-scale structural members, such as a 65 ft bridge girder. The applied load is replicated using a fatigue rated tension/compression actuator that is capable of performing cyclic loading. In addition to the FSST, the SCL is also equipped with other material testing systems, including a universal testing machine, compression machine, and small-scale load frames

Telecommunications and Information Technology Institute

Niki Pissinou, *Director and Eminent Scholar Chaired Professor, School of Computing and Information Sciences*

Florida International University (FIU) recognizes the need to nurture highly trained personnel for the nation's industry and business, develop research to support the rapidly expanding high-tech industry and become proactive in technology transfer. Thus, ensuring continued economic growth and prosperity in the region. In order to fully meet today's technological demands, FIU has established the Telecommunications and Information Technology Institute (IT²). IT² promotes advanced multidisciplinary education and research focused on telecommunications and information technologies. IT²'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, IT² promotes multidisciplinary 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.

IT² 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, 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) 348-3987 or visit our Website at **www.it2.fiu.edu**.

School of Computing and Information Sciences

S. S. Iyengar, *Ryder Professor and Director*
Alexander Afanasyev, *Assistant Professor*
Miguel Alonso, *Visiting Associate Professor*
Hadi Amini, *Assistant Professor*
Antonio Bajuelos, *Instructor*
Toby S. Berk, *Professor Emeritus*
Janki Bhimani, *Assistant Professor*
Rick Blazek, *Instructor*
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Rohit Chadha, *Associate Professor*
Maria C. Charters, *Instructor*
Dong Chen, *Assistant Professor*
Shu-Ching Chen, *Eminent Scholar Chaired Professor Associate Director and Undergraduate Program Director*
Trevor Cickovski, *Instructor*
Peter Clarke, *Associate Professor*
Debra Davis, *Senior Instructor*
Timothy Downey, *University Instructor*
William Feild, *Visiting Instructor*
Mark Finlayson, *Assistant Professor*
Xudong He, *Professor*
Antonio Hernandez, *Instructor*
Liting Hu, *Assistant Professor*
Bill Kraynek, *Professor Emeritus*
Jun Li, *Assistant Professor*
Christine Lisetti, *Associate Professor*
Jason Liu, *Professor and Graduate Program Director*
Patricia McDermott-Wells, *Senior Instructor*
Masoud Milani, *Associate Professor*
Ananda Mondal, *Assistant Professor*
Giri Narasimhan, *Professor*
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Farzana Rahman, *Visiting Assistant Professor*
Caryl Rahn, *Instructor*
Raju Rangaswami, *Professor*
Gregory Reis, *Visiting Instructor*
Naphtali Rishe, *Eminent Scholar Chaired Professor*
Michael Robinson, *Senior Instructor*
Monique Ross, *Assistant Professor*
S. Masoud Sadjadi, *Associate Professor*
Fahad Saeed, *Associate Professor*
Gregory Shaw, *Senior Instructor*
Geoffrey Smith, *Professor*
Joslyn Smith, *Senior Instructor*
Tiana Solis, *Instructor*
Jill Weiss, *University Instructor*
Mark A. Weiss, *Eminent Scholar Chaired Professor, Associate Dean for Undergraduate Education*
Ning Xie, *Associate Professor*
Wei Zeng, *Assistant Professor*

The School of Computing and Information Sciences offers both undergraduate and graduate degree programs. The major program and a minor program, are described below.

The School offers three undergraduate major programs and a minor program.

Bachelor of Arts in Computer Science

Degree Program Hours: 120

Students must follow regular University admission procedures and upon admission declare their specific major as Computer Science.

All required courses must be completed with a grade of "C" or better. All students must participate in SCIS assessment activities and successfully complete an exit interview prior to graduation.

Lower Division

Students must complete the following courses as part of their course work, preferably during the first 60 credits:

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
MAC 1140	MACx140
STA 2023	STAx122 or STAx023

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://flvc.org.** Search Program Listing by Alphabetic Order. STA 2023 may be replaced with SAT-2122 or STA-3111.

Required Courses

Courses required for the Degree: (students admitted with less than 55 credits)

CGS 1920	Introduction to Computing	1
	or	
IDC 1000	Computer Science for Everyone	3
	or	
COP 1000	Introduction to Computer Programs	3

Upper Division Requirements

At least 50% of the upper division credits required for the BA in Computer Science must be taken at FIU.

Courses Required for the Degree:

Third and Fourth Years

MAD 2104	Discrete Mathematics	3
	or	
COT 3100	Discrete Structures	3
ENC 3249	Professional and Technical Writing for Computing	3
	or	
ENC 3213	Professional and Technical Writing	3
CGS 3095	Technology in the Global Arena – *GL*	3
COP 2210	Computer Programming I	4
COP 3337	Computer Programming II	3
COP 4338	Computer Programming III	3
CDA 3103	Fundamentals of Computer Systems	3
COP 3530	Data Structures	3
COP 4710	Database Management	3
CDA 4101	Structured Computer Organization	3
CEN 4010	Software Engineering I	3
CNT 4713	Net-centric Computing	3
COP 4610	Operating Systems Principles	3

Computer Science Electives

Students must complete three courses from the list of electives maintained by the School. These electives will be drawn from acceptable electives in the B.S. in Computer Science program or required courses in the B.S in Computer Science program not used in the B.A. program, from electives in the B.A. in Information Technology program, and from electives in the B.S. in Computer Engineering program.

Interdisciplinary Courses

Nine additional credits must be taken outside the School of Computing and Information Sciences. These credits must normally be selected from the courses for a minor or certificate in another discipline. When there is no minor or certificate in the area of the student's interest, a set of courses can be created with the approval of advisers from SCIS and the other area of interest.

Bachelor of Science in Computer Science

Degree Program Hours: 120

The Bachelor of Science program in Computer Science is accredited by the Computing Accreditation Commission (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – Telephone (410) 347-7700.

Students must follow regular University admission procedures and upon admission declare their specific major as Computer Science. Two tracks are available in the program. The **Computer Science track** should be followed by the student who intends to continue to graduate study in computer science. The **Software Design and Development track** may be followed by the student who intends to pursue a software engineering career.

All required courses must be completed with a grade of "C" or better. All students must participate in SCIS assessment activities and successfully complete an exit interview prior to graduation.

Lower Division

Students must complete the following courses as part of their course work, preferably during the first 60 credits and complete COP 2210 with a grade of "C" or higher:

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
COP 2210	COPXXXX[1]
MAC 2311	MACX311 or MACX281
MAC 2312	MACX312 or MACX282
PHY 2048, PHY 2048L	PHYX048/X048L or PHYX048C
PHY 2049, PHY 2049L	PHYX049/X049L or PHYX049C
XXXXXXX[3]	XXXXXXX[2]

[1]Intro Programming in C, C++, JAVA, or equivalent language. Choose programming language required by the university to which the student wishes to transfer.
[2]Science course for science majors.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://flvc.org.** Search Program Listing by Alphabetic Order.

Required Courses

Common Prerequisites

COP 2210	Computer Programming I
MAC 2311	Calculus I
MAC 2312	Calculus II
PHY 2048	Physics with Calculus I
PHY 2048L	General Physics Lab I
PHY 2049	Physics with Calculus II
PHY 2049L	General Physics Lab II

[3]Two additional one-semester courses in natural science; each of these should be a course designed for science or engineering majors. A list of additional approved courses is available through the School of Computing and Information Sciences.

Upper Division Requirements

At least 50% of the upper division credits required for the BS in Computer Science must be taken at FIU.

Courses Required for the Degree: (both tracks)

Third and Fourth Years

CGS 1920	Introduction to Computing	1
	or	
COP 1000	Computer Science for Everyone	3
	or	
IDC 1000	Intro to Computer Programming	3
MAD 2104	Discrete Mathematics	3
	or	
COT 3100	Discrete Structures	3
ENC 3249	Professional and Technical Writing for Computing	3
	or	
ENC 3213	Professional and Technical Writing	3
COT 3541	Logic for Computer Science	3
MAD 3512	Introduction to Theory of Algorithms	3
STA 3033	Introduction to Probability and Statistics for CS	3
CGS 3095	Technology in the Global Arena – *GL*	3
COP 3337	Computer Programming II	3
COP 4338	Computer Programming III	3
CDA 3103	Fundamentals of Computer Systems	3
COP 3530	Data Structures	3
COP 4555	Principles of Programming Languages	3
COP 4710	Database Management	3
CDA 4101	Structured Computer Organization	3
CEN 4010	Software Engineering I	3
CNT 4713	Net-centric Computing	3
COP 4610	Operating Systems Principles	3
*CIS 4911	Senior Project	3

Additional required courses for SDD track

CEN 4021	Software Engineering II	3
**CEN 4072	Fundamentals of Software Testing	3

*Options for CIS 4911:
- Students may enroll in a special section of CIS 4911 by

registering in IDS 4918, which is administered and graded by the Senior Project Coordinator;
* -CIS4911 for SDD-track students must be a software engineering-focused project.
**With the permission of an SCIS UG advisor students can register for CEN 5064 Software Design and then substitute CEN 5064 for CEN 4072.

Computer Science Electives

CS-track students must complete three courses from the list of elective courses.
SDD-track students must complete one course from the list of elective courses in addition to CEN 4021 and CEN 4072. The list of elective courses is maintained by the School of Computing and Information Sciences.

NOTE: Graduate courses can also be used to satisfy elective requirements. Please see adviser for approval. Graduate courses are subject to graduate fees.
Remarks: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Computer Science major: CGS 2060, CGS 3300, CGS 2100, COP 3175, MAC 2233, STA 1013, STA 2023, STA 2122, STA 3123, QMB 3200, ESI 3161.

Combined BS/MS in Computer Science

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

Admission Requirements

1. Current enrollment in the Bachelor's Degree program in Computer Science at FIU.
2. Completed at least 90 credits of coursework.
3. Current GPA must be 3.3 or higher.
4. Foreign students whose native language is not English must score at least 550 on the paper-based (or 80 on iBT) in the Test of English as a Foreign Language (TOEFL)

General Requirements

The FIU Bachelor's degree in Computer Science must be awarded before the Master's degree.

Coursework

Required Courses

CEN 5011	Advanced Software Engineering	3
COP 5725	Principles of Database Management Systems	3
COP 5614	Operating Systems	3
COT 5407	Introduction to Algorithms	3

Electives

6 courses selected from the SCIS Graduate Course Offerings. No grade below "C" will be accepted in any course taken to satisfy graduate program requirements.

Overlap

Up to 4 courses (12 credits) may be used in satisfying both the Bachelor's and Master's degree requirements. All overlapping courses must be approved by both graduate and undergraduate program directors before students are enrolled in such courses.

The courses must be regular 5000-level computer science graduate courses intended for graduate majors.

Combined BS in Computer Science/MS in Engineering Management

Students who pursue a BS degree and are in their first semester of the senior year in Computer Science and have earned at least a 3.2 overall GPA may, upon recommendation from three faculty members, apply to the department to enroll in the combined BSCS/MSEM program. Students must also submit an online application to the University Graduate School for admission to the MSEM program. In addition to the admission requirements of the MSEM program, students must meet all the admission requirements of the University Graduate School.

Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships.

Students enrolled in the combined degree program could count up to three Computer Science graduate courses toward satisfying both the BSCS and the MSEM requirements, for a total saving of 9 credit hours. Students are required to take four courses from the following list. Additional courses may be selected with approval of the program director.

CEN 5011	Advanced Software Engineering
COP 5725	Principles of Database Management Systems
COP 5614	Operating Systems
COT 5310	Theory of Computation I
COT 5407	Introduction to Algorithms

The combined BSCS/MSEM program has been designed to be a continuous program. During this combined BSCS/MSEM program, upon completion of all the requirements of the BSCS program, students will receive their BSCS degree. Students may elect to permanently leave the combined program and earn only the BSCS degree. Students who elect to leave the combined program and earn only the BS degree will have the same access requirements to regular graduate programs as any

other student, but will not be able to use the 9 credit hours in both the BSCS and MSEM degrees.

For each of the graduate courses counted as credits for both BSCS and MSEM degrees, a minimum grade of "B" is required. Only graduate courses with formal lecture can be counted for both degrees. The students are responsible for confirming the eligibility of each course with their undergraduate advisors.

Students interested in the combined program should consult with their undergraduate advisor on their eligibility to the program, preferably during their junior year, since appropriate planning of coursework is required in order to achieve the full nine-credit benefit. The student should also meet the MSEM Program Director to learn about the graduate program and available tracks/courses before completing the application form and submitting it to their undergraduate advisor. Final decision for admission to the MSEM program will be made by the University Graduate School upon recommendation by the Engineering Management program director. Applicants will be notified by the Engineering Management Program and the University Graduate School of the decision on their applications.

Data Science 4+1 Program

With their advisor's approval, students from all undergraduate majors including Computer Science, Hospitality Management, Information Systems and Biostatistics may apply to the Data Science 4+1 program. If accepted, students will be allowed to take up to 12 credits of graduate data science courses which will apply towards both their undergraduate degree requirements and the master's degree program in data science.
The admission requirements are:

1. Current enrollment in an approved bachelor's degree program at FIU.
2. Completed between a minimum of 75 and maximum of 90 credits.
3. Current GPA must be 3.3 or higher.
4. GRE quantitative score of 148 or higher.
5. Completed prerequisites for the master's in Data Science program or demonstrated competencies in the specialization areas (the latter option requires approval by the graduate program director of the appropriate specialization area)
6. Complete the separate 4+1 application, including signed approval by the director or designee from the graduate program.

Bachelor of Science in Information Technology

The School of Computing and Information Sciences offers a Bachelor of Science degree in Information Technology. There are two majors in the program. **1) Information Technology (IT) Major:** The information technology major is for students who want broad coverage of information technology concepts. **2) Software Major:** The software major is for students who want to add a strong theoretical foundation of Computer Science that can be integrated within a vast array of career options.

The B.S. in Information Technology degree as a first major requires completion of prerequisite courses and required and elective courses as outlined below. All required courses must be completed with a grade of "C" or better. All students must participate in SCIS assessment activities and successfully complete an exit interview prior to graduation.

Degree Program Hours: 120

Lower Division

Students must complete the following courses as part of their course work, preferably during the first 60 credits.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CGS 2060 or CGS 2100 or CGS 2518	CGSXXXX
COP 2250	COPXXXX
PSY 2012	PSYXXXX
MAC 1140 or MAC 1147	MACXXXX

Consult FIU Catalog for double majors coupled with IT Programs. Students would need to take the prerequisites for the other major they select, in addition to the IT prerequisites.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, See Common Prerequisite Manual.

Required Courses

Common Prerequisites for Both Majors

All students must have completed the following courses (or equivalent) prior to starting the Information Technology program.

CGS 1920	Introduction to Computing	1
	or	
COP 1000	Computer Science for Everyone	3
	or	
IDC 1000	Intro to Computer Programming	3
CGS 2060	Introduction to Microcomputers	3
	or	
CGS 2100	Introduction to Microcomputer Applications for Business	3
	or	
CGS 2518	Computer Data Analysis	3
MAC 1140	Pre-Calculus Algebra	3
	or	
MAC 1147	Pre-Calculus Algebra and Trigonometry	3
PSY 2012	Introductory Psychology or equivalent	3

IT Major-specific Prerequisites

COP 2250	Programming in Java	3
MAD 1100	Mathematics Concepts for Information Technology	3
	or	
COT 3100	Discrete Structures	3

Software Major-specific Prerequisites

COP 2210	Computer Programming I	3
MAD 2104	Discrete Mathematics	3
	or	
COT 3100	Discrete Structures	3

Upper Division Requirements

At least 50% of the upper division credits required for the BS in Information Technology must be taken at FIU.

Interdisciplinary Courses for Both Majors

Nine additional credits must be taken outside the School of Computing and Information Sciences. These credits must normally be selected from the courses for a minor or certificate in another discipline. When there is no minor or certificate in the area of the student's interest, a set of courses can be created with the approval of advisers from SCIS and the other area of interest.

Common Required Courses for Both Majors

All students must complete the following courses.

CEN 3721	Introduction to Human-Computer Interaction	3
CGS 3767	Computer Operating Systems	3
CGS 4285	Applied Computer Networking	3
CGS 4854	Web Site Construction and Management	3
CNT 4403	Computing and Network Security	3
COP 4703	Information Storage and Retrieval	3
COP 4814	Component-Based Software Development	3
ENC 3249	Professional and Technical Writing for Computing	3
	or	
ENC 3213	Professional and Technical Writing	3
CGS 3095	Technology in the Global Arena – *GL*	3

Information Technology Electives

Students in both majors must take information technology electives. The electives are arranged in the following areas of concentration:

- System Administration
- Applied Network Administration
- Application Development
- Databases
- Security

Information Technology (IT) Major

IT Major-specific Required Course

COP 3804	Intermediate Java	3

IT Major-specific Electives

Students must complete five electives courses, as follows. Select two areas of concentration and take two courses in each of the chosen concentration areas (four courses). Select the fifth course from any area of concentration.

Software Major

Software Major-specific Required Courses

CDA 3103	Fundamentals of Computer Systems	3
COP 3337	Computer Programming II	3
COP 3530	Data Structures	3
COP 4338	Computer Programming III	3

Software Major-specific Electives

Students must select one area of concentration and complete two elective courses in that area.

Free Electives for Both Majors

All students must complete nine additional credits of general electives.

Combined BS in Information Technology/MS in Engineering Management

Students who pursue a BS degree and are in their first semester of the senior year in Information Technology and have earned at least a 3.2 overall GPA may, upon recommendation from three faculty members, apply to the department to enroll in the combined BSIT/MSEM program. Students must also submit an online application to the University Graduate School for admission to the MSEM program. In addition to the admission requirements of the MSEM program, students must meet all the admission requirements of the University Graduate School.

Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships.

Students enrolled in the combined degree program could count up to three Management Electives toward their nine "interdisciplinary credits" in the BSIT degree program, for a total saving of 9 credit hours.

ACG 6026	Accounting for Managers
EIN 5359	Industrial Financial Decisions
FIN 6406	Corporate Finance
MAN 6167	Leadership in a Global Environment
MAN 6209	Organization Design and Behavior
MAN 6501	Operations Management
MAN 6830	Organization Information Systems
MAR 6805	Marketing Management

The combined BSIT/MSEM program has been designed to be a continuous program. During this combined BSIT/MSEM program, upon completion of all the requirements of the BSIT program, students will receive their BSIT degree. Students may elect to permanently leave the combined program and earn only the BSIT degree. Students who elect to leave the combined program and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the 9 credit hours in both the BSIT and MSEM degrees.

For each of the graduate courses counted as credits for both BSIT and MSEM degrees, a minimum grade of "B" is required. Only graduate courses with formal lecture can be counted for both degrees. The students are responsible for confirming the eligibility of each course with their undergraduate advisors.

Students interested in the combined program should consult with their undergraduate advisor on their eligibility to the program, preferably during their junior year, since appropriate planning of coursework is required in order to achieve the full nine-credit benefit. The student should also meet the MSEM Program Director to learn about the graduate program and available tracks/courses before completing the application form and submitting it to their undergraduate advisor. Final decision for admission to the MSEM program will be made by the University Graduate School upon recommendation by the Engineering

Management program director. Applicants will be notified by the Engineering Management Program and the University Graduate School of the decision on their applications.

Bachelor of Arts in Information Technology

Degree Program Hours: 120

The School of Computing and Information Sciences offers a Bachelor of Arts degree in Information Technology as a second major or as a second Bachelor Degree. This program is open to those students who are enrolled in and will be completing another bachelor degree program or those who already have a bachelor degree from an accredited institution. Computer Science and Computer Engineering are not accepted as the primary major at this time.

The B.A. in Information Technology degree as a second major requires completion of prerequisite courses and 30 credit hours (10 courses) of required and elective courses as outlined below. All required courses must be completed with a grade of "C" or better.

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the University Core Curriculum requirements, completed 60 semester hours, must have a different primary major or a previous Bachelor degree, and must be otherwise acceptable into the program.

As part of the 60 semester hours of lower division course work necessary to enter this upper division major, note the following recommendations or course requirements, or both.

Common Prerequisite Courses and Equivalencies

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, See Common Prerequisite Manual. The Common Prerequisite Manual does not include a sheet for this program.

Required Courses

Common Prerequisites

All students must have completed the following courses (or equivalent) prior to starting the Information Technology program.

CGS 2060	Introduction to Microcomputers	3
	or	
CGS 2100	Introduction to Microcomputer Applications for Business	3
	or	
CGS 2518	Computer Data Analysis	3
COP 2250	Programming in Java	3
MAD 1100	Mathematics Concepts for Information Technology	3
	or	
COT 3100	Discrete Structures	3

Upper Division Requirements

At least 50% of the upper division credits required for the BA in Information Technology must be taken at FIU.

Required Courses

All students must complete the following courses (18 credits).

CEN 3721	Introduction to Human-Computer Interaction	3
CGS 3767	Computer Operating Systems	3
CGS 4285	Applied Computer Networking	3
CGS 4854	Web Site Construction and Management	3
COP 3804	Intermediate Java	3
COP 4703	Information Storage and Retrieval	3

Information Technology Electives

All students must complete 2 courses (6 credits) from the following.

CIS 4431	IT Automation	3
CNT 4403	Computing and Network Security	3
CNT 4504	Advanced Network Management	3
CNT 4513	Data Communications	3
COP 4005	Windows Programming for IT Majors	3
COP 4655	Mobile Application Development	3
COP 4722	Survey of Database Systems	3
COP 4813	Web Application Programming	3
COP 4814	Component-Based Software Development	3
CTS 4348	Unix System Administration	3
CTS 4408	Database Administration	3

Cognate Electives

All students must complete 2 additional elective courses (6 credits). Students who are completing their major concurrent with their IT degree must choose their cognate elective courses from a list of designated courses from the department of their primary major. Students who have received their first Bachelor Degree prior to enrolling in the IT program must instead choose an additional two courses from the list of IT elective courses.

Minor in Computer Science

A minor program is an arrangement of courses enabling a student to develop a degree of expertise and knowledge in an area of study in addition to his or her major academic program of study. A student with a major that has a significant overlap with Computer Science must first obtain permission from a CS advisor.

Required Courses

CDA 3103	Fundamental of Computer Systems	3
COP 2210	Computer Programming I	4
COP 3337	Computer Programming II	3

Plus two from the following list:

CAP 4770	Introduction to Data Mining	3
CDA 4101	Structured Computer Organization	3
CEN 4010	Software Engineering I	3
CNT 4713	Net-centric Computing	3
COP 3530	Data Structures	3
COP 4226	Advanced Windows Programming	3
COP 4338	Programming III	3
COP 4520	Introduction to Parallel Computing	3
COP 4555	Principles of Programming Languages	3
COP 4604	Advanced Unix Programming	3

COP 4710	Database Management	3
COT 3541	Logic for Computer Science	3

Students should ensure that he or she has the necessary prerequisites for the chosen courses. At least nine of the credits for the minor must be taken from SCIS. Four of the minor courses cannot be courses that may be applied to the major program of the student.

Course Descriptions

Definition of Prefixes

CAP-Computer Applications; CDA-Computer Design/Architecture; CEN-Computer Software Engineering; CGS-Computer General Studies; CIS-Computer Information Systems; CNT-Computer Networks; COP-Computer Programming; COT-Computing Theory; CTS-Computer Technology and Skills; IDC-Interdisciplinary Computing; IDS-Interdisciplinary Studies. Courses that meet the University's Global Learning requirement are identified as GL.

CAP 2750 Data Analytics for the Internet of Things (3). Concepts/applications of Data Analytics for IoT. Data science, machine learning, and artificial intelligence at the edge. Inference, sensor fusion, bandwidth, transfer learning, and generative models.

CAP 2752 Fundamentals of Data Science (3). This course will teach data science fundamentals to undergraduate non-CS majors. The focus will be on real-world applications and use of associated analysis, Visualization tools, Python programming. Prerequisite: None for B.S. or B.A. standing or permission of the instructor.

CAP 4104 Human-Computer Interaction (3). HCI foundations, user-centered interaction design, prototyping and programming interactive systems, qualitative and quantitative evaluation techniques, designing multimodal interfaces.

CAP 4453 Introduction to Robot Vision (3). Perspective and orthographic projections; the processing of edges, regions, motion, shading, texture, object detection, recognition, and machine learning. Prerequisites: COP 3530 and MAC 2312.

CAP 4506 Introduction to Game Theory (3). Introduction to all major topics of game theory, including game representations, solution concepts, algorithms & complexity, repeated games, learning, auctions, voting, applications to many disciplines. Prerequisites: MAC 2312 or Permission of the Instructor.

CAP 4612 Introduction to Machine Learning (3). Topics will include concepts, principles, and approaches of machine learning, including classification, clustering, structured models and recommendation system. Prerequisites: COP 3530 and STA 3033.

CAP 4612C Practical Machine Learning (3). Practical introduction to machine learning. Tools for Python, Supervised/Unsupervised Learning, and Best Practices. Case studies and practical applications will be discussed. Not for CS majors.

CAP 4630 Artificial Intelligence (3). Introduction to all major topics in artificial intelligence, including search, logic, optimization, constraint satisfaction, planning, probabilistic reasoning, multiagent systems, machine learning**.** Prerequisite: COP 3530

CAP 4641 Natural Language Processing (3). The concepts and principles of computer processing of natural language, including linguistic phenomena, formal methods, and applications. Prerequisite: COP 3530.

CAP 4710 Principles of Computer Graphics (3). A first course in algorithms/techniques for image generation devices, geometric transformations/matrics, algorithms for hidden surfaces, ray tracing, advanced rendering. Programming with standard graphics interface. Prerequisites: COP 3337 and MAC 2312. This course will have additional fees.

CAP 4770 Introduction to Data Mining (3). Data mining applications, data preparation, data reduction and various data mining techniques such as association, clustering, classification, anomaly detection. Prerequisite: COP 3530. Corequisite: COP 4710.

CAP 4783 Management of Datacenter Systems (3). Topics include the concepts and principles of warehouse-scale computer system and datacenter management, including workload, software/hardware infrastructure, power and cost. Prerequisite: CGS 3767.

CAP 5011 Multimedia Systems and Applications (3). Course covers organization of multimedia systems, data representation, quality of service, scheduling algorithms, synchronization and tele-communication of multimedia streams. Prerequisite: COP 4610.

CAP 5109 Advanced Human-Computer Interaction (3). Fundamental concepts of human-computer interaction, cognitive models, user-centered design principles, evaluation techniques, and emerging technologies in various contexts and domains.

CAP 5507 Game Theory (3). Game representations, solution concepts, algorithms & complexity, repeated games, learning, auctions, voting application to many disciplines. Familiarity with mathematical proofs would be helpful.

CAP 5510C Introduction to Bioinformatics (3). Introduction to bioinformatics; algorithmic, analytical and predictive tools and techniques; programming and visualization tools; machine learning; pattern discovery; analysis of sequence alignments, phylogeny data, gene expression data, and protein structure. Prerequisites: COP 3530 or equivalent and STA 3033 or equivalent.

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. This course will have additional fees.

CAP 5610 Introduction to Machine Learning (3). Decision trees, Bayesian learning, reinforcement learning as well as theoretical concepts such as inductive bias, the PAC learning, minimum description length principle. Prerequisite: Graduate standing.

CAP 5627 Affective Intelligent Agents (3). Design and implementation methods using artificial intelligence (AI) techniques, human-computer interaction (HCI) principles, emotion theories; applications, e.g. health informatics, education, games. Prerequisites: Graduate standing or permission of the instructor.

CAP 5640 Graduate Introduction to Natural Language Processing (3). The concepts and principles of computer processing of natural language, including linguistic phenomena, formal methods, and applications. Students will conduct an independent research project. Prerequisites: M.S. or Ph.D. standing or permission of the instructor.

CAP 5701 Advanced Computer Graphics (3). Advanced topics in computer graphics: system architecture, interactive techniques, image synthesis, current research areas. Prerequisites: COP 3530 and CAP 3710 or equivalent, or by permission. This course will have additional fees.

CAP 5738 Data Visualization (3). Advanced class on data visualization principles and techniques. Students propose, implement, and present a project with strong collaborative and visual components.

CAP 5768 Introduction to Data Science (3). Foundations of databases, analytics, visualization and management of data. Practical data analysis with applications. Introduction to Python, SQL, R, and other specialized data analysis toolkits. Prerequisites: STA 3164 or equivalent.

CAP 5768C Practical Data Science (3). Topics will include: data collection and processing, data visualization and presentation, statistical model building using machine learning, and big data techniques for scaling these methods. Prerequisite: M.S. or Ph.D. standing or permission of the instructor.

CAP 5771 Principles of Data Mining (3). Introduction to data mining concepts, knowledge representation, inferring rules, statistical modeling, decision trees, association rules, classification rules, clustering, predictive models, and instance-based learning. Prerequisites: COP 4710 and STA 3033.

CDA 3003 Microcomputer Organization (3). A study of the hardware components of modern microcomputers and their organization. Evaluation and comparison of the various microcomputer systems. Not acceptable for credit for Computer Science Majors. Prerequisite: COP 2250. This course will have additional fees.

CDA 3103 Fundamentals of Computer Systems (3). Overview of computer systems organization. Data representation. Machine and assembly language programming. Prerequisites: COP 2210 or equivalent. This course will have additional fees.

CDA 4101 Structured Computer Organization (3). Covers the levels of organization in a computer: Design of memory, buses, ALU, CPU; design of microprogram. Covers virtual memory, I/O, multiple processes, CISC, RISC and parallel architectures. Prerequisites: CDA 3103, COP 3337 and (MAD 2104 or COT 3100). This course will have additional fees.

CDA 4400 Computer Hardware Analysis (3). The study of hardware functions of a basic computer. Topics include logic elements, arithmetic logic units, control units, memory devices, organization and I/O devices. Prerequisite: CDA 4101.

CDA 4625 Introduction to Mobile Robotics (3). A first course on the theoretical and practical aspects of mobile robotics. Topics include locomotion, kinematics, sensing and perception, localization and mapping, planning and navigation. Prerequisites: COP 3530 and STA 3033.

CDA 5655 Virtualized Systems (3). Topics include the concepts and principles of virtualization and the mechanisms and techniques of building virtualized systems, from individual virtual machines to virtualized networked infrastructure. Prerequisites: COP 4610 or permission of the instructor.

CEN 3721 Introduction to Human-Computer Interaction (3). Fundamental concepts of human-computer interaction, cognitive models, user-centered design principles and evaluation, emerging technologies. Prerequisites: COP 2210 or COP 2250 or equivalent.

CEN 4010 Software Engineering I (3). Software Process Model, software analysis and specification, software design, testing. Prerequisites: CGS 3095, COP 3530, and COP 4710. Corequisite: CNT 4713. This course will have additional fees.

CEN 4012 Software Design and Development Project (3). Students design, implement, document, and test software systems working in faculty supervised project teams and utilizing knowledge obtained in previous courses. Required for Software Design and Development track. Prerequisite: CEN 4010. This course will have additional fees.

CEN 4021 Software Engineering II (3). Issues underlying the successful development of large scale software projects: Software Architectures; Software Planning and Management; Team Structures; Cost Estimation. Prerequisite: CEN 4010. This course will have additional fees.

CEN 4072 Fundamentals of Software Testing (3). Fundamentals of software testing. Topics include: test plan creation, test case generation, program inspections, specification-based and implementation-based testing, GUI testing, and testing tools. Prerequisite: COP 3530.

CEN 4083 Introduction to Cloud Computing (3). Topics include the concepts and principles of cloud computing and the techniques of using cloud systems and developing cloud applications. Prerequisites: CNT 4713 and CDA 4101 or permission of the instructor.

CEN 5011 Advanced 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: CEN 4010. This course will have additional fees.

CEN 5064 Software Design (3). Study of object-oriented analysis and design of software systems based on the standard design language UML; case studies. Prerequisite: CEN 5011.

CEN 5076 Software Testing (3). Tools and techniques to validate software process artifacts: model validation, software metrics, implementation-based testing, specification-based testing, integration and systems testing. Prerequisites: CEN 4010 or CEN 5011.

CEN 5079 Secure Application Programming (3). Development of applications that are free from common security vulnerabilities, such as buffer overflow, SQL injection, and cross-site scripting attacks. Emphasis is on distributed web applications. Prerequisite: Graduate standing.

CEN 5082 Grid Enablement of Scientific Applications (3). Fundamental principles and applications of high-performance computing and parallel programming using OpenMP, MPI, Globus Toolkit, Web Services, and Grid Services. Prerequisites: Graduate standing or permission of the instructor.

CEN 5087 Software and Data Modeling (3). Essential software and data modeling methods and techniques such as UML, XML, and ER. Prerequisite: Graduate standing.

CEN 5120 Expert Systems (3). Introduction to expert systems, knowledge 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. This course will have additional fees.

CGS 1920 Introduction to Computing (1). Overview of the computing field to students, research programs and career options.

CGS 2060 Introduction to Microcomputers (3). A hands-on study of microcomputer software packages for applications such as operating system, word processing, spreadsheets, and database management. For students without a technical background. Not acceptable for credit for Computer Science majors.

CGS 2100 Intro to Microcomputer Applications for Business (3). A hands-on study of spreadsheet and database management packages for business students without a technical background. Not acceptable for credit for Computer Science majors.

CGS 2518 Computer Data Analysis (3). A hands-on study of how to use a modern spreadsheet program to analyze data, including how to perform queries, summarize data, and solve equations. For non-technical students. Not acceptable for CS students.

CGS 3092 Professional Ethics and Social Issues in Computing (1). Ethical, legal, social issues and the responsibility of computer professionals. Codes of conduct, risks and reliability, responsibility, liability, privacy, security, free speech issues. Prerequisites: ENC 3213 and (COP 2210 or COP 2250).

CGS 3095 Technology in the Global Arena – *GL* (3). Legal, ethical, social impacts of computer technology on society, governance, quality of life: intellectual property, privacy, anonymity, professionalism, social identity in the U.S. and globally. Prerequisites: COP 2250 or COP 2210 and ENC 3213 or ENC 3249.

CGS 3416 Web-based Programming (3). A programming course in Java with emphasis on web-based applications: Applets; Components; Servlets; Java Beans. Not acceptable for credit for Computer Science majors. Prerequisites: COP 2250 and MAD 1100. This course will have additional fees.

CGS 3559 Using the Internet (1). Internet history and importance. What is available on the Net. Tools such as email, listserves, telnet, ftp, Archie, Veronica, Gopher, netfind, the World Wide Web, Wais, and Mosaic. Nontechnical. Prerequisite: CGS 2060 or equivalent.

CGS 3767 Computer Operating Systems (3). Introduction to fundamental concepts of operating systems and their implementation in UNIX and Windows. Prerequisites: COP 2250 or COP 2210. This course will have additional fees.

CGS 4285 Applied Computer Network (3). Principles of computer network design, operation and management. Network protocols. Network configuration. Network security. Not acceptable for credit for Computer Science majors. Prerequisite: CGS 3767. This course will have additional fees.

CGS 4365 Knowledge-Based Management Systems (3). Introduction to knowledge-based and expert systems. Knowledge acquisition, knowledge representation, and creation of expert system. Not acceptable for credit for Computer Science majors. Prerequisite: COP 4703. This course will have additional fees.

CGS 4854 Website Construction and Management (3). The fundamentals of creating and maintaining a website. Installation and maintenance of a web-server. Techniques for building multimedia interactive web-pages. Not acceptable for credit for Computer Science majors. Prerequisites: CGS 3767 and (COP 3804 or COP 3337). This course will have additional fees.

CGS 5166 Introduction to Bioinformatics Tools (2). Introduction to bioinformatics; analytical and predictive tools; practical use of tools for sequence alignments, phylogeny, visualizations, patterns discovery, gene expression analysis, and protein structure. Prerequisite: PCB 6025 or equivalent.

CIS 3900 Independent Study (1-5). Individual conferences, assigned readings, and reports on independent investigations.

CIS 3930 Special Topics (1-5). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 4365 Enterprise Cybersecurity Policies and Practices (3). Policies and practices for information assurance, incident response, disaster recovery, cost assessment, vulnerability assessment, vulnerability testing, and risk mitigation strategies. Prerequisite: CNT 4403 or EEL 4806

CIS 4431 IT Automation (3). IT automation: mgmt models, auditing, assets, change mgmt, network monitoring, OS imaging, patch mgmt, help desk, remote control, user state mgmt, end-point security, backup, disaster recovery. Prerequisite: CGS 3767. Corequisite: CGS 4285 or permission of the instructor.

CIS 4905 Independent Study (1-20). Individual conferences, assigned readings, and reports on independent investigations.

CIS 4911 Senior Project (3). Students work on faculty supervised projects in teams of up to 5 members to design and implement solutions to problems utilizing knowledge obtained across the spectrum of Computer Science courses. Prerequisites: CEN 4010 and permission of the instructor.

CIS 4912 Research Experience for Undergraduate Students (0-9). Participation in ongoing research in the research centers of the school.

CIS 4930 Special Topics (1-3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 5027 Computer Systems Fundamentals (3). Fundamentals concepts of IT Systems: operating systems, networking, distributed systems, platform technologies, web services and human-computer interaction. Covers design principles, algorithms and implementation techniques. Prerequisite: Graduate standing.

CIS 5208 Social, Economic, and Policy Aspects of Cybersecurity (3). The broader human context of cybersecurity, from the perspective of society, economics, and policy. Prerequisite: Graduate standing.

CIS 5346 Storage Systems (3). Introduction to storage systems, storage system components, storage architecture, devices, trends and applications, performance, RAID, MEMS and portable storage, file-systems, OS storage management. Prerequisite: Graduate standing.

CIS 5370 Principles of Cybersecurity (3). Cybersecurity algorithms, techniques. Mathematical foundations. Symmetric and public key encryption. Authentication, key infrastructure, certificates. Covert channels. Access control. Vulnerabilities. Prerequisite: Graduate standing.

CIS 5372 Fundamentals of Computer Security (3). Information assurance algorithms and techniques. Security vulnerabilities. Symmetric and public key encryption. Authentication and Kerberos. Key infrastructure and certificate. Mathematical foundations. Prerequisite: Graduate standing.

CIS 5373 Systems Security (3). Risk, Trust, and Threat models; Types of Attacks; Safe Programming Techniques; Operating System Mechanisms, Virtual Machine Systems; Hardware Security Enforces; Application Security; Personal Security. Prerequisite: CIS 5372.

CIS 5374 Information Security and Privacy (3). Information Security Planning, Planning for Contingencies, Policy, Security Program, Security Management Models, Database Security, Privacy, Information Security Analysis, Protection Mechanism. Prerequisite: CIS 5372.

CIS 5432 Advanced IT Automation (3). Advanced topics in system/network management including monitoring, help desk, antivirus, anti-malware, backup, disaster recovery, discovery, audit, remote control, automated response, policies, and reports. Prerequisites: CIS 4431 or permission of the instructor.

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 5915 Research Experience for Graduate Students (0-9). Participation in ongoing research in the research centers of the school.

CIS 5931 Special Topics (1-3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CNT 4182 Mobile and IoT Cybersecurity Policies and Practices (3). Emerging topics in policies and practices for mobile and IoT devices. Skills include identifying and assessing values and threats, and mitigating risks to IoT and mobile assets. Prerequisites: CNT 4403 or EEL 4806

CNT 4403 Computing and Network Security (3). Fundamental concepts and principles of computing and network security, symmetric and asymmetric cryptography, hash functions, authentication, firewalls and intrusion detection, and operational issues. Prerequisites: COP 3804 or COP 3337 and CGS 4285.

CNT 4406 Network Security and Cryptography (3). Symmetric and public key cryptography, IPSec, SSL, password management, firewalls, intrusion detection, wireless security, anonymizers, spam, phishing, malware and network attacks. Prerequisites: COP 4338 or CNT 4713.

CNT 4504 Advanced Network Management (3). Advanced principles of modern internetworking network design and implementation. Hands on experience with routers and switches and core Internet support protocols. Prerequisite: CNT 4513.

CNT 4513 Data Communications (3). Study Computer network models and protocol layers. Topics include: error handling, frames, broadcast networks, channel allocation; network routing algorithms, internetworking, TCP/IP, ATM protocols. Prerequisites: COP 3804 or COP 3337 and CGS 4285.

CNT 4603 Windows System Administration (3). An examination of operating systems and applications installation, configuration, and maintenance, including client-server services, server administration and management, and user/group management. Prerequisite: CGS 3767.

CNT 4713 Net-centric Computing (3). This course covers networking fundamentals, network security, network applications, mobile and wireless computing. The course focuses on network programming, including sockets and web programming concepts. Prerequisite: COP 4338.

COP 1000 Introduction to Computer Programming (3). Uses graphics and animation in a media programming environment to teach problem solving and programming concepts to students with no prior experience. May not be taken after COP 2210 or COP 2250.

COP 2210 Computer Programming I (4). A first course in computer science that uses a structured programming language to study programming and problem solving on the computer. Includes the design, construction and analysis of programs. Student participation in a closed instructional lab is required. This course will have additional fees. Prerequisites: MAC 1140 or MAC 1147 or MAC 2233 or MAC 2311, or Advisor's Permissions

COP 2250 Programming in Java (3). A first course in programming for IT majors. Syntax and semantics of Java. Classes and Objects. Object oriented program development. Not acceptable for credit for Computer Science majors. This course will have additional fees.

COP 2270 C for Engineers (3). A first course in programming geared for engineering and natural science students that describes the syntax and semantics of ANSI C programming language. Includes developing algorithms and writing for problems in engineering and science.

COP 3175 Programming in Visual Basic (3). An introduction to Visual Basic programming with emphasis on Business Applications. Not acceptable for credit for Computer Science majors. Prerequisites: CGS 2100 or CGS 2060. This course will have additional fees.

COP 3337 Computer Programming II (3). An intermediate level course in Object Oriented programming. Topics include primitive types, control structures, strings arrays, objects and classes, data abstraction inheritance polymorphism and an introduction to data structures. Prerequisites: COP 2210 or EEL 2880. This course will have additional fees.

COP 3353 Introduction to Using Unix/Linux Systems (3). Techniques of Unix/Linux systems. Basic use, file system structure, process system structure, unix tools (regular expressions, grep, find), simple and complex shell scripts, Xwindows. Not acceptable for credit for Computer Science majors. Prerequisites: COP 2210 or COP 2250 or equivalent. This course will have additional fees.

COP 3465 Data Structures for IT (3). Basic concepts of running time of a program, data structures including lists, stacks, queues, binary search trees, and hash tables, and internal sorting. Not acceptable for credit for CS majors. Prerequisite: Programming II (IT). This course will have additional fees.

COP 3530 Data Structures (3). Basic concepts of data organization, running time of a program, abstract types, data structures including linked lists, nary trees, sets and graphs, internal sorting. Prerequisites: COP 3337 and (MAD 2104 or COT 3100). This course will have additional fees.

COP 3804 Intermediate Java Programming (3). A second course in Java programming. Continues Programming in Java by discussing object-oriented programming in a more detail, with larger programming projects and emphasis on inheritance. Not acceptable for credit for CS majors. Prerequisites: COP 2250 or COP 2210. This course will have additional fees.

COP 3832 Advanced Web Server Communication (3). Maintain a web server on the Internet. Learn HTML, PERL, Javascript. Configure the Apache web server. Write interactive server scripts. Discuss Web security & ASP. Use Java applets and ActiveX controls. Prerequisites: CGS 3559, COP 2210 or equivalents. This course will have additional fees.

COP 3835 Designing Web Pages (3). Designing basic pages for display on the World Wide Web. Fundamental design elements and contemporary design tools are discussed. Computer literacy is expected.

COP 3949 Cooperative Education in Computing (1-3). Cooperative Internship for Computer Science and Information Technology majors. May not be used for Computer Science or Information Technology elective credit. Prerequisite: Permission of the instructor.

COP 4005 Windows Programming for IT Majors (3). Application development techniques in Windows: Classes, Objects, Controls, Forms and Dialogs, Database, and Multitier Application Architecture. Students cannot receive credit for both COP 4005 and COP 4226. Prerequisites: CEN 3721 and COP 3804 or COP 3337. Corequisite: COP 4703. This course will have additional fees.

COP 4009 Windows Components Technology (3). Component-Based and Distributed Programming Techniques: C#, Common Type System, Windows and Web Forms, Multithreading, Distributed Objects. Prerequisites: COP 4226 or COP 4005. This course will have additional fees.

COP 4226 Advanced Windows Programming (3). Document and Dialog Based App, Message Passing, Printing, Drawing, GUI Design, Common Controls, Multithreaded Programming, Serialization, Database Connectivity, Runtime Libraries, Memory Management. Prerequisite: COP 3530. This course will have additional fees.

COP 4338 Computer Programming III (3). Programming in C and advanced programming in Unix environments, including multiprocessing and multithreading. Corequisite: COP 3530. This course will have additional fees.

COP 4516 Competitive Programming and Problem Solving (3). Problem solving for programming competitions. Algorithms, analysis, programming, debugging, group collaboration. Participation in team practices and rigorous individual preparation. Prerequisite: COP 3530.

COP 4520 Introduction to Parallel Computing (3). This course introduces the field of parallel computing. The students will be taught how to design efficient parallel programs and how to use parallel computing techniques to solve scientific problems. Prerequisites: COP 3530 and CDA 4101 or EEL 4709C.

COP 4534 Algorithm Techniques (3). Basic algorithm design, including greedy algorithms, divide-and-conquer, dynamic programming, randomization, and backtracking. Graph, string, numerical, geometric, and optimization algorithms. Prerequisite: COP 3530.

COP 4555 Principles of Programming Languages (3). A comparative study of several programming languages and paradigms. Emphasis is given to design, evaluation and implementation. Programs are written in a few of the languages. Prerequisite: COP 3530. This course will have additional fees.

COP 4604 Advanced Unix Programming (3). Unix overview: files and directories, shell scripting and systems programming. Unix tools; Internals: file systems, process structure. Using the system call interface. Interprocess communication. Prerequisite: COP 4338. Corequisite: COP 4610. This course will have additional fees.

COP 4610 Operating Systems Principles (3). Operating systems design principles and implementation techniques. Address spaces, system call interface, process/threads, interprocess communication, deadlock, scheduling, memory, virtual memory, I/O, file systems. Prerequisites: CDA 4101 and COP 4338. This course will have additional fees.

COP 4655 Mobile Application Development (3). Design and development of mobile applications. Introduction to the mobile application frameworks, including user interface, sensors, event handling, data management and network interface. Prerequisites: CEN 3721 and COP 4814.

COP 4703 Information Storage and Retrieval Concepts (3). Introduction to information management and retrieval concepts. The design and implementation of a relational database using a commercial DBMS. Online information retrieval and manipulation. Not acceptable for credit for Computer Science majors. Prerequisites: COP 3804 or COP 3337. This course will have additional fees.

COP 4710 Database Management (3). Logical aspects of databases including Relational, Entity-Relationship, and Object-Oriented data models, database design, SQL, relational algebra, tuple calculus, domain calculus, and physical database organization. Prerequisite: COP 3337. Corequisite: COP 3530. This course will have additional fees.

COP 4722 Survey of Database Systems (3). Design and management of enterprise systems; concurrency techniques; distributed, object-oriented, spatial, and multimedia databases; databases integration; datawarehousing and datamining; OLAP; XML interchange. Prerequisites: COP 4710 or COP 4703.

COP 4813 Web Application Programming (3). Creating Web applications with user interfaces, databases, state management, user authentication, error handling, and web services. Prerequisites: CGS 4854 and COP 4005.

COP 4814 Component-Based Software Development (3). Integrating, exchanging, and transforming XML data, building software from components, understanding security concepts, basic Web services. Prerequisites: COP 4703 and CGS 4854.

COP 4906 Research Experiences in Computer Science (1-3). Participation in ongoing research in the research centers of the school. Prerequisite: Permission of the instructor.

COP 4949 Cooperative Education in Computing 2 (1-3). Cooperative Internship for Computer Science and Information Technology majors. May not be used for Computer Science or Information Technology elective credit. Prerequisite: Permission of the instructor.

COP 5614 Operating Systems (3). Operating systems design principles, algorithms and implementation techniques: process and memory management, disk and I/O systems, communications and security.

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 CEN 4010. This course will have additional fees.

COP 5725 Principles of Database Management Systems (3). Overview of Database Systems, Relational Model, Relational Algebra and Relational Calculus; SQL; Database Applications; Storage and Indexing; Query Evaluation; Transaction Management. Selected database topics will also be discussed.

COP 5949 Cooperative Education in Computer Science (1-3). One semester of full-time work, or equivalent, in an outside organization, limited to students admitted to the CO-OP program. A written report and supervision evaluation is required of each student. Prerequisite: Graduate Standing.

COT 3100 Discrete Structures (3). Align mathematical and computational concepts by applying computing to propositional logic, sets, functions relations, induction, recursion, combinatorics, Boolean algebra, graph and trees. Prerequisites: MAC XXXX and COP XXXX Corequisites: (COP 2210 or COP 2250 or EEL 2880)

COT 3541 Logic for Computer Science (3). An introduction to the logical concepts and computational aspects of propositional and predicate logic, as well as to concepts and techniques underlying logic programming, in particular, the computer language Prolog. Prerequisites: COP 3337 and (MAD 2104 or COT 3100). This course will have additional fees.

COT 4521 Introduction to Computational Geometry (3). Study of efficient algorithms to solve geometric problems. Topics covered include convex hulls, Voronoi diagrams, Delaunay triangulations, arrangements, search and intersection, and motion planning. Prerequisite: COP 3530.

COT 5310 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.

COT 5407 Introduction to Algorithms (3). Design of efficient data structures and algorithms; analysis of algorithms and asymptotic time complexity; graph, string, and geometric algorithms; NP-completeness.

COT 5428 Formal Foundations for Cybersecurity (3). Formal models and methods for achieving rigorous security guarantees. Cryptographic indistinguishability properties, reduction proofs. Formal analyses of security APIs. Secure information flow. Prerequisite: CIS 5370.

COT 5520 Computational Geometry (3). Design and analysis of efficient algorithms to solve geometric problems: geometric searching, convex hull, proximity problem, Voronoi diagram, spanning tree, triangulation, graph drawing applications. Prerequisite: COP 3530 (or equivalents).

CTS 2327 Microsoft Windows NT Administration (3). A two-part course covering introduction to Networking and the Windows NT Operating System. This course will cover material that is covered on the Microsoft Certified systems Engineer (MCSE) exam. Prerequisites: CGS 2060, or CGS 2100, or equivalent. This course will have additional fees.

CTS 4348 Unix System Administration (3). Techniques of Unix system administration: system configuration and management; user setup, management and accounting; software installation and configuration; network setup, configuration and management. Prerequisite: CGS 3767.

CTS 4408 Database Administration (3). Client-server architecture; planning, installation, server configuration; user management; performance optimization; backup, restoration; security configuration; replication management; administrative tasks. Prerequisites: COP 4703 or COP 4710.

CTS 4743 Enterprise IT Troubleshooting (3). This course covers advanced topics in troubleshooting from the perspective of an infrastructure engineer focusing on diagnosing & resolving issues found in common application architectures patterns. Prerequisite: COP 4703 and (CNT 4403 or EEL 4806)

IDC 1000 Computer Science for Everyone (3). Introduction to the breadth and excitement of computing, including its social context, computing principles, and relevance to all disciplines.

IDC 2002 Artificial Intelligence for All (3). High-level conceptual survey of artificial intelligence for non-CS undergraduates, including techniques, applications, ethics, and philosophical issues. No high-level math or programming required.

IDC 4010C Computer Science Education for Elementary School Children (4). Provide teachers with the knowledge of introductory Computer Science topics, as well as the pedagogy on how to teach the topics. Computer Science topics include computational thinking, logic, visual programming, and social issues related to computer technologies including Internet safety.

IDC 4011C Computer Science Education for Middle School Children (4). Provide teachers with the knowledge of intermediate-level Computer Science topics, as well as the pedagogy on how to teach the topics. Computer Science topics include computational thinking, logic, visual programming, computer hardware and networking, and social issues related to computer technologies including Internet safety.

IDC 4012C Computer Science Education for High School Children (4). Provide teachers with the knowledge of advanced Computer Science topics, as well as the pedagogy on how to teach the topics. Computer Science topics include how the internet works, big data, logic, programming languages such as Javascript (via an app-creating visual tool) and researching technology innovations.

IDC 5007 Concepts of Artificial Intelligence (3). High-level conceptual survey of artificial intelligence for non-CS graduate students, including techniques, applications, ethics, and philosophical issues. No high-level math or programming required.

IDS 2916 Vertically Integrated Projects – A (1). Students work in large projects with students from different majors working in real-world projects with university and external mentors (may be taken twice). (Sophomore status). Prerequisite: Permission of the instructor.

IDS 3917 Vertically Integrated Projects – B (3). Students work in large projects with students from different majors working in real-world projects with university and external mentors. Prerequisite: Permission of the instructor.

IDS 4918 Vertically Integrated Projects – C (3). Students work in large projects with students from different majors working in real-world projects with university and external mentors (may be taken twice) (Senior status) Prerequisite: Instructor Consent.

TCN 5010 Telecommunications Technology and Applications (3). An in-depth introduction to voice and data networks, signaling and modulation, multiplexing, frequency band and propagation characteristics, special analysis of signals, and traffic analysis. Prerequisite: Permission of the instructor.

TCN 5030 Computer Communications and Networking Technologies (3). Teaches the dynamics related to computer communications, how computers are grouped together to form networks, various networking implementation strategies, and current technologies. Prerequisite: Permission of the instructor.

TCN 5060 Telecommunications Software and Methodologies (3). A high-level look into network architectures and distributed applications, client-server models, network software platforms and advanced techniques for programs specifications through implementation. Prerequisites: TCN 5030 or permission of the instructor.

TCN 5080 Secure Telecommunications Transactions (3). Telecom and information security issues such as: digital signatures, cryptography as applied to telecom transactions, network policing, nested authentication, and improving system trust. Prerequisites: TCN 5030 or permission of the instructor.

TCN 5150 Multimedia Computer Communications (3). Covers multimedia computer communications technologies including, multimedia over networks, videoconferencing, telephone, compression algorithms and techniques for transmitting data efficiently. Prerequisites: TCN 6210 or permission of the instructor.

TCN 5421 Theory of Network Computation (3). Fundamental mathematical models of general and network computation: finite state automata, regular languages, decidability; scholastic processes, Markov chains, queuing theory.

TCN 5440 Software Development for Telecommunication Networks (3). Focuses on the

aspects, tools, and techniques of developing software applications for telecommunications networks. Prerequisites: TCN 5030 or equivalent.

TCN 5445 Telecommunications Networking Programming (3). Advanced telecommunications network programming skills including Router and Bridge Software, socket programming and protocol handler. Prerequisite: Permission from instructor.

TCN 5455 Information Theory (3). Entropy and measure of information. Proof and interpretation of Shannon's fundamental theorem for various channels, including noiseless, discrete, time-discrete and time-continuous channels. Prerequisite: Permission of the instructor.

TCN 5640 Telecommunications Enterprise Planning and Strategy (3). Methodologies for re-engineering, project management, strategic planning, change management, RFPs, and life-cycle management within the telecommunications and IT arena. Prerequisite: Permission of the instructor.

TCN 5710 Cyber Sustainability (3). In-depth introduction to sustainable development and optimization of cyber systems, such as mobile networks and data centers, with an emphasis on cost, energy, water and life-cycle assessment.

Moss School of Construction, Infrastructure and Sustainability

Irtishad U. Ahmad, Ph.D., P.E., *Professor Emeritus*
Ronald A. Baier, P.E., *University Instructor Emeritus*
Mohamed ElZomor, Ph.D., *Assistant Professor*
José Faria, Ph.D., PMP, *Interim Director*
Eugene D. Farmer, A.I.A., NCARB, LEED-AP BD+C, *Professor Emeritus*
Vamsi S. Kalasapudi, Ph.D., *Visiting Instructor*
Xuan Lv, Ph.D., *Assistant Professor*
José D. Mitrani, P.E., CPC, CGC, *Professor Emeritus*
Ayman A. Morad, Ph.D., *Senior Instructor*
Wallied Orabi, Ph.D., *Associate Professor and Undergraduate Program Director*
Nipesh Pradhananga, Ph.D., P.E., Assistant *Professor and Graduate Program Director*
David Ramsey, Ph.D., *Instructor*
Arif Sadri, Ph.D., *Assistant Professor*
Reza Sheykhi, Ph.D., *Visiting Instructor*
Natasha Wedderburn, MPA, *Professional Academic Advisor*
Lu Zhang, Ph.D., *Assistant Professor*

Bachelor of Science in Construction Management

Degree Program Hours: 121

The undergraduate program in Construction Management is nationally accredited by the American Council for Construction Education. Its goal is to provide students with the knowledge and skills required for entry level supervisory or managerial positions in the construction industry. Graduates usually find employment as project managers, project schedulers, cost estimators, quality controllers or in managing their own construction firms.

Opportunities for employment or advancement exist in all areas of the construction industry including land development, home building, public building, industrialized building systems, commercial, industrial, marine and highway heavy construction, underwater and space age facilities, material and equipment sales and installations, and construction product research, development and sales.

Honorary and Professional Organizations

Sigma Lambda Chi: Sigma Lambda Chi is the national honor society for students in Construction. The purpose of Sigma Lambda Chi is to recognize students in Construction Management for outstanding scholastic achievement. The organization provides a service to the students by inviting guest lecturers, sponsoring student tutoring and undertaking a variety of service projects.

Student Chapter of the Associated General Contractors of America: The AGC is a national student organization sponsored by the Associated General Contractors. Its purpose is to increase student awareness of the construction industry, promote fellowship and professionalism and to provide service to the School, University and Community. Membership is open to all Construction related majors. Activities include sponsoring guest lecturers, attendance at local, regional and national AGC meetings and conferences, and undertaking a variety of service projects.

Student Chapter of the Associated Builders and Contractors: The ABC is a national student organization sponsored by the Associated Builders and Contractors. Its purpose is to increase student awareness of the construction industry, promote fellowship and professionalism and to provide service to the School, University and Community. Membership is open to all Construction related majors. Activities include sponsoring guest lectures, attendance at local, regional and national ABC meetings and conferences, and undertaking a variety of service projects.

Student Chapter of the National Association of Women in Construction: This national student organization is sponsored by the National Association of Women in Construction. Its purpose is to promote knowledge of the construction industry and fellowship within the student body. Activities include monthly meetings with guest lecturers, field trips and a variety of service projects. The FIU student chapter of NAWIC was the first such chapter established in the United States. Membership is open to all construction related majors.

Program of Study

The four year program leading to a Bachelor of Science in Construction Management is for students who are interested in preparing for professional careers in construction management, operations, and related areas in the construction industry.

The Lower Division courses, i.e. Freshman and Sophomore levels, are selected to provide easy transfer for community college graduates. With proper planning, full time transfer students with an A.A. degree are able to complete the four year degree program in four remaining semesters at the University. Prospective community college transfer students should contact an advisor for program information and Lower Division transfer requirements.

Students already working full or part time, many with trades or construction licenses, are generally able to plan their program around job commitments and responsibilities. Faculty advisors are on hand days and evenings to assist students in course selection and scheduling.

Admission

The Moss School of Construction, Infrastructure and Sustainability encourages applications for admission from qualified students from all cultural, racial, religious or ethnic groups, regardless of gender.

Grade Point Average

Admission into the undergraduate program requires a minimum 2.0 grade point average. Students transferring from another university or community college should review the Florida International University Undergraduate Catalog for university policies, application procedures, and financial aid information. Prior to or upon admission, transfer students should also contact a Construction Management advisor to review transcripts and determine allowable transfer credits.

Transfer Credits

No grade below a 'C' in any required course is acceptable for transfer into the program. Lower Division courses (courses at the 1000 or 2000 level) designated as equivalent by the statewide course numbering system will be accepted by the School as fulfilling the Upper Division requirements. Credits from these Lower Division courses may be used to offset Upper Division core credit requirements. Other 1000 and 2000 level courses designated as equivalent by a School advisor may be accepted by the School as fulfilling Upper Division requirements. When equivalent Lower Division courses are used to fulfill Upper Division course requirements a student will be required to complete an equal number of 3000 level (or above) credits from approved Departmental electives. Transfer credits above the 60 semester credit hours accepted from the community college system will not reduce the number of credit hours to be completed in the Upper Division, including electives, to earn a degree.

University Core Curriculum Requirements

Students entering the University with less than 36 semester credit hours will be required to meet the requirements of the University Core Curriculum, in addition to the School Lower Division Core. Students should review the General Core Requirements in the undergraduate catalog.

Non Degree-Seeking

Students wishing to enroll in courses during the application process may do so as a non-degree seeking, special student. Students must consult an advisor for approval and complete a non-degree seeking enrollment waiver. Without this waiver and advisor approval, there is no guarantee that the courses taken will subsequently be accepted for graduation. No more than 15 semester credits of work taken as a non-degree seeking can be applied towards graduation. Students taking courses under the special student designation should consult other sections of this catalog for their pertinent regulations concerning the special student status.

General Regulations

Normal Loads

Students taking a minimum of 12 semester credit hours per semester are considered full time students. Students taking under 12 hours are considered part time and should be aware that certain University privileges and benefits may not be applicable to part time students. It is not recommended that students take more than 18 credit hours per term. Special exceptions may be made, at the option of the School, in the case of students with a grade point average of 3.0 or greater. Students that meet this criteria wishing to take over 18 semester credit hours must have the approval of both the Director of the School and the Dean of the College of Engineering and Computing prior to registering.

Grades

The Moss School of Construction, Infrastructure and Sustainability requires a minimum grade of 'C' or better in all required courses and electives. This includes those required courses transferred from other institutions.

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. Students wishing to receive an incomplete must meet with their professor and sign an agreement outlining what work must be completed to receive the final grade and when this work is due. Failure of the student to either complete the work required by the agreement or not meet the deadline prescribed in the agreement will result in the grade reverting to a grade of "F" (failing grade).

Independent Study

Students who wish to enroll in an independent study course must have the prior written approval of both the instructor and the School Director. Independent Study courses can not be substituted for required Lower or Upper Division departmental core courses or for elective courses.

Minor in Business

Construction Management students take courses in the College of Business Administration that may be applied towards a minor in Business, Marketing, or Entrepreneurship. Students interested in pursuing one of these options should consult the appropriate section of the catalog for details.

Credit By Examination

The School does not generally offer credit by examination. 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 School Faculty and the School Director whether to grant the request.

Credit For Non-College Learning

The School does not award credit for non-college learning (life work experience).

Student Work

The School 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 2.0 for all work attempted during a term, and an overall minimum of 2.0.

Course Sequence and Prerequisites

Course prerequisites are clearly indicated in this catalog and on the Undergraduate Program sheets, available in the School office. In the event of a conflict between the program sheet and the catalog, the catalog requirements will prevail. It is the student's responsibility to ascertain that required prerequisites have been taken and passed prior to registering for a course. Failure to comply with prerequisite requirements may result in the student being dropped from a class.

Probation or Dismissal

Students who do not make satisfactory academic progress may be excluded from further registration. Students

dismissed from the University for academic reasons will normally not be allowed to re-enroll for one year.

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 meet all University and School requirements. The program of studies consists of a minimum of 45 Lower Division semester credit hours, including 21 semester credit hours that can be used to satisfy the University Core Curriculum, and 60 Upper Division semester credit hours for a minimum total of 121 semester credit hours. The waiving of any required course shall not reduce the minimum of 121 semester credit hours required for graduation. A student entering as a freshman or with less than 36 transfer credit hours must have successfully completed the University Core Curriculum with minimum acceptable grades as determined by Undergraduate Studies (see catalog for additional information). In addition, all required Lower Division and Upper Division Construction Management courses and electives must be completed with a grade of 'C' or better. In order to graduate, a student must also have a minimum grade point average of 2.0, and have met the foreign language requirement.

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. (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, they must reapply.

It is the student's responsibility to ascertain that all requirements for graduation have been met.

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information for Admission and Registration and Records.

Undergraduate Curriculum

The following courses comprise the undergraduate curriculum leading to a degree of Bachelor of Science in Construction Management. Except for the Environmental Control courses, those numbered 'I' shall be taken before courses numbered 'II'. Some credits of the Lower Division Core can be used to satisfy University Core requirements.

University Requirements

First time students or transfer students with less than 36 credit hours must meet the University's core requirements as outlined in this catalog.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
GLY 1010/GLY 1010L	GLYX010/GLYX010L or GLYX030C
BCN 2210	BCNX210
BCN 2253	BCNX253
BUL 4310	BULX320 or BULX241 or BULX310
MAC 2233	MACX233 or MACX311
PHY 2053, PHY 2048L	PHYX053/X048L or PHYX005/X005L
ECO 2013 or ECO 2023	ECOX013 or ECOX023
ACG 3024	ACGX021 or ACGX024 ACGX001
STA 2023	STAX023
BCN 2280	BCNXX280 or SURX101
SPC 2608	SPCX600 or COMX000 or SPCX608

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing in Alphabetic Order.

Departmental Lower Division Courses

GLY 1010	Physical Geology	3
GLY 1010L	Physical Geology Lab	1
BCN 2210	Construction Materials and Methods	3
BCN 2253	Building Construction Drawing	3
BUL 4310	The Legal Environment of Business	3
MAC 2233	Calculus For Business	3
PHY 2053	Physics without Calculus	4
PHY 2048L	Physics Laboratory	1
ECO 2013	Principles of Macroeconomics	3
	or	
ECO 2023	Principles of Microeconomics	3
ACG 3024	Introduction to Accounting for Managers and Investors	3
STA 2023	Statistics for Business and Economics	3
BCN 2280	Construction Surveying	3
SPC 2608	Public Speaking	3

Additional courses required for the degree:

BCN 1272	Plans Interpretation	3
BCN 2402	Structural Design I	3

Upper Division Courses

BCN 1013	Principles of Construction Management	3
BCN 3730	Construction Safety	3
BCN 3740	Legal Aspects of Construction	3
BCN 3761	Construction Documentation and Communication – *GL*	3
BCN 3762	Building Codes	3
BCN 4431	Structural Design II	3
BCN 3611	Construction Cost Estimating I	3
BCN 4612	Construction Cost Estimating II	3
BCN 3720	Construction Scheduling I	3
BCN 4724	Construction Scheduling II	3
BCN 3753	Financial Management of Construction Organizations	3
BCN 3727	Construction Sitework and Equipment	3
BCN 4465	Temporary Structures in Construction	3
BCN 4561	Environmental Control in Buildings I	3
BCN 4570	Sustainable Approach to Construction	3
BCN 4794	Quality Control in Construction	3
BCN 4564	Environmental Control in Buildings II	3
BCN 4703	Management of Construction Projects	3
BCN 4910	Senior Project	3

MAN 3022	Introduction to Management	3
XXX XXXX	Elective	3

Elective

One 3 credit construction management or 3000-4000 level business/management elective, selected in consultation with the Undergraduate Advisor of the School department, is required.

Sample Program of Study

The following is a sample program of study for a student seeking to earn a degree of Bachelor of Science in Construction Management. The reader is reminded that all students entering a university in the State University System with fewer than 60 credit hours are required to earn at least nine credit hours prior to graduation by attending one or more summer terms at a state university.

Bachelor of Science in Construction Management

Degree Program Hours: 121

Undergraduate Program

The following analysis assumes that the student enters the university from high school or with less than 36 credits and no foreign language experience.

First Semester: (16)

ENC 1101	Writing and Rhetoric I	3
SLS 1501	First Year Experience	1
MAC 2233	Calculus For Business	3
ECO 2013	Principles of Macroeconomics	3
	or	
ECO 2023	Principles of Microeconomics	3
SPC 2608	Public Speaking	3
Social Science (Group One or Two)		3

Second Semester: (10)

ENC 1102	Writing and Rhetoric II	3
GLY 1010	Physical Geology	3
GLY 1010L	Physical Geology Lab	1
Humanities (Group One or Two)		3

Third Semester: (18)

ACG 3024	Introduction to Accounting for Managers and Investors	3
BCN 1013	Principles of Construction Management	3
BCN 1272	Plans Interpretation	3
BCN 2210	Construction Materials and Methods	3
Humanities (Group One or Two)		3
BCN 3761	Construction Documentation and Communication – *GL*	3

Fourth Semester: (17)

PHY 2053	Physics w/o Calculus	4
PHY 2048L	General Physics Lab	1
STA 2023	Statistics for Business and Economics	3
BCN 2253	Building Construction Drawing	3
BCN 2280	Construction Surveying	3
BCN 3730	Construction Safety	3

Fifth Semester: (15)

BCN 2402	Structural Design I	3
BCN 3762	Building Codes	3
BCN 3611	Construction Estimating I	3
BCN 4570	Sustainable Approach to Construction	3
BUL 4310	The Legal Environment of Business	3

Sixth Semester: (18)

BCN 3720	Construction Scheduling I	3
BCN 3727	Construction Sitework and Equipment	3
BCN 3740	Legal Aspects of Construction	3
BCN 3753	Financial Management of Construction Organizations	3
BCN 4612	Construction Estimating II	3
BCN 4431	Structural Design II	3

Seventh Semester: (15)

BCN 4465	Temporary Structures	3
BCN 4703	Management of Construction Projects	3
BCN 4724	Construction Scheduling II	3
BCN 4561	Environmental Control in Buildings I	3
BCN 4794	Quality Control in Construction	3

Eighth Semester: (12)

BCN 4564	Environmental Control in Buildings II	3
BCN 4910	Senior Project	3
MAN 3022	Introduction to Management	3
XXX XXXX	Elective	3

Minor in Construction Management

The School offers an undergraduate minor in Construction Management for students in other disciplines. For admission to the minor, students need to be fully admitted to their major and must have a 2.25 GPA.

Students opting for a minor in Construction Management must complete the following courses:

BCN 1272	Plans Interpretation
BCN 3611	Construction Estimating I
BCN 3720	Construction Scheduling I
BCN 3730	Construction Safety
BCN 3762	Building Codes
BCN 4703	Management of Construction Projects

Note: Required prerequisites must be taken for all courses in the minor.

Course Descriptions

Definition of Prefixes

BCN-Construction.

Courses that meet the University's Global Learning requirement are identified as GL.

BCN 1013 Principles of Construction Management (3). Covers the construction industry with emphasis on the principles of construction management.

BCN 1251 Building Construction Drawing (3). The laboratory application of Methods and Materials of Construction I. Students study plans, elevations, sections, and details appropriate to light construction.

BCN 1272 Plans Interpretation (3). Building construction plans interpretation of working drawings for residential, commercial building, and civil construction.

BCN 1520 Practical Electricity and Electrical Circuits (1-5). Basic concepts of electricity. D.C. and A.C. sinusoidal sources. Resistance. Ohms Law. Analysis of simple resistive circuits. Kirchhoff's Laws. True R.M.S. Values. Power in resistive circuits. Complex nos. Impedance. Basic instrumentation.

BCN 1522 Electrical Wiring in Residential Construction (1-5). Introduction to residential wiring. Conductors, insulators. Color code. Safety. Ground. National Electrical Code. South Florida Building Code. Practical applications. Measurement devices.

BCN 2210 Construction Materials and Methods (3). A study of the origins, production and uses of construction materials such as concrete, steel, aluminum, wood, brick, and stone. A combination of structural and non-structural, interior and exterior materials and assemblies will be examined.

BCN 2253 Building Construction Drawing (3). Prepare plans, elevations and sections appropriate to general construction using computer assisted modeling techniques. Prerequisite: BCN 1272.

BCN 2280 Construction Surveying (3). Principles and practices of surveying as it applies to building construction.

BCN 2402 Structural Design I (3). Applications of the principals of statics and strength of materials to engineering problems of equilibrium, strength and stiffness. Topics include equilibrium of forces, stress, strain, beams and col. Prerequisites: MAC 1147 or MAC 1114, PHY 2053, 2048L.

BCN 3240 Construction Equipment (3). Methods, procedures, and equipment used in residential, commercial, and heavy construction. Equipping the construction plant. Production value analysis. Work effectiveness studies.

BCN 3441C Fundamentals of Concrete Properties and Testing (4). This course examines effects of concrete-making materials on the properties of fresh and hardened concrete. Topics include: cement and aggregates properties and testing; analysis of concrete strength. Prerequisites: BCN 3443 or departmental approval.

BCN 3442C Concrete Construction Methods (3). This course covers forming, shoring, placing and reinforcing operations. Cast-in-place foundations, pavements, slabs, structural frames, and others. Prerequisite: BCN 3441C.

BCN 3443 Introduction to the Concrete Industry (3). Overview of the history, careers, job functions, and professional organizations in the concrete industry. Topics include: overview of the concrete industry, history, components, production and uses.

BCN 3444 Applications of Concrete in Construction (3). A detailed study of the many uses of concrete in the construction of buildings, and other facilities. Unique problems faced by materials suppliers, contractors and design professionals. Prerequisite: BCN 3442C.

BCN 3445 Management of Concrete Products I (3). This course provides student with a basic understanding of managing the ordering and delivery process common to all concrete products including planning, organizing and controlling schedule. Prerequisites: BCN 3444 or departmental approval.

BCN 3446 Management of Concrete Products II (3). This course provides basic understanding of managing the manufacturing process common to all concrete products production facilities including planning, organizing, and controlling production. Prerequisites: BCN 3444 or departmental approval.

BCN 3447 Concrete Problems: Prevention, Diagnosis and Resolution (3). Course involves preventing and diagnosing problems related to concrete production, testing, construction and performance. Identification of causes of concrete problems, and resolution methods. Prerequisites: BCN 3444 or departmental approval.

BCN 3611 Construction Cost Estimating I (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. Prerequisites: BCN 1272 and BCN 2210.

BCN 3640 Economic Planning for Construction (3). Nature of construction costs, funding sources and arrangements, capital requirements, bonding, insurance, risk and contingency evaluation, general office operations, and bidding procedures.

BCN 3720 Construction Scheduling I (3). Critical Path and Precedence Diagram Methods in construction planning and scheduling, including: resource management, cashflow, PERT, time compression and scheduling updating. Prerequisite: STA 2023.

BCN 3727 Construction Sitework and Equipment (3). Exposition and critical analysis of practical and sequential aspects of converting raw land to finished product. Course will define various steps and discuss equipment and techniques of accomplishment. Prerequisites: GLY 1010, GLY 1010L, BCN 2210.

BCN 3730 Construction Safety (3). Introduces occupational safety hazards associated with the construction industry. Emphasis placed on recognition, evaluation, and control of safety hazards particularly as they relate to the Occupational Safety and Health Act.

BCN 3740 Legal Aspects of Construction (3). Legal and business aspects of engineering contracts and specifications in the construction industry. Analysis, study of precedents, and application of contract clauses, including changes, changed conditions, termination, disputes, payments, risk and insurance, inspection, liquidated damages, and technical requirements. Prerequisites: BUL 4320 and BCN 1013.

BCN 3753 Financial Management of Construction Organizations (3). Accounting for construction operations; labor, materials, equipment, and overhead costs. Money management, depreciation, taxes, loans, profit/losses analysis. Prerequisites: ACG 3024 or equivalent.

BCN 3761 Construction Documentation and Communication – *GL* (3). Writing and transmitting construction documentation for technical and legal requirements for construction projects in a global context. Stresses development of verbal and written communication skills. Prerequisite: MAC 2233 or equivalent.

BCN 3762 Building Codes (3). Study of building codes required by local, county, and state levels and their relation to quality control. Prerequisite: BCN 1013, BCN 2210.

BCN 3949 Industry Internship (0-6). This course provides an opportunity for students to gain supervised, practical work experience in their particular field of interest within the industry. Prerequisites: Consent of advisor and School Director.

BCN 4255C Building Information Modeling (3). Introduce and explore the application of Building Information Modeling (BIM) both as a product and a process in building construction. Prerequisite: BCN 2253, BCN 3611, BCN 3720

BCN 4431 Structural Design II (3). Intro to the material properties, allowable stresses, codes and standards for the design of reinforced concrete, pre-stressed concrete, reinforced masonry structures and the design of steel structures. Prerequisites: BCN 2210, BCN 2402, PHY 2053, PHY 2048L.

BCN 4462 Structural Design III (3). Introduction to the material properties, allowable stresses, applicable codes and standards for the design of reinforced concrete, prestressed concrete and reinforced masonry structures. Prerequisites: BCN 4431.

BCN 4465 Temporary Structures in Construction (3). Material properties, allowable stresses, applicable codes and standards for timber structures and the theory and practice of the planning, design, erection and maintenance of temporary structures. Prerequisites: BCN 2210, BCN 2402.

BCN 4561 Environmental Control in Buildings I (3). A study of the concepts of thermal and plumbing systems in residential and commercial buildings, including code provisions and cost estimates. Prerequisite: BCN 2210.

BCN 4564 Environmental Control in Buildings II (3). Concepts and practices of electrical systems in the construction of residential and commercial buildings, including code provisions and cost estimates. Prerequisites: PHY 2053 and PHY 2048L.

BCN 4570 Sustainable Approach to Construction (3). This course presents a study of the concepts and techniques of sustainable construction. An in depth review of sustainable materials and construction techniques will be covered. Prerequisite: BCN 4561.

BCN 4612 Construction Cost Estimating II (3). Quantity take-offs and pricing, and the application of computing techniques in construction estimating. Prerequisites: BCN 3611 and BCN 3727.

BCN 4703 Management of Construction Projects (3). Management of construction project field operations and procedures as they relate to contract management, planning, control, coordination, quality, safety, documentation, and resource management. Prerequisites: BCN 3720, BCN 3730, BCN 3740, BCN 3611.

BCN 4724 Construction Scheduling II (3). The application of advanced computerized planning, scheduling, and simulation techniques to construction operations, processes, and control. Prerequisites: BCN 3720 and BCN 3611.

BCN 4794 Quality Control in Construction (3). Quality control as governed by the job inspector, contractor superintendent, architect-engineer, building official, and governmental agencies and requirements. Prerequisites: BCN 3762 or equivalent.

BCN 4905 Directed Independent Studies (VAR). Specialized intensive study in an area of special interest to the student. Prerequisites: Permission of the instructor and the School Director.

BCN 4906 Special Topics (3). For a group of students who wish an intensive study of a topic not otherwise offered in the University. Prerequisites: Permission of the instructor and the School Director.

BCN 4910 Senior Project (3). This course requires the senior level construction management student to work on a project designed to integrate the knowledge acquired in multiple topics within the undergraduate curriculum. Prerequisites: All BCN courses except BCN 3753 and BCN 4564.

Biomedical Engineering

Ranu Jung, *Professor and Chair*
Michael Brown, *University Instructor*
Michael Christie, *Senior Instructor*
Zachary Danziger, *Assistant Professor*
Anuradha Godavarty, *Associate Professor and Undergraduate Program Director*
Joshua Hutcheson, *Assistant professor*
Shuliang Jiao, *Professor*
Saradia-Laure Lerouge, *Professional Academic Advisor*
Pulugurtha Markendoya Raj, *Associate Professor*
Maria Monje Ramos, *Professional Academic Advisor*
Chenzhong Li, *Professor*
Wei-Chiang Lin, *Associate Professor*
Anthony McGoron, *Professor and Associate Dean for Academic Affairs, College of Engineering and Computing*
Jacob McPherson, *Assistant Professor*
Sharan Ramaswamy, *Associate Professor*
Jessica Ramella-Roman, *Associate Professor*
Jorge Riera Diaz, *Associate Professor and Graduate Program Director*
Nikolaos Tsoukias, *Associate Professor*
James Schummers, *Associate Professor*

The mission of the Department of Biomedical Engineering is to integrate academia, clinical medicine, and the biomedical industry:

- In the education and training of the next generation of biomedical engineers;
- In research and development activities leading to innovations in medical technology;
- In transfer of that medical technology to commercialization and clinical implementation; and
- In the continuing development of biomedical engineering as a profession, its impact on the delivery of health care, and its role in the sustainability and growth of the local and national economies.

The Department of Biomedical Engineering at Florida International University offers a curriculum designed to give the student a thorough understanding of the basic laws of science and simultaneously to stimulate and develop creative and innovative thinking, a professional attitude, economic judgment, and environmental consciousness. The aim is to develop the student's potential to the fullest, to prepare the student for superior performance as a biomedical engineer, and to provide the student with the fundamental principles necessary for pursuing advanced study in the diverse fields of engineering, science, and business.

The undergraduate Biomedical Engineering Program at FIU provides an education that is at the interface of engineering and biology, with an emphasis on engineering living systems down to the cellular and molecular levels, and adequately prepares graduates for a wide range of career opportunities.

The objectives of the undergraduate Biomedical Engineering Program at FIU are the following:

1. To produce graduates that continue in one or both of the following:
   a. Advanced study in engineering, medicine, or applied sciences
   b. Professional practice as an engineer in a biomedical or health care related field
2. To produce graduates whose careers demonstrate proficiency in one or more of the following:
   a. Clinical application of biomedical engineering tools
   b. Product development, manufacturing, and commercialization in the biomedical industry
   c. Participation in diverse teams
   d. Biomedical engineering research
3. To produce graduates who have effective communication skills and a commitment to professionalism, leadership, ethics, and community service.

Bachelor of Science in Biomedical Engineering

Degree Program Hours: 128

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
MAC 2311	MACX311 or X281 or X262 X283
MAC 2312	MACX312 or X281 or X262 X283
MAC 2313	MACX313 or X281 or X262 X283
MAP 2302	MAPX302
PHY 2048	PHYX048
PHY 2048L	PHYX048L or PHY X064L
PHY 2049	PHYX049
PHY 2049L	PHYX049L or PHYX064L
CHM 1045	CHMX045 or CHSX440 CHMX095
CHM 1045L	CHMX045L or CHSX440L or CHMX095L
CHM 1046	CHMX046 or CHMX096
CHM 1046L	CHMX046L or CHMX096L
BSC 2010	BSCX010
BSC 2010L	BSCX010L or BSCX044L
CHM 2210	CHMX210 or CHMX217
CHM 2210L	CHMX210L

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

MAC 2311	Calculus I
MAC 2312	Calculus II
MAC 2313	Multivariable Calculus
MAP 2302	Differential Equations
PHY 2048	Physics I w/ Calc
PHY 2048L	General Physics I Lab
PHY 2049	Physics II w/ Calc
PHY 2049L	General Physics II Lab

CHM 1045	General Chemistry I
CHM 1045L	Gen Chem I Lab
CHM 1046	General Chemistry II
CHM 1046L	Gen Chem II Lab
BSC 2010	General Biology I
BSC 2010L	Gen Biology I Lab
CHM 2210	Organic Chemistry I
CHM 2210L	Organic Chemistry I Lab

Admission to Undergraduate Program in Biomedical Engineering

Applicants to the Biomedical Engineering program must submit an Application for Admission to the University and follow regular University admission procedures. Applicants must meet the University's requirements for admission before being eligible for admission to the Biomedical Engineering program. Continuing FIU students who seek admission to the BME program must submit a completed Academic Program/Plan Declaration or Change Form to the department of Biomedical Engineering.

To be eligible for acceptance into the Biomedical Engineering program, students must have:

1. Satisfied general University requirements for admission.
2. First time in college (FTIC) or have completed the Associate in Arts degree or its equivalent;
3. Continuing FIU students and transfer students must complete all pre-core courses (listed below) and achieved a minimum of "C" and an average grade point average of at least 2.5 in all Common Prerequisite courses taken;
4. Achieved a cumulative grade point average of 2.5;
5. If applicant is an international student whose native language is not English, have achieved a minimum score of 500 on the paper-based TOEFL, 173 on the computer-based TOEFL. [International applicants should study the "General Admission" requirements for foreign students in the "Admissions" section of this catalog].

Pre-Core Courses (17 Credits)

BSC 2010	General Biology I
BSC 2010L	General Biology I Lab
CHM 1045	General Chemistry I
CHM 1045L	General Chemistry I Lab
PHY 2048	Physics I with Calculus
PHY 2048L	General Physics I Lab
MAC 2311	Calculus I

Lower Division Preparation

Lower division requirements include at least 60 hours of pre-engineering credits (see the Undergraduate Studies portion of this catalog for specific requirements). These courses include the common courses listed above. A minimum grade of "C" is required in all writing courses, as well as in all of the common prerequisite courses. In addition, a minimum GPA of 2.5 is required for the common prerequisite courses.

All students must meet the University Foreign Language Requirement and all of the state and university requirements for graduation.

University Core (Total: 52 Credits)

Any student entering Florida International University as a first-time college student (Summer 2003 or after) or transferring in without an Associates in Arts (AA) degree from a Florida public institution (Fall 2003 or after) is required to fulfill the University Core Curriculum requirements.

(First Year Experience)		
SLS 1501	First Year Experience	1
(Communication)		
ENC 1101	Writing and Rhetoric I	3
ENC 1102	Writing and Rhetoric II	3
(Humanities)		
Humanities Group 1		3*
Humanities Group 2		3*
(Mathematics)		
Mathematics Group 1		
MAC 2311	Calculus I	4
Mathematics Group 2		
MAC 2312	Calculus II	4
MAC 2313	Multi-variable Calculus	4
(Social Sciences)		
Social Science Group 1		3*
Social Science Group 2		3*
(Natural Sciences)		
Natural Science Group 1		
BSC 2010	General Biology I	3
BSC 2010L	Gen Biology I Lab	1
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
PHY 2048	Physics I w/ Calc	4
PHY 2048L	General Physics I Lab	1
Natural Science Group 2		
PHY 2049	Physics II w/ Calc	4
PHY 2049L	Physics II Lab	1
(Arts)		
Art		3

*Please check all approved courses from Academic Advising Center: **http://undergrad.fiu.edu/advising/curriculum.html**.

Biomedical Engineering Curriculum

The BS curriculum weaves a strong life science foundation with multidisciplinary engineering fundamentals.

Biomedical Engineering Courses

BME 1008C	Intro to Biomedical Engineering	2
BME 1054L	Introduction to Biomedical Engineering Computing	1
EIN 3235	Evaluation of Engineering Data	3
	or	
STA 3033	Intro to Probability & Statistics	3
BME 2740*	BME Modeling and Simulation	3
BME 3721*	BME Data Evaluation Principles	3
BME 3403	Eng Analysis Biological Systems I	3
BME 3404	Eng Analysis Biological Systems II	3
EEL 3110	Circuit Analysis	3
EEL 3110L	Circuits Lab	1
EGM 3503	Applied Mechanics	4
BME 3632	BME Transport	3
BME 4011	Clinical Rotations	1
BME 4050L	BME Lab I	1
BME 4051L	BME Lab II	1
BME 4100	Biomaterials Science	3
BME 4503C	Medical Instrumentation: Application and Design	4

BME 4800	Design Biomedical Systems and Devices – *GL*	3
BME 4880	Design Project Organization	1
BME 4908	Senior Design Project – *GL*	3
BME 4930	Undergraduate Seminar	0
Electives (9 credits minimum Engineering Electives**)		18

*These courses have four contact hours of which one hour is a non-credit tutorial/lab session.
**Nine out of the required eighteen elective credits can be either from Engineering or Science. All electives and equivalencies for courses transferred from other institutions must be approved by the Undergraduate Advisor.

Students must maintain a cumulative GPA of at least 2.0 in all Engineering courses.

Biomedical Engineering Program Requirements - Freshman to Senior

First Semester: (18)

MAC 2311	Calculus I	4
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
ENC 1101	Writing and Rhetoric I	3
BME 1008C	Intro to Biomedical Engineering	2
BSC 2010	General Biology I	3
BSC 2010L	Gen Biology I Lab	1
SLS 1501	Freshman Experience	1

Second Semester: (17)

BME 1054L	Introduction to Biomedical Engineering Computing	1
MAC 2312	Calculus II	4
CHM 1046	General Chemistry II	3
CHM 1046L	Gen Chemistry II Lab	1
PHY 2048	Physics I w/ Calc	4
PHY 2048L	General Physics I Lab	1
ENC 1102	Writing and Rhetoric II	3

Third Semester: (17)

MAC 2313	Multi-variable Calculus	4
CHM 2210	Organic Chemistry I	4
CHM 2210L	Organic Chemistry I Lab	1
PHY 2049	Physics II w/ Calc	4
PHY 2049L	Physics II Lab	1
Humanities Group I		3

Fourth Semester: (15)

MAP 2302	Differential Equations	3
STA 3033	Intro Probability Statistics	3
	or	
EIN 3235	Evaluation of Engineering Data	3
BME 2740	BME Modeling & Simulation	3
Engineering or Science Elective		3
Humanities Group II		3

Fifth Semester: (17)

BME 3721	BME Data Evaluation Principles	3
BME 3403	Eng Analysis Biological Systems I	3
EEL 3110	Circuit Analysis	3
EEL 3110L	Circuits Lab	1
EGM 3503	Applied Mechanics	4
Social Science Group I		3

Sixth Semester: (17)

BME 3404	Eng Analysis Biological Systems II	3
BME 4503C	Medical Instrumentation: Application and Design	4
BME 4011	Clinical Rotations	1
Engineering or Science Elective		3
BME 3632	BME Transport	3
Social Science Group II		3

Seventh Semester: (14)

BME 4050L	BME Lab I	1
BME 4100	Biomaterials Science	3
BME 4880	Design Project Organization	1
BME 4800	Design Biomedical Systems and Devices – *GL*	3
Engineering or Science Elective		3
Arts		3

Eighth Semester: (13)

BME 4051L	Biomed Lab II	1
BME 4908	Senior Design Project – *GL*	3
Engineering or Science Elective		3
Engineering or Science Elective		3
Engineering or Science Elective		3
BME 4930	Undergraduate Seminar	0

Approved Science Electives*

CHM 2211	Organic Chemistry II
BCH 3033	General Biochemistry I
CHM 3120	Analytical Chemistry
CHM 4304	Biological Chemistry I
CHM 4307	Biological Chemistry II
MCB 3020	General Microbiology
PCB 3063	Genetics
PCB 4233	Immunology
PCB 4023	Cell Biology
PCB 4524	Molecular Biology
ZOO 3753	Histology

Approved Electives for Tissue Engineering/Pre-Med*

BME 4332	Cell and Tissue Engineering
BME 4311	Molecular Engineering
BME 4331	Introduction to Artificial Organs
Three Approved Science Electives	

Approved Electives for Biosignals and Systems*

BME 4531	Medical Imaging
BME 4562	Biomedical Optics
BME 4422	Biophysics of Neural Computation
EEL 3135	Signals and Systems
EEL 3657	Control Systems I
EEE 4510	Introduction to Digital Signal Processing

Approved Electives for Biomaterials and Biomechanics*

BME 4230	Biomechanics of Cardiovascular Systems
BME 4211	Orthopedic Biomechanics
BME 4260	Engineering Hemodynamics
EGM 3311	Analysis of Engineering Systems
EGN 3365	Materials in Engineering
EML 3036	Sim Software for Mechanical Engineers
EML 4804	Introduction to Mechatronics

*Courses may be subject to prerequisites and/or corequisites.

Minor in Biomedical Engineering

The minor requires 21 credit hours consisting of the following courses:

BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1

BME 3403	Eng Analysis Biological Systems I	3
BME 3404	Eng Analysis Biological Systems II	3
BME 4011	Clinical Rotations I	1
BME 4503C	Medical Instrumentation: Application and Design	4
BME 4800	Design Biomedical Systems and Devices – *GL*	3
Biomedical Engineering Elective		3

Students majoring in electrical or mechanical engineering may apply the Minor towards a five-year accelerated combined degree program with the Master's degree in biomedical engineering.

Minor in Biomedical Engineering for Non-Engineering Majors

This minor program is designed for students who desire skills in addition to those developed in the basic sciences and is especially intended for biology and chemistry majors.

For admission to the minor, students need (1) To be fully admitted to their major; (2) To have a GPA ≥ 3.0.

To successfully complete the minor, a grade of "C" or better is required in all courses. The minor requires a minimum of 22 credit hours consisting of the following courses:

MAC 2313	Multivariable Calculus	4
MAP 2302	Differential Equations	3
BME 3404	Engineering Analysis of Biological Systems II	3
EGM 3503	Applied Mechanics	4
BME 3632	BME Transport	3
2 BME Electives		6

Electives: The electives allow for the student to tailor their emphasis of study and must be one of the following two-course sequences:

EEL 3110	Circuit Analysis	3
	and	
BME 4503C	Medical Instrumentation: Application and Design	4
	or	
BME 4100	Biomaterials Science	3
	and	
BME 4332	Cell and Tissue Engineering	3

Combined BS/MS Degree Programs

This five-year program seamlessly combines a baccalaureate degree in biomedical, mechanical or electrical engineering with the Master's in biomedical engineering. To be considered for admission to the combined bachelor's/master's (BS/MS) degree program, students must have completed 75-90 credits in the bachelor's degree program at FIU, have earned at least a 3.25 GPA on both overall and upper division courses, and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Students enrolled in the program may count up to 9 hours of graduate level courses (i.e., 5000 level or higher) as credits for both the undergraduate and graduate degree programs. For each of the courses counted as credits for both BS and MS degree, a minimum grade of 'B' is required. Upon completion of the combined BS/MS program, students must have accumulated a minimum of 24 hours of credits at the graduate (5000+) level. Students enrolled in the program are encouraged to seek employment with a department faculty member to work as student assistants on sponsored research projects.

Combined BS in Biomedical Engineering/MS in Engineering Management (BSBME/MSEM)

Students who pursue a BS degree and have completed 75~90 credits in the undergraduate program of Biomedical Engineering with an overall GPA of 3.2 or higher may, upon recommendation from three faculty members, apply to the department to enroll in the combined BSBME/MSEM program. Students must also submit an online application to the University Graduate School for admission to the MSEM program. In addition to the admission requirements of the MSEM program, students must meet all the admission requirements of the University Graduate School.

Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships.

Students enrolled in the combined degree program could count up to three BME graduate courses for both the BSBME electives and the MSEM electives, for a total saving of 9 credit hours. The following is a list of eligible BME graduate courses:

BME 5005	Applied Biomedical Engineering Principles	3
BME 5036	Biotransport Processes	3
BME 5105	Intermediate Biomaterials Science	3
BME 5316	Molecular Bioprocess Engineering	3
BME 5340	Introduction to Cardiovascular Engineering	3
BME 5560	Biomedical Engineering Optics	3
BME 5573	Nanomedicine	3

The combined BSBME/MSEM program has been designed to be a continuous program. During this combined BSBME/MSEM program, upon completion of all the requirements of the BSBME program, students will receive their BSBME degree. Students may elect to permanently leave the combined program and earn only the BSBME degree. Students who elect to leave the combined program and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the 9 credit hours in both the BSBME and MSEM degrees.

For each of the graduate courses counted as credits for both BSBME and MSEM degrees, a minimum grade of "B" is required. Only graduate courses with formal lecture can be counted for both degrees. The students are responsible for confirming the eligibility of each course with their undergraduate advisors.

Students interested in the combined program should consult with their undergraduate advisor on their eligibility to the program. The student should also meet the MSEM Program Director to learn about the graduate program and available tracks/courses before completing the application form and submitting it to their undergraduate advisor. Final decision for admission to the MSEM program will be made by the University Graduate School upon recommendation by the Engineering Management program director. Applicants will be notified by the Engineering Management Program and the University Graduate School of the decision on their applications.

Course Descriptions

Definition of Prefixes

BME-Biomedical Engineering; EEE-Engineering: Electrical and Electronics; EEL-Electrical Engineering
Courses that meet the University's Global Learning requirement are identified as GL.

BME 1008C Introduction to Biomedical Engineering (2). This course will provide a broad view of biomedical engineering and introduce the sub-areas within the field. Students will be provided with the history, current status and the future of the field.

BME 1054L Introduction to Biomedical Engineering Computing (1). Introduction to computers for biomedical engineers. Basic computer programming principles and introduction to computer software such as MATLAB and Labview.

BME 2740 Biomedical Engineering Modeling and Simulation (3). Computer modeling of biomedical applications. Extensive use of Matlab and Simulink for modeling and analysis of biomedical phenomena. Prerequisites: BSC 2010 (with a grade of "C" or better), BME 1054L. Corequisites: MAP 2302, BME 1008C.

BME 3403 Engineering Analysis of Biological Systems I (3). A quantitative, model approach to physiological systems at the cellular and tissue level. Thermodynamic, biochemical and biophysical principles of the cell, general system anatomy and functionality. Prerequisites: BME 2740, PHY 2049 (with a "C" or better), CHM 2210 (with a "C" or better).

BME 3404 Engineering Analysis of Biological Systems II (3). Quantitative description of physiological systems at the integrative systems level. Includes engineering analysis relating design to organ function. Prerequisite: BME 3403.

BME 3632 Biomedical Engineering Transport (3). Basic principles of heat, mass, and fluid transport. Derivation of basic equations, and simplification techniques. Applications to physiological systems, artificial organs, and pharmacokinetics. Prerequisites: BME 2740, EGM 3503, CHM 1046 (with a grade of "C" or better), MAP 2302 (with a grade of "C" or better), PHY 2049 (with a grade of "C" or better) and MAC 2313 (with a grade of "C" or better).

BME 3721 Biomedical Engineering Data Evaluation Principles (3). Design and analysis of clinical and biomedical experiments. Statistical process control and measuring performance relevant to medical device industry. Prerequisites: (EIN 3235 or STA 3033).

BME 4007 Principles of Bioengineering – *GL* (3). Medical instrumentation and design, regulations for medical devices, application of computers in medicine, biomaterials, biocommunications, artificial implants; clinical engineering. Prerequisites: BME 3403 or permission of the instructor.

BME 4011 Clinical Rotations for Biomedical Engineering (1). Clinical lectures, video presentations, and observational and participatory rotations through various divisions and laboratories at BME's clinical and industrial partners. Prerequisite: BME 3403.

BME 4050L Biomedical Engineering Lab I (1). Design, implementation and analysis of biomedical experiments, including biomechanics, tissue mechanics, fluid transport, cardiovascular hemodynamics and materials for artificial organs and implants. Prerequisites: BME 3632, BME 3721, EEL 3110. Corequisite: BME 4100.

BME 4051L Biomedical Engineering Lab II (1). Design, implementation and analysis of biomedical experiments, including bio-signal data acquisition, processing and analysis, mass transport and medical image processing and interpretation. Prerequisites: BME 3632, BME 3721, EEL 3110. Corequisite: BME 4100.

BME 4100 Biomaterials Science (3). Materials used in prosthesis for skin and soft tissue, vascular implant devices, bone repair, and artificial joints. Structure-property relationships for biological tissue. Prerequisite: EGM 3503. Corequisite: BME 3404.

BME 4211 Orthopedic Biomechanics (3). Introduction to the fundamentals of human musculoskeletal physiology and anatomy and computation of mechanical forces as it applies to orthopaedic biomechanics. Prerequisite: BME 4100.

BME 4230 Biomechanics of Cardiovascular Systems (3). Functional cardiovascular physiology and anatomy; analysis and computation of cardiovascular flow; constitutive properties of tissue; coronary and systemic circulation; flow and stress considerations in cardiovascular assist devices. Prerequisites: BME 3632, BME 3404, and BME 4100.

BME 4260 Engineering Hemodynamics (3). Fluid mechanics of the circulatory system, rheology of blood, lubrication mechanics. Prerequisites: BME 3632, BME 3404.

BME 4311 Molecular Engineering (3). The aim of this course is to educate students in the area of biomedical engineers and interested engineering students with molecular biology, genetic engineering and proteomic engineering. Prerequisite: BME 3403.

BME 4331 Introduction to Artificial Organs (3). An introduction to theoretical and experimental models of artificial organs for drug delivery, extracorporeal devices, oxygenators, tissue engineered models of organs, computer simulations of fluid and mass transport. Prerequisite: BME 4332.

BME 4332 Cell and Tissue Engineering (3). Physiology of cell growth and in vitro cultivation with basic techniques in biotechnology. Analysis of fundamental processes and engineering approaches on in vitro models for tissue growth. Prerequisites: MAC 2313 (with a grade of "C" or better), BME 3632, BME 4100.

BME 4422 The Biophysics of Neural Computation (3). This course provides an introduction to the working principles of neurons and neural circuits with emphasis on mathematical models. Prerequisites: EEL 3110, EEL 3110L or permission of the instructor.

BME 4503C Medical Instrumentation: Application and Design (4). Concepts of transducers and instrumentation systems; origins of biopotentials; electrical safety; applications of medical instrumentation. Prerequisite: EEL 3110.

BME 4531 Medical Imaging (3). Fundamentals of major imaging modalities including x-ray radiology, x-ray computed tomography, ultrasonography, magnetic resonance imaging, nuclear imaging (PET and SPECT), and optical imaging. Prerequisites: PHY 2049 and BME 2740.

BME 4562 Introduction to Biomedical Optics (3). Fundamentals of biomedical optics, covering optical spectroscopy, polarimetry, and interferometry. Engineering principles used in optical diagnostics, biosensing and therapeutics. Prerequisites: PHY 2049 and BME 3403.

BME 4730 Analysis of Self-Regulation and Homeostasis in Biosystems (3). Application of quantitative analysis methods to the study of self regulation processes that result in homeostatic conditions in biosystems with special emphasis on processes found in the human body. Prerequisites: BME 3404, EEE 4202C.

BME 4800 Design of Biomedical Systems and Devices – *GL* (3). Mechanical design and material choices of various biomedical systems and devices such as cardiovascular assist devices, total artificial heart, pulmonary assist devices, total hip prosthesis and other orthopedic devices. Prerequisites: BME 3721, BME 4011. Corequisite: BME 3632.

BME 4880 Design Project Organization (1). Organization for capstone project, project feasibility study, proposal writing, oral communications, professional ethics, project management. Prerequisites: BME 3404, BME 4503C. Corequisite: BME 4800.

BME 4908 Senior Design Project – *GL* (3). Customer needs; design requirements; biocompatibility; regulatory, ethical, societal, and environmental considerations; creativity; project management; prototype construction and testing; final report and presentation. Prerequisite: BME 4880.

BME 4912 Undergraduate Research in Biomedical Engineering (1-3). Participate in supervised research activities on current biomedical engineering topics under the direction of a BME faculty member.

BME 4930 Undergraduate Seminar (0). The course consists of oral presentations made by guests, faculty and students on current topics and research activities in Biomedical Engineering.

BME 4931 BME Special Topics/Projects (1-3). Individual conferences, assigned readings, and reports on independent investigations selected by students and professor with approval of the advisor. Prerequisite: Permission of the instructor.

BME 4940 Undergraduate Internship in Biomedical Engineering (0-3). Engineering practice in biomedical applications in device manufacturing, research and development, healthcare delivery or a related area. Interns will be required to submit a pre-semester objective to the Biomedical Engineering Academic Advisor, as well as a final report and evaluation that must be completed and approved by the internship supervisor.

BME 4949 Biomedical Engineering CO-OP (1-3). Engineering practice in biomedical applications at an industrial partner's site. Intern will be hired through a cooperative agreement to conduct collaborative research with supervision of advisor.

BME 5005 Applied Biomedical Engineering Principles (3). Biomedical engineering applications to instrumentation, transport phenomena, mechanics, materials and imaging. Prerequisite: Permission of the instructor.

BME 5036 Biotransport Processes (3). Transport of fluid, heat, and mass in the human body. Application to dialyzers and heart-lung devices. Prerequisites: BME 3632, BME 4100.

BME 5105 Intermediate Biomaterials Science (3). Materials used in prosthesis for skin and soft tissue, vascular implant devices, bone repair, and artificial joints. Structure-property relationships for biological tissue. Prerequisite: Permission of the instructor.

BME 5316 Molecular Bioprocess Engineering (3). Use of enzyme kinetics, bioreactor design, bioseparations and bioprocessing in the biomedical, biopharmaceutical, and biotechnology industries. Prerequisites: BCH 3033, BME 3632.

BME 5340 Introduction to Cardiovascular Engineering (3). Quantitative cardiovascular physiology, engineering applied to cardiovascular system: mechanics, materials, transport, and design.

BME 5350 Radiological Engineering and Clinical Dosimetry (3). Quantities for describing the interaction of radiation fields with biological systems. Absorption of radiant energy by biological systems. Applications to clinical dosimetry and radiation safety procedures. Prerequisite: Permission of the instructor.

BME 5358L Clinical Rotation in Radiation Oncology (3). Practical calibration of radiation therapy instruments, dose calculation and planning of radiation treatment under supervision of certified medical physicist. Prerequisite: BME 5505C.

BME 5410 Biomedical Physiology and Engineering I (3). Introductory course on cardiovascular and respiratory physiology and associated engineering concepts frequently encountered in the Biomedical Engineering field.

BME 5411 Biomedical Physiology and Engineering II (3). Introductory course on neural and musculoskeletal physiology and associated engineering concepts frequently encountered in the Biomedical Engineering field.

BME 5505C Engineering Foundation of Medical Imaging Instrument (3). Engineering basis of medical imaging systems, including radiology, X-Ray CT, SPECT, PET, MRI, and laser and ultrasound based imaging, as well as instrument quality assurance procedures. Prerequisite: Permission of the instructor.

BME 5560 Biomedical Engineering Optics (3). Introduction to physical and geometrical optics of biomedical optical devices. Design of optical microscopes, endoscopes, fiber optic delivery systems, spectrometers, fluorometers, and cytometers. Prerequisites: Calculus, Differential Equations, Chemistry, and Physics.

BME 5573 Nanomedicine (3). Nano-scale tools and nanomaterials that result in new medical products and applications with special emphasis on imaging, diagnosis, drug delivery, regenerative medicine as well as new biomaterials. Prerequisites: BME 5105 or permission of the instructor.

BME 5578 Bio- and Nanomedical Commercialization: Concept to Market (3). This course offers a comprehensive overview of elements involved in commercialization of bio and nano technology-based R&D.

BME 5726 Protein Engineering (3). Cloning, expressing and purifying proteins, and E. coli and yeast expression systems. Design of proteins for specific end uses. Prerequisite: Permission of the instructor.

BME 5731 Analysis of Physiological Control Systems (3). Quantitative analysis methods and modeling of the self-regulation processes that result in homeostatic conditions in physiological systems with special emphasis on processes found in the human body. Prerequisites: Permission of the instructor, EEL 3110, BME 3404.

BME 5803 Biomedical Device Design and Ethics (3). User inputs; regulatory, ethical, societal, and environmental considerations; creativity; project management; prototype construction and testing; project feasibility; writing and oral communication. Prerequisite: Permission of the instructor.

BME 5935 Nanomedicine Seminar Series (1). This seminar series exposes students to research and innovation in the field of nanomedicine. Experts from hospitals, government, academia, and industry provide weekly rotating talks.

BME 5941 Biomedical Engineering Internship (1-3). Engineering practice in biomedical applications at an industrial partner's site. Intern will be hired through cooperative agreement to conduct collaborative research with supervision of advisor.

BME 6410 Electrophysiological Phenomena in Biological Tissues (3). Provide a balanced understanding of the origin of major electrical phenomena in biology with emphasis on the genesis and data analysis of the electro- and magneto- encephalography. Prerequisite: Permission of the instructor.

EEE 4510 Introduction to Digital Signal Processing (3). Z transform and digital filters. Design of digital filters. Effects of finite register length in digital filters. Engineering applications of digital filters. Prerequisites: EEL 3514 or permission of the instructor. Corequisites: EEE 4314 or permission of the instructor.

EEE 5261 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. Prerequisites: EEE 4202C or permission of the instructor.

EEE 5275 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. Prerequisites: EEL 4410 or permission of the instructor.

EEL 3110 Circuit Analysis (3). Introductory circuit analysis dealing with DC, AC, and transient electrical circuit analysis and the general excitation of circuits using the Laplace transform. Not for Electrical Engineering majors. Prerequisites: MAC 2312, PHY 2049, (EGN 1002 or EGN 1100). Corequisites: MAP 2302, EEL 3110L, and for EE or CpE Engineering students, EEL 2880.

EEL 3110L Circuits Lab (1). This lab introduces basic test equipment; oscilloscopes, multimeters, power supplies, function generator, etc., and uses this equipment in various experiments on resistors, capacitors, and inductors. Prerequisite: PHY 2049L. Corequisite: EEL 3110.

EEL 5820 Digital Image Processing (3). Image Fundamentals, Image Transforms, Image Enhancement, Edge Detection, Image Segmentation, Texture Analysis, Image Restoration, and Image Compression. Prerequisites: EEL 3135 and knowledge of any programming language (FORTRAN, Pascal, C). (F)

Civil and Environmental Engineering

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Civil and Environmental Engineering Mission Statement

The mission of the Department of Civil & Environmental Engineering (CEE) is to teach, conduct research and serve the community through professional development and technology transfer. The CEE pursues excellent teaching by providing quality education that will enable its graduates to demonstrate their technical proficiency, their ability to communicate effectively, their responsible citizenship, their lifelong learning, and their ethical behavior in their career and professional practice. The CEE also encourages activities that enrich the student potential for career and professional achievement and leadership. The CEE is committed to providing graduates who improve the quality of life, meet the needs of industry and government, and contribute to the economic competitiveness of Florida and the nation. The CEE strives to attain a level of research and scholarly productivity befitting a major research university and warranting national and international recognition for excellence.

Bachelor of Science in Civil Engineering

Program Educational Objectives

The Department of Civil and Environmental Engineering of Florida International University offers the Program in Civil Engineering with three main objectives that broadly describe the professional and career accomplishments that our graduates are prepared to achieve. These three objectives are:

Objective 1:
Graduates will advance their careers in civil engineering or related areas by demonstrating technical proficiency, communication skills, responsible citizenship, leadership, and ethical behavior.

Objective 2:
Graduates will make progress towards obtaining professional registration, special licensing, or certification.

Objective 3:
Graduates will pursue continued life-long learning to become the problem solvers considering the global, economic, environmental, and social impact.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX045C CHSX440/CHSX440L
MAC 2281	MACX311 or MACX281
MAC 2282	MACX312 or MACX282
MAC 2283	MACX313 or MACX283
MAP 2302	MAPX302 or MAPX305
PHY 2048, PHY 2048L	PHYX048/PHYX048L or PHYX048C or PHYX041/PHYX048L or PHYX043/PHYX048L
PHY 2049	PHYX049/PHYX049L[1] or PHYX049C, or PHYX042/PHYX049L or PHYX044/PHYX049L

[1]PHYX049L does not count toward the degree at FIU.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

CHM 1045	General Chemistry I
CHM 1045L	General Chemistry Lab I
MAC 2281	Calculus I for Engineering
MAC 2282	Calculus II for Engineering
MAC 2283	Calculus III for Engineering
MAP 2302	Differential Equations
PHY 2048	Physics with Calculus
PHY 2048L	General Physics Lab I
PHY 2049	Physics with Calculus II

Additional lower-division courses required for the degree:

CHM 1046	General Chemistry II
CHM 1046L	General Chemistry Lab II
GLY 1010	Physical Geology
GLY 1010L	Physical Geology Lab
EGN 1110C	Engineering Drawing

Degree Program Hours: Minimum 128

The Civil Engineering curriculum provides a program of interrelated technical areas of Civil Engineering with their fundamental core subjects of the engineering program. The technical interdisciplinary courses are in the areas of construction, geotechnical, environmental, structural, surveying, transportation, and water resources engineering.

Civil engineers play an essential role in serving people and the environmental needs of society. These needs relate to shelter, mobility, water, air and development of land and physical facilities.

The academic program is designed to meet the State of Florida's articulation policy as well as to satisfy criteria outlined by the Accreditation Board for Engineering and Technology (ABET), among others.

Lower Division Preparation

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Lower division preparation includes completion of pre-engineering courses which include Engineering Drawing with CAD application, Calculus I, II, & III, Differential Equations, Chemistry I & II and Labs, Physics I with Calculus and Lab, Physics II with Calculus, and Physical Geology and Lab, all with a grade of 'C' or better. See the example semester by semester program in the following pages.

Effective pursuit of engineering studies requires careful attention to both the sequence and the type of courses taken. It is therefore important, and the college requires, that each student plan a curriculum with the departmental faculty advisor.

All students must comply with the University Core Curriculum Requirements for the University for Social Science, Humanities, Arts and English. The department requires a minimum of 15 semester hours in the area of Humanities, Arts and Social Science. All transfer students should refer to the Undergraduate Education section of this catalog to determine if they have met the requirements for Humanities, Social Science, Arts, and English at their previous institution.

A minimum grade of 'C' is required in all writing, physics, chemistry, and mathematics courses.

A minimum grade of 'C' is required of all Civil Engineering courses and prerequisite courses.

Students who have been dismissed for the first time from the University due to low grades may appeal to the Dean for reinstatement. A second dismissal will result in no possibility of reinstatement.

Other Requirements

Students must have a minimum 2.0 GPA, must complete all required classes, and must otherwise meet all of the state and university requirements in order to graduate.

Students who enter the university with fewer than 60 transferred credits must take 9 summer credits. Refer to the appropriate sections in the Catalog's for more information.

Courses are to be taken in the proper sequence. Any course taken without the required prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a 'DR' or 'DF'.

Upper Division Course Objectives

The program of study encourages the development of a broadly educated civil engineering graduate, who can succeed as a productive engineer with continued professional growth. The courses listed as requirements for the BS degree not only provide the students with mathematical and scientific knowledge, but also include other essential areas necessary for a successful engineering career. The courses have been designed to increase student competence in written and oral communication skills as well as to develop critical thinking and creative problem solving strategies. Course projects are designed to teach engineering science fundamentals and their applications while providing enriching opportunities for laboratory and computer-based experiences. Furthermore, students are supplied with an understanding of the economic, social, ethical and professional responsibilities of engineers in our society and are encouraged to include sustainable development in all project designs.

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information for Admission and Registration and Records.

Upper Division Program

The basic upper division requirements for the BSCE degree are as follows:

Applied Mathematics (3)

STA 3033	Intro to Probability and Statistics	3
	or	
EIN 3235	Evaluation of Engineering Data	3

Engineering Sciences (17)

CGN 2420	Computer Tools for Engineers	3
CWR 3201	Fluid Mechanics	3
CWR 3201L	Fluid Mechanics Laboratory	1
EGM 3520	Engineering Mechanics of Materials	3
EGM 3520L	Materials Testing Lab	1
EGN 3311	Statics	3
EGN 3321	Dynamics	3

General Engineering Courses (5)

CGN 2161	Career Orientation in Civil Engineering	1
EGS 2030	Ethics and Legal Aspects in Engineering	1
EGN 3613	Engineering Economy	3

Civil Engineering Curriculum (42)

CCE 4031	Project Planning for CE	3
CEG 4011	Geotechnical Engineering I	3
CEG 4011L	Geotechnical Testing Laboratory	1
CES 3100	Structural Analysis	3
CES 4702	Reinforced Concrete Design	3
CGN 4802	Civil Engineering Senior Design Project	3
CWR 3540	Water Resources Engineering	3
ENV 3001	Introduction to Environmental Engineering – *GL*	3
ENV 3001L	Environmental Laboratory I	1
SUR 2101C	Surveying	3
TTE 4201	Transportation and Traffic Engineering	3
CGN 4980	Civil Engineering Seminar	1
C.E. Elective	(min)	3
C.E. Elective	(min)	3
C.E. Elective	(min)	3
C.E. Elective	(min)	3

Note: Students may be eligible to select some graduate level civil engineering technical electives as approved by the instructor and the undergraduate advisor.

Professional Graduation Requirement

Civil Engineering students must take and pass CGN 4980 (FE Seminar). Students showing evidence of passing the state FE (EIT) examination will have this requirement waived.

Civil Engineering Program

Students may have a different sequence of courses as arranged with their advisor. For complete program information, students should refer to the Program Summary Sheet available at the Department.

First Semester: (16)

MAC 2281	Calculus I for Engineering	4
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
ENC 1101	Writing and Rhetoric I	3
GLY 1010	Physical Geology	3
GLY 1010L	Physical Geology Lab	1
SLS 1501	Freshman Experience	1

Second Semester: (13)

MAC 2282	Calculus II for Engineering	4
ENC 1102	Writing and Rhetoric II	3
PHY 2048	Physics with Calculus	4
PHY 2048L	General Physics Lab I	1
CGN 2161	Career Orientation in Civil Engineering	1

Third Semester: (14)

UCC Humanities Group 1		3
MAC 2283	Calculus III for Engineering	4
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1
UCC Social Science Group 1		3

Fourth Semester: (16)

PHY 2049	Physics with Calculus II	4
MAP 2302	Differential Equations	3
EGN 1110C	Engineering Drawing	3
UCC Arts		3
UCC Humanities Group 2		3

Fifth Semester: (13)

EGN 3311	Statics	3
SUR 2101C	Surveying	3
CGN 2420	Computer Tools for Engineers	3
EGS 2030	Ethics and Legal Aspects in Engineering	1
UCC Social Science Group 2		3

Sixth Semester: (13)

STA 3033	Introduction to Probability and Statistics for CS	3
	or	
EIN 3235	Evaluation of Engineering Data	3
EGN 3321	Dynamics	3
EGM 3520	Engineering Mechanics of Materials	3
EGM 3520L	Engineering Mechanics of Material Lab	1
EGN 3613	Engineering Economy	3

Seventh Semester: (14)

CWR 3201	Fluid Mechanics	3
CWR 3201L	Fluid Mechanics Lab	1
CES 3100	Structural Analysis	3
ENV 3001	Introduction to Environmental Engineering – *GL*	3
ENV 3001L	Environmental Laboratory I	1
TTE 4201	Transportation & Traffic Engineering	3

Eighth Semester: (16)

CEG 4011	Geotechnical Engineering I	3
CEG 4011L	Soil Testing Laboratory	1
CWR 3540	Water Resources	3
CES 4702	Reinforced Concrete Design	3
CE Elective		3
CE Elective		3

Ninth Semester: (13)

CCE 4031	Project Planning for Civil Engineers	3
CGN 4802	Civil Engineering Senior Design Project	3
CGN 4980	Civil Engineering Seminar	1
CE Elective		3
CE Elective		3

Suggested Electives for Structural Engineering Option**

CES 3580	Hurricane Engineering and Global Sustainability – *GL*	3
CES 4320	Intro to the Design of Highway Bridges	3
CES 4605	Steel Design	3
CES 4711	Introduction to Prestressed Concrete Structures	3
CGN 4011	Computational Techniques and Visualization for Civil Engineering Applications	3
CGN 4510	Sustainable Building Engineering	3
CES 5106	Advanced Structural Analysis	3
EGM 5421	Structural Dynamics	3

Suggested Electives for Water Resources Engineering Option**

CWR 4204	Hydraulic Engineering	3
CWR 4530	Modeling Applications in Water Resources Engineering	3
CWR 4620C	Ecohydrological Engineering	3
CWR 5235	Open Channel Hydraulics	3
ENV 4401	Water Supply Engineering	3

Suggested Electives for Geotechnical Engineering Option**

CEG 4012	Geotechnical Engineering II	4

CEG 4126	Fundamentals of Pavement Design	3
CEG 5065	Geotechnical Dynamics	3
CES 3580	Hurricane Engineering and Global Sustainability – *GL*	3
CGN 4011	Computational Techniques and Visualization for Civil Engineering Applications	3

Suggested Electives for Environmental Engineering Option**

ENV 4005L	Environmental Laboratory II	1
ENV 4024	Bioremediation Engineering	3
ENV 4101	Fundamentals of Air Pollution Engineering	3
ENV 4330	Hazardous Waste Site Assessment	3
ENV 4351	Solid and Hazardous Waste Management	3
ENV 4401	Water Supply Engineering	3
ENV 4513	Chemistry for Environmental Engineers	3
ENV 4551	Wastewater Treatment Engineering	3
ENV 4560	Reactor Design	3

Suggested Electives for Construction Engineering Option**

CCE 4001	Heavy Construction	3
CES 3580	Hurricane Engineering and Global Sustainability – *GL*	3
CGN 4510	Sustainable Building Engineering	3
CGN 4930	Special Topics in Civil Engineering	1-4
CCE 5035	Construction Engineering Management	3
CCE 5036	Adv Project Planning for Civil Engineers	3

Suggested Electives for Transportation Engineering Option**

CEG 4126	Fundamentals of Pavement Design	3
CGN 4321	GIS Applications in Civil & Environmental Engineering	3
TTE 4102	Urban Transportation Planning	3
TTE 4202	Traffic Engineering	3
TTE 4203	Highway Capacity Analysis	3
TTE 4804	Geometric Design of Highways	3

**All recommended and other technical electives must be approved by the advisor and must concentrate on relevant applications of civil engineering design. Selection of a proper sequence would allow the student to specialize within a focus area of interest (e.g., structural, geotechnical, construction, water, environmental, or transportation).

Bachelor of Science in Environmental Engineering

Program Educational Objectives

The Department of Civil and Environmental Engineering of Florida International University offers the Program in Environmental Engineering with three main objectives that broadly describe the professional and career accomplishments that our graduates are prepared to achieve. These three objectives are:

Objective 1:

Graduates will advance their careers in environmental engineering or related areas by demonstrating technical proficiency, communication skills, responsible citizenship, leadership, and ethical behavior.

Objective 2:

Graduates will make progress towards obtaining professional registration, special licensing, or certification.

Objective 3:

Graduates will pursue continued life-long learning to become the problem solvers considering the global, economic, environmental, and social impact.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM 1045, CHM 1045L	CHMX045/CHMX045L or CHM045C or CHSX440/CHMX044L
CHM 1046, CHM 1046L	CHMX046/X046L or CHMX046C
MAC 2281	MACX311 or MACX281
MAC 2282	MACX312 or MACX282
MAC 2283	MACX313 or MACX283
MAP 2302	MAPX302 or MAPX305
PHY 2048, PHY 2048L	PHYX048/PHYX048L or PHYX048C or PHYX043/PHYX048L
PHY 2049	PHYX049/PHYX049L[1] or PHYX049C or PHYX044/PHYX049L

[1]PHYX049L does not count toward the degree at FIU.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://flvc.org**. Search Program Listing by Alphabetic Order.

Common Prerequisites

CHM 1045	General Chemistry I
CHM 1045L	General Chemistry Lab I
CHM 1046	General Chemistry II
CHM 1046L	General Chemistry Lab II
MAC 2281	Calculus I for Engineering
MAC 2282	Calculus II for Engineering
MAC 2283	Calculus III for Engineering
MAP 2302	Differential Equations
PHY 2048	Physics with Calculus
PHY 2048L	General Physics Lab I
PHY 2049	Physics with Calculus II

Additional lower-division courses required for the degree:

BSC 2010	General Biology I
BSC 2010L	General Biology Lab I
EGN 1110C	Engineering Drawing

Degree Program Hours: 127

The Environmental Engineering curriculum provides a background of interrelated subdisciplines of Environmental Engineering and related science subjects with the fundamental core subjects of the engineering program. The technical interdisciplinary courses are in the areas of biology, geology, chemistry, ecology, atmospheric sciences, geotechnical engineering, urban planning, water resources engineering, pollution prevention and waste

management. Environmental engineers play an essential role in serving people and the environmental needs of society. These needs relate to water, air and development of land and physical facilities.

The academic program is designed to meet the State of Florida's articulation policy as well as to satisfy criteria outlined by the Accreditation Board for Engineering and Technology (ABET).

Lower Division Preparation

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

The lower division requirements include pre-engineering courses which include the common prerequisites listed above, and Engineering Drawing with CAD application.

Effective pursuit of engineering studies requires careful attention to both the sequence and the type of courses taken. It is therefore important, and the college requires, that each student plan a curriculum with the departmental academic advisor.

All students must comply with the University Core Curriculum Requirements for the University for Social Science, Humanities, Arts and English. The department requires a minimum of 15 semester hours in the area of Humanities, Arts and Social Science. All transfer students should refer to the Undergraduate Education section of this catalog to determine if they have met the requirements for Humanities, Social Science, Arts, and English at their previous institution.

A minimum grade of "C" is required in all writing courses, physics, chemistry, biology, and mathematics courses. A minimum grade of 'C' is required of all Environmental Engineering courses and prerequisite courses.

In addition, all students must meet the University Foreign Language Requirement and meet all of the state and university requirements for graduation.

Students who have been dismissed for the first time from the University due to low grades may appeal to the Dean for reinstatement. A second dismissal will result in no possibility of reinstatement.

Other Requirements

Students must have a minimum 2.0 GPA, must complete all required classes, and must otherwise meet all of the state and university requirements in order to graduate.

Students who enter the university with fewer than 60 transferred credits must take 9 summer credits. Refer to the appropriate sections in the Catalog for more information.

Courses are to be taken in the proper sequence. Any course taken without the required prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a 'DR' or 'DF'.

Upper Division Program

The upper division program of study encourages the development of a broadly educated environmental engineering graduate, who can succeed as a productive engineer with continued professional growth. The courses listed as requirements for the BS degree not only provide the students with mathematical and scientific knowledge, but also include other essentials necessary for a successful engineering career. The courses have been designed to increase student competence in written and oral communication skills as well as develop critical thinking and creative problem solving strategies. Course projects are designed to teach engineering science fundamentals and their applications while providing enriching opportunities for laboratory and computer-based experiences. Furthermore, students are supplied with an understanding of the economic, social and ethical responsibilities of engineers in our society and are encouraged to include sustainable development in all project designs.

The basic upper division requirements for the BSENVE degree are as follows:

Applied Mathematics: (3)

STA 3033	Intro to Probability and Statistics	3
	or	
EIN 3235	Evaluation of Engineering Data	3

Engineering Sciences: (22)

Science Elective (Biological Science)**		4
Science Elective (Earth Science)**		4
CGN 2420	Computer Tools for Engineers	3
EGM 3503	Applied Mechanics	4
EGN 3343	Thermodynamics I	3
CWR 3201	Fluid Mechanics	3
CWR 3201L	Fluid Mechanics Lab	1

General Engineering Courses: (4)

EGS 2030	Ethics and Legal Aspects in Engineering	1
EGN 3613	Engineering Economy	3

Environmental Engineering Curriculum: (37)

CWR 3540	Water Resources Engineering	3
ENV 3001	Introduction to Environmental Engineering – *GL*	3
ENV 3001L	Environmental Laboratory I	1
ENV 3081	Career Orientation and Project Management Skills	1
ENV 4005L	Environmental Laboratory II	1
ENV 4513	Chemistry for Environmental Engineers	3
ENV 4351	Solid and Hazardous Waste Management	3
ENV 4101	Fundamentals of Air Pollution Engineering	3
ENV 4401	Water Supply Engineering	3
ENV 4551	Wastewater Treatment Engineering	3
ENV 4891	Environmental Eng. Senior Design Project	3
ENV 4960	Environmental Engineering Seminar	1
ENV Technical Elective		3
ENV Technical Elective		3
ENV Technical Elective		3

Professional Graduation Requirement

Environmental Engineering students must take and pass ENV 4960 (FE Seminar). Students showing evidence of passing the state FE (EIT) examination will have this requirement waived.

Course & Credit Hours Listing

The curriculum includes a sequence of courses which complies with the ABET requirements for mathematics and basic sciences, engineering science, engineering design, and general engineering degree requirements including humanities and social sciences. A typical nine semester sequence is shown below. Students may complete the program, by specific selection of science and technical elective courses, as arranged with the undergraduate program advisor and based on personal interests in a specialization area.

First Semester: (13)

MAC 2281	Calculus I for Engineering	4
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
SLS 1501	Freshman Experience	1
ENC 1101	Writing and Rhetoric I	3
EGS 2030	Ethics & Legal Aspects in Engineering	1

Second Semester: (16)

MAC 2282	Calculus II for Engineering	4
ENC 1102	Writing and Rhetoric II	3
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Laboratory I	1
BSC 2010	General Biology I	3
BSC 2010L	General Biology Lab I	1

Third Semester: (14)

UCC Social Science Group 1		3
MAC 2283	Calculus III for Engineering	4
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
UCC Humanities Group 1		3

Fourth Semester: (13)

PHY 2049	Physics with Calculus II	4
MAP 2302	Differential Equations	3
CGN 2420	Computer Tools for Engineers	3
UCC Social Science Group 2		3

Fifth Semester: (16)

ENV 3001	Introduction to Environmental Engineering – *GL*	3
ENV 3001L	Environmental Laboratory I	1
EGM 3503	Applied Mechanics	4
Science Elective	(Earth Science)*	4
ENV 3081	Career Orientation and Project Management Skills	1
EGN1110C	Engineering Drawing	3

Sixth Semester: (15)

EGN 3343	Thermodynamics I	3
EGN 3613	Engineering Economy	3
ENV 4513	Chemistry for Environmental Engineers	3
Art Elective		3
STA 3033	Introduction to Probability and Statistics for CS	3
	or	
EIN 3235	Evaluation of Engineering Data	3

Seventh Semester: (14)

CWR 3201	Fluid Mechanics	3
CWR 3201L	Fluid Mechanics Lab	1
ENV 4351	Solid and Hazardous Waste Management	3
Science Elective	(Biological Science)*	4
UCC Humanities Group 2		3

Eighth Semester: (13)

ENV 4101	Fundamentals of Air Pollution Engineering	3
ENV 4401	Water Supply Engineering	3
ENV 4551	Wastewater Treatment Engineering	3
ENV 4005L	Environmental Laboratory II	1
CWR 3540	Water Resources Engineering	3

Ninth Semester: (13)

ENV 4891	Environmental Engineering Senior Design Project	3
ENV 4960	Environmental Engineering Seminar	1
ENV	Technical Elective	3
ENV	Technical Elective	3
ENV	Technical Elective	3

*One Science Elective should be in Earth Sciences and the other should be in Biological Sciences. Electives must be selected from the following:

Earth Science electives: (one required)

GLY 1010/L	Physical Geology	4
GLY 2072/L	Earth Climate and Global Change	4
GLY 3039/L	Environmental Geology	4
GLY 3202/L	Earth Materials	4
GLY 4822/L	Hydrogeology	4
MET 2010/L	Meteorology & Atmospheric Physics	4

Biological Science electives (one required):

MCB 2000	Introductory Microbiology – *GL*	3
MCB 2000L	Introductory Micro Lab	1
OCB 2003	Introductory Marine Biology – *GL*	3
OCB 2003L	Introductory Marine Biology Lab	1
PCB 3043/L	Ecology	4
EVR 3013/L	Ecology of South Florida	4

ENV technical electives must be selected from the following:

CES 3580	Hurricane Engineering and Global Sustainability **–** *GL*	
CGN 4321	GIS Applications in Civil Environmental Engineering	3
CGN 4510	Sustainable Building Engineering	3
CWR 5235	Open Channel Hydraulics	3
CWR 4204	Hydraulic Engineering	3
CWR 4530	Modeling Applications in Water Resources Engineering	3
CWR 4620C	Ecohydrological Engineering	3
EGN 4070	Engineering for Global Sustainability and Environmental Protection – *GL*	3
ENV 4330	Hazardous Waste Site Assessment	3
ENV 5062	Environmental Health	3
ENV 4560	Reactor Design	3
ENV 4024	Bioremediation Engineering	3
ENV 4930	Special Topics in Environmental Engineering	1-4
ENV 5104	Indoor Air Quality	3
ENV 5666	Water Quality Management	3
EVR 3010	Energy Flow in Natural and Man-made Systems	3
EVR 3011	Environmental Resources and Pollution	3
EVR 4321	Sustainable Resource Development	3
EVR 4592	Soils and Ecosystems	3
EVR 4026	Ecology of Biotic Resources	3
EVR 4323	Restoration Ecology	3

All recommended and other technical electives must be approved by the advisor and must concentrate on relevant applications of environmental engineering design. Selection of a proper sequence would allow the student to specialize within a focus area of interest (e.g., air, water, or land resources).

Combined BS/MS in Civil Engineering

Students who pursue a BS degree in Civil Engineering and have completed 75-90 credits and have at least a 3.3 GPA on both overall and upper division courses may apply to enroll in the combined BS/MS program in Civil Engineering upon recommendation from three CEE faculty members. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of both the department and the University Graduate School. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships.

Students enrolled in the program may count up to nine credit hours of CEE graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. However, upon completion of all the requirements of the undergraduate program, students will receive their BS degrees. Students in this program have up to one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the nine credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of B is required. All double counted courses must be at 5000 level or higher. Students enrolled in the program may count up to nine credit hours of CEE graduate courses toward the elective engineering BS requirements as well as toward the MS degree. 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 meet the Graduate Program Director 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 and the University Graduate School of the decision on their applications.

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 full admission into the graduate school.

Combined BS in Civil Engineering/MS in Environmental Engineering

Students who pursue a BS degree in Civil Engineering and are in their senior year and have at least a 3.3 GPA on both overall and upper division courses may apply to the department to enroll in the combined BS (Civil)/MS program in Environmental Engineering upon recommendation from three CEE faculty members. To be considered for admission to the combined bachelor's/masters degree program in Environmental Engineering, students must have completed at least 75-90 credits in the bachelor's degree program in Civil Engineering at FIU and meet the admissions criteria for the graduate degree program at FIU and meet the admissions criteria for the graduate degree program to the which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to the Graduate Admissions before the student starts the last 30 credit of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and will be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the credits specified by the program catalog, may be applied toward both degrees. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of both the department and the University Graduate School.

Students enrolled in the program may count up to nine credit hours of CEE graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. However, upon completion of all the requirements of the undergraduate program, students will receive their BS degrees. Students in this program have up to one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the nine credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of B is required. All double counted courses must be at 5000 level or higher. Students enrolled in the program may count up to nine credit hours of CEE graduate courses toward the elective engineering BS requirements as well as toward the MS degree. 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 meet the Graduate Program Director 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 and the University Graduate School of the decision on their applications.

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 full admission into the graduate school.

Combined BS/MS in Environmental Engineering

Students who pursue a BS degree in Environmental Engineering and are in their senior year and have at least a 3.3 GPA on both overall and upper division courses may apply to the department to enroll in the combined BS/MS program in Environmental Engineering upon recommendation from three CEE faculty members. To be considered for admission to the combined bachelor's/masters degree program in Environmental Engineering, students must have completed at least 75-90 credits in the bachelor's degree program in Environmental Engineering at FIU and meet the admissions criteria for the graduate degree program at FIU and meet the admissions criteria for the graduate degree program to the which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to the Graduate Admissions before the student starts the last 30 credit of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and will be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the credits specified by the program catalog, may be applied toward both degrees. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of both the department and the University Graduate School.

Students enrolled in the program may count up to nine credit hours of CEE graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. However, upon completion of all the requirements of the undergraduate program, students will receive their BS degrees. Students in this program have up to one year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this one year post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the nine credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of "B" is required. All double counted courses must be at 5000 level or higher. Students enrolled in the program may count up to nine credit hours of CEE graduate courses toward the elective engineering BS requirements as well as toward the MS degree. 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 meet the Graduate Program Director 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 and the University Graduate School of the decision on their applications.

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 full admission into the graduate school.

Course Descriptions

Definition of Prefixes

CCE-Civil Construction Engineering; CEG-Engineering, General; CES-Civil Engineering Structures; CGN-Civil Engineering; CWR-Civil Water Resources; EES-Environmental Engineering Science; EGM-Engineering, Mechanics; EGN-Engineering, General; EGS-Engineering Support; ENV-Engineering, Environmental; SUR-Surveying and Related Areas; TTE-Transportation and Traffic Engineering; URP-Urban and Regional Planning
Courses that meet the University's Global Learning requirement are identified as GL.

CCE 4001 Heavy Construction (3). Contractor's organization, contracts, services, safety, planning and scheduling. Equipment and their economics. Special project applications, coffer-dams, dewatering, river diversions, tunneling. Prerequisites: CES 4702 and CEG 4011.

CCE 4031 Project Planning for Civil Engineers (3). Introduction to techniques for planning activities, operations, finance, budget, workforce, quality, safety. Utilize case studies as learning tools for students aspiring to superintendent positions. Prerequisite: CES 3100. Corequisite: CEG 4011.

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. Prerequisites: CES 3100 or equivalent and CEG 4011 or equivalent.

CCE 5036 Advanced Project Planning for Civil Engineers (3). Advanced techniques and methods for planning activities, operations, finance, budget, workforce, quality, safety. Utilize case studies as learning tools for students aspiring to management positions. Prerequisite: CCE 4031 or equivalent.

CCE 5405 Advanced Heavy Construction Techniques (3). Heavy construction methods and procedures involved in large construction projects such as bridges, cofferdams, tunnels, and other structures. Selection of equipment based on productivity and economics. 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 4031 or equivalent.

CEG 4011 Geotechnical Engineering I (3). Engineering 3 geology, soil properties; stresses in soils; failures; criteria; consolidation and settlement; compaction, soil improvement and slope stabilization. Prerequisites: GLY 1010 and GLY 1010L, CWR 3201 and CWR 3201L, EGM 3520, and EGM 3520L.

CEG 4011L Soil Testing Laboratory (1). Laboratory experiments to identify and test behavior of soils and rocks. Prerequisites: CWR 3201, CWR 3201L, EGM 3520, EGM 3520L. Corequisite: CEG 4011. (Lab fees assessed).

CEG 4012 Geotechnical Engineering II (4). Principles of foundation analysis and design: site improvement for bearing and settlement, spread footings, mat foundations, retaining walls, cofferdams, piles, shafts, caissons, tunnels, and vibration control. Computer applications. Prerequisites: CEG 4011 and CEG 4011L.

CEG 4126 Fundamentals of Pavement Design (3). This course is designed to provide the student with a basic understanding of the fundamental principles underlying pavement structural analysis and design. Asphalt Institute, Portland Cement Association and AASHTO methods will be covered. Prerequisites: CEG 4011, CEG 4011L, TTE 4201.

CEG 5065 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.

CES 3100 Structural Analysis (3). To introduce the student to the basic concepts and principles of structural theory relating to statically determinate beams, arches, trusses and rigid frames, including deflection techniques. Prerequisite: EGM 3520 and EGM 3520L.

CES 3580 Hurricane Engineering and Global Sustainability – *GL* (3). This course examines the impacts of hurricanes and explores the role of engineers in achieving sustainable coastal communities around the globe. This course serves as a global learning course. Prerequisites: PHY 2053 or PHY 2048.

CES 4320 Introduction to the Design of Highway Bridges (3). The course covers the different types of modern highway bridges, and systematically analyzes all the components of the superstructures. Design procedures are based on AASHTO codes and specialized software. Prerequisites: CEG 4011, CES 4605, CES 4702.

CES 4600 Introduction to the Design of Tall Buildings (3). The course reviews the different modern high-rise structural systems, a simple analysis of wind and seismic loading to efficiently design very tall buildings. Prerequisites: CEG 4011, CES 4702.

CES 4605 Steel Design (3). The analysis and design of structural elements and connections for buildings, bridges, and specialized structures utilizing structural steel. Both elastic and plastic designs are considered. Prerequisite: CES 3100.

CES 4702 Reinforced Concrete Design (3). The analysis and design of reinforced concrete beams, columns, slabs, retaining walls and footings; with emphasis corresponding to present ACI Building Code. Introduction to prestressed concrete is given. Prerequisite: CES 3100 with a grade of 'C' or better.

CES 4711 Introduction to Prestressed Concrete Structures (3). The fundamental principles of design for prestressed concrete structures. Understanding of the behavior of prestressed concrete structures, material properties, and the detailed considerations in limit state design. Prerequisite: CES 4702.

CES 5106 Advanced Structural Analysis (3). Extension of the fundamental topics of structural analysis with emphasis on energy methods and methods best suited for nonprismatic members. Prerequisite: CES 3100.

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 5715, and 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 5587 Topics in Wind Engineering (3). The course will cover the nature of wind related to wind-structure interaction and design loads for extreme winds, tornadoes and hurricanes. Prerequisites: CES 3100 and CWR 3201.

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. Prerequisite: 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 3100.

CGN 2161 Career Orientation in Civil Engineering (1). Course provides an overview of the Civil Engineering profession, including understanding of the discipline subfields, to assist students in determining the area(s) of emphasis they might want to follow for their professional career.

CGN 2420 Computer Tools for Engineers (3). Introduction to computer software commonly used in engineering, as Excel, Mathcad or Matlab. Numerical techniques to obtain approximated solutions to engineering problems are also included. Prerequisite: PHY2048, and MAC2312 or MAC2282

CGN 3949 Co-Op Work Experience (1-3). Supervised full-time work experience in engineering field. Limited to students admitted to the Co-op program with consent of advisor. Evaluation and reports required.

CGN 4011 Computational Techniques and Visualization for Civil Engineering Applications (3). The course will discuss computational techniques to develop analysis codes for civil engineering applications and visualization tools to leverage for computer-aided design of civil infrastructure. Prerequisite: CGN 2420 and CES 3100.

CGN 4321 GIS Applications in Civil and Environmental Engineering (3). Introduction to the basics of geographic information systems and their applications in civil and environmental engineering, landscape architecture, and other related fields. Prerequisites: TTE 4201 or ENV 3001 or CWR 3540 or the equivalents.

CGN 4510 Sustainable Building Engineering (3). Introduces students to the basic concepts of designing building materials and complimentary systems in such a way that the enclosures control heat, air and moisture so that a durable, energy efficient, healthy building is provided without using excess materials and energy. Students from different backgrounds will learn principles and methodologies to enhance the environmental performance of buildings, including all applicable regulatory and sustainability frameworks. Prerequisites: CWR 3201, CWR 3201L.

CGN 4802 Civil Engineering Senior Design Project (3). Mandatory course for all senior students, to experience the design of a practical project by utilizing knowledge learned from previous courses for presenting a solution. Done under the supervision of a faculty member and professional engineer. Prerequisites: CEG 4011, CEG 4011L, TTE 4201, Corequisite: CES 4702.

CGN 4911 Undergraduate Research Experience (1-3). Participate in research activities in the areas of structures, geotechnical, transportation, construction and environmental engineering. Prerequisite: Permission of a faculty advisor.

CGN 4930 Special Topics in Civil Engineering (1-4). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CGN 4949 Co-Op Work Experience (1-3). Supervised full-time work experience in engineering field. Limited to students admitted to the Co-op program with consent of advisor. Evaluation and report required.

CGN 4980 Civil Engineering Seminar (1). Basic principles and applications of civil engineering, including structural, transportation, environmental, geotechnical, construction, and water resources engineering for civil engineering students. Prerequisites: EGS 2030, EGN 3613, ENV 3001, CES 3100 Corequisites: CWR 3540 CEG 4011, TTE 4201.

CGN 5315 Civil Engineering Systems (3). Application of systems analysis techniques to large scale civil engineering problems. Prerequisites: 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. Corequisites: TTE 4201 or CWR 3540 or ENV 3001.

CGN 5870 Corrosion Control in Civil Engineering (3). The course provides understanding of principles of corrosion phenomena with emphasis on its application to materials in civil engineering including testing methods, corrosion control, and durability. Prerequisite: Permission of the instructor.

CGN 5874 Building Diagnostics (3). This course will give an introduction into building diagnostics with a focus on non-destructive testing (NDT) techniques used to investigate Civil Engineering materials and structures. Prerequisites: Graduate standing, enrolled in engineering curriculum.

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.

CWR 3201 Fluid Mechanics (3). A study of the properties of fluids and their behavior at rest and in motion. Continuity, momentum, and energy principles of fluid flow. Prerequisites: MAC 2312, or MAC 2283, MAP 2302, and EGN 3321 or EGM 3503. Corequisite: CWR 3201L.

CWR 3201L Fluid Mechanics Laboratory (1). Application of fluid mechanics principles in the laboratory. Experiments in surface water, ground-water and pipe flow. Prerequisites: MAP 2302, and EGN 3321 or EGM 3503. Corequisite: CWR 3201. (Lab fees assessed).

CWR 3540 Water Resources Engineering (3). Hydrologic and hydraulic engineering fundamentals and applications: water resources issues, hydrologic cycle and processes, measurements, hyetographs, hydrographs, probability and design, groundwater flow and well hydraulics. Prerequisites: CWR 3021, CWR 3201L, STA 3033 or EIN 3235.

CWR 4204 Hydraulic Engineering (3). Design and analysis applications to systems and facilities, such as open channels, culverts, storm water control, flood control, pumps, and hydroelectric power. Prerequisite: CWR 3201.

CWR 4530 Modeling Applications in Water Resources Engineering (3). Model applications in hydrology, hydraulics, hydrosystems engineering and environmental interconnections. Prerequisite: CWR 3201. Corequisite: CWR 3540.

CWR 4620C Ecohydrological Engineering (3). Introduction and incorporation of the fundamental concepts of ecohydrology into hydrologic and water resources engineering principles and designs. Prerequisite: CWR 3540.

CWR 5140C Ecohydrology (3). Hydrology of ecosystems, interaction between the hydrologic cycle and vegetative processes. Prerequisite: Permission of the instructor.

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. Prerequisite: 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 5305 Surface Hydrology (3). Principles of Hydrology with a particular focus on surficial processes of interest to engineering design. Emphasizes applications to flood prevention and mitigation and stormwater management issues. Prerequisites: CWR 3201, CWR 3540 (or equivalent).

CWR 5535C Advanced Modeling Applications in Water Resources Engineering (3). Complex model applications in hydrology, hydraulics, hydrosystems engineering and environmental interconnections. Prerequisite: Permission of the instructor.

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. Prerequisites: 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.

EGM 3520 Engineering Mechanics of Materials (3). Analysis of axial, torsional, bending, combined stresses, and strains. Plotting of shear, moment and deflection diagram with calculus applications and interpretations. Prerequisites: CGN2420, MAC2313 (or MAC 2283) and EGN3311 Corequisites: MAP2302

EGM 3520L Materials Testing Laboratory (1). Introduction to measurements of basic mechanical properties of materials. Experiments include axial tension, compression, torsion, flexure, and the response of simple structural elements. Prerequisite: CGN 2420, EGN 3311, MAP 2302, and MAC 2313 or MAC 2283 Corequisite: EGM 3520) Lab fees assessed.

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, photo-elasticity 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: CES 5106.

EGM 5421 Structural Dynamics (3). Fundamentals of free, forced, and transient vibration of singles and multidegree of freedom structures, including damping of lumped and distributed parameters systems. Graduate students have to do a project. Prerequisite: CES 3100 and MAP 2302.

EGN 1110C Engineering Drawing (3). Introduction to elementary design concepts in engineering, principles of drawing, descriptive geometry, pictorials and perspectives and their computer graphics counterpart.

EGN 3311 Statics (3). Forces on particles, equilibrium of forces, moments, couples, centroids, section properties, and load analysis of structures. Prerequisites: MAC 2312 and PHY 2048. Corequisite: MAC 2313.

EGN 3613 Engineering Economy (3). Assist students to develop competency in the fundamentals of engineering economics for all engineering disciplines. The methods of economic analysis in general engineering applications include: decision analysis techniques, time value of money calculations, essential techniques in economic analysis of alternatives, depreciation, corporate income tax considerations, and criteria for decisions under various constraints.

EGN 4070 Engineering for Global Sustainability and Environmental Protection – *GL* (3). This course examines the effects of modern humans on the environment and explores the role of engineers in creating an environmentally sustainable future. Also serves as a global learning course. Prerequisites: ENV 3001 or PHY 2049 and CHM 1046.

EGN 5439 Design of Tall Buildings (3). The course analyzes different modern high-rise structural systems, and includes the dynamics of wind and earthquakes to efficiently design very tall buildings and their ancillary structures. Prerequisite: Permission of the instructor.

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 3100.

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.

EGS 2030 Ethics and Legal Aspects in Engineering (1). Codes of ethics, professional responsibilities and rights, law and engineering, contracts, torts, evidence.

ENV 3001 Introduction to Environmental Engineering – *GL* (3). Introduction to environmental engineering problems; water and wastewater treatment, air pollution, noise, solid and hazardous wastes. Prerequisites: CHM 1046, CHM 1046L, and MAC 2312 or MAC 2282. Corequisite: ENV 3001L.

ENV 3001L Environmental Laboratory I (1). A corequisite to ENV 3001. Practical applications of the theory learned in the course and experience in detecting and measuring some environmental problems. Prerequisites: CHM 1046, CHM 1046L, CGN2420, and MAC 2312 or MAC 2282. Corequisite: ENV 3001. (Lab fees assessed).

ENV 3081 Career Orientation and Project Management Skills (1). Course provides an overview of the professional practice and project management skills for Environmental Engineering. Topics focus on understanding of the discipline subfields, job opportunities, and research environments. Prerequisites: MAC 2312 and PHY 2049.

ENV 3949 Co-Op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the Co-op program with consent of advisor.

ENV 4005L Environmental Laboratory II (1). Experiments involving use of analysis and instrumental techniques for the evaluation of environmental samples, and hands-on design aspects associated to environmental engineering treatment processes. Prerequisites: ENV 3001L, CWR 3201L, and EGN 3343.

ENV 4024 Bioremediation Engineering (3). Biotransformation of sub-surface contaminants in gaining recognition as a viable treatment tool. This course provides students with quantitative methods required to design bioremediation systems. Prerequisites: ENV 3001 and ENV 3001L.

ENV 4101 Fundamentals of Air Pollution Engineering (3). Factors contributing to air pollution: pollutants and their effects, sources, chemical transformations, and meteorology. Regulatory framework and design principles of emissions control technology. Prerequisites: CWR 3201 and CWR 3201L or EML 3126 and 3126L, ENV 3001 and ENV 3001L.

ENV 4330 Hazardous Waste Site Assessment (3). Hazardous waste site assessment, remedial investigation, design of site monitoring strategies and remediation plans. Prerequisites: CHM 1046 and CHM 1046L.

ENV 4351 Solid and Hazardous Waste Management (3). Generation, transport, treatment and disposal of solid and hazardous wastes; risk assessment and treatment of contaminated media. Prerequisites: CHM 1046 and CHM 1046L.

ENV 4401 Water Supply Engineering (3). Quantity, quality, treatment, and distribution of drinking water. Prerequisites: CWR 3201, CWR 3201L, ENV 3001, ENV 3001L.

ENV 4401L Water Laboratory (1). Laboratory exercises in the physical, chemical, and bacteriological quality of potable water. Prerequisites: CWR 3201, ENV 3001 and ENV 3001L. Corequisite: ENV 4401. (Lab fees assessed).

ENV 4513 Chemistry for Environmental Engineers (3). A practical basis for applying microbial and physiochemical principles to understand reactions occurring in natural and engineered systems including water/wastewater treatment processes. Prerequisites: CHM 1046 and CHM 1046L.

ENV 4551 Wastewater Treatment Engineering (3). Collection and transportation of wastewater, design of sanitary and storm sewers. Physical, chemical, and biological principles of wastewater treatment. Prerequisites: CWR 3201, CWR 3201L, ENV 3001, ENV 3001L.

ENV 4551L Wastewater Laboratory (1). Laboratory exercises in the physical, chemical, and bacteriological quality of raw and treated wastewaters. Prerequisites: CWR 3201 and CRW 3201L, ENV 3001 and ENV 3001L, Corequisite: ENV 4551. (Lab fees assessed).

ENV 4560 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. Prerequisites: CHM 1046, CHM 1046L.

ENV 4891 Environmental Engineering Senior Design Project (3). Team design project involving applications of fundamental environmental engineering concepts to project design, specifications, contracts and implementation. Emphasis on written and oral communication. Prerequisites: CWR 3540, ENV 4351, and ENV 4401 or ENV 4551. Corequisites: ENV 4101, ENV 4401, ENV 4551.

ENV 4910 Undergraduate Research Experience (1-3). Participate in research activities in the areas of air, land and water systems and associated environmental health impacts. Prerequisites: Permission of a faculty advisor.

ENV 4930 Special Topics in Environmental Engineering (1-4). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

ENV 4949 Co-Op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the Co-op program with consent of advisor. Evaluation and reports required.

ENV 4960 Environmental Engineering Seminar (1). Basic principles and applications of environmental engineering, including environmental science, solid and hazardous waste, water resources, water supply, wastewater, and air quality for environmental engineering students. Prerequisites: EGS 2030, EGN 3613, ENV 3001, EGN 3343, CWR 3540, ENV 4351. Corequisites: ENV 4101, ENV 4401, ENV 4551.

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). Bio-transformation 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 5104 Indoor Air Quality (3). Sources and causes of poor indoor air quality (IAQ). Protocols for IAQ investigations; problem evaluation and solution proposals. Approaches to sustainable construction; best IAQ and energy savings.

ENV 5105 Air Quality Management (3). Technical and regulatory aspects of air quality management. Emissions inventories, ambient monitoring, and models used to evaluate the impact of pollutants on local, regional and global air quality.

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. Prerequisites: 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, noval 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). Hazardous waste site assessment, remedial investigation, design of site monitoring strategies and remediation plans. Prerequisites: CHM 1046 and CHM 1046L.

ENV 5347 Waste Incineration (3). Domestic and industrial waste incineration and pollutant stream control of aqueous and airborne pollutants. Design of incineration's.

ENV 5356 Solid and Hazardous Waste (3). Generation, transport, treatment and disposal of solid and hazardous wastes; risk assessment and treatment of contaminated media. Prerequisites: CHM 1046 and CHM 1046L.

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 Chemistry for Environmental Engineers (3). Basis for applying microbial and physicochemical 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 multiphase reactions, analysis and design of batch and continuous flow reactors. Projects on analysis of reactor design and operating data.

ENV 5613 Environmental Entrepreneurship (3). Application of environmental engineering concepts in the development of innovative ideas, products or services; interactive experiences with environmental businesses. Prerequisites: ENV 3001 or permission of the instructor.

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. Prerequisites: 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.

SUR 2101C Surveying (3). Computations and field procedures associated with the measurement of distances and angles using tape, level, transit, EDMs, and total station. Laboratory is included with field measurements. Prerequisite: EGN 1110C. Corequisite: CGN 2161.

TTE 4102 Urban Transportation Planning (3). Introduces the fundamental concepts, theory, and history in transportation planning, the connections between transportation system and other components in the society, and basic planning methods. Prerequisite: TTE 4201.

TTE 4201 Transportation and Traffic Engineering (3). Transportation characteristics; transportation planning, traffic control devices, intersection design, network design, research. Prerequisites: STA 3033 or EIN 3235, EGN 3321, and SUR 2101C.

TTE 4202 Traffic Engineering (3). Speed and volume studies, traffic operations and characteristics, traffic flow theory, accident characteristics. Prerequisite: TTE 4201.

TTE 4203 Highway Capacity Analysis (3). Procedures involved in the capacity analysis of interrupted and uninterrupted flow highway facilities. Applications of highway capacity analysis software. Prerequisite: TTE 4201.

TTE 4804 Geometric Design of Highways (3). Parameters governing geometric design of highways; curve superelevation, widening of highway curves, intersection design; highway interchanges, use of AASHTO design guidelines. Prerequisite: TTE 4201.

TTE 4930C 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 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. Prerequisites: 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 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 Fundamentals of Traffic Engineering (3). Speed and volume studies, stream characteristics, traffic flow theory, accident characteristics. Prerequisite: TTE 4201.

TTE 5273 Intelligent Transportation Systems (3). ITS functional areas, planning architecture, standards, and evaluation. Implementation of selected ITS technologies and strategies. Prerequisites: TTE 4201 or equivalent.

TTE 5315 Highway Safety Analysis (3). Influencing factors (roadway characteristics, vehicle characteristics, and human factors), safety data, network screening, identification and diagnosis of safety problems, selection of countermeasures, evaluation studies, accident reconstruction. Prerequisites: STA 3033, 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. Prerequisites: 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 5925 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.

URP 5312 Urban Land Use Planning (3). Elements of the general land use plan, location and space requirements; the use of models in planning; development of the land use plan; policy plan, implementation. Prerequisite: Permission of the instructor.

URP 5316 Environmental and Urban Systems (3). Overview of basic issues and principles of environmental and urban planning/design systems. Emphasis will be placed on multidisciplinary linkages.

URP 5912 Research Methods (3). Methods of information search, data interpretation, and hypotheses formulation used in the field.

Electrical and Computer Engineering

Shekhar Bhansali, *Alcatel Lucent Professor and Chair*
Haneen Aburub, *Instructor*
Malek Adjouadi, *Ware Professor*
Kemal Akkaya, *Professor*
Elias Alwan, *Assistant Professor*
Jean Andrian, *Associate Professor and Associate Chairperson*
Wilmer Arellano, *Senior Instructor*
Ou Bai, *Assistant Professor*
Armando Barreto, *Professor*
Shubhendu Bhardwaj, *Assistant Professor*
Amaury Caballero, *Senior Lecturer*
Mercedes Cabrerizo, *Assistant Professor*
Gustavo Chaparro Baquero, *Instructor*
Hai Deng, *Associate Professor*
Luis Galarza, *Instructor*
Stavros Georgakopoulos, *Professor*
Mehdi Hatamian, *Distinguished University Professor*
Ahmed S. Ibrahim, *Assistant Professor*
Grover Larkins, *Professor*
Arjuna Madanayake, *Associate Professor*
Osama Mohammed, *Professor*
Mubarak Mujawar, *Instructor*
Srikanth Namuduri, *Instructor*
Nezih Pala, *Associate Professor and Graduate Program Director*
Sumit Paudyal, *Associate Professor*
Alexander Perez-Pons, *Instructor*
Gang Quan, *Professor*
Mohammad Ashiqur Rahman, *Assistant Professor*
Pulugurtha Markondeya Raj, *Associate Professor*
Gustavo Roig, *Professor*
Mario Sanchez, *Associate Director for Undergraduate Advising*
Arif Sarwat, *Associate Professor*
Atoussa Tehrani, *Instructor*
Selcuk Uluagac, *Assistant Professor*
Frank Urban, *Associate Professor*
Yuri Vlasov, *Lecturer*
John Volakis, *Dean, College of Engineering and Computing & Professor*
Herman Watson, *Lecturer and Undergraduate Program Director*
Subbarao Wunnava, *Professor Emeritus Distinguished*
Kang Yen, *Professor,Graduate Program Director, and Director of International Program Development*

Bachelor of Science in Electrical Engineering

Program Educational Objectives

The Electrical Engineering Educational Objectives are:

1. That our graduates are employed and have career advancement as electrical engineers, or in another profession using their electrical engineering skills,
2. That our graduates stay current in their field of expertise,
3. That our graduates attain supervisory/leadership positions in their respective organizations.

Program Educational Outcomes

a) an ability to apply knowledge of mathematics, science, and engineering
b) an ability to design and conduct experiments, as well as to analyze and interpret data
c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political ethical, health and safety, manufacturability, and sustainability
d) an ability to function on multi-disciplinary teams
e) an ability to identify, formulate, and solve engineering problems
f) an understanding of professional and ethical responsibility
g) an ability to communicate effectively
h) the broad education necessary to understand the impact of engineering solution in a global, economic, environmental, and societal context
i) a recognition of the need for and an ability to engage in life-long learning
j) a knowledge of contemporary issues
k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
l) an ability to apply probability and statistics, including applications to electrical engineering program

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX045C or CHSX440/X440L
MAC 2281	MACX311 or MACX281
MAC 2282	MACX312 or MACX282
MAC 2283	MACX313 or MACX283
MAP 2302	MAPX302 or MAPX305
PHY 2048	PHYX048/X048L[2] or PHYX048C or PHYX041/PHYX048L PHYX043/PHYX048L or
PHY 2049, PHY 2049L	PHYX049/PHYX049L or PHYX049C or PHYX042/PHYX049L or PHYX044/PHYX049L

[1]or CHSX440 if 4 credit hours with included laboratory
[2]PHY2048L is not required at FIU

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

CHM 1045	General Chemistry
CHM 1045L	General Chemistry Lab I
MAC 2281	Calculus I for Engineering
MAC 2282	Calculus II for Engineering
MAC 2283	Calculus III for Engineering
MAP 2302	Differential Equations
PHY 2048	Physics with Calculus I
PHY 2049	Physics with Calculus II

PHY 2049L	General Physics Lab II

Additional lower division courses required:

EEL 2880	Applied Software Techniques in Engineering

Degree Program Hours: 128

Students applying to Electrical Engineering should have good communication skills in English (verbal and written) and exhibit logical thinking, creativity, imagination, and persistence. They should have proven academic background in mathematics, chemistry, and physics. First time in college at FIU and eligible to enroll in Calculus I can declare Electrical Engineering as a major. All others will be admitted to Electrical Engineering after successfully registering for Calculus II. Missing courses may be taken at FIU, with advisor approval.

At the undergraduate level, the basic required program of instruction in fundamental theory and laboratory practice is balanced by a broad range of electives in such fields as bio-engineering, communication systems, control systems, energy and power. Students, with the counsel and guidance of faculty advisers, design their electives program around their own special interest and career objectives. Students are allowed to take ECE electives when they complete University core and start taking degree core. Students must choose elective classes from approved concentration list. Students may choose any class from any concentration as long as they fulfill the prerequisite(s) and corequisite(s). Students are required to choose at least two concentrations, at least nine credits from each of these two concentrations.

Any course 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”. The student will not be eligible for a refund.

Students must earn a minimum grade of “C“ and a minimum GPA of 2.0 in all EEE, EEL, and elective courses required for graduation.

Students, who have been dismissed for the first time from the University due to low grades, may appeal to the department for reinstatement. A second dismissal results in no possibility of reinstatement.

Students are required to take “SPC 2608 Public Speaking (for Engineers)”. Students who have taken Public Speaking (or equivalent) at a Community College/University and have satisfied the UCC through courses other than Public Speaking may use the course toward concentration elective credits required for the program.

Lower Division Preparation

Lower division requirements include at least 50 credit hours of pre-engineering courses (see the Undergraduate Studies portion of this catalog for specific requirements). These courses include common prerequisite courses, 2 semesters of English composition and 2 other Gordon rule writing courses. A minimum grade of “C” is required in all writing courses, all calculus courses, differential equations, both physics classes, and chemistry. In addition, both transfer students and FIU freshman must take a combination of social sciences and humanities that fulfill the FIU University Core Curriculum requirements and those topics also complement the goals and objectives of the College of Engineering and Computing (including economic, environmental, political, and/or social issues. See semester-by-semester sample program for courses that fulfill this requirement). Students who have not satisfactorily met the social science/humanities requirements will be required to take additional (advanced) humanities/social science course(s).

In addition, students may transfer a pre-approved engineering Statics course if it meets the proper prerequisites for the course (speak to an FIU engineering advisor to see if your community college offers an acceptable statics course). Students must make up any missing prerequisites before they will be allowed to begin taking certain engineering courses (see the course listing on the following page for the complete list of required courses. Required pre/corequisites are listed in the section on Course Descriptions).

University Core (Total: 50 Credits)

Any student entering Florida International University as a first-time college student (Summer 2003 or after) or transferring in without an Associates in Arts (AA) degree from a Florida public institution (Fall 2003 or after) is required to fulfill the University Core Curriculum requirements.

SLS 1501	First Year Experience	1
(Communications)		
ENC 1101	Writing and Rhetoric I	3
ENC 1102	Writing and Rhetoric II	3
(Humanities)		
Humanities Group 1		3*
Humanities Group 2		3*
(Mathematics)		
MAC 2281	Calculus I for Engineering	4
MAC 2282	Calculus II for Engineering	4
MAC 2283	Calculus III for Engineering	4
MAP 2302	Differential Equations	3
Social Science Group 1		3*
Social Science Group 2		3*
(Natural Sciences)		
Natural Science Group 1		
CHM 1045	General Chemistry I	3
	Or	
BSC 2010	General Biology	3
CHM 1045L	General Chemistry I Lab	1
	Or	
BSC 2010L	General Biology Lab	1
PHY 2048	Physics with Calculus I	4
Natural Science Group 2		
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1
(Arts)		
SPC 2608	Public Speaking	3

*Please check all approved courses from Academic Advising Center: **http://undergrad.fiu.edu/advising/curriculum.html**.

Other Requirements

Students must meet the University Foreign Language Requirement, must have a minimum 2.0 GPA, must complete all required classes, and must otherwise meet all of the state and university requirements in order to graduate. Students who enter the university with fewer than 60 transferred credits must take 9 summer credits. Also see the Undergraduate Studies portion of this catalog for additional information.

Electrical Engineering students must take:

Engineering Breadth and Elective (Total: 8 Credits)

EGN 1002	Engineering Orientation	2
EIN 3235	Evaluation of Engineering Data I	3
EGN 3613	Engineering Economy	3

ECE Core (Total: 21 credits)

EEL 2880	Applied Software Techniques in Engineering	3
EEL 3110	Circuits Analysis	3
EEL 3110L	Circuits Lab	1
EEL 3120	Introduction to Linear Systems in Engineering	3
EEL 3135	Signals and Systems	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1
EEL 4920	Senior Design I: Ethics, Communications and Constraints – *GL*	2**
EEL 4921C	Senior Design II: Project Implementation – *GL*	2**

**EEL 4920 and EEL 4921C are intended to be taken in last 2 semesters of undergraduate experience. Students are required to complete at least 100 credits, other ECE core courses, and Electrical Engineering Degree Core before EEL 4920 registration.

Electrical Engineering Degree Core (Total: 7 credits)

EEE 3303	Electronics I	3
EEE 3303L	Electronics I Lab	1
EEL 4410	Introduction to Fields and Waves	3

Electrical Engineering Electives (Total: 42 credits)
(Selected from Areas of Concentration offered by ECE Department)

Plan of Study

Electrical Engineering Program Freshman to Senior

First Semester: (18)

CHM 1045	General Chemistry I	3
	Or	
BSC 2010	General Biology	3
CHM 1045L	General Chemistry I Lab	1
	Or	
BSC 2010L	General Biology Lab	1
ENC 1101	Writing and Rhetoric I	3
SLS 1501	First Year Experience	1
MAC 2281	Calculus I for Engineering	4
(Social Science Group 1)		
ECO 2013	Principles of Macroeconomics	3
	or	
AMH 2020	American History Introductory Survey Since 1877 – *GRW/GL*	3
	or	
PSY 2012	Introductory Psychology	3
	or	
ANT 2000	Introduction to Anthropology – *GL*	3
	or	
POS 2041	American Government	3
	or	
SYG 2010	Social Problems – *GL*	3
(Arts)		
SPC 2608	Public Speaking	3

Second Semester: (16)

EGN 1002	Engineering Orientation	2
ENC 1102	Writing and Rhetoric II	3
PHY 2048	Physics with Calculus I	4
MAC 2282	Calculus II for Engineering	4
(Social Science Group 2)		
EGN 1033	Technology, Humans, and Society – *GL*	3

Third Semester: (15)

PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1
MAC 2283	Calculus III for Engineering	4
EEL 2880	Applied Software Techniques in Engineering	3
Humanities Group 1		3**

Fourth Semester: (17)

MAP 2302	Differential Equations	3
EEL 3110	Circuits Analysis	3
EEL 3110L	Circuits Lab	1
EEL 3120	Introduction to Linear Systems in Engineering	3
EIN 3235	Evaluation of Engineering Data I	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1

Fifth Semester: (16)

EEL 3135	Signals and Systems	3
EEE 3303	Electronics I	3
EEE 3303L	Electronics I Lab	1
EGN 3613	Engineering Economy	3
EEL 4410	Introduction to Fields and Waves	3
Humanities Group 2		3**

Sixth Semester: (18)

ECE Electives		18

Seventh Semester: (14)

EEL 4920	Senior Design I: Ethics, Communications and Constraints – *GL*	2
ECE Electives		12

Eighth Semester: (14)

EEL 4921C	Senior Design II: Project Implementation – *GL*	2
ECE Electives		12

**At least 9 credit hours must be taken in one or more summers.

Bachelor of Science in Internet of Things

Program Educational Outcomes:

IoT students should demonstrate that they have knowledge when evaluated under the following outcomes:

a) Demonstrate practical hands-on expertise in selection, installation, customizing and maintenance of the state-of-the-art IoT devices and networks;
b) Demonstrate general understanding of at least one field where IoT plays a central role;
c) Demonstrate ability to utilize and understand contemporary IoT applications and protocols common-place to the industry;
d) Demonstrate ability to effectively communicate ideas in oral, written, and graphical form;
e) Demonstrate ability to, and experience in, collaboratively working with teams and small group settings;
f) Explain the legal and ethical implications of their work and an awareness of the impact of their

actions and decision-making on individuals, society, and the environment.

Degree Program Hours: 120

Required Courses from the FIU Core (the rest can be any from the list) Total: 50 credits

MAC 1105	College Algebra	3
CGS 2518	Data Analysis	3
COP 2250	Programming in Java	3
CHM 1045	General Chemistry I	3
PHY 2053	Physics without Calculus	4
EGN 1033	Technology, Human and Society	3
IDS 3315	Gaining Global Perspectives	3

IoT Core Courses (40 credits):

TCN 2720	Introduction to IoT	2
CTS 1120	Fundamentals of Cybersecurity	3
EGN 2271	Introduction to Circuits & Electronic Hardware	3
CDA 3104	Introduction to Computer Design	3
CNT 3142	Microcontrollers for IoT Devices	3
CNT 3162	Wireless Communications for IoT	3
EEL 2880	Applied Software Techniques in Engineering	3
EEL 4730	Programming Embedded Systems	3
EEL 4734	Embedded Operating Systems	3
TCN 4211	Telecommunications Networks	3
EEE 4717	Introduction to Security of Internet of Things	3
CGS 3767	Computer Operating Systems	3
CEN 3721	Introduction to Human Computer Interaction	3

Electives (30 credits)

Elective Courses from ECE (at least 9 credits):
Existing Courses:
1. TCN 4081 Telecommunication Network Security (3) (*Prereq: TCN 4211*)
New Courses:
2. IoT Privacy (3) (Prereq: EEL 2880)
3. Network Protocols for IoT (3) (*Prereq: TCN 4211*)
4. IoT Forensics (3) (*Prereq: Embedded Programming for IoT*)

Elective Courses from Other Departments in CEC (Up to 9 credits): As long as the prerequisites are met, up to 9 credits can be taken from other engineering departments.

Elective Courses from other Colleges (12 credits): As long as the prerequisites are met, 12 credits can be taken from other Colleges. Out of 12, up to 6 credits are acceptable/transferrable from other FL universities online programs.

First Semester: (16)

ENC 1101	Writing and Rhetoric I	3
SLS 1501	First Year Experience	1
	Humanities from Group 1	3
MAC 1105	College Algebra (Mathematics from Group 1)	3
Social Science from Group 1		3
CGS 2518	Data Analysis (Mathematics from Group 2)	3

Second Semester: (18)

ENC 1102	Writing and Rhetoric II	3
EGN 1033	Technology, Human and Society (Humanities from Group 2)	3
IDS 3315	Gaining Global Perspectives (Social Science from Group 2)	3
Social Science from Group 2		3
CHM 1045	General Chemistry I (Natural Science from Group 1)	3
Humanities from Group 2		3

Third Semester: (16)

PHY 2053	Physics without Calculus I (Natural Science from Group 1)	4
Arts from approved list		3
	Natural Science from Group 2	3
COP 2250	Programming in Java (Mathematics from Group 2)	3
Humanities from Group 2		3

Fourth Semester: (12)

EEL 2880	Applied Software Techniques in Engineering	3
EGN 2271	Introduction to Circuits & Electronic Hardware	3
CGS 3767	Computer Operating Systems	3
CEN 3721	Introduction to Human Computer Interaction	3

Fifth Semester: (15)

CDA 3104	Introduction to Computer Design	3
CNT 3142	Microcontrollers for IoT Devices	3
EEL 4730	Programming Embedded Systems	3
	Elective **	3
	Elective **	3

Sixth Semester: (12)

EEL 4734	Embedded Operating Systems	3
CNT 3122	Sensors for IoT	3
CNT 3162	Wireless Communications for IoT	3
	Elective **	3

Seventh Semester: (15)

TCN 4211	Telecommunications Networks	3
EEE 4717	Introduction to Security of Internet of Things	3
	Elective **	3
	Elective **	3
	Elective **	3

Eighth Semester: (15)

TCN 4940	Senior Project	3
	Elective **	3
	Elective **	3
	Elective **	3
	Elective **	3

** Electives can be picked from the Electives list above. Any exception to the program require departments approval.

Combined BS/MS in Electrical Engineering

This five-year program seamlessly combines a baccalaureate degree in Electrical Engineering with the Master's in Electrical Engineering. To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75 but not more than 90 of the credits required for the bachelor's degree program at FIU, have earned at least a 3.2 GPA on both overall and upper division courses, and meet the admissions criteria for the graduate degree program to

which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Students enrolled in the program may count up to 9 hours of graduate level courses (i.e., 5000 level or higher) as credits for both the undergraduate and graduate degree programs. For each of the courses counted as credits for both BS and MS degree, a minimum grade of 'B' is required. Upon completion of the combined BS/MS program, students must have accumulated a minimum of 24 hours of credits at the graduate (5000+) level. Students enrolled in the program are encouraged to seek employment with a department faculty member to work as a student assistant on a sponsored research project.

Combined BS in Electrical Engineering/MS in Biomedical Engineering

This five-year program seamlessly combines a baccalaureate degree in electrical engineering with the Master's in biomedical engineering. To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75 but not more than 90 of the credits required for the bachelor's degree program at FIU, have earned at least a 3.2 GPA on both overall and upper division courses, and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Students enrolled in the program may count up to 9 hours of graduate level courses (i.e., 5000 level or higher) as credits for both the undergraduate and graduate degree programs. For each of the courses counted as credits for both BS and MS degree, a minimum grade of 'B' is required. Upon completion of the combined BS/MS program, students must have accumulated a minimum of 24 hours of credits at the graduate (5000+) level. Students enrolled in the program are encouraged to seek employment with a department faculty member to work as student assistants on sponsored research projects.

Combined BS in Electrical Engineering/ MS in Engineering Management (BSEE/MSEM)

This five-year program seamlessly combines a baccalaureate degree in Electrical Engineering with the Master's in Engineering Management. To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75 but not more than 90 of the credits required for the bachelor's degree program at FIU, have earned at least a 3.2 GPA on both overall and upper division courses, and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Students enrolled in the program may count up to 9 hours of graduate level courses (i.e., 5000 level or higher) as credits for both the undergraduate and graduate degree programs. For each of the courses counted as credits for both BS and MS degree, a minimum grade of 'B' is required. Upon completion of the combined BS/MS program, students must have accumulated a minimum of 24 hours of credits at the graduate (5000+) level. Students enrolled in the program are encouraged to seek employment with a department faculty member to work as a student assistant on a sponsored research project.

Combined BS in Electrical Engineering/MS in Telecommunications and Networking

This five-year program seamlessly combines a baccalaureate degree in Electrical Engineering with the Master's in Telecommunications and Networking. To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75 but not more than 90 of the credits required for the bachelor's degree program at FIU, have earned at least a 3.2 GPA on both overall and upper division courses, and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program.
A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Students enrolled in the program may count up to 9 hours of graduate level courses (i.e., 5000 level or higher) as credits for both the undergraduate and graduate degree programs. For each of the courses counted as credits for both BS and MS degree, a minimum grade of 'B' is required. Upon completion of the combined BS/MS program, students must have accumulated a minimum of 24 hours of credits at the graduate (5000+) level. Students enrolled in the program are encouraged to seek employment with a department faculty member to work as a student assistant on a sponsored research project.

Bachelor of Science in Computer Engineering

Program Educational Objectives

The Computer Engineering Educational Objectives are:

1. That our graduates are employed and have career advancement as computer engineers, or in another profession using their computer engineering skills,
2. That our graduates stay current in their field of expertise,
3. That our graduates attain supervisory/leadership positions in their respective organizations.

Program Educational Outcomes

a) an ability to apply knowledge of mathematics, science, and engineering
b) an ability to design and conduct experiments, as well as to analyze and interpret data
c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political ethical, health and safety, manufacturability, and sustainability
d) an ability to function on multi-disciplinary teams
e) an ability to identify, formulate, and solve engineering problems
f) an understanding of professional and ethical responsibility
g) an ability to communicate effectively
h) the broad education necessary to understand the impact of engineering solution in a global, economic, environmental, and societal context
i) a recognition of the need for and an ability to engage in life-long learning
j) a knowledge of contemporary issues
k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
l) an ability to apply probability and statistics, including applications to computer engineering program

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX045C or CHSX440
MAC 2281	MACX311 or X281, or X282, X283
MAC 2282	MACX312 or X281, or X282, or X283
MAC 2283	MACX313, or X281, or X282, or X283
MAP 2302	MAPX302
PHY 2048*	PHYX048/X048L or PHYX048C
PHY 2049, PHY 2049L	PHYX049/X049L or PHYX049C

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://flvc.org**. Search Program Listing by Alphabetic Order.

Common Prerequisites**

CHM 1045	General Chemistry I
CHM 1045L	General Chemistry Lab I
MAC 2281	Calculus I for Engineering
MAC 2282	Calculus II for Engineering
MAC 2283	Calculus III for Engineering
MAP 2302	Differential Equations
PHY 2048	Physics with Calculus I
PHY 2049	Physics with Calculus II
PHY 2049L	General Physics Lab II

Additional lower division courses required:

EEL 2880	Applied Software Techniques in Engineering
MAD 2104	Discrete Mathematics[3]
	or
COT 3100	Discrete Structures

***PHY 2048L is not a requirement for this program.*
[3]Or equivalent fulfilling Discrete Mathematics requirements

Degree Program Hours: 128

Students applying to Computer Engineering should have good communication skills in English (verbal and written) and exhibit logical thinking, creativity, imagination, and persistence. They should have proven academic background in mathematics, chemistry, and physics. First time in college at FIU and eligible to enroll in Calculus I can declare Computer Engineering as a major. All others will be admitted to Computer Engineering after successfully registering for Calculus II. Missing courses may be taken at FIU, with advisor approval.

At the undergraduate level, the basic required program of instruction in fundamental theory and laboratory practice is balanced by a broad range of electives in such fields as bio-engineering, communication systems, control systems, energy and power. Students, with the counsel and guidance of faculty advisers, design their electives program around their own special interest and career objectives. Students are allowed to take ECE electives when they complete University core and start taking degree core. Students must choose elective classes from approved concentration list. Students may choose any class from any concentration as long as they fulfill the prerequisite(s) and corequisite(s). Students are required to choose at least two concentrations, at least nine credits from each of these two concentrations.

Any course taken without the required prerequisites and corequisites will be automatically dropped before the end of the term, resulting in a grade of “DR” or “DF”. The student will not be eligible for a refund.

Students must earn a minimum grade of “C“ and a minimum GPA of 2.0 in all EEE, EEL, and elective courses required for graduation.

Students, who have been dismissed for the first time from the University due to low grades, may appeal to the department for reinstatement. A second dismissal results in no possibility of reinstatement.

Students are required to take “SPC 2608 Public Speaking (for Engineers)”. Students who have taken Public Speaking (or equivalent) at a Community College/University and have satisfied the UCC through courses other than Public Speaking may use the course toward concentration elective credits required for the program.

Sections titled "Other Requirements" and "Lower Division Preparation" in the Electrical Engineering section is also requirements for the Computer Engineering students.

University Core (Total: 50 Credits)

Any student entering Florida International University as a first-time college student (Summer 2003 or after) or transferring in without an Associates in Arts (AA) degree from a Florida public institution (Fall 2003 or after) is required to fulfill the University Core Curriculum requirements.

SLS 1501	First Year Experience	1
(Communications)		
ENC 1101	Writing and Rhetoric I	3
ENC 1102	Writing and Rhetoric II	3
(Humanities)		
Humanities Group 1		3*
Humanities Group 2		3*
(Mathematics)		
MAC 2281	Calculus I for Engineering	4
MAC 2282	Calculus II for Engineering	4
MAC 2283	Calculus III for Engineering	4
MAP 2302	Differential Equations	3
(Social Sciences)		
Social Science Group 1		3*
Social Science Group 2		3*
(Natural Sciences)		
Natural Science Group 1		
CHM 1045	General Chemistry I	3
	Or	
BSC 2010	General Biology I	3
CHM 1045L	General Chemistry I Lab	1
	Or	
BSC 2010L	General Biology I Lab	1
PHY 2048	Physics with Calculus I	4
Natural Science Group 2		
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1
(Arts)		
SPC 2608	Public Speaking	3

*Please check all approved courses from Academic Advising Center: **http://undergrad.fiu.edu/advising/curriculum.html**.

Computer Engineering students must take:

Engineering Breadth and Elective (Total: 8 Credits)

EGN 1002	Engineering Orientation	2
EIN 3235	Evaluation of Engineering Data I	3
EGN 3613	Engineering Economy	3

ECE Core (Total: 21 credits)

EEL 2880	Applied Software Techniques in Engineering	3
EEL 3110	Circuits Analysis	3
EEL 3110L	Circuits Lab	1
EEL 3120	Introduction to Linear Systems in Engineering	3
EEL 3135	Signals and Systems	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1
EEL 4920	Senior Design I: Ethics, Communications and Constraints – *GL*	2**
EEL 4921C	Senior Design II: Project Implementation – *GL*	2**

**EEL 4920 and EEL 4921C are intended to be taken in last 2 semesters of undergraduate experience. Students are required to complete at least 100 credits, other ECE core courses, and Electrical Engineering Degree Core before EEL 4920 registration.

Computer Engineering Degree Core (Total: 15 credits)

EEL 3160	Computer Applications in Electrical Engineering	3
EEL 4709C	Computer Design	3
EEL 4730	Programming Embedded Systems	3
EEL 4740	Embedded Computing Systems	3
MAD 2104	Discrete Mathematics	3
	or	
COT 3100	Discrete Structures	3

Computer Engineering Electives (Total: 34 credits)

(Selected from Areas of Concentration offered by ECE Department)

Plan of Study

Computer Engineering Program Freshman to Senior

First Semester: (18)

CHM 1045	General Chemistry I	3
	Or	
BSC 2010	General Biology I	3
CHM 1045L	General Chemistry Lab I	1
	Or	
BSC 2010L	General Biology I Lab	1
ENC 1101	Writing and Rhetoric I	3
SLS 1501	First Year Experience	1
MAC 2281	Calculus I for Engineering	4
(Social Science Group 1)		
ECO 2013	Principles of Macroeconomics	3
	or	
AMH 2020	American History Introductory Survey Since 1877 – *GRW/GL*	3
	or	
PSY 2012	Introductory Psychology	3
	or	
ANT 2000	Introduction to Anthropology – *GL*	3
	or	
POS 2041	American Government	3
	or	
SYG 2010	Social Problems – *GL*	3
(Arts)		
SPC 2608	Public Speaking	3

Second Semester: (16)

EGN 1002	Engineering Orientation	2
ENC 1102	Writing and Rhetoric II	3
PHY 2048	Physics with Calculus I	4
MAC 2282	Calculus II for Engineering	4
(Social Science Group 2)		
EGN 1033	Technology, Humans, and Society – *GL*	3

Third Semester: (18)

PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1
MAC 2283	Calculus III for Engineering	4
EEL 2880	Applied Software Techniques in Engineering	3
MAD 2104	Discrete Mathematics	3
	or	
COT 3100	Discrete Structures	3
Humanities Group 1		3**

Fourth Semester: (17)

MAP 2302	Differential Equations	3
EEL 3110	Circuits Analysis	3
EEL 3110L	Circuits Lab	1
EEL 3120	Introduction to Linear Systems in Engineering	3
EIN 3235	Evaluation of Engineering Data I	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1

Fifth Semester: (18)

EEL 3135	Signals and Systems	3
EEL 3160	Computer Applications in Electrical Engineering	3
EGN 3613	Engineering Economy	3
EEL 4709C	Computer Design	3
EEL 4730	Programming Embedded Systems	3
Humanities Group 2		3**

Sixth Semester: (13)

EEL 4740	Embedded Computing Systems	3
ECE Electives		10

Seventh Semester: (14)

EEL 4920	Senior Design I: Ethics, Communications, and Constraints – *GL*	2
ECE Electives		12

Eighth Semester: (14)

EEL 4921C	Senior Design II: Project Implementation – *GL*	2
ECE Electives		12

**At least 9 credit hours must be taken in one or more summers.

Any exception to the program require departments approval.

Combined BS/MS in Computer Engineering

This five-year program seamlessly combines a baccalaureate degree in Computer Engineering with the Master's in Computer Engineering. To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75 but not more than 90 of the credits required for the bachelor's degree program at FIU, have earned at least a 3.2 GPA on both overall and upper division courses, and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Students enrolled in the program may count up to 9 hours of graduate level courses (i.e., 5000 level or higher) as credits for both the undergraduate and graduate degree programs. For each of the courses counted as credits for both BS and MS degree, a minimum grade of 'B' is required. Upon completion of the combined BS/MS program, students must have accumulated a minimum of 24 hours of credits at the graduate (5000+) level. Students enrolled in the program are encouraged to seek employment with a department faculty member to work as a student assistant on a sponsored research project.

Combined BS in Computer Engineering/MS in Engineering Management (BSCpE/MSEM)

This five-year program seamlessly combines a baccalaureate degree in Computer Engineering with the Master's in Engineering Management. To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75 but not more than 90 of the credits required for the bachelor's degree program at FIU, have earned at least a 3.2 GPA on both overall and upper division courses, and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Students enrolled in the program may count up to 9 hours of graduate level courses (i.e., 5000 level or higher) as credits for both the undergraduate and graduate degree programs. For each of the courses counted as credits for both BS and MS degree, a minimum grade of 'B' is required. Upon completion of the combined BS/MS program, students must have accumulated a minimum of 24 hours of credits at the graduate (5000+) level. Students enrolled in the program are encouraged to seek employment with a department faculty member to work as a student assistant on a sponsored research project.

Areas of Concentration offered by ECE Department:

(Applied to all Department degree programs)

Electrical Engineering and Computer Engineering students must choose elective classes from area of concentration from the following list and take the corresponding courses as their Electives. Students may choose any class from any concentration as long as they fulfill the prerequisite(s) and corequisite(s). Students must choose at least two concentrations, at least nine credits from at each of these two concentrations.

Bio-Engineering:

EEE 3303	Electronics I	3
EEE 3303L	Electronics I Laboratory	1
EEL 4140	Filter Design	3
BME 4503C	Medical Instrumentation: Application and Design	4
EEE 4510	Introduction to Digital Signal Processing	3
EEE 4421C	Introduction to Nanofabrication	3

Communications:

EEL 3514	Communication Systems	3
EEL 3514L	Communication Systems Lab	1
EEL 4421	Introduction to RF Circuit Design	3
EEL 4461C	Antennas	3

EEE 4510	Introduction to Digital Signal Processing	3
EEL 4515	Advanced Communication Systems	3
EEL 4595C	Introduction to Wireless Digital Communications with USRP Applications	4

Autonomous Systems and Control:

EEL 3657	Control Systems	3
EEL 3664	Introduction to Autonomous Systems	3
EEL 4611	Control Systems II	3
EEL 4611L	Systems Laboratory	1
EEL 4658	Industrial Control Systems	3
EEL 4664	Sensors, Perception, and Robotic Manipulation	3

Integrated Nano-technology:

EEE 3303	Electronics I	3
EEE 3303L	Electronics I Laboratory	1
EEE 3396	Introduction to Solid State Devices	3
EEL 4304	Electronics II	3
EEL 4304L	Electronics II Lab	1
EEE 4314	Integrated Circuits and Systems	3
EEE 4314L	Integrated Circuits Laboratory	1
EEE 4421C	Introduction to Nanofabrication	3

Power/Energy:

EEL 4213	Power Systems I	3
EEL 4213L	Energy Conversion Lab	1
EEL 4214	Power Systems II	3
EEL 4215	Power Systems III	3
EEL 4241	Power Electronics	3
EEL 5285C	Sustainable and Renewable Energy Source and Their Utilization	3

Computer Architecture and Microprocessor Design:

EEE 4343	Introduction to Digital Electronics	3
EEL 4709C	Computer Design	3
EEL 4746	Microcomputers I	3
EEL 4746L	Microcomputers I Lab	1
EEL 4747	Reduced Instruction Set Computing Processors	3
EEL 4747L	Microcomputers II (RISC) Lab	1

Data System Software (CS Oriented):

MAD 2104	Discrete Mathematics	3
COP 2210	Programming I	4
COP 3337	Computer Programming II	3
COP 3530	Data Structures	3
COP 4338	Programming III	3
COP 4610	Operating Systems Principles	3
COP 4655	Mobile Application Development	3

Embedded System Software:

EEL 3160	Computer Applications in Electrical Engineering	3
EEL 4730	Programming Embedded Systems	3
EEL 4734	Embedded Operating Systems	3
EEL 4740	Embedded Computing Systems	3
EEL 4831	Embedded GUI Programming	3

Networking and Security:

TCN 4081	Telecommunication Network Security	3
TCN 4211	Telecommunication Networks	3
TCN 4212	Telecommunication Network Analysis and Design	3
TCN 4431	Principles of Network Management and Control Standards	3
EEL 4xxx	Data Computer Communications	3
EEL 4717	Introduction to Security of Internet of Things and Cyber-Physical Systems	3

Cyber Security:

EEL 4806	Ethical Hacking and Countermeasures	3
EEL 4802	Introduction to Digital Forensics Engineering	3
EEL 4804	Introduction Malware Reverse Engineering	3

Digital Forensics:

EEL 4806	Ethical Hacking and Countermeasures	3
EEL 4802	Introduction to Digital Forensics Engineering	3
EEE 4754	Introduction to Mobile Forensics	3
EEE 4750	Introduction to Image and Video Forensics	3
EEE 4752	Introduction to Network Forensics and Incident Response	3

Internet of Things:

TCN 4211	Telecommunication Networks	3
EEE 4510	Introduction to Digital Signal Processing	3
COP 4610	Operating Systems Principles	3
COP 4655	Mobile Application Development	3
EEE 4717	Introduction to Security of Internet of Things	3
EEL 4740	Embedded Computing Systems	3
TCN 4271	Ubiquitous and Embedded Sensor Network-Centric Telecommunications	3

Entrepreneurship:

EEL 4933	Engineering Entrepreneurship	3
EEL 4151	Engineering Business Plan Development	3
EEL 4351	Economic Decision-making in Engineering	3

Artificial Intelligence and Big Data

CNT 4147	IoT & Sensor Big Data Analytics	3
CNT 4151	IoT & Sensor Data Visualization	3
CNT 4155	IoT & Sensor Programming with Python	3
CNT 3153	IoT & Analytics with Cloud Services	3
CNT 4153	IoT Applied Machine Learning	3
CNT 4149	Sensor & IoT Data Analysis with Deep Learning	3
CNT 4145	Sensor IoT Analytics	3

Pre-Medical Concentration for B.S. in Electrical and Computer Engineering

The B.S. in Electrical or Computer Engineering Pre-Med Concentration is designed for motivated students who have dual interests in engineering and medical careers.

Student are required to complete all the courses in this concentration plus the core requirements for a B.S. degree in Electrical or Computer Engineering and other ECE engineering concentration credits.

Biology

BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1
BSC 2011	General Biology II	3
BSC 2011L	General Biology Lab II	1

General Chemistry

CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1

Organic Chemistry

CHM 2210	Organic Chemistry I	4
CHM 2210L	Organic Chemistry Lab I	1

CHM 2211	Organic Chemistry II	3
CHM 2211L	Organic Chemistry Lab II	1

Pre-Medical Student Must Take

BCH 3033	General Biochemistry	3
	or	
CHM 4304	Biological Chemistry I	3

Physics Concentration for B.S. in Electrical or Computer Engineering

The B.S. in Electrical or Computer Engineering Physics Concentration is designed for motivated students who have dual interests in engineering and physics.

PHY 1033	Physics Pathways	1
PHY 3106	Modern Physics	3
PHY 3802L	Intermediate Physics Lab	3
PHY 3513	Thermodynamics	3
PHY 4221	Introduction to Classical Mechanics	4
PHY 4323	Intermediate Electromagnetism I	3
PHY 4604	Quantum Mechanics I	3
PHY 4821L	Advanced Physics Lab	3

Within Arts, Sciences and Education, any undergraduate student who elects to do so may carry two majors and work to fulfill the requirements of both concurrently. Upon successfully completion of the requirements of two majors, the student will be awarded one degree and a notation denoting both majors will be entered on the transcript.

Student are required to complete all the courses in this concentration plus the core requirements for a B.S. degree in Electrical or Computer Engineering and other ECE engineering concentration credits.

Course Descriptions

Definition of Prefixes

CDA - Computer Design/Architecture; CTS-Computer Technology and Skills; EGN - Engineering: General; EEE - Engineering: Electrical and Electronics; EEL - Engineering: Electrical; TCN – Telecommunications/Networks

Courses that meet the University's Global Learning requirement are identified as GL.

CDA 3104 Introduction to Computer Design (3). Computer architecture and design, CPU, memory systems, caches, data, input/output devices, bus architecture, and computer control. Processor types, instruction set and assembly language programming. Prerequisite: EGN 2271

CDA 4400 Computer Hardware Analysis (3). The study of hardware functions of a basic computer. Topics include logic elements, arithmetic logic units, control units, memory devices, organization, and I/O devices (for non-EE majors only). Prerequisites: CDA 4101 and MAD 2104.

CNT 3122 Sensors for Internet of Things (3). This course introduces sensors and sensor design for IoT devices. Topics include history of IoT-enabled sensors, design and fabrication of smart sensors, theory and case studies of important smart sen. Prerequisite: EGN 2271

CNT 3142 Microcontrollers for Internet of Things (3). Overview of embedded systems and microcontrollers with a comprehensive in-depth look at the MSP43Q. Students will learn about this powerful mixed-signal, low power consumption microcontroller. Prerequisite: EGN 2271.

CNT 3143 IoT Analytics with Cloud Services (3). This course will focus on IoT Hub, IoT edge and the how the sensor data is collected, stored and processed on the cloud. Prerequisite: CNT 4145

CNT 3162 Wireless Communications for IoT (3). This course will cover source coding for data compression, channel coding for error correction, digital transmission and reception, wireless channels, and the narrow-band IoT communication system.

CNT 4145 Sensor IoT Analytics (3). This course examines the ingestion, storage, analysis and reporting of massive quantities of IoT data collected from distributed devices for processing using IoT cloud and edge computing. Prerequisite: EEL 4730

CNT 4147 IoT & Sensor Big Data Analytics (3). This course examines the ingestion, storage, analysis and reporting of massive quantities of IoT/sensor data collected from distributed data sources and processing with big data technologies. Prerequisite: EEL 4730

CNT 4149 Sensor & IoT Data Analysis with Deep Learning (3). This course will focus on the application of deep learning techniques and algorithms on structured and unstructured data received from sensors and IoT devices. Prerequisites: CNT 4145, CNT 4153

CNT 4151 IoT & Sensor Data Visualization (3). This course will focus on visualization framework and libraries to get insight from sensor and IoT Data. Student will learn about various visualization techniques available on premise and cloud. Prerequisite: CNT 4145

CNT 4153 IoT Applied Machine Learning (3). This course will focus on the application of traditional machine learning algorithms and popular framework to large sensor and IoT data sets. Prerequisite: CNT 4145

CNT 4155 IoT & Sensor Programming with Python (3). This course will introduce students to the Python programming language as it applies to its interaction to sensor and IoT devices. Prerequisite: EEL 2880

CNT 4165 Network Protocols for Internet of Things (3). This course introduces the underlying network protocols for IoT communications. Protocols at the medium access and network layers are discussed. Prerequisite: TCN 4211.

CNT 4185 Internet of Things Privacy (3). Introduces the privacy issues related to IoT technologies. Focuses on privacy preserving technologies regarding IoT user data, access to such data and privacy law around such personal data. Prerequisite: EEE 4717.

CNT 4188 Internet of Things Forensics (3). This course examines the existing Digital Forensics models and methodologies for their applicability within the IoT domain. Various tools and techniques will provide access within these devices. Prerequisite: EEL 4730.

CTS 1120 Fundamentals of Cybersecurity (3). Don't get hacked, be safe, and protect your digital footprint. Actions taken can have a lasting impact in your personal, financial and professional life. Recognize and prevent threats.

EGN 1002 Engineering Orientation (2). Introduction to aspects of the engineering profession. Computer tools and basic engineering science. Team-based engineering projects.

EEE 3303 Electronics I (3). Introductory course dealing with basic electronic devices such as diodes, BJTs, FETs, Op-Amps, and their circuit applications. Prerequisites: EEL 3110 and EEL 3110L. Corequisite: EEE 3303L.

EEE 3303L Electronics I Laboratory (1). Design, build and test electronic circuits that use diodes, BJTs, FETs and Op-Amps. Prerequisite: EEL 3110L. Corequisite: EEE 3303.

EEE 3394 Electrical Engineering Science I - Electronic Materials (3). The course covers fundamental science topics in electrical engineering. This course addresses material science and quantum physics concepts, thermal and electrical conductivity, and semiconductors. Prerequisite: PHY 2048 Corequisite: MAC 2312

EEE 3396 Introduction to Solid State Devices (3). Introduction to the physics of semiconductors; charge carrier statistics and charge transport in crystalline solids. Basic operations of solid state devices including p-n junction diode, the bipolar junction transistor and field effect transistors. Prerequisites: PHY 2049, EIN 3235. Corequisite: MAP 2302, EEL 3110.

EEE 4202C Medical Instrumentation Design (4). Concepts of transducers and instrumentation systems; origins of bio-potentials; electrical safety; therapeutic and prosthetic devices. Prerequisite: EEL 3110.

EEE 4304 Electronics II (3). Second course in electronics with emphasis on equivalent circuit representation and analysis of electronic analog circuits and systems, their frequency response and behavior under feedback control. Prerequisite: EEE 3303. Corequisite: EEL 4304L.

EEE 4304L Electronics II Laboratory (1). Design and measurement experiments of advanced electronics, including applications of integrated circuits. Prerequisite: EEE 3303L. Corequisite: EEL 4304.

EEE 4314 Integrated Circuits and Systems (3). Continuation of Electronics II with major emphasis on applications of integrated circuits and design of analog, control, communication and digital electronic systems. Prerequisite: EEL 4304. Corequisite: EEE 4314L.

EEE 4314L Integrated Circuits Laboratory (1). Laboratory experiments in integrated circuits. Includes design of filters, analog systems, A/D and D/A systems. Prerequisite: EEE 4304L. Corequisite: EEE 4314.

EEE 4343 Introduction to Digital Electronics (3). This course focuses on digital electronics. BJT as a switch, CMOS and other advanced logic-gate circuits, data converters, switched capacitor filters, semiconductor memories. Prerequisites: EEL 3712 and EEL 3712L.

EEE 4421C Introduction to Nanofabrication (3). This course will give the students an introduction to micro/nanofabrication tools and techniques. It includes lab sessions where the students design, fabricate and test selected mirco-scale devices. Prerequisites: EEE 3396 or permission of the instructor.

EEE 4510 Introduction to Digital Signal Processing (3). Modeling of DSP systems, Z transform, Algorithms for convolution, correlation functions, DFT, and FFT computation. Digital filters design, and engineering applications. Prerequisites: EEL 3135 or permission of the instructor.

EEE 4550 Introduction to Radar Systems (3). Radar equation, MTI and pulse Doppler radar, tracking radar, signal detection in noise, radar clutter, propagation of radar waves, radar antenna, radar transmitters, and radar receivers. Prerequisites: EEL 3514 or permission of the instructor.

EEE 4717 Introduction to Security of Internet of Things (3). In this class, the students will learn the introductory topics related to the security of Internet of Things (IoT) by gaining hands-on training on real IoT devices. Prerequisites: Programming coursework (e.g., COP 4XXX) or embedded systems, Intro to IoT, A.S.U or permission of the instructor.

EEE 4750 Introduction to Image and Video Forensics (3). The course covers the theoretical and practical aspects and principles of forensic image and video analysis and their application to digital forensics. Prerequisite: EEL 4802

EEE 4752 Introduction to Network Forensics and Incident Response (3). The course covers the theoretical and practical aspects of the foundations of computer network security, incident response tools and techniques. Prerequisite: EEL 4802.

EEE 4754 Introduction to Mobile Forensics (3). The course covers the theoretical and practical aspects of Mobile device forensics focusing on the identification, preservation, collection, analysis, and reporting techniques and tools. Prerequisite: EEL 4802

EEE 4775 Massive Storage and I/O for Big Data Computing (3). This course provides a broad introduction to the fundamentals of massive file storage systems and I/O architecture in big data computing and its enabling systems infrastructure. Prerequisites: EEL 4709C or permission of the instructor.

EEL 2880 Applied Software Techniques in Engineering (3). Engineering problem solving process, overview of a generalized computing system, software development, real-life engineering applications, computational implications.

EEL 3003 Electrical Engineering I (3). For non-EE majors. Basic principles of DC and AC circuit analysis, electronic devices and amplifiers, digital circuits, and power systems. Prerequisites: MAC 2312, PHY 2049. Corequisite: MAP 2302.

EEL 3110 Circuit Analysis (3). Introductory circuit analysis dealing with DC, AC, and transient electrical circuit analysis and the general excitation of circuits using the Laplace transform. Prerequisites: MAC 2312 or MAC 2282, PHY 2049, (EGN 1002 or EGS 1006). Corequisites: MAP 2302, EEL 3110L, and for EE or CpE Engineering students, EEL 2880.

EEL 3110L Circuits Lab (1). This lab introduces basic test equipment; oscilloscopes, multimeters, power supplies, function generator, etc., and uses this equipment in various experiments on resistors, capacitors, and inductors. Prerequisite: PHY 2049L. Corequisite: EEL 3110.

EEL 3112 Circuits II (3). Application of operational methods to the solution of electrical circuits. Effect of poles and zeroes on the response. Transfer function of electrical networks. Laplace and Fourier transforms; network parameters. Prerequisites: MAP 2302, EEL 3110, and EEL 3135.

EEL 3120 Introduction to Linear Systems in Engineering (3). Introductory course on linear systems, deals with the use of linear algebra to analyze resistive and dynamic electric circuits. Prerequisites: MAC 2312 or MAC 2282, PHY 2049, and EGN 1002.

EEL 3135 Signals and Systems (3). Use of Fourier analysis in electrical and electronic systems. Introduction to probability theory, linear algebra and complex variables. Prerequisites: MAP 2302, EEL 3120.

EEL 3160 Computer Applications in Electrical Engineering (3). Interactive techniques of computers to simulate and design electrical engineering circuits and systems. Prerequisites: EEL 2880 or permission of the instructor.

EEL 3472 Electrical Engineering Science II (3). The course covers fundamental science topics in electrical engineering. This course addresses electromagnetic field theory, including charge distributions, electromagnetic fields, transmission lines. Prerequisites: PHY 2048, Corequisites: MAP 2302

EEL 3514 Communication Systems (3). An introductory course in the field of analog communication systems. Transmitters, receivers, and different modulation and demodulation techniques are studied. A basic treatment of noise is also included. Prerequisites: EEL 3110, EEL 3135, EIN 3235.

EEL 3514L Communication Systems Lab (1). This is a web-accessible hardware laboratory on analog and digital communication systems. Students will perform all the experiments remotely through the internet. Lab reports will be submitted for every remote lab. Prerequisite: EEL 3135.

EEL 3657 Control Systems I (3). Analysis of linear time-invariant feedback control systems. System modeling, time and frequency-domain response, stability and accuracy. Analysis by use of Root- Locus, Bode plots, Nyquist diagram. Prerequisites: EEL 3110 and EEL 3135.

EEL 3664 Introduction to Autonomous Systems (3). This course provides a comprehensive introduction to the components of autonomous systems and expose the students to the concept of autonomous systems from the perspective of autonomous mobile robotic. Prerequisite: COP 2210

EEL 3712 Logic Design I (3). Boolean Algebra. Binary number systems. Combinational logic design using SSI, MSI and LSI. Sequential logic design. Corequisites: EEL 3712L or EEL 3110.

EEL 3712L Logic Design I Lab (1). Laboratory experiments, using gates, combinational networks, SSI, MSI, LSI. Sequential logic design. Corequisites: EEL 3110L and EEL 3712.

EEL 4006 Development of Dynamic Web Sites (3). Techniques for the development of dynamic web sites, which will generate individualized web pages, according to data supplied by the user or retrieved from data stores available to the web server. Prerequisites: EEL 2880 or permission of instructor.

EEL 4015 Electrical Design in Buildings I (3). Application of electrical codes and regulations. Design of loads, circuits, surge protectors, feeders, panels, and breakers. Prerequisite: EEL 3110.

EEL 4016 Electrical Design in Buildings II (3). Electrical design of industrial buildings, size and design of distribution rooms, switchboards, transformers, bus ducts, motor control centers, starters, voltage drop calculations, and lighting distribution. Prerequisite: EEL 4015.

EEL 4062 Engineering Business Plan Development (3). This course is designed to help students develop an effective implementation plan for a new business venture. Prerequisites: EEL 4933.

EEL 4063 Introduction to Business Decisions (3). Fundamental concepts of industrial financial decisions, financial planning and analysis tools, justification for industrial capital investments, and intermediate and long-term financing options. Prerequisite: EGN 3613.

EEL 4140 Filter Design (3). Approximation techniques. Active RC second order modules. Low pass filters, band-pass filters, high pass filters, notch filters are studied in detail. Sensitivity and high order filters. Design and laboratory implementation. Prerequisites: EEE 3303 and EEE 3303L.

EEL 4151 Engineering Business Plan Development (3). This course is designed to help students develop an effective implementation plan for a new business venture. Prerequisites: EEL 4933.

EEL 4213 Power Systems I (3). Introductory course to power systems components; transformers, induction machines, synchronous machines, direct current machines, and special machines. Prerequisite: EEL 4410. Corequisite: EEL 4213L.

EEL 4213L Energy Conversion Lab (1). Operation, testing, and applications of energy conversion machines including AC and DC motors and generators. Experiments on magnetic circuits and transformers. Prerequisite: EEL 4410. Corequisite: EEL 4213.

EEL 4214 Power Systems II (3). Transmission line models, the bus admittance matrix, load flow studies and solution techniques, economic dispatch with and without losses, computer applications related to power system operations. Prerequisite: EEL 4213.

EEL 4215 Power Systems III (3). Short circuit calculations, symmetrical and unsymmetrical fault analysis, transient stability and dynamic studies as well as power system control. Computer applications. Prerequisite: EEL 4213.

EEL 4241 Power Electronics (3). Power semiconductor devices, power supplies, DC choppers, AC voltage controller, power inverter, AC and DC drives. Prerequisites: EEE 4304 and EEL 4213.

EEL 4410 Introduction to Fields and Waves (3). Electric and magnetic fields. The relation between field and circuit theory: waves and wave polarization, reflection, refraction, and diffraction. Electromagnetic effects in high-speed digital systems. Prerequisites: MAC 2313 or MAC 2283 and EEL 3110.

EEL 4413L Wave-Propagation for Wireless Communication (3). Course introduces the foundational concepts for wireless propagation used in radio communication. Topics: wave-propagation, transmission, attenuation, reflection, waveguides, microstrip lines, fibers. Prerequisite: EEL 3135

EEL 4421 Introduction to RF Circuit Design (3). Basic EM theory, transmission lines, guided EM propagation, microwave circuits, impedance matching, passive components, and filters. Full-wave simulation software will be used. Prerequisites: EEL 3135 and EEL 3110.

EEL 4461C Antennas (3). Introduction to linear antennas, linear arrays and aperture antennas. Far field pattern calculation and measurement techniques. Prerequisites: EEL 3514 or permission of the instructor.

EEL 4515 Advanced Communication Systems (3). Advanced senior level course designed for those students who desire to enhance their engineering knowledge in communication systems. State-of-the-art techniques in FM, digital communication, phase locked loops, noise treatment, threshold improvement, etc. Prerequisites: EEL 3514, EEL 4304 or permission of the instructor.

EEL 4583 Basics of RF Systems (3). The course introduces the basic concepts of radio frequency propagation and wireless receiver design. Topics include radio frequency basics, noise fundamentals, linearity, cascade designs. Prerequisite: EEL 3514 or permission of the instructor.

EEL 4595C Introduction to Wireless Digital Communications with USRP Applications (4). The course covers the fundamentals of wireless digital communications from a DSP perspective. A lab component using USRP boards complements the course through hands-on experimentation with the concepts learned in the class. Prerequisites: EEL 3514, EEE 4510.

EEL 4611 Control Systems II (3). Design by Root-Locus, Bode plot, and Guillin-Truxal approach; characteristics of some typical industrial controllers and sensors. Computer simulation and other modern topics are included. Prerequisites: EEL 3657 or permission of the instructor.

EEL 4611L Systems Laboratory (1). Laboratory experiments in various systems. Includes position and velocity control systems, zeroth order, first order, and second order systems. Communication Systems. Corequisite: EEL 3657.

EEL 4658 Industrial Control Systems (3). To learn the characteristics and the selection of hardware used in industrial control systems design. Various measurement devices, transducers, actuators used in control systems will be studied. Prerequisite: EEL 3657.

EEL 4664 Sensors, Perception, and Robotic Manipulation (3). This course will explore the state-of-the-art technology supporting autonomous robots for service domain with high robustness to environmental change and optional wear, and minimal reliance on application. Prerequisite: EEL 3657 or EEL 3664

EEL 4709C Computer Design (3). Computer architecture, arithmetic units, RAM, DRAM, ROM, disk, CPU, memory systems, data, input/output devices. Distributed and centralized control. Prerequisites: EEL 3712, EEL 3712L, and EIN 3235.

EEL 4730 Programming Embedded Systems (3). Embedded Systems implementation using programming of synchronous state machines to capture behavior of time-oriented systems for running on microcontrollers. Prerequisite: EEL 2880.

EEL 4734 Embedded Operating Systems (3). This is an intermediate course to the use of Embedded Operating Systems (OS) as developing environment. Course also includes OS concepts and unique embedded application development. Prerequisite: EEL 2880.

EEL 4740 Embedded Computing Systems (3). Principles of embedded computing systems: architecture, hardware/software components, interfacing, hardware/software co-design, and communication issues. Prerequisite: EEL 4709C.

EEL 4740L Embedded Computing Systems Laboratory (1). Hands-on experience on Hardware/Software co-design of embedded computing systems: architecture, hardware/software components, interfacing, and communication issues. Prerequisite: EEL 4709C. Corequisite: EEL 4740.

EEL 4746 Microcomputers I (3). RAM, ROM, and CPU architecture. Instruction set. Timing sequences. Sub-routines. Interrupts. Peripherals. Applications. System design. Prerequisites: EEL 4709C or permission of the instructor. Corequisite: EEL 4746L.

EEL 4746L Microcomputers I Laboratory (1). Hands-on design experience with microcomputer systems and applications including buses, interfaces, and in-circuit emulation. Prerequisite: EEL 4709C. Corequisite: EEL 4746.

EEL 4747 Reduced Instruction Set Computing Processors (3). Design of interfacing schemes of RISC processors, and state-of-the-art hardware and software features of advanced RISC processor families. Prerequisite: EEL 4709C. Corequisite: EEL 4747L.

EEL 4747L Microcomputers II (RISC) Lab (1). Hands-on design experience with microprocessor systems and applications using Electronic Design Automation tools. Prerequisite: EEL 4709C. Corequisite: EEL 4747.

EEL 4793 Special Topics in Computer Engineering (1-3). Special topics in computer engineering not covered in other courses. Prerequisite: Permission of the instructor.

EEL 4802 Introduction to Digital Forensics Engineering (3). The fundamentals of the computer and network forensics and media exploitation techniques and introduces students to computer forensic software and hardware tools. Prerequisites: EEL 4806 or permission of the instructor.

EEL 4804 Introduction Malware Reverse Engineering (3). This course familiarize the student with the practice of performing reverse engineering on suspicious files and firmware present on various devices (computer to DVD player) and understand its impact. Prerequisites: EEL 4806 or permission of the instructor.

EEL 4806 Ethical Hacking and Countermeasures (3). This course will give individuals an exposure to latest hacking tools and techniques to understand the anatomy of computer attacks and teach them the countermeasures to protect their valuable data.

EEL 4808L Ethical Hacking and Countermeasures Lab (1) This class is designed to provide a student hands-on activates on security scenario applying different hacking techniques on various information systems. Prerequisite: EEL 4806

EEL 4831 Embedded GUI Programming (3). Graphical user interface (GUI) for embedded system included elements and style, events, component and object oriented user interface models, and graphical application programming issues. Prerequisites: EEL 4730 and EEL 4740.

EEL 4905 Individual Problems in Electrical Engineering (1-3). Selected problems or projects in the student's major field of electrical engineering. It can be extended to a maximum of six hours. Student works independently with a minor advisement from designated faculty member. Prerequisites: Senior level and permission of the instructor.

EEL 4920 Senior Design I: Ethics, Communications, and Constraints – *GL* (2). Professional ethics, oral communications, project feasibility study, proposal writing, system design methodology, human factors, intellectual property, liability and schedules. Prerequisites: ECE Department Core and Program Core.

EEL 4921C Senior Design II: Project Implementation – *GL* (2). Design of a complete EE or CpE system including use of design methodology, formulation, specifications, alternative solutions, feasibility, economic, reliability, safety ethics, and social impact. Prerequisite: EEL 4920.

EEL 4930 Special Topics in Electrical Engineering (1-3). Special topics in electrical engineering not covered in other courses. Prerequisite: Permission of the instructor.

EEL 4933 Engineering Entrepreneurship (3). Lectures, case studies, and seminars. Active student participation. Course material is augmented through seminars given by engineers, business people, and specialists, based on their own experiences.

EEL 4949 Co-Op Work Experience (1-3). Practical Co-op engineering work under approved industrial supervision.

EGN 2271 Introduction to Circuits and Electronic Hardware (3). Introduction to resistive circuits, laws governing circuits, electronic switches, logic gates, electronic memories, standard input and output ports.

TCN 2720 Introduction to Internet of Things (2). Introduces the fundamental concepts of IoT and motivates the study of IoT. Focuses on the Devices, Data Collection, Networking, Cloud Computing, Risks and Opportunities in IoT context.

TCN 4081 Telecommunication Network Security (3). Introduction and overview of security issues for engineering applications. Topics include design, implementation and management of security in networks. Prerequisites: TCN 4211 or permission of the instructor.

TCN 4211 Telecommunication Networks (3). Underlying engineering principles of computer and digital networks. Topics include physical, link and network layers; telecommunication and switching technologies. Prerequisites: EEL 2880 or COP 2210 or permission of the instructor.

TCN 4212 Telecommunication Network Analysis and Design (3). The principle and practice of telecommunication and computer networks with emphasis on telecommunication network protocols, datagram services, routing and QoS. Prerequisites: TCN 4211 or permission of instructor.

TCN 4431 Principles of Network Management and Control Standards (3). Problems, principles and technologies in network management. General challenges in management of modern data and telecommunication networks. Prerequisites: TCN 4211 or permission of the instructor.

TCN 4940 Senior Project (3). Beginning of the Major Design Experiment of the Professional ethics, oral communications, project feasibility study, report writing, system design methodology, human factors, intellectual property. Prerequisite: Senior Standing

Mechanical and Materials Engineering

Arvind Agarwal, *Chairperson, Professor, and Director, Advanced Materials Engineering Research Institute*
Wei-Yu Bao, *Instructor*
Kevin Boutsen, *Instructor*
Seyad Ebrahim Beladi*, Instructor*
Benjamin Boesl, *Associate Professor, Undergraduate Program Director, and Assistant Director, Advanced Materials Engineering Research Institute*
Yiding Cao, *Professor*
Jiuhua Chen, *Professor and Director, Center for the Study of Matter at Extreme Conditions*
Zhe Cheng, *Associate Professor and Graduate Program Director*
George S. Dulikravich, *Professor*
M. Ali Ebadian, *Professor*
Gordon Hopkins, *Professor and Dean Emeritus*
W. Kinzy Jones, *Professor Emeritus*
David Kelly, *Assistant Professor*
Cheng-yu Lai, *Visiting Associate Professor*
Cesar Levy, *Professor*
Cheng-Xian (Charlie) Lin, *Associate Professor*
Pezhman Mardanpour, *Assistant Professor*
Dwayne McDaniel, *Associate Professor*
Carmen Muller Karger Pereda, *Instructor*
Norman Munroe, *Professor*
Meer Safa, *Coordinator of Research and Laboratories Manager*
Surendra Saxena, *Professor Emeritus*
Carmen Schenck, *Advisor/Senior Instructor*
Jun Sun, *University Instructor*
Alexandra C. Strong*, Assistant Professor (secondary appointment)*
Ibrahim Tansel, *Professor and Director, Engineering Manufacturing Center*
Andres Tremante, *Senior Instructor and Director, Center for Diversity and Success in Engineering and Computing*
Chunlei (Peggy) Wang, *Professor*

Mechanical and Materials Engineering Department Mission Statement

The Mechanical and Materials Engineering Department at Florida International University (FIU) offers a curriculum designed to give the student a thorough understanding of the basic laws of science and simultaneously to stimulate and develop creative thinking, a professional attitude, economic judgment and environmental consciousness. The aim is to develop the student's potential to the fullest, to prepare the student for superior performance as a mechanical engineer, and to provide the student with the fundamental principles necessary for pursuing advanced study in the diverse fields of engineering, science and business.

The BS Program in Mechanical Engineering has three main objectives that broadly describe the professional and career aims that our graduates are prepared to achieve 3-5 years from graduation. These are:

1. Graduates will be employed in mechanical engineering related positions or enrolled in further graduate degree programs.
2. Graduates will work towards successful careers in their chosen field and possible leadership positions.
3. At all stages of their careers, graduates will engage in activities that demonstrate a commitment to and a desire for ongoing personal and professional growth and learning.

The Student Outcomes listed below have been established based on the Mechanical Engineering Program Educational Objectives. At the time of the graduation, a Mechanical Engineering student should have:

1. Ability to apply knowledge of mathematics including multivariable calculus and differential equations, science including physics, and engineering
2. Ability to design and conduct experiments, as well as to analyze and interpret data
3. Ability to design a system, component, or process to meet desired needs
4. Ability to function on multi-disciplinary teams
5. Ability to identify, formulate, and solve engineering problems
6. Understanding of professional and ethical responsibility
7. Ability to communicate effectively
8. Broad education necessary to understand the impact of engineering solutions in a global and societal context
9. Recognition of the need for, and an ability to engage in, life long learning
10. Knowledge of contemporary issues
11. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Based on the goals set above the academic program provides a well-balanced curriculum in the following major areas of Mechanical Engineering:

- Fluid/Thermal Science and Energy Systems
- Materials, Mechanical Systems and Manufacturing

Further specializations in any of the following areas may be obtained by the proper choice of electives:

- Energy Systems
- Heating, Ventilation, and Air Conditioning
- Mechanics and Material Sciences
- Manufacturing and Automation Systems
- Robotics and Mechatronics
- Mechanical Design
- Computer-Aided Engineering
- Multidisciplinary Design Optimization
- Multidisciplinary Computational Analysis
- Finite Element Analysis
- Environmental and Waste Management

A Bachelor's degree in Mechanical Engineering provides students with the background suitable for immediate employment in engineering industries, as well as excellent preparation for graduate studies in engineering, medicine, law, or business administration.

Bachelor of Science in Mechanical Engineering

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM 1045, CHM 1045L	CHMX045/CHMX045L or CHMX045C or CHSX440/CHSX440L or CHSX440/CHMX045L
MAC 2281	MACX311 or MACX281
MAC 2282	MACX312 or MACX282
MAC 2283	MACX313 or MACX283
MAP 2302	MAPX302 or MAPX305
PHY 2048, PHY 2048L	PHYX048/PHYX048L or PHYX048C or PHYX041/PHYX048L PHYX043/PHY048L
PHY 2049, PHY 2049L	PHYX049/PHYX049L or PHYX049C or PHYX042/PHYX049L or PHYX044/PHYX049L

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites:

(Math/Science Hours: 32*)

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
MAC 2281	Calculus I for Engineering	4
MAC 2282	Calculus II for Engineering	4
MAC 2283	Calculus III for Engineering	4
MAP 2302	Differential Equations	3
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1

**See notation under Mechanical Engineering Curriculum*

Degree Program Hours: 128

The qualifications for admissions to the Mechanical Engineering Program are the same as for admission to the School of Engineering.

The academic program is designed to satisfy the criteria outlined by the Accreditation Board for Engineering and Technology (ABET), as well as to meet the State of Florida's articulation policy. Entering freshmen at FIU should seek advisement from the Undergraduate Studies Office as well as from the Mechanical and Materials Engineering Department's office of advisement.

Lower Division Preparation

Lower division requirements include at least 60 hours of pre-engineering credits (see the Undergraduate Studies portion of this catalog for specific requirements). These courses include Calculus II Multivariable Calculus, Differential Equations, Analysis of Engineering Systems, Chemistry I and Lab, Calculus based Physics I & II and labs, Introduction to CAD for Mechanical Engineers. A minimum grade of a "C" is required in every course of the Mechanical Engineering curriculum. In addition, transfer students, who have not completed their core curriculum at the transfer institution, and FIU freshman must take the FIU University Core Curriculum Requirements, whose topics also complement the goals and objectives of the College of Engineering and Computing (including economic, environmental, political, and/or social issues. See semester-by-semester sample program for courses that fulfill this requirement). Students must make up any missing prerequisites before they will be allowed to begin taking certain engineering courses (see course listing for required pre-/co-requisites).

Other Requirements

Students must meet the University Foreign Language Requirement. All students entering any university within the Florida State University System (SUS) with fewer than 60 credit hours are required to earn at least 9 credit hours prior to graduation by attending one or more summer terms at a university in the SUS.

Global Learning (GL) Requirement: Students must take a minimum of two GL-designated courses.

1. **Freshman** (entering Summer B 2010 or later):
   a. 1 GL Foundation Course (in the University Core Curriculum)
   b. 1 GL Discipline-Specific Course
2. **Transfers** (entering Fall 2011 or later):
   a. Those who meet UCC requirements prior to entering FIU (e.g. those with an AA from a Florida public institution)
      - 2 GL Discipline-Specific Courses (one of the two may be a GL Foundation course)
   b. Those who do not meet UCC requirements prior to entering FIU
      - 1 GL Foundation Course
      - 1 GL Discipline-Specific Course

Note: Transfer courses may not be used to meet this FIU requirement. For clarification and to see GL courses, go to **http://goglobal.fiu.edu**.

The minimum requirements for graduation in Mechanical Engineering consist of two parts: 1) Mathematics, Basic Sciences, Humanities and Social Science requirements, and 2) Engineering Sciences, Engineering Design, Laboratory and Elective requirements.

Mechanical Engineering Curriculum

Engineering Science, Engineering Design, Laboratory and Elective semester credit hour requirements:

Foundations of Engineering		
EEL 3110	Circuit Analysis[1]	3
EEL 3110L	Circuits Lab	1
EGN 3311	Statics	3
EGN 3321	Dynamics	3
EGN 3365	Materials in Engineering	3
EGN 3613	Engineering Economy	3
EGS 1006	Introduction to Engineering	2
EML 4551	Ethics and Design Project Organization[2] – *GL*	1
EML 4905	Senior Design Project[2] – *GL*	3
Modern Tools and Skills of a Mechanical Engineer		
EGM 3311*	Analysis of Engineering Systems (*Included towards math/science hours)	3
EML 1533	Intro to CAD for Mechanical	

	Engineers	3
EML 2032	Programming for Mechanical Engineers	3
EML 3036	Simulation Software for Mechanical Engineers	3
EIN 3390	Manufacturing Processes	2
Core Foundations of Mechanical Engineering		
EMA 3702	Mechanics and Material Science	3
EML 3500	Mechanical Design I	3
EML 3222	System Dynamics	3
EML 3126	Transport Phenomena	3
EML 3301L	Instrumentation & Measurement Lab	1
EGN 3343	Thermodynamics I	3
EML 4140	Heat Transfer	3
Elective Courses		
Advanced Core Electives[3]		10
Design Elective[4]		3
Engineering Electives		9

[1]This course is four contact hours to include a one hour non-credit tutorial.
[2]The Senior Design Project is taken in two consecutive semesters during the senior year. During the first semester of his/her senior year, the student must register for EML 4551 Ethics and Design Project Organization – *GL*. The senior project begins during this course. The next semester the student must register for EML 4905 to complete the project.
[3]Advanced Core Electives must be taken in groups of three courses and one lab, group offerings are:

Group 1: Materials, Mechanical Systems and Manufacturing

EMA 3702L	Mechanics and Materials Science Lab	1
EML 4501	Mechanical Design II	3
EML 4804	Introduction to Mechatronics	3
EML 4806	Modeling and Control of Robots	3

Group 2: Fluids/Thermal Science and Energy Systems

EML3127L	Transport Phenomena Lab	1
EML 3450	Energy Systems	3
EML 4706	Design of Thermal and Fluid Systems	3
EML 4721	Intro to Computational Thermo Fluids	3

Note: Additional courses from the Group not selected for Advanced Core Electives can be used as Engineering Electives.
[4]Approved Design Electives are:

EAS 4200	Intro to Design and Analysis of Aerospace Structures	3
EGM 4350	Finite Element Analysis in Mechanical Design	3
EML 4503	Production Machine Modeling and Design	3
EML 4535	Mechanical Computer Aided Design	3
EML 4561	Introduction to Electronic Packaging	3
EML 4603	Air Conditioning Design	3
EML 4840	Robot Design	3
EML 4765	Design Optimization	3
EML 5509	Optimization Algorithms	3
EML 5519	Fault-Tolerant System Design	3

Students failing to maintain an overall GPA of 2.0 will be placed on probation, suspension, or dismissed from the University.

Students who are dismissed for the first time from the University due to low grades may appeal to the Dean for reinstatement. A second dismissal results in no possibility of reinstatement.

Laboratories

Over and above the laboratory requirements in Physics and Chemistry, the program consists of six semester hours of required engineering laboratory work. The students are assigned two hours of laboratory work (one hour in Instrumentation and Measurement Lab and one hour in either Mechanical and Material Science Lab or Transport Phenomena Lab) which are specifically devoted to solving design problems using experimental methods. The laboratory experience includes the following areas: Machining, Circuits, Fluid Mechanics, Mechanics of Materials and Materials Testing, Applications in Fluid and Thermal Science, and Instrumentation and Measurement.

The elective areas offer the following additional laboratories: Air Conditioning and Refrigeration, Biomedical Engineering, Material Sciences, Computer-Aided Design, and Computer-Integrated Manufacturing.

Electives

Two concentrations available within the Mechanical Engineering program with some of their elective offerings are listed below.

Fluids/Thermal Sciences and Energy Systems

EAS 4712	Aerodynamic Shape Design	3
EGM 4350	Finite Element Analysis in Mechanical Design	3
EGM 4370	Introduction to Meshfree and Alternative Methods in Mechanical Engineering	3
EML 3450	Energy Systems	3
EML 4419	Propulsion Systems	3
EML 4421	Internal Combustion Engines	3
EML 4601	Principles of Refrigerating and Air Conditioning	3
EML 4601L	Refrigeration and A/C Lab	1
EML 4603	Air Conditioning Design	3
EML 4608C	Mechanical Systems in Environmental Control	3
EML 4702	Fluid Dynamics	3
EML 4711	Gas Dynamics	3
EML 4721	Intro to Computational Thermo Fluids	3
EML 5103	Intermediate Thermodynamics	3
EML 5104	Classical Thermodynamics	3
EML 5152	Intermediate Heat Transfer	3
EML 5606C	Advanced Refrigeration and A/C Systems	3
EML 5615C	CAD in Air Conditioning	3
EML 5708	Advanced Design of Thermal and Fluid Systems	3
EML 5709	Intermediate Fluid Mechanics	3

Materials, Mechanical Systems and Manufacturing

EAS 4200	Introduction to Design and Analysis of Aerospace Structures	3
EGM 4610	Introduction to Continuum Mechanics	3
EGM 4350	Finite Element Analysis in Mechanical Design	3
EGM 4370	Introduction to Meshfree and Alternative Methods in Mechanical Engineering	3
EGM 5315	Intermediate Analysis of Mechanical Systems	3
EGM 5615	Synthesis of Engineering Mechanics	3
EGN 5367	Industrial Materials and Engineering	

	Design	3
EMA 3066	Polymer Science and Engineering	3
EMA 4121	Physical Metallurgy	3
EMA4121L	Materials Laboratory	1
EMA 4223	Mechanical Metallurgy	3
EMA 5295	Principles of Composite Materials	3
EMA 5507C	Analytical Techniques of Material Sciences	3
EMA 5935	Advanced Topics in Materials Engineering KM	3
EML 3301C	Instrumentation	3
EML 4220	Mechanical Vibrations	3
EML 4260	Dynamics of Machinery	3
EML 4535	Mechanical Computer-Aided Design	3
EML 4561	Introduction to Electronic Packaging	3
EML 4840	Robot Design	3
EML 4823	Introduction to Sensors and Signal Processing	3
EML 5125	Classical Dynamics	3
EML 5385	Identification Techniques of Mechanical Systems	3
EML 5509	Optimization Algorithms	3
EML 5530	Intermediate CAD/CAE	3
EML 5562	Advanced Electronic Packaging	3
EML 5808	Control Technology for Robotic Systems	3

Students are required to complete nine credit hours of technical electives, three of which are approved design credits.

Students with special needs may take other elective courses (not listed above) with permission of the Mechanical Engineering Advisor. Students are not restricted to these two concentration areas but may choose courses, with the advisor's consent, that will form a coherent concentration area. Special topics may be counted as an elective.

Mechanical Engineering Program Requirements—
Freshman to Senior

First Semester: (17)

MAC 2281	Calculus I for Engineering	4
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
ENC 1101	Writing and Rhetoric I	3
ARTS*	3	3
EGS 1006	Introduction to Engineering	2
SLS 1501	First Year Experience	1

Second Semester: (18)

MAC 2282	Calculus II for Engineering	4
PHY 2048	Physics I with Calculus	4
PHY 2048L	General Physics I Lab	1
ENC 1102	Writing and Rhetoric II	3
EML 2032	Programming for Mechanical Engineers	3
EML 1533	Intro to CAD for Mechanical Engineers	3

Third Semester: (18)

EGN 3365	Materials in Engineering	3
MAC 2283	Calculus III for Engineering	4
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics II Lab	1
EGN 3311	Statics	3
Social Science - Group One*		3
(Suggested)		
EGS 1041	Technology, Humans and Society – *GL*	3

Fourth Semester: (15)

EEL 3110	Circuits Analysis	3
EEL 3110L	Circuits Lab	1
MAP 2302	Differential Equations	3
EGN 3321	Dynamics	3
EGN 3343	Thermodynamics I	3
EIN 3390	Manufacturing Processes	2

Fifth Semester: (16)

EGM 3311	Analysis of Engineering Systems	3
EML 3301L	Instrumentation and Measurement Lab	1
EMA 3702	Mechanics and Materials Science	3
EML 3126	Transport Phenomena	3
EML 3036	Simulation Software for Mechanical Engineers	3
Humanities - Group One*		3

Sixth Semester: (16)

EGN 3613	Engineering Economy	3
EML 3222	Systems Dynamics	3
EML 4140	Heat Transfer	3
EML 3500	Mechanical Design I	3
Advanced Core Laboratory		1
Humanities - Group Two*		3

Seventh Semester: (13)

EML 4551	Ethics and Design Project Organization – GL	1
Advanced Core Elective		3
Advanced Core Elective		3
Engineering Elective		3
Engineering Elective		3

Eighth Semester: (15)

EML 4905	Senior Design Project – *GL*	3
Advanced Core Elective		3
Design Elective		3
Engineering Elective		3
Social Science – Group Two*		3

*Refer to your undergraduate engineering advisor to fulfill this requirement.

Combined BS/MS Program

Students, who pursue a BS degree and are in their first semester of the senior year, with at least a 3.25 GPA on both overall and upper division courses may apply to enroll in the combined BS/MS program. To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees. Students must also submit an on-line application to the University Graduate School for admission to the MS program. Students applying to the combined program are

not required to pay the application fee. In addition to the admission requirements of the combined BS/MS program, students must meet all the admission requirements of the University Graduate School.

Students enrolled in the program may count up to six credit hours of MME graduate courses as credits for both the BS and MS degrees. The combined BS/MS program has been designed to be a continuous program. During this combined BS/MS program, upon completion of all the requirements of the undergraduate program, students will receive their BS degrees. Students in this program have up to three major semesters to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this three-major-semester post BS requirement or who elect to leave the combined program at any time and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the six credits in both the bachelor's and master's degrees.

For each of the graduate courses counted as credits for both BS and MS degree, a minimum grade of "B" is required. Students enrolled in the program may count up to six credit hours of MME graduate courses toward the elective engineering BS requirements as well as toward the MS degree. 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 to the program. The students should also meet the graduate advisor 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 and the University Graduate School of the decision on their applications.

Combined BS in Mechanical Engineering/MS in Biomedical Engineering

This five-year program seamlessly combines a baccalaureate degree in mechanical engineering with the Master's in biomedical engineering. To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU, have earned at least a 3.25 GPA on both overall and upper division courses, and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Students enrolled in the program may count up to 9 hours of graduate level courses (i.e., 5000 level or higher) as credits for both the undergraduate and graduate degree programs. For each of the courses counted as credits for both BS and MS degree, a minimum grade of 'B' is required. Upon completion of the combined BS/MS program, students must have accumulated a minimum of 24 hours of credits at the graduate (5000+) level. Students enrolled in the program are encouraged to seek employment with a department faculty member to work as student assistants on sponsored research projects.

Combined BS in Mechanical Engineering/MS in Engineering Management (BSME/MSEM)

Students who pursue a BS degree and have completed 75~90 credits in the undergraduate program of Mechanical Engineering with an overall GPA of 3.2 or higher may, upon recommendation from three faculty members, apply to the department to enroll in the combined BSME/MSEM program. Students must also submit an online application to the University Graduate School for admission to the MSEM program. In addition to the admission requirements of the MSEM program, students must meet all the admission requirements of the University Graduate School.

Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships.

Students enrolled in the combined degree program could count up to three Mechanical Engineering graduate courses for both the BSME electives and the MSEM electives, for a total saving of 9 credit hours. The following is a list of eligible Mechanical Engineering graduate courses:

EGM 5346	Computational Engineering Analysis
EGM 5354	Finite Element Method Applications in ME
EGM 5615	Synthesis of Engineering Mechanics
EML 5103	Intermediate Thermodynamics
EML 5152	Intermediate Heat Transfer
EML 5505	Smart Machine Design and Development
EML 5509	Optimization Algorithms
EML 5530	Intermediate CAD/CAE
EML 5606C	Advanced Refrigeration and AC Systems
EML 5709	Intermediate Fluid Mechanics

The combined BSME/MSEM program has been designed to be a continuous program. During this combined BSME/MSEM program, upon completion of all the requirements of the BSME program, students will receive their BSME degree. Students may elect to permanently leave the combined program and earn only the BSME degree. Students who elect to leave the combined program and earn only the BS degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the 9 credit hours in both the BSME and MSEM degrees.

For each of the graduate courses counted as credits for both BSME and MSEM degrees, a minimum grade of "B" is required. Only graduate courses with formal lecture can

be counted for both degrees. The students are responsible for confirming the eligibility of each course with their undergraduate advisors.

Students interested in the combined program should consult with their undergraduate advisor on their eligibility to the program. The student should also meet the MSEM Program Director to learn about the graduate program and available tracks/courses before completing the application form and submitting it to their undergraduate advisor. Final decision for admission to the MSEM program will be made by the University Graduate School upon recommendation by the Engineering Management program director. Applicants will be notified by the Engineering Management Program and the University Graduate School of the decision on their applications.

Minor in Energy Systems

Fully enrolled non-mechanical engineering undergraduate students, who have at least a junior status with a cumulative FIU Grade Point Average of 2.0 or better, may apply to the Department of Mechanical and Materials Engineering to request a minor in Energy Systems. To earn a minor in Energy Systems students must complete the 16 credit hours work listed below with a minimum grade of "C" in each course.

EGN 3311	Statics[1]	3
EGN 3321	Dynamics[1]	3
EGN 3343	Thermodynamics I[1]	3
EML 3126	Transport Phenomena[1]	3
EML 3126L	Transport Phenomena Lab[1]	1
	and	
EML 4140	Heat Transfer	3
EML 4930	Special Topics	1

Students must meet the pre-requisite requirements for the above-listed courses.

[1]Students who have taken equivalent course/courses will be exempted from taking these courses. However, they need to select courses from the following list:

EML 3101	Thermodynamics II	3
EML 4706	Design of Thermal and Fluid Systems	3
EML 4601	Principles of Refrigerating and Air Conditioning	3
	and	
EML 4601L	Refrigeration and A/C Lab	1
EML 4721	Introduction to Computational Thermo-Fluids	3

Minor in Aerospace Engineering

Fully enrolled non-Mechanical Engineering undergraduate students, who have at least a junior status with a cumulative FIU Grade Point Average of 2.2 or better, may apply to the Department of Mechanical and Materials Engineering to request a minor in Aerospace Engineering. To earn a minor in Aerospace Engineering students must complete the 17 credit hours work listed below with a minimum grade of "C" in each course.

EAS 4105	Introduction to Flight Mechanics	3
EGM 5615	Synthesis of Engineering Mechanics	3
	or	
EAS 4200	Introduction to Design and Analysis of Aerospace Structures	3
EMA 3702L	Mechanics and Materials Science Lab	1
EML 4419	Propulsion Systems	3
EML 4711	Gas Dynamics	3
EML 4930	Special Topics	1
	and	
EGM 4350	Finite Elements in Mechanical Engineering	3
	or	
EML 4721	Introduction to Computational Thermo Fluids	3
	or	
EAS 4712	Aerodynamic Shape Design	3

Students must meet the pre-requisite requirements for the above-listed courses. Students who have taken any equivalent course(s) to those listed above will be exempted from taking the course(s) again. However, they will need to select courses from the following list to satisfy requirements for the minor:

EMA 5295	Principles of Composite Materials	3
EML 4702	Fluid Dynamics	3
EML 4220	Mechanical Vibrations	3
EML 5125	Classical Dynamics	3
EML 5509	Optimization Algorithms	3

Minor in Engineering Science

Fully enrolled non-mechanical engineering undergraduate students, who have at least a junior status with a cumulative FIU Grade Point Average of 2.0 or better, may apply to the Department of Mechanical and Materials Engineering to request a minor in Engineering Science. To earn a minor in Engineering Sciences students must complete the 17 credit hours listed below with a minimum grade of "C" in each course.

EGN 3311	Statics[1]	3
EGN 3321	Dynamics[1]	3
EGN 3365	Materials in Engineering	3
EMA 3702	Mechanics and Materials Science[1]	3
	and	
EMA 3702L	Mechanics and Materials Science Lab[1]	1
	or	
EML 3126	Transport Phenomena1	3
EML 3126L	Transport Phenomena Lab1	1
EGN 3343	Thermodynamics I[1]	3

[1]Students who have taken equivalent course/courses will be exempt from taking these courses. However, they will need to select courses from the following list to satisfy requirements for the minor:

EML 3222	System Dynamics	3
EML 3500	Mechanical Design I	3
EML 3101	Thermodynamics	3
EML 4140	Heat Transfer	3

Minor in Mechanical Design

Fully enrolled non-mechanical engineering undergraduate students, who have at least a junior status with a cumulative FIU Grade Point Average of 2.0 or better, may apply to the Department of Mechanical and Materials Engineering to request a minor in Mechanical Design. To earn a minor in Mechanical Design students must complete the 17 credit hours work listed below with a minimum grade of "C" in each course.

EGN 3311	Statics[1]	3

EGN 3365	Materials in Engineering[1]	3
EMA 3702	Mechanics and Materials Science	3
EMA 3702L	Mechanics and Materials Science Lab	1
EML 3500	Mechanical Design I	3
EML 4501	Mechanical Design II	3
EML 4930	Special Topics	1

Students must meet the pre-requisite requirements for the above-listed courses.

[1]Students who have taken equivalent course/courses will be exempted from taking these courses. However, they need to select courses from the following list to satisfy requirements for the minor:

EML 3036	Simulation Software for Mechanical Engineers	3
EGM 4350	Finite Element Analysis in Mechanical Design	3
EML 4804	Introduction to Mechatronics	3
EML 4806	Modeling and Control of Robots	3

Minor in Robotics and Mechatronics

Fully enrolled non-mechanical engineering undergraduate students, who have at least a junior status with a cumulative FIU Grade Point Average of 2.0 or better, may apply to the Department of Mechanical and Materials Engineering to request a minor in Robotics and Mechatronics. To earn a minor in Robotics and Mechatronics students must complete the 16 credit hours work listed below with a minimum grade of "C" in each course.

EGN 3311	Statics[1]	3
EGN 3321	Dynamics[1]	3
EML 3301L	Instrumentation and Measurement Lab	1
EMA 3702	Mechanics and Materials Science[1]	3
EML 4804	Introduction to Mechatronics	3
EML 4806	Modeling and Control of Robots	3
EML 4930	Special Topics	1

Students must meet the pre-requisite requirements for the above-listed courses.

[1]Students who have taken equivalent course/courses will be exempted from taking these courses. However, they need to select courses from the following list to satisfy requirements for the minor:

EML 3036	Simulation Software for Mechanical Engineers	3
EML 4312	Automatic Control Theory	3
EML 4840	Robot Design	3
EML 4535	Mechanical Computer Aided Design	3

Course Descriptions

Definition of Prefixes

EAS-Engineering: Aerospace; ECH-Engineering: Chemical; EGM-Engineering: Mechanics; EGN-Engineering: General; EGS-Engineering Support; EIN - Engineering: Industrial; EMA-Engineering: Materials; EMC-Engineering: Mechanical and Chemical; EML-Engineering: Mechanical

Courses that meet the University's Global Learning requirement are identified as GL.

EAS 4105 Introduction to Flight Mechanics (3). An introductory level course on the fundamentals of aerospace engineering with emphasis on aerodynamics and airplane performance. Prerequisite: EML 3126.

EAS 4200 Introduction to Design and Analysis of Aerospace Structures (3). Principles of aircraft design and analysis. Prerequisites: EML 3036, MAP 2302 or EGM 3311, EMA 3702.

EAS 4213 Introduction to Aeroelasticity (3). Fundamental understanding, and analysis of the physics of fluid-structure systems.

EAS 4712 Aerodynamic Shape Design (3). Conceptual formulations, analytical descriptions and numerical integration algorithms for inverse shape design and optimized shape design of 2D and 3D aerodynamic configurations. Prerequisites: EML 3126, EML 4140. Corequisite: EML 3036.

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 5221 Design and Analysis of Aerospace Structures (3). Fundamental principles of aircraft design and analysis. Advanced computational methods used for analysis of aerospace structures. Prerequisites: EML 3032, MAP 2302 or EGM 3311, EMA 3702, EML 4140.

ECH 3704 Principles of Industrial Electrochemistry (3). This course provides a discussion of the basic principles underlying various electrochemical processes. The emphasis is on theoretical principles involved in plating, refining, winning; aqueous and fused salts, primary, secondary and fuel cells. Prerequisite: CHM 1045.

ECH 4706 Engineering Application of Electrochemistry (3). The application of the electrochemical engineering principles to the analysis of industrial processes. Emphasis is placed on electrolysis in aqueous solutions and in fused salts; electrodeposition, electrowinning, and refining; electrochemical power systems. Prerequisite: CHM 1045.

ECH 4826 Corrosion Control (3). Various forms of corrosion, including pitting, stress, crevice, galvanic and microbial induced corrosion, are presented. The problems of material selection, failure analyses and corrosion control are discussed. Prerequisite: EGN 3365.

EGM 3311 Analysis of Engineering Systems (3). Statistics and probability analysis of materials and fluids experiments, structural and fluid system modeling and analysis using lumped parameters; numerical methods to find solutions. Prerequisites: MAC 2312 and EML 2032.

EGM 3503 Applied Mechanics (4). Statics and dynamics of solids and fluids. Science of engineering materials. Open to non-mechanical engineering students only. Prerequisites: MAC 2312 and PHY 2048.

EGM 4350 Finite Element Analysis in Mechanical Engineering (3). Finite Element Analysis is developed as a means to determine stress and deformation levels as well as temperature and heat flux levels in solids. Application by means of commercial software. Prerequisites: EGM 3311 and EMA 3702. Corequisite: EML 4140.

EGM 4370 Introduction to Meshfree and Alternative Methods in Mechanical Engineering (3). Course covers the alternative methods of engineering analysis with a special focus on meshfree method with distance fields in mechanical engineering. Prerequisites: EML 3036, (MAP 2302 or EGM 3311), or permission of the instructor.

EGM 4521C Material Science I (3). Course provides a more in-depth understanding of principles that determine material properties. Topics include structure, effects of thermodynamics, phase and kinetics on microstructural development. Prerequisite: EGN 3365.

EGM 4522C Materials Science II (3). Mechanical properties of materials, including strengthening plasticity and fracture. Introduction into ceramic and polymer materials systems. Prerequisite: EGN 3365.

EGM 4610 Introduction to Continuum Mechanics (3). Introduction to modern continuum mechanics, mathematical preliminaries, stress and equilibrium, deformations and compatibility, constitutive equations, balance laws, problem solution strategies. Prerequisite: EMA 3702.

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. Prerequisites: EGM 3311, MAP 2302, 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 2032, MAP 2302, 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, vibrations, and electromagnetism, as well as the coupled interaction of these phenomena. Prerequisites: EML 2032, EMA 3702, and EML 4140.

EGM 5371 Meshfree and Alternative Methods in Mechanical Engineering (3). Course covers the alternative methods in engineering analysis with a special focus on meshfree method with distance fields in mechanical engineering. Prerequisites: EML 3036, (MAP 2302 or EGM 3311), EGM 5354, or permission of the instructor.

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 the Mechanical Engineering PE written examination. Reviewed courses include: Thermodynamics, Fluid Mechanics, Mechanics of Materials, Mechanical Design and Heat Transfer.

EGN 1110C Engineering Drawing (3). Laboratory experiences in the principles and practice of idea development and expression through free hand sketching and conventional instrument drafting. A beginning course for students with no prior drafting experience.

EGN 3311 Statics (3). Forces on particles, and two and three dimensional rigid bodies, equilibrium of forces, moments, couples, centroids, section properties, and load analysis of structures; vector approach is utilized. Prerequisites: MAC 2312 and PHY 2048.

EGN 3321 Dynamics (3). Study of the motion of particles and rigid bodies, conservation of energy and momentum. A vector approach is utilized. Prerequisite: EGN 3311 and MAC 2313.

EGN 3343 Thermodynamics I (3). Fundamental concepts of basic thermodynamics including first and second law topics, equations of state and general thermodynamic relationships. Prerequisites: MAC 2312, PHY 2048, and CHM 1045.

EGN 3365 Materials in Engineering (3). A study of materials used in engineering. Includes atomic structure phase diagrams and reactions within solid materials. Prerequisites: CHM 1045, MAC 2311 and PHY 2048.

EGN 4012C Introduction to Nanoscale Processing Technologies (3). This course will give students an introduction to micro/nano-scale process tools and techniques. It includes lab sessions where students design, fabricate and test selected micro/nano-scale devices.

EGN 5013C Nanoscale Fabrication and Synthesis (3). This course covers the advanced micro/nanofabrication tools and techniques. It includes lab sessions where the students design, fabricate and test selected micro/nano-scale devices.

EGN 5367 Industrial Materials and Engineering Design (3). Industrial materials, material selection, and engineering design process, including synthesis, analysis, optimization, and evaluation.

EGN 5990 Fundamentals of Engineering (FE) Exam Review (4). Prepares upper level engineering students to take the Fundamentals of Engineering (FE) State Board Examinations. Reviews Chemistry, Engineering Economics, Statics, Dynamics, Electrical Circuits, Fluid Mechanics, Mechanics of Materials, Material Science and Thermodynamics.

EGS 1006 Introduction to Engineering (2). This course will provide a broad exposure, “birdseye” view, of the engineering profession to entering freshmen.

EGS 1041 Technology, Humans, and Society – *GL* (3). The course examines technology development and its impact on cultures, politics and human life to envision appropriate use of technology for a sustainable future through global learning approaches.

EIN 1396C Basic Industrial Shop and Manufacturing Practices (3). Fundamentals of basic capabilities and requirements for a modern shop or industrial manufacturing facilities. Rudiments of safety requirements, wood technology, metal technology and plastic technology.

EIN 3390 Manufacturing Processes (2). Study of interrelationships among materials, design and processing and their impact on workplace design, productivity and process analysis. Prerequisite: EGN 3365.. (F,S,SS)

EIN 3390L Manufacturing Processes Laboratory (1). Experiments are conducted using the machines, equipment and tools in the laboratory to provide students with hands-on experience on product design, process planning, fabrication and quality assurance. Corequisite: EIN 3390. (Lab fees assessed). (F,S,SS)

EMA 3066 Polymer Science and Engineering (3). Introduction to molecular structure; property relationships; preparation, processing and applications of macromolecular materials. Prerequisite: EGN 3365.

EMA 3702 Mechanics and Materials Science (3). A mid-level course addressing the selection of engineering materials based on static and dynamic loadings, environmental analysis and the experimental analysis of mechanical systems. Emphasis on metals and composite materials. Prerequisites: EGN 3311 and Upper division standing.

EMA 3702L Mechanics and Materials Science Lab (1). Introduction to measurements of basic mechanical properties of materials. Experiments including tension, bending, torsion, fatigue, buckling, strain, and stress visualization. Prerequisite: EMA 3702 and EML 3301L. Corequisite: EMA 3702.

EMA 4121 Physical Metallurgy (3). Correlation of properties; structural, mechanical, and thermal history and service behavior of various metals and their alloys. Prerequisite: EGN 3365.

EMA 4121L Materials Laboratory (1). Laboratory techniques in materials, including metallography, mechanical testing, heat treatment and non-destructive testing techniques. Prerequisite: EGN 3365.

EMA 4223 Mechanical Metallurgy (3). Fundamentals of plastic deformation of crystalline solids: elementary theory of statics and dynamics of dislocations; applications to deformation of single crystals and polycrystals; fracture of metals. Prerequisites: EGN 3365 and EMA 3702.

EMA 4303 Introduction to Electrochemical Engineering (3). Introduction to the basic principles of electrochemistry and its applications in different engineering systems related to energy, chemical, biomedical, and electronics industries. Prerequisites: MAC 2311; CHM 1045; PHY 2048.

EMA 5001 Physical Properties of Materials (3). The physical properties of materials, including the influence of structure on properties, thermodynamics of solids and phase transformations and kinetics on microstructural development. Prerequisite: EGM 4521C.

EMA 5015 Introduction to Nanomaterials Engineering (3). The science and engineering of nanomaterials, the fabrication, behavior, and characterization of the nano-size particles and materials. Prerequisites: EGN 3365, EGM 3311.

EMA 5016 Nanoelectronic Materials (3). Course provides an understanding of nanotechnology based on materials engineering. Topics include energy bands in semiconductors, MOSFET scaling, materials processing and other applications. Prerequisite: EGN 3365.

EMA 5017 Nanoparticle Technology (3). An interdisciplinary overview of the nanoparticle engineering. Synthesis of nanoparticles, nanoparticle growth and transport, characterization methods, and applications. Prerequisites: EGN 3365 or permission of the instructor.

EMA 5018 Nanoscale Modeling of Materials (3). Overview of computational nanotechnology. Modeling, simulation and design of nanomaterials. Energy minimization, molecular dynamics and advanced multiscale numerical techniques. Prerequisites: EGN 3365 or permission of the instructor.

EMA 5104 Advanced Mechanical Properties of Materials (3). Advanced treatment of the mechanical behavior of solids; examines crystal plasticity, dislocations, point defects and grain boundaries, creep and fatigue behavior, fracture. Prerequisite: EGN 3365.

EMA 5106 Thermodynamics and Kinetics of Materials (3). Laws of thermodynamics. Entropy and free energy. Diffusion mechanisms. Transition state theory and field effects. Phase diagrams. Nucleation in condensed phases. Crystal growth. Prerequisite: EGN 3343.

EMA 5140 Introduction to Ceramic Materials (3). Synthesis of ceramics, inorganic glasses and their microstructure as related to physical properties. Prerequisites: EGN 3365 or permission of the instructor.

EMA 5200 Nanomechanics and Nanotribology (3). Mechanical and tribological properties at nano-scale length, fundamentals of nanoindentation and nanoDMA, application of nanoindentation for hard, soft, natural and biological materials. Prerequisites: EGN 3365 or permission of the instructor.

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. Prerequisites: EGM 5615 or permission of the instructor.

EMA 5305 Electrochemical Engineering (3). Introduction to graduate students the fundamental principles of electrochemistry and its applications in different engineering systems for energy, chemical, biomedical, and electronics industries. Prerequisite: Permission of the instructor.

EMA 5326 Corrosion Science and Engineering (3). Electrochemical principles of corrosion, methods of corrosion control and measurement. Prerequisites: EGN 3365 or permission of the instructor.

EMA 5507C Analytical Techniques of Materials Sciences (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 5605 Fundamentals of Materials Processing (3). Extraction of materials from the minerals using pyro, hydro and electro techniques. Fundamentals of solidification process. Prerequisites: EGM 4521C or permission of the instructor.

EMA 5646 Ceramic Processing (3). Introduction to the science of ceramic processing, with emphasis on theoretical fundamentals and current state-of-the-art processing. Prerequisite: EMA 5140.

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. Prerequisites: EGN 3343 and EGN 3365.

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 4804.

EML 1051C Introduction to Solar Energy Utilization (3). Solar energy principles, technologies, and applications as source of heat and electricity (Thermal and Photovoltaics); energy analysis, projects/products design and construction, and lab investigation. Prerequisite: High school students in dual enrollment.

EML 1533 Introduction to CAD for Mechanical Engineers (3). Introduction to technical graphical visualization and communication for mechanical design; knowledge and skills to use a software package to create multi-view and 3-D Drawings using ANSI standards.

EML 2030 Software for Mechanical Design (3). Students will use software to develop solid models and a mathematical software package to solve mechanical engineering problems. A programming language will be used to define input parameters. Prerequisites: EGS 1006 or EML 3006. Corequisite: MAC 2313.

EML 2032 Programming for Mechanical Engineers (3). Operation of computers and programming languages for mechanical design. C++ will be used to develop programs for mechanical design problems. Introduction to Visual Basic and Fortran 90 environments.

EML 3004 Circuit Analysis for Mechanical Engineers (3). Introduces analysis of the DC, AC, and transient electrical circuits at various operating conditions. Discuss Laplace domain representation and mechatronics systems. Prerequisites: MAC 2312, PHY 2049. Corequisite: EML 3004L.

EML 3004L Circuit Lab for Mechanical Engineers (1). This lab introduces basic test equipment; oscilloscopes, multimeters, power supplies, function generator, etc., and uses this equipment in various experiments. Prerequisite: PHY 2049L. Corequisite: EML 3004.

EML 3006 Concepts of Engineering (2). Provide a broad exposure, “birdseye” view, of the engineering profession to junior and senior transfer students. To be completed within two terms after admission to the ME program.

EML 3036 Simulation Software for Mechanical Engineers (3). Commercial software to reinforce the concepts of stress, deformation, fluid flow, rigid body dynamics, heat transfer and to optimize solid model designs via multi-disciplinary computational analysis. Prerequisites: EML 1533. Corequisites: EMA 3702, EGN 3343, and EML 3126.

EML 3101 Thermodynamics II (3). Continuation of Thermodynamics I covering reactive and nonreactive mixtures and various thermodynamic cycles. Prerequisite: EGN 3343.

EML 3126 Transport Phenomena (3). Fundamental principles of transport phenomena; Governing Equations; Compressible Flow. Prerequisites: EGN 3321 and MAP 2302. Corequisite: EGN 3343.

EML 3126L Transport Phenomena Laboratory (1). Experiments illustrating the principles of transport phenomena: wind tunnel, shock tubes, airfoils. Prerequisite: EML 3126 and EML 3301L.

EML 3222 System Dynamics (3). Introduction to modeling of mechanical systems; derivation of system equations and response of fluid, thermal, and vibrational systems. Available solution methods will be discussed. Prerequisites: EGN 3321, EMA 3702, EML 2032.

EML 3262 Kinematics and Mechanism Design (3). Fundamentals of kinematics and mechanism design; study of the mechanisms used in machinery and analysis of their motion. Two and three dimensional analytical and numerical methods of computer application. Design is emphasized. Prerequisites: EGN 3321, EML 2032.

EML 3301 Instrumentation (3). A practical study of common instrumentation techniques. The use of instrumentation and measurement methods to solve problems is emphasized. Prerequisites: EEL 3003 or EEL 3110.

EML 3301L Instrumentation and Measurement Laboratory (1). A practical study of common instrumentation elements and measurement systems used in mechanical and electro-mechanical applications. Prerequisite: EEL 3110L.

EML 3450 Energy Systems (3). Review of theory and engineering aspects of conventional and renewable energy conversion and storage systems, fossil fuels, and nuclear power plants and renewable energy technologies. Prerequisite: EGN 3343.

EML 3500 Mechanical Design I (3). Design of basic machine members including shafts, springs, belts, clutches, chains, etc. Prerequisites: EGN 3321, EMA 3702, and EGN 3365.

EML 4081 Introduction to Nondestructive Testing and Mechanical Health Monitoring (3). Nondestructive Testing (NDT) and Mechanical Health Monitoring (MHM) techniques will be introduced. Computational methods for interpretation of signals will be discussed. Prerequisite: Permission of the instructor.

EML 4140 Heat Transfer (3). Study of the fundamentals of heat transfer including conduction, convection, and radiation. Computer applications and design problems emphasized. Prerequisites: EML 2032, EGN 3343, EML 3126.

EML 4220 Mechanical Vibrations (3). Theory and application of mechanical vibrations. Includes damped and undamped vibrations with one or more degrees of freedom computer methods emphasized. Prerequisites: EGN 3321, EMA 3702, and EML 2032.

EML 4246 Tribological Design for Machines and Elements (3). Introduction to friction and wear, analysis of tribological systems, and applications of Tribological Principles to machine and machine element design. Prerequisites: EML 4501 or permission of the instructor.

EML 4260 Dynamics of Machinery (3). Acceleration and force analysis of reciprocating and rotating mechanisms and machines. Dynamic balancing of idealized systems. Torsional and lateral critical speeds of a rotor and self-excited instability. Prerequisite: EML 3262.

EML 4264 Introduction to Vehicle Dynamics (3). Fundamentals of dynamics applied to the study of automotive vehicle performance. Emphasis will be placed on the use of models to evaluate or improve vehicle design. Prerequisite: EGN 3321.

EML 4312 Automatic Control Theory (3). Feedback control systems; stability analysis; graphical methods. Applications with emphasis on hydraulic, pneumatic and electro-mechanical devices. Prerequisites: EGN 3321, MAP 2302, EML 2032.

EML 4410 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. Prerequisite: EML 4140.

EML 4416 Solar Energy Technology: Fundamentals and Applications (3). Principles of solar energy conversion, BIPV systems, solar thermal systems - air and water collectors, solar assisted air conditional systems. Prerequisite: EGN 3343.

EML 4419 Propulsion Systems (3). Basics of air breathing and rocket engines used in flight systems, gas turbine and ramjet fundamentals. Introduction to compressor and turbine design. Propulsion performance. Unconventional means of propulsion in space. Prerequisite: EML 3126.

EML 4421 Internal Combustion Engines (3). Engine types, characteristics and operation. Performance factors, fuel combustion, power cycles. Knock and engine variables. Exhaust emissions. Fuel Metering. Compressors and turbines. Prerequisite: EGN 3343.

EML 4460 Mechanical Engineering Systems and Energy Utilization (3). Building mechanical, electrical and plumbing systems. Energy management and efficiency strategies. Alternative energy generation and utilization systems (solar, hydrogen, wind, biomass, etc.). Prerequisite: Permission of the instructor.

EML 4501 Mechanical Design II (3). Continuation of design analysis of elementary machine elements, including lubrication bearings, and gearings. Introduction to advanced analysis techniques. Prerequisite: EML 3500.

EML 4503 Production Machine Modeling and Design (3). The modeling of metal removing, forming, and polymer processing operations will be introduced. The design of production machines will be discussed based on the models. Prerequisites: EGN 3365, EMA 3702, and EIN 3390.

EML 4535 Mechanical Computer Aided Design (3). Introduction to the use of computers in the design process. Course emphasizes the use of interactive computing and computer graphics in developing CAD applications. Programming project is required. Prerequisite: EML 2032.

EML 4551 Ethics and Design Project Organization – *GL* (1). Organization to include problem definition, goals, survey, conceptual and preliminary design, ethics and cost components, social and environmental impact, presentation to enhance communication skills. Prerequisite: EML 4140. Corequisites: EGM 3311, EML 3500, and senior standing.

EML 4557 Market Oriented Design and Production (3). Students will work in groups to simulate development of innovative products and bringing them to the market. Patent search, design, prototyping, and finding manufactures will be discussed.

EML 4561 Introduction to Electronic Packaging (3). Introduction to mechanical packaging of electronic systems. Integrates concepts in mechanical engineering to the packaging of electronic systems, such as hybrid microelectronics. Prerequisites: EEL 3003 or EEL 3110, and EEL 3110L.

EML 4576 Design Optimization (3). Conceptual formulations and methods using gradient-based and evolutionary algorithms for single-objective and multi-objective unconstrained and constrained optimization. Use of response surfaces and commercial software. Prerequisites: EML 2032, EML 3126. Corequisite: EML 3036.

EML 4601 Principles of Refrigerating and Air Conditioning (3). Refrigeration cycles. Psycho-metrics. Thermal comfort. Load and energy calculations. Pump and piping design. Fan and air distribution. Heat exchangers design. Refrigeration systems and applications. Prerequisites: EML 3101 or permission of the instructor.

EML 4601L Refrigeration and Air Conditioning Lab (1). Experiments in Air Conditioning and Refrigeration applications. Corequisite: EML 4601.

EML 4603 Air Conditioning Design (3). Mechanical design and optimization of an air conditioning system for a selected application including comfort, industrial applications, building operation and management. Design project required. Prerequisites: EML 4140 or permission of the instructor.

EML 4608C Mechanical Systems in Environmental Control (3). Analysis of refrigeration, heating and air handling systems. Design of environmental control systems. Prerequisite: EGN 3343.

EML 4702 Fluid Dynamics (3). A mid-level course on ideal fluid flow, compressible flow and viscous flow. Analysis and numerical techniques of continuity and Navier-Stokes equation for incompressible and compressible flow. Prerequisite: EML 3126.

EML 4706 Design of Thermal and Fluid Systems (3). Design of thermal and fluid systems and components. Piping networks, duct works. Selection of pumps and fittings. Basic design of heat exchangers, turbomachinery, pumps, and fans. Prerequisite: EML 4140.

EML 4711 Gas Dynamics (3). Basic equations of motion for the flow of a compressible fluid, isentropic flow, normal and oblique shock waves, linearized flows method of characteristics and supersonic nozzle and airfoil design. Prerequisites: EML 3126 and EGN 3343.

EML 4721 Introduction to Computational Thermo-Fluids (3). Introduction of numerical methods for compressible and incompressible flows and heat transfer. Topics include explicit and implicit schemes, accuracy and stability in different coordinate systems. Prerequisite: EGM 3311. Corequisite: EML 4140.

EML 4804 Introduction to Mechatronics (3). This course will introduce computer controlled precise motion generation in smart machines. Prerequisites: EML 3301L or EEL 3003 or EEL 3110 or EEL 3111L or EEL 3110L.

EML 4806 Modeling and Control of Robots (3). Robot models in terms of geometric parameters. Kinematic and dynamic modeling of robots. Static and dynamic force equilibrium. Robot programming, control algorithms, simulations. Prerequisites: EGN 3321 and EGM 3311.

EML 4823 Introduction to Sensors and Signal Processing (3). This course will introduce the basic sensors and signal processing techniques for design and development of smart products. Prerequisites: EML 3301L or EEL3110L.

EML 4840 Robot Design (3). Robotic arm and mobile platform design including a review of major design components such as actuators, sensors, and controllers. Computer-based design, analysis and hands-on projects. Prerequisites: EML 4806 or permission of the instructor.

EML 4905 Senior Design Project – *GL* (3). Project statement, in-depth survey, conceptual and structural design, analysis, statistical and cost analyses, ethical, societal and environmental impact, prototype construction, final presentation. Prerequisites: EML 4551 and permission of the advisor. Corequisite: Either EML 4706 or EML 4501.

EML 4906L Mechanical Lab (1). Experiments with various types of mechanical equipment including engines, fans, boilers, pumps, motions and mechanics. Prerequisites: EGN 3343 and EML 3126.

EML 4911 Undergraduate Research Experience (1-3). Participate in funded research in the areas of nanotechnology, advanced materials, mechanics, mechatronics, robotics, thermal and fluid sciences and computational engineering. Prerequisite: Permission of a faculty advisor.

EML 4920 Introduction to Professional Development and Leadership for Mechanical Engineers (3). Introduction to consequences of engineering, concepts of career management, decision making, leadership and intrapreneuring that enhance the effectiveness of professional engineering practice. Prerequisite: Senior standing in engineering.

EML 4930 Special Topics/Projects (1-3). Individual conferences, assigned readings, and reports on independent investigations selected by the students and professor with approval of advisor.

EML 4936 Mechanical Engineering Undergraduate Seminar (0). Career choices in ME, interview techniques, CV preparation, FE/PE exams, presentation preparations, ME topics related to professional practices. Prerequisites: Advanced junior or beginning senior standing.

EML 4940 Undergraduate Internship (1). Undergraduate students gain work experience through supervised internship in industry. The student develops an internship program proposal, and the work performed is documented and presented. Prerequisites: Permission of departmental advisor or undergraduate program director.

EML 4949 Co-op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the Co-op program with consent of advisor. Evaluation and reports required.

EML 5082 Advanced Nondestructive Testing and Mechanical Health Monitoring (3). Theory and application of Nondestructive Testing (NDT) and Mechanical Health Monitoring (MHM) techniques will be discussed. Automated interpretation of signals and advanced methods will be presented. Prerequisite: Permission of the instructor.

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. 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, polhade and herpolhade, theory of tops and gyroscopes. Variational principles. Hamiltonian equations of motion. Poinsote representation. Prerequisites: MAP 2302 or EGM 3311, and EGN 3321.

EML 5152 Intermediate Heat Transfer (3). Multidimensional 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 5290 Fundamentals of Microfabrication (3). Science of miniaturization will be introduced. Materials choices, scaling laws, different options to make very small machines and practical applications will be emphasized. Progress related to state-of-the-art BioMicroElectro Mechanical Systems will be presented.

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 4804.

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 4804 or permission of the instructor.

EML 5509 Optimization Algorithms (3). Multi-disciplinary numerical analysis combined with single objective and multi-objective unconstrained and constrained optimization and sensitivity analysis techniques to optimize the design. Prerequisite: 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 5528 Digital Control of Mechanical Systems (3). Discrete modeling of mechanical systems. Digital feedback systems. Computer interface with mechanical systems. Controller design with emphasis on hydraulic, pneumatic and electro-mechanical devices. Prerequisite: Permission of the instructor.

EML 5530 Intermediate Computer-Aided Design/ Computer-Aided Engineering (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 5555 Special Projects in Mechanical Engineering Design and Business Development (3). Mechanical engineering design project that encompasses conceptual and structural design, analysis, and optimization complemented by a study to develop a business venture to produce the designed product. Prerequisites: EML 4501 or equivalent, QMB 6357, and MAN 6209.

EML 5559 Design, Production and Marketing (3). Student teams will evaluate the market and identify promising mechatronics systems. They will simulate design, development, and commercialization of the products in realistic environment.

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. Prerequisites: 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 & determining performance parameters. Project design is required. Prerequisites: EML 2032 and EML 4601.

EML 5708 Advanced Design of Thermal and Fluid Systems (3). Advanced designs 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 equations. 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 4804, EML 4503, or equivalent, or permission of the instructor.

EML 5927 Professional Development and Leadership for Mechanical Engineers (3). Consequences of engineering and concepts for personal career management, decision making leadership, and entrepreneuring that enhance the effectiveness of professional engineering practice. Prerequisite: Senior standing in engineering.

SUCCEED – School of Universal Computing, Construction, and Engineering Education

Mark Allen Weiss, *Eminent Scholar Chair Professor of Computer Science, Associate Dean, and Interim Director*
Bruk Berhane, *Assistant Professor*
Trina Fletcher, *Assistant Professor*
Monique Ross, *Assistant Professor, Computer Science*
Stephen Secules, *Assistant Professor*
Alexandra Coso Strong, *Assistant Professor*

SUCCEED was formed in 2018, through a collaboration between the College of Engineering and Computing and the STEM Transformation Institute, as the first engineering and computing education department at a minority-serving institution. The school was created in alignment with the university's vision to be a "leading urban public research university focused on student learning, innovation, and collaboration." As such, SUCCEED aims to be the premier department in the U.S. with expertise in developing engineering and computing leaders who reflect the growing diversity of the 21st century.

Faculty within the school, along with students and staff, seek to connect research and innovation with student learning through collaboration with other members of the college and FIU as a whole. In particular, SUCCEED faculty research and promote evidence-based approaches that broaden participation and improve educational outcomes. Through these efforts, the faculty impact current and future engineering and computer science students at FIU and beyond. We offer the following undergraduate degree:

Bachelor of Science in Interdisciplinary Engineering

Interdisciplinary students are exposed to the fundamentals of science and engineering, while also developing their skills as leaders, systems thinkers and engineering designers through engineering leadership and business courses as well as a project-based course sequence.

Rather than focusing exclusively on an existing Engineering subfield such as Biomedical, Civil, Environmental, Electrical, Computer, or Mechanical Engineering, this is a unique interdisciplinary program with broad flexibility and a student-guided focus. The core vision of the program's design is to provide a customizable degree for students, so they may optimize their opportunities to enter the workforce, including emergent entrepreneurial businesses. The curriculum aims to develop students into engineering leaders who utilize a systems-perspective to collaborate across disciplines and design innovative, human-centered solutions to local, national, and global challenges. It combines a core encompassing math, sciences, business, communication, and engineering courses from all disciplines along with a secondary field that could include traditional existing engineering areas, or focus on grand challenges such as personalized learning, cybersecurity, and water accessibility. Through this program, students and graduates will be prepared to tackle complex engineering and business situations. The curriculum will allow students to engage in projects and learning experiences that develop their skills managing complex and open-ended projects, designing solutions for multidisciplinary engineering challenges, and working in a real-world team environment. A Bachelor's degree in Interdisciplinary Engineering will prepare students to become leaders in various aspects of industry, including health care, communications, environmental stewardship, government, and business.

Program Educational Objectives
The curriculum is designed to give students a broad understanding of the fundamentals of science and engineering, and to develop students into engineering leaders who utilize a systems-perspective to collaborate across disciplines and design innovative, human-centered solutions to local, national, and global challenges.

As a result, the program educational outcomes of the BS in Interdisciplinary Engineering are to develop graduates who, within three to five years after graduation, will:

1. Exhibit strong critical thinking, design, and problem-solving skills within the engineering industry, an advanced degree program, or another field where they can apply these skills.
2. Demonstrate an increasing level of leadership and professional responsibility by using effective communication skills and participating in multidisciplinary collaboration.
3. Exhibit a commitment to professional ethics, global awareness, and life-long learning.

Student Outcomes:
At the time of graduation, students within the Interdisciplinary Engineering program at FIU will be able to demonstrate:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CHM 1045, CHM 1045L	CHMX045/X045L or CHMX045C or CHSX440 and CHMX045L
MAC 2281	MACX311 or MACX281
MAC 2282	MACX312 or MACX282
MAC 2283	MACX313 or MACX283
MAP 2302	MAPX302 or MAPX305
PHY 2048, PHY 2048L	PHYX048/X048L or PHYX048C or PHYX043 and PHY048L
PHY 2049, PHY 2049L	PHYX049/X049L or PHYX049C or PHYX044 and PHYX049L
ECO 2023	ECOX023
EEL 2880	Intro programming in Python, C, C++, Java, or equivalent

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: http://www.flvc.org, See Common Prerequisite Manual.

Common Prerequisites:

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry Lab I	1
MAC 2281	Calculus for Engineering I	4
MAC 2282	Calculus for Engineering II	4
MAC 2283	Calculus for Engineering III	4
MAP 2302	Differential Equations	3
PHY 2048	Physics with Calculus I	4
PHY 2048L	General Physics Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	General Physics Lab II	1
ECO 2023	Macroeconomics	3
EEL 2880	Applied Software Techniques in Engineering	3

Degree Program Hours: 120

The qualifications for admissions to the Interdisciplinary Engineering Program are the same as for admission to the College of Engineering and Computing.

Lower Division Preparation

Lower division requirements include at least 60 hours of pre-engineering credits (see the Undergraduate Studies portion of this catalog for specific requirements). These courses include the common prerequisites shown above, and Introduction to Engineering. (EML-1533 Introduction to CAD for Mechanical Engineers is required unless previously taken in high school). In addition, both FIU freshman and transfer students who have not completed their core curriculum at the transfer institution must take the FIU University Core Curriculum Requirements, whose topics also complement the goals and objectives of the College of Engineering and Computing (including economic, environmental, political, and/or social issues). Students must make up any missing prerequisites before they will be allowed to begin taking certain engineering courses (see course listing for required pre-/co-requisites).

Interdisciplinary Engineering Curriculum

Common Prerequisites		**35**
Additional UCC Courses		**19**
SLS 1501	Freshman Experience	1
ENC 1101	English Composition 1	3
ENC 1102	English Composition 2	3
UCC1	Humanities 1	3
UCC2	Humanities 2 – *GL*	3
UCC3	Arts 1	3
UCC4	Social Science 1	3
Engineering Foundation		**23**
EGS 1006	Introduction to Engineering	2
EGS 2030	Ethics and Legal Aspects in Engineering	1
CWR 3201	Fluid Mechanics	3
CWR 3201L	Fluid Mechanics Lab	1
EGN 3311	Statics	3
EGN 3321	Dynamics	3
EGN 3365	Materials in Engineering	3
EEL 3110	Circuit Analysis	3
EEL 3110L	Circuits Lab	1
EIN 3235	Evaluation of Engineering Data I[3]	3
Engineering Secondary Field[4]		**12**
Engineering Business and Leadership		**12**
EGN 3613	Engineering Economy	3
EIN 4328	Introduction to Engineering Entrepreneurship[5]	3
	Business or Leadership Courses[6]	6
Interdisciplinary Project Experiences		**12**
EGN 3910	Socio-technical Systems Design	3
	Engineering Projects Course Elective[7]	3
IDS 4918	Vertically Integrated Projects C[8]	6
University-wide Electives		**7**

[1]May substitute EML-2032, COP-2210/2250, or other department specific equivalents

[2]Waivable for AA transfer students; other transfer students should see an advisor; may substitute department-specific equivalents

[3]May substitute STA-3033 or STA-3111

[4]Students must select twelve credits of additional required or elective courses in a degree-granting ABET-accredited program in the College of Engineering and Computing (CEC) to form a coherent secondary field. At least nine credits must be upper division courses hosted in CEC.

[5]May substitute ENT-4113, EEL-4933, or an alternative course as approved by advisor.

[6]List held by SUCCEED. Courses may include MAN 3022: Introduction to Management and MAR 3023: Introduction to Marketing (GL)
[7]Project course in engineering (list held by SUCCEED) or approved co-op or independent study.
[8]The Vertically Integrated Project is taken in two consecutive semesters starting in the junior year for three credits each attempt. A third course (IDS 3917) may be taken in a semester prior to these two courses to fulfill the projects-course requirement.

Other Requirements
Students must meet the University Foreign Language Requirement, must have a minimum 2.0 GPA, must complete all required classes, and must otherwise meet all of the state and university requirements in order to graduate. Students who enter the university with fewer than 60 transferred credits must take 9 summer credits. All UCC courses and courses that are prerequisites for other courses taken later in the curriculum must be passed with a grade of "C" or higher. Also see the Undergraduate Studies portion of this catalog for additional information.

Course Descriptions

Definition of Prefixes

EGN - Engineering General;
Courses that meet the University's Global Learning requirement are identified as GL.

EGN 3910 Socio-technical Systems Design (3). A collaborative, projects-based introduction to interdisciplinary design using systems thinking and human-centered design principles.

College of Engineering and Computing

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Associate Dean for Academic Affairs **Anthony J. McGoron**
Associate Dean for Research **Osama Mohammed**
Associate Dean for Undergraduate Studies **Mark Weiss**

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Chairperson, Civil and Environmental Engineering **Atorod Azizinamini**
Chairperson, Electrical and Computer Engineering **Shekhar Bhansali**
Chairperson, Mechanical and Materials Engineering **Arvind Agarwal**

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Interim Director, School of Universal Computing, Construction, and Engineering Education (SUCCEED) **Mark Weiss**

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Director, Accelerated Bridge Construction University Transportation Center **Atorod Azizinamini**
Co-Director, Accelerated Bridge Construction **David Garber**
Director, NHERI Wall of Wind (WOW) Experimental Facility (EF); Co-Director, Lab. Wind Engineering Research **Arindam Chowdhury**
Director, Wind Engineering Research **Ioannis Zisis**
Director, International Hurricane Research Center **Richard Olson**
Director, Lehman Center for Transportation Research **Mohammed Hadi**
Director, Transit Program and Co-Director of Driving Simulation Lab **Fabian Cevallos**
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Director, High Performance Database Research Center Director, Industry/University Cooperative Research Center (I/UCRC) Center for Advanced Knowledge Enablement (CAKE) **Naphtali Rishe**
Director, Telecommunications and Information Technology Institute **Niki Pissinou**
Director, Distributed Multimedia Information Systems Laboratory **Shu-Ching Chen**
Director, Advanced Materials Engineering Research Institute (AMERI) **Arvind Agarwal**
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Volakis, John L., Ph.D., *(The Ohio State University), Dean, College of Engineering and Computing, Professor, Electrical and Computer Engineering*

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Wang, Ton-Lo, Ph.D., P.E. *(Illinois Institute of Technology), Professor and Associate Chair, Civil and Environmental Engineering*

Watson, Herman, Ph.D. *(Florida International University), Lecturer, Electrical and Computer Engineering*

Weiss, Jill, M.S. *(Barry University), University Instructor, School of Computing and Information Sciences*

Weiss, Mark, Ph.D. *(Princeton University), Eminent Scholar Chaired Professor, School of Computing and Information Sciences; Associate Dean for Undergraduate Education; Interim Director, School of Universal Computing, Construction, and Engineering Education (SUCCEED)*

Wen, Wujie, Ph.D., *(University of Pittsburgh), Assistant Professor, Electrical and Computer Engineering*

Xie, Ning, Ph.D. *(Massachusetts Institute of Technology), Assistant Professor, School of Computing and Information Sciences*

Yen, Kang K., Ph.D., P.E. *(Vanderbilt University), Professor, Graduate Program Director (M.S.), Electrical, Program Director of International Program Development and Computer Engineering*

Zeng, Wei, Ph.D. *(Chinese Academy of Sciences), Assistant Professor, School of Computing and Information Sciences*

Zhang, Lu, Ph.D. *(University of Illinois - Urbana-Champaign) Assistant Professor, Moss School of Construction, Infrastructure and Sustainability*

Zisis, Ioannis, Ph.D. *(Concordia University), Associate Professor, Civil and Environmental Engineering; Co-Director, Laboratory for Wind Engineering Research, International Hurricane Research Center*

Nicole Wertheim College of Nursing and Health Sciences

Dean	**Ora Strickland**
Associate Dean, Academic Affairs	
Associate Dean, Administrative Affairs	**Helen Z. Cornely**
Associate Dean of Research, PhD Program Director	**Tami L. Thomas**

Chairs and Directors:

Interim Chair, Athletic Training	**Michelle Odai**
Chair, *Communication Sciences & Disorders*	**Monica Hough**
Interim Chair, Health Services Administration	**Salvatore Barbera**
Assistant Chair, Health Services Administration	**Chanadra Young-Whiting**
Interim Chair, Nurse Anesthesia	**Derrick C. Glymph**
Assistant Chair, Nurse Anesthesia	**Jorge Valdes**
Chair, Graduate Nursing (MSN & DNP)	**Yhovana Gordon**
Assistant Chair, Graduate Nursing (MSN & DNP)	**Charles Buscemi**
Director, PhD Nursing	**Tami L. Thomas**
Chair, Undergraduate Nursing	**Maria Olenick**
Assistant Chair, Undergraduate Nursing	**Tatayana Maltseva**
Interim Chair, Occupational Therapy	**Lynne Richard**
Chair, Physical Therapy	**Mark D. Rossi**
Director, STAR Center	**Henry Henao**
Director, Student Services	**Kathryne Collins**

The Nicole Wertheim College of Nursing and Health Sciences was created in 2006 by the merger of the School of Nursing and the School of Health Sciences. In support of the University's mission as a major urban research institution, the College offers programs of professional study in selected health professions.

The College offers baccalaureate degrees in Nursing and Health Services Administration. Master's degrees are offered in Athletic Training, Health Services Administration, Occupational Therapy, Speech-Language Pathology, and Nursing, The Doctor of Philosophy in Nursing, the Doctor of Nursing Practice, the Doctor of Physical Therapy and the Doctor of Athletic Training are offered by the College.

The Nicole Wertheim College of Nursing and Health Sciences' mission is to prepare diverse healthcare professionals who are providers and leaders in the delivery of high quality, accessible, culturally-competent, and compassionate care within in a highly technological and global environment. Our Vision is to be globally recognized as the higher education destination organization that is innovative, inquiry-driven and technologically advanced; drawing diverse top-class faculty, students, staff and others for positive transformation of society with a focus on the health care needs of underserved populations.

Students interested in the academic programs offered by the Nicole Wertheim College of Nursing and Health Sciences are urged to contact the Office of Student Services at (305) 348-7703.

College Policies

Background checks and drug screenings:

The practicum/field placement sites used by some of the programs in the Nicole Wertheim College of Nursing and Health Sciences require the disclosure of conviction records for misdemeanors and/or felonies and current screening for drug use. Therefore, students are required to submit to criminal background checks and drug screening tests prior to admission and to the initiation of the clinical education portion of their education. The student will be responsible for the financial cost of such screenings. Findings in background checks and/or drug screening tests may affect a student's ability to participate in clinical experiences and complete the program, and/or obtain licensure or certification.

Standard disclaimer on policy/procedure changes

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 and College's various publics and to respond to the mandates of the Florida Department of Education, Board of Governors, the Legislature, and other regulatory and accrediting agencies. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Changes to the Curriculum Requirements

The curricula described in this catalog are continually subject to review in order to respond to the mandates of the Florida Department of Education, Board of Governors, and the Legislature. This is especially true for the programs that are subject to national accreditation requirements. University policy changes in curriculum may be made without advance notice. Please refer to the College's website for the most recent information regarding program requirements, policies, and procedures.

Generally, the Nicole Wertheim College of Nursing and Health Sciences 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. Students should review their file to ensure that all documentation of changes is noted.

Health Services Administration

Barbera, Salvatore, DHA, M.H.S.A., FACHE, *Interim Chair and Clinical Assistant Professor*

Maricelli Comellas, Ed.D., *Clinical Assistant Professor*
Wensheng Fan, Ph.D, MPH, *Clinical Assistant Professor*
Kellen Hassell, Ed.D, *MA,* *Clinical Assistant Professor*
Michelle Kameka, Ed.D., MPH, *Clinical Assistant Professor*
Yamile Marrero, JD, MPH, CSCS, *Clinical Assistant Professor*
Tina Yeung, PhD., MHA, *Clinical Assistant Professor*
Chanadra Young-Whiting, Ed.D., MPH/HAS, *Assistant Chair and Clinical Associate Professor*

Bachelor of Health Services Administration

The Bachelor of Health Services Administration (BHSA) qualifies students for entry-level management positions in health services delivery organizations. The program provides professional education for administrative occupations in various health care settings. The degree also prepares individuals for further study in health services administration or public health. It is an excellent career development pathway for persons licensed in clinical health and medical care professions but lacking an undergraduate degree.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
ECO 2023	ECOX023
ACG 2021	ACGX021 or ACGX024 or ACGX001 and ACGX011
ACG 3301	ACGX071 or ACGX301
CGS 2060	CGSX061 or CGSX100 or ISMX000
STA 2023 or STA3145 or STA 2122 or STA 3111	STAX023

[1]Six semester hours of English coursework in which the student is required to demonstrate college-level English skills through multiple assignments. Note: C or better is required for all coursework.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://flvc.org**. Search Program Listing by Alphabetic Order.

Admissions Requirements

Students must follow regular University admission procedures and upon admission declare their specific major as Health Services Administration. In addition, students must complete the following prerequisite courses as part of their 60 credit-hours of lower-division course work and achieve a minimum "C" required grade in any one course for the following required prerequisites:

ECO 2023	Principles of Microeconomics
ACG 2021	Accounting for Decisions
ACG 3301	Accounting for Planning and Control
CGS 2060	Introduction to Microcomputers
STA 2122	Statistics for Behavioral and Social Sciences I
	or
STA 3111	Statistics I
	or
STA 3145	Statistics for the Health Professions
	or
STA 2023	Statistics for Business and Economics

The GPA in the first 60 credit-hours must be a 2.5 or higher.

Program Graduation Requirements

1. Satisfy all requirements for Bachelors of Health Service Administration program including undergraduate student regulations and degree requirements governed by the policies of Florida International University and the State University System.
2. Complete a minimum of 60 credit hours of Health Services Administration program required courses.
3. Complete a minimum of 120 credit hours for graduation.
4. Earn a minimum cumulative grade point average of 2.0 with a minimum grade of "C" or better in Health Services Administration program required courses. Grade of "C-" or lower will not count towards HSA degree.
5. Meet with Academic Advisor to ensure degree requirements are completed prior to applying for graduation.
6. Apply for graduation online on or before the deadline posted in the Academic Calendar.

Degree Program Hours: 120

Courses are sequenced to enhance the development of competencies as student's progress through the curriculum. Students need to pay particular attention to proper sequencing and course prerequisites. *Prerequisites are in place to assure you have the appropriate foundation for the capstone coursework. Students who register without completing the appropriate prerequisites may be Administratively Dropped from courses.*

Foundation Courses: (18 credits)

Foundation Courses are prerequisites to Core Courses. Must earn a "C" or higher to count towards BHSA degree (minimum cumulative GPA of 2.0 is required for graduation).

HSA 3111	Introduction to Health Services Systems	3
HSA 3180	Leadership and Management for Health Professionals	3
HSA 4431	Values, Ethics, and Conflict Resolution in Health and Urban Affairs	3
HSA 3412C	Cultural Competency in Health Sciences	3
ENC 3213	Professional and Technical Writing	3
COM 3110	Business and Professional Communication	3
PAD 3438	Communication Skills for Policy and Management	3

HSC 3661	Communication Theory and Practice for Health Professions	3

Core Courses: (15 credits)

Must earn a "C" or higher to count towards BHSA degree (minimum cumulative GPA of 2.0 is required for graduation).

HSA 4700	Quality and Evidence-Based Healthcare Services	3
HSA 4190	Information and Communication Technology for Health Professionals	3
HSA 4170	Healthcare Financial Management	3
HSA 4110	Healthcare Organizational Behavior and Resource Management	3
HSA 4421	Legal Aspects of Healthcare	3

Integrative Courses: (15 credits)

Must earn a "C" or higher to count towards BHSA degree (minimum cumulative GPA of 2.0 is required for graduation).

HSA 4140	Program Planning and Evaluation	3
HSA 4150	Global Healthcare Systems and Policy – *GL*	3
HSA 4192	Healthcare Quality Management	3
HSA 4113*	Global Issues and Trends in Healthcare – *GL*	3
HSA 4850	BHSA Administrative Internship or HSA approved elective	3

**HSA 4113 Global Issues and Trends in Healthcare is an integrative capstone course and should be taken during the final semester of the BHSA program.*

HSA 4850 Administrative Internship

All students who are transitioning into the BHSA program will have the opportunity to complete a minimum of 210 clock hours of the HSA 4850 BHSA Administrative Internship. The student will be required to dedicate three days of the work week to successfully complete the clinical portion of the internship.

Due to limited placement space, this competitive internship course cannot accept all applicants that meet the requirements. Students must complete the following in order to be considered for the BHSA Administrative Internship:

1) All Foundation and Core course work.
2) Achieve a GPA of 3.25 or higher in all Foundation and Core course work.
3) Complete and submit an internship application and educational plan for Faculty Preceptor approval.
4) Submit three letters of recommendation from professors in the BHSA program.
5) Submit a cover letter and resume for departmental review.
6) Satisfy all clinical clearance requirements dictated by the contractual agreements FIU has with all affiliated community placements the semester prior to registering.
7) Once accepted into the BHSA Administrative Internship, students are required to attend an Internship Information Session.

Successful completion of all requirements does not guarantee admission into HSA 4850 BHSA Administrative Internship. For further information regarding internship requirements, reference should be made to the BHSA website.

Elective Courses: (12 credits)

Must earn a "C" or higher to count towards BHSA degree (minimum cumulative GPA of 2.0 is required for graduation) and the electives need to be upper level courses. With a bachelor's in health services administration, you have a variety of possible careers. The electives you choose for your degree can provide a focus and foundation that helps you gain entry into a specific career path.

Students are encouraged to choose courses from a suggested list of BHSA electives, as these do not require advisor approval. Please note that suggested courses are not scheduled or managed by the Department of Health Services Administration; if you should encounter issues with registration, you must contact the respective department in which the course(s) is/are affiliated. Students may select other 3000 or 4000 level courses not on the suggested elective list with prior approval from HSA advisor before registration.

Minor in Health Services Administration

A five course minor in Health Services Administration is available to baccalaureate degree seeking students who have a minimum GPA of 2.5, have completed 60 lower division hours, and are interested in careers in health services administration or who wish to examine the administrative aspects of health services delivery.

Fifteen hours in Health Services Administration are required: Six required credit hours and nine credit hours of electives.

Required Courses: (6 credit hours)

See catalog for prerequisites for the following two courses.

HSA 3111	Introduction to Health Services Systems	3
HSA 3180	Leadership and Management for Health Professionals	3

To be taken in first semester of minor matriculation. These courses are prerequisite for electives and no substitutions or waivers will be granted.

Elective Courses: (9 credit hours)

The other nine hours may be selected from the following, providing all prerequisites have been met. See catalog for prerequisites for the following classes.

HSA 4700	Quality and Evidence-Based Healthcare Services	3
HSA 4110	Healthcare Organizational Behavior and Resource Management	3
HSA 4150	Global Healthcare Systems and Policy – *GL*	3
HSA 4170	Healthcare Financial Management	3
HSA 4421	Legal Aspects of Healthcare	3

It is the student's responsibility to contact the department from which the student wishes to receive the minor when they apply for graduation. This will ensure that the minor will be posted on their transcript.

Nursing

Strickland, Ora, Ph.D., DSc (Hon), RN, FAAN, *Dean and Professor*
Olenick, Maria, Ph.D., RN, FNP, FAAN, *Chair of Undergraduate Nursing and Clinical Associate Professor*
Azutillo, Elizabeth, MSN, RN, *Clinical Assistant Professor*
Barfield, Latisha, DNP, CNM, APRN, *Clinical Assistant Professor*
Blais, Kathleen, Ed.D., RN, *Professor Emeritus*
Caicedo, Carmen, Ph.D., RN, *Assistant Professor*
De Los Santos, Maria, DNP, RN, MPH, APRN, *Clinical Assistant Professor*
Delgado, Victor, DNP, ANP-BC, NP-C, RN, *Clinical Assistant Professor*
Diez Sampedro, Ana Ph.D., FNP-BC, RN, *Visiting Clinical Associate Professor*
Flowers, Monica, DNP, APRN, FNP-BC, *Clinical Associate Professor*
Fonseca, Mark A., MSN, APRN, AGPCNP_BC, CHSE, *Coordinator of the Simulation Teaching and Research (STAR) Center and Clinical Instructor*
Gaillard, Trudy Ph.D., RN, CDE, FAHA, *Associate Professor*
Garrido, Maria, DNP, RN, *Clinical Assistant Professor*
Gonzalez, Arturo, DNP, APRN, NP-C, ANP-BC, CWCN-AP, RN, *Clinical Assistant Professor*
Hannan, Jean, Ph.D., RN, *Associate Professor*
Henao, Henry, MSN, RN, APRN, FNP-BC, *Director of Simulation Teaching and Research (STAR) Center and Clinical Assistant Professor*
Hidalgo, Ivette, Ph.D., APRN, *Clinical Assistant Professor*
Holness, Nola, Ph.D., CNM, APRN, *Clinical Assistant Professor*
Jones, Sandra, Ph.D., RN, ACRN, APRN, FAAN *Professor, Nursing*
Maltseva, Tatayana, Ph.D., RN, APRN, PMHNP-BC, *Assistant Chair and Clinical Assistant Professor*
Miller, Audrey, Ph.D., APRN, RN, *Clinical Assistant Professor*
Olafson, Elizabeth, MSN, RN, MSEd., *Director of Clinical Education and Clinical Assistant Professor*
Parchment, Yvonne, Ed.D., RN, CCRN, APRN, CNE, *Clinical Associate Professor*
Simon, Sharon, Ph.D., RN, *Clinical Assistant Professor*

The Nicole Wertheim College of Nursing and Health Sciences offers a professional program of study leading to the degree of Bachelor of Science in Nursing (BSN).

The BSN program is accredited by the Commission on Collegiate Nursing Education (CCNE), One Dupont Circle, Suite 530, Washington, DC 20036-1120, (202) 887-8476, and is approved by the Florida Board of Nursing (4052 Bald Cypress Way, BIN CO2, Tallahassee, FL 32399, 850-245-4125). The program is open to generic (basic) and RN students. The generic BSN program includes a track for foreign-educated physicians who have previous knowledge and skills in the health care field. Upon graduation, generic students are eligible to write the NCLEX examination to become registered nurses.

The Nicole Wertheim College of Nursing and Health Sciences also offers a Master of Science degree in Nursing, a Ph.D. in Nursing, and Doctor of Nursing Practice degree as well as selected continuing education courses.

Program Objectives

Upon completion of the BSN, graduates will be able to:

1. Synthesize knowledge from nursing and related disciplines in the provision of care to clients within the health-illness continuum throughout the life span.
2. Utilize creative leadership to promote quality health care and patient safety in a rapidly changing multicultural, multiethnic, and global environment.
3. Synthesize and apply evidence and research findings from nursing and from other disciplines to improve or change nursing practice.
4. Use appropriate and current technology and skills in the delivery of safe and effective patient care.
5. Function as an advocate and change agent in influencing healthcare policies, delivery, economics, and health disparities to improve the quality of health for diverse populations.
6. Collaborate and communicate with members of the health care team in the delivery of individualized, cost-effective and ethical health care services.
7. Demonstrate an understanding of accountability, responsibility, values, and standards of moral, ethical, and legal conduct that impact on the role and practice of the professional nurse.
8. Utilize theoretical knowledge and clinical competencies in caring for culturally diverse populations in a variety of clinical settings.

Program Policies

Students who enter FIU without an Associate of Arts (AA) degree, transfer from out-of-state, or transfer from a private community college must meet the FIU core curriculum requirements. See a nursing advisor (305) 348-7703 in the Office of Student Services for admission information.

Nursing majors are responsible for transportation expenses related to clinical experiences. They are required to carry health and accident insurance. To safeguard the health of clients, nursing students are required to submit proof of health examination and immunizations upon entry into the nursing program. Students must submit proof of basic cardiopulmonary resuscitation (CPR) certification (American Heart Association) prior to entering clinical courses in the nursing major. This CPR certification must cover the period of enrollment in the major.

The Florida Board of Nursing and clinical agencies require the disclosure of arrest and conviction records for misdemeanors and/or felonies; therefore, this information will be required at the time of application. Applicants are required to submit to criminal background checks and drug testing. Expenses associated with background checks and drug testing (including repeat testing) are the responsibility of the student. Findings may affect a student's ability to participate in clinical experiences and complete the program, and/or obtain registered nurse licensure.

In addition to undergraduate tuition and fees, nursing students may be charged a fee for courses with an "L" suffix for laboratory supplies.

Students who request a transfer from another nursing program must provide a letter of good standing from the nursing program in which they were enrolled.

The College reserves the right to terminate a student from the nursing program for reasons related to the inability to safely carry out professional responsibilities.

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 and College's various publics and to respond to the mandates of the Florida Department of Education, Board of Governors, the Legislature, and other regulatory and accrediting agencies. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations. Please refer to the College's website for updated information in nursing.

Bachelor of Science in Nursing (BSN)-Generic Track

Degree Program Hours: 124

Admission Requirements

Applicants to the nursing major must submit an application for admission to the University and must follow the regular University procedures. Applicants must also complete a nursing major application. Applicants must be admitted to the University before admission to the nursing major.

All admission documents must be submitted and courses must be completed by March 15 preceding the Fall admission. Students interested in the nursing major should contact the College to make an appointment with the Office of Student Services as early as possible. The College is located on the Modesto A. Maidique Campus, (305) 348-7703, or call the Biscayne Bay Campus for the Foreign-Educated Physician to BSN track, (305) 919-4421.

The generic BSN track is a limited enrollment program and admission is competitive based on previous academic performance. To be admitted to the program, applicants must:

1. Have an overall GPA of 3.25 or higher, with no repeats in science courses due to failure;
2. Have completed science courses within the past 10 years;
3. Have met all the lower division requirements including a grade of "C" for all nursing pre-requisite courses;
4. Completed 60 semester hours;
5. Have met entry requirements for computation and reading skills; and
6. Be recommended for admission by the Undergraduate Admissions Committee.

A criterion-based point system is used for admission evaluation of applicants to the generic BSN program. Contact an advisor for information on the point system. Applicants must apply by the published deadline to be considered for admission. Once a class fills, there are no deferred admissions. Previous applicants who wish to be considered for admission in the next application cycle must submit a new application, along with any supporting documentation. For applicants to the Foreign-Educated Physician-BSN track and the RN-BSN-MSN, see admission requirements for these tracks.

Lower Division Preparation

Transfer students who have been awarded an Associate of Arts degree from a Florida (public) community college or a baccalaureate degree or higher from an accredited regional institution or FIU core students must successfully complete the following prerequisites for the FIU nursing program:

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
STA 3145	STAX014 or STAX023 or STAX122 or STAX022
CHM 1033/L	CHMXXXX or BCHXXXX or BSCXXXX or PCBXXXX or PHYXXXX
PCB 2099/L	BSCX085C or BSCX085/X085L or BSCX093C or BSCX093/X093L
ZOO 3731/L	BSCX086C or BSCX086/X086L or BSCX094C or BSCX094/X094L
MCB 2000/L	MCBX010C or MCBX010/X010L or MCBX013C or MCBX013/X013L or MCBX000/X000L or MCBX004/X004L
DEP 2000	DEPX004 or DEPX054 or DEPX000 or DEPX414
PSY 2012	PSYXXXX or SOPXXXX or SYGXXXX
HUN 2201	HUNX201 or NURX192

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://flvc.org**. Search Program Listing by Alphabetic Order.

Course Credits

Statistics	3
Chemistry & Lab	5
Human Anatomy/Physiology & Labs	8
Microbiology & Lab	4
Human Growth & Development	3
Introduction to Psychology	3
Ethics*	3
Nutrition	3

**Additional course required for the degree. Equivalent transfer courses will be accepted.*

Course Credits – 54

Freshman Year – Fall Semester – 14 credits

ENC 1101	Writing and Rhetoric I	3
MGF 1106	Finite Mathematics	3
SLS 1501	First Year Experience	1
PSY 2012	Intro to Psychology	3
PCB 2099/2099L	Human Physio/Lab*	4

Freshman Year – Spring Semester – 13 credits

ENC 1102	Writing and Rhetoric II	3
MCB 2000	Introductory Microbiology* – *GL*	3
MCB 2000L	Introductory Micro Lab*	1
Arts Requirement		3

STA 3145	Statistics	3

Sophomore Year – Fall Semester – 14 credits

PHI 2010	Introduction to Philosophy (*preferred because also meets Gordon Rule*)	3
HUN 2201	Principles of Nutrition	3
CHM 1033/1033L	Survey of Chem/Lab*	5
Elective		3

Sophomore Year – Spring Semester – 13 credits

ZOO 3731/3731L	Human Anatomy/Lab* (*Can be taken any time after MCB 2000/2000L or PCB 2099/2099L*)	4
PHI 2600	Introduction to Ethics	3
DEP 2000	Human Growth/Dev	3
Elective		3

* Contact departments for course scheduling of sciences.

Scholastic Requirements

To remain in good academic standing students must:

1. Achieve a grade of 'C' or higher in nursing courses. A student who earns less than a 'C' in any nursing course will be required to repeat the course in order to progress in the nursing program. A student may repeat a course one time only. Students who have failed two nursing courses or have two failures in the same nursing course will be dismissed from the program.
2. Pass required examinations: Generic students are required to take specific nursing achievement examinations (To be announced at the beginning of each academic term). In addition, generic students are required to pass a nursing synthesis (exit) exam as a prerequisite to the BSN degree. This examination is given during the last semester of the program.

Required Nursing Courses – 70

Junior Year – Fall Semester – 15 credits

NUR 3029	Foundations of Nursing Practice	3
NUR 3029C	Foundations of Nursing Practice Lab	2
NUR 3029L	Foundations of Nursing Practice Clinical	3
NUR 3125	Pathophysiologic Basis for Nursing Practice	3
NUR 3066C	Health Assessment and Promotion	4

Junior Year – Spring Semester – 16 credits

NUR 3226	Nursing Care of Adults I	3
NUR 3226L	Nursing Care of Adults I Clinical	3
NUR 3145	Pharmacologic Basis of Nursing Practice	3
NUR 3535	Psychosocial Nursing	3
NUR 3535L	Psychosocial Nursing Clinical	3
NSP 3801	Inter-Professional Approaches to Health Care	1

Junior Year – Summer Semester – 12 credits

NUR 3227	Nursing Care of Adults II	3
NUR 3227L	Nursing Care of Adults II Clinical	3
NUR 3666	Evidence-Based Nursing and Research in Global Health Care – *GL*	3
NUR 3821	Professional Nursing Leadership: Concepts and Issues – *GL*	3
NUR 3685L	Integrative Nursing Care I	0

Senior Year – Fall Semester – 15 credits

NUR 4355	Care of Families: Childrearing Nursing	3
NUR 4355L	Care of Families: Childrearing Nursing Clinical	3
NUR 4455	Care of Families: Childbearing Nursing	3
NUR 4455L	Care of Families: Childbearing Nursing Clinical	3
NUR 4686L	Integrative Nursing Care II	0
NUR 4667	Nursing in Global Health Care Systems – *GL*	3

Senior Semester – Spring Semester – 12 credits

NUR 4636C	Care of Communities: Community Health Nursing	4
NUR 4286	Nursing Care of Older Adults	2
NUR 4945L	Senior Clinical Practicum	4
NUR 4940	Senior Nursing Synthesis	2

A laboratory fee will be assessed for the following courses:
NUR 3029C – Skills
NUR 3066C – Assessment
NUR 3685L – Integrative 1
NUR 4686L – Integrative 2

Bachelor of Science in Nursing (BSN) – Veterans Medic to Nurse

Admission Requirements

Applicants to the Veterans Medic to Nurse BSN (VBSN) must submit an application for admission to the University and must follow the regular University procedures. Applicants must complete a Veterans Medic to Nurse application. Applicants must be admitted to the University before applying for admission to the nursing program. All admission documents must be submitted by the posted college application deadline preceding the Fall and Spring admission for VBSN students. Students interested in the VBSN program should contact the College to make an appointment with the VBSN advisor as early as possible. The College is located on the Modesto A. Maidique Campus, AHC3-232, (305) 348-4725.

The VBSN track is a limited enrollment program. To be qualified for admission to the program, applicants must:

1. Be a veteran from any branch of United States military service, an active duty reservist, or a National Guard member with military medical training and service experience OR with Paramedic certification;
2. Have a minimum cumulative GPA of 2.5 in all lower division coursework;
3. Have met all lower division requirements including a minimum grade of a "C" for all nursing prerequisite courses;*
4. Completed a minimum of 60 semester hours;
5. Have completed all required prerequisite science courses within the last 10 years;
6. Have met entry requirements for computation and reading skills through the specified nursing entrance exam; and
7. Be recommended for admission by the Undergraduate Admissions Committee.

*Required nursing prerequisites include the following courses: 4 credits each of human anatomy & lab, human physiology & lab, microbiology & lab, and survey of chemistry & lab; and 3 credits each of human growth & development, statistics, psychology, principles of nutrition, and ethics.

Lower Division Preparation

Transfer and current FIU students entering the program must either have been awarded an Associate of Arts degree from a Florida (public) community college or baccalaureate degree or higher from an accredited regional institution, or must meet the FIU core requirements as outlined in undergraduate university curriculum requirements. Students must also complete the nursing prerequisites as listed below. Exceptions to these lower division and nursing prerequisite requirements may be made on a case by case basis by the undergraduate nursing program chair.

Course Credits

Statistics	3
Chemistry & Lab	5
Human Anatomy & Lab	4
Human Physiology & Lab	4
Microbiology & Lab	4
Human Growth and Development	3
Introduction to Psychology	3
Ethics	3
Nutrition	3
Upper Division Elective	3

Required Nursing Courses

Pre-Program Requirements – 6 credits

NUR 3145	Pharmacologic Basis of Nursing Practice	3
NUR 3125	Pathophysiologic Basis for Nursing Practice	3

Junior Level I – Boot Camp – 12 Exempt Credits

NUR 3029	Foundations of Nursing Practice	3
NUR 3029C	Foundations of Nursing Practice Lab	2
NUR 3029L	Foundations of Nursing Practice Clinical	3
NUR 3066C	Health Assessment and Promotion	4

Level I – Semester I – 17 credits

NUR 3821	Professional Nursing Leadership: Concepts and Issues – *GL*	3
NUR 3226	Nursing Care of Adults I	3
NUR 3226L	Nursing Care of Adults I Clinical	3
NUR 3227	Nursing Care of Adults II	3
NUR 3227L	Nursing Care of Adults II Clinical	3
NUR 4286	Nursing Care of Older Adults	2

Level II – Semester II – 18 credits

NUR 3666	Evidence-Based Nursing and Research in Global Health Care – *GL*	3
NUR 4355	Care of Families: Childrearing Nursing	3
NUR 4355L	Care of Families: Childrearing Nursing Clinical	3
NUR 4455	Care of Families: Childbearing Nursing	3
NUR 4455L	Care of Families: Childbearing Nursing Clinical	3
NUR 4667	Nursing in Global Health Care Systems – *GL*	3

Level III – Semester III – 16 credits

NUR 3535	Psychosocial Nursing	3
NUR 3535L	Psychosocial Nursing Clinical	3
NUR 4636C	Care of Communities: Community Health Nursing	4
NUR 4945L	Senior Clinical Practicum	4
NUR 4940	Senior Nursing Synthesis	2

Bachelor of Science in Nursing (BSN) – Accelerated Option

Degree Program Hours: 61

Admission Requirements

Applicants to the Accelerated Option BSN program must submit an application for admission to the University and must follow the regular University procedures. Applicants must also complete an Accelerated Option (A.O.) college application. Applicants must be admitted to the University before admission to the A.O. nursing major. All admission documents must be submitted and courses must be completed by the posted college application deadline preceding the Spring admission for A.O. students. Students interested in the A.O. program should contact the College to make an appointment with the Office of Student Services advisors as early as possible. The College is located on the Modesto A. Maidique Campus, (305) 348-7709, or call the Biscayne Bay Campus for the Foreign Educated Physician to BSN track, (305) 919-4421.

The Accelerated Option (A.O.) BSN track is a limited enrollment program and admission is competitive based on previous academic performance. To be admitted to the program, applicants must:

1. Have a baccalaureate degree from a regionally accredited college or university with a minimum cumulative GPA of 3.0;
2. Have completed all nursing prerequisites with a minimum of a “C” grade;
3. Have a minimum GPA of 3.25 for all nursing prerequisites;*
4. Have completed all required prerequisite science courses within the last 10 years;
5. Have met entry requirements for computation and reading skills; and
6. Be recommended for admission by the Undergraduate Admissions Committee.

*Required nursing prerequisites include the following courses:

Course Credits

Freshman Year – Fall Semester

Introduction to Psychology	3
Introduction to Ethics	3
Human Growth and Development	3
Human Nutrition	3
Statistics	3

Freshman Year – Spring Semester

Human Anatomy & Lab**	4
Human Physiology & Lab**	4
Microbiology & Lab**	4
Chemistry & Lab**	4

** Coursework must be completed within the 10 years prior to admission to the program.

A criterion based point system is used for admission evaluation of applicants to the Accelerated Option BSN program. Contact an advisor for information on the point system. Applicants must apply by the published deadline to be considered for admission. Once a class fills, there are no deferred admissions. Previous applicants who wish to be considered for admission in the next application cycle must submit a new application, along with any supporting documentation. For applicants to the Foreign Educated Physician combined BSN/MSN, Generic BSN,

and the RN to BSN tracks – see admissions requirements for these tracks.

Required Nursing Courses

Year I – Fall Semester (winter intersession) – 5 credits

NUR 3029C	Foundations of Nursing Practice Laboratory	2
NUR 3029	Foundations of Nursing Practice	3

Year I – Spring Semester – 19 credits

NUR 3821	Professional Nursing Leadership: Concepts and Issues – *GL*	3
NUR 3066C	Health Assessment and Promotion in Nursing Practice	4
NUR 3145	Pharmacologic Basis for Nursing Practice	3
NUR 3125	Pathophysiologic Basis for Nursing Practice	3
NUR 3226	Nursing Care of Adults I	3
NUR 3226L	Nursing Care of Adults I Clinical	3

Year I – Summer Semester – 18 credits

NUR 3227	Nursing Care of Adults II	3
NUR 3227L	Nursing Care of Adults II Clinical	3
NUR 4355	Care of Families: Childrearing Nursing	3
NUR 4355L	Care of Families: Childrearing Nursing Clinical	3
NUR 4455	Care of Families: Childbearing Nursing	3
NUR 4455L	Care of Families: Childbearing Nursing Clinical	3

Year II – Fall Semester – 19 credits

NUR 3666	Evidence-Based Nursing and Research in Global Health Care – *GL*	3
NUR 3535	Psychosocial Nursing	3
NUR 3535L	Psychosocial Nursing Clinical	3
NUR 4636C	Care of Communities: Community Health Nursing	4
NUR 4945L	Senior Clinical Practicum	4
NUR 4940	Senior Nursing Synthesis	2

Bachelor of Science in Nursing (BSN)-RN to BSN Track

The RN-BSN degree requires a minimum of 120 credits. In addition to 60 transferable lower division credits, the degree requirements include: 24 credits of nursing core courses, 30 credits of clinical proficiency evaluations (completed by equivalency exams), 4 credits each of human anatomy & lab, human physiology & lab, microbiology & lab, and survey of chemistry & lab; and 3 credits each of human growth & development, statistics, psychology, principles of nutrition, and ethics. No more than six (6) transferable credits from other nursing baccalaureate programs will be accepted for the RN-BSN program of study, and nursing prerequisites must be completed at a regionally accredited institution. Students must complete at least 30 upper division credits at FIU.

Each applicant's educational record is individually evaluated by the nursing unit. To progress through the curriculum, the RN must successfully complete prerequisite, co-requisite and required courses for the curriculum plan in effect at the time of admission. It is possible to complete the nursing sequence in one year of full-time study after all prerequisites and equivalency examinations have been completed and the RN has been fully admitted to the program.

Admitted RN-BSN students who have not enrolled in any FIU course for three (3) or more consecutive terms will be required to apply for readmission to FIU and the NWCNHS. The applicant must meet the RN-BSN track admission requirements, including the program of study, in effect at the time of readmission. Upon readmission, RN-BSN coursework already completed will be evaluated by the Chair of Undergraduate Nursing or designee. Readmitted RNs may be required to repeat or take additional courses to complete degree requirements.

It is preferred that RNs have one year clinical nursing experience and must obtain professional liability insurance prior to registering for NUR 4636C and NUR 4945L. Students must achieve the competencies of equivalency exams prior to enrollment in Level IV courses.

Scholastic Requirements

To remain in good academic standing, students must achieve a grade of 'C' or higher in nursing courses. A student who earns less than a 'C' in any nursing course will be required to repeat the course in order to progress in the nursing program. A student may repeat a course one time only. Students who have failed (C- or lower) two nursing courses or have two failures in the same nursing course will be dismissed from the program.

Admission Requirements

1. Unencumbered Florida Registered Nurse License,
2. 2.75 Cumulative GPA from an accredited ASN or Diploma Nursing program,
3. Minimum 60 transferable lower division college credits,
4. Associate in Arts (AA) from a Florida state system college or non-nursing Bachelor's degree in another field from a regionally accredited institution (required with Non-Regionally accredited ASN) or meet Core Curriculum Requirements,
5. Meet a) Florida mandated Gordon Rule requirements; b) University Core Curriculum requirements; c) University foreign language requirement; and d) nursing major prerequisites with a grade of "C" or higher,
6. RN-BSN applicants who hold an ASN degree from a non-regionally accredited educational institution MUST have earned an ASN from an institution with ACEN (Accreditation Commission for Education in Nursing, formerly NLNAC) accreditation and MUST obtain an Associate in Arts (AA) from a Florida State System College or a Bachelor's Degree in another field from a Regionally Accredited institution prior to entering FIU's RN to BSN program. You may verify your nursing program's accreditation at the following link: **http://www.acenursing.us/accreditedprograms/programsearch.htm**,
7. Applicants with foreign degrees that have Florida RN licensure can apply if degree earned is evaluated to be equivalent to a Bachelor's degree or Doctorate in Medicine degree at a regionally-accredited U.S. institution,
8. International students must submit a minimum score of 550 on the Test of English as a Foreign Language (TOEFL),
9. RN-BSN applicants who have taken BSN courses at another institution and are requesting a transfer into

the NWCHNS RN-BSN track must have all coursework evaluated by FIU Nursing Faculty to determine course equivalency and are allowed a maximum of 6 transfer upper division Nursing credits, and

10. Approved transferred nursing coursework must be completed within 5 years of enrollment at the time of admission.

Prior to admission, degree seeking applicants without an Associate in Arts degree from a Florida State Institution must satisfy the same current admission Undergraduate Catalog Nicole Wertheim College of Nursing and Health Sciences requirements as beginning freshmen. Graduates of diploma nursing programs who do not have transferable college credit will be required to complete the FIU lower division credit requirements prior to admission. Visit the website at: **http://www.fiuonline.com/programs/online-undergraduate-degrees/rntobsn/** for program information.

Advanced Placement and Progression of RNs

Advanced placement in both nursing and non-nursing courses is facilitated by earning credits through examination, i.e., challenge or equivalency exams such as CLEP or Excelsior College examinations (Psychiatric-Mental Health Nursing, Adult Health Nursing, and Maternal-Child Nursing) with a grade of 'C' or higher.

Curriculum

Level I:		
NUR 3821	Professional Nursing Leadership: Concepts and Issues – *GL*	3
NUR 3066C	Health Assessment and Promotion in Nursing Practice	4
NUR 3226/3227	Adult Physiological Nursing (E.E.)*	12
NUR 3535	Psychosocial Nursing (E.E.)*	6
NUR 4355	Childrearing (E.E.)*	6
NUR 4455	Childbearing (E.E.)*	6
Level II:		
NUR 3666	Evidence-Based Nursing and Research in Global Health Care** – *GL*	3
NUR XXXX	Upper Division Elective (in Nursing)	3
Level III:		
NUR 4667	Nursing in Global Health Care Systems – *GL*	3
COM 3461	Intercultural/Interracial Communication – *GL* (**or** Global Elective)	3
Upper Division Elective		3
Level IV:		
NUR 4636C	Community Health Nursing	4
NUR 4945L	Senior Clinical Practicum	4

*E.E. = Equivalency Exam
**Statistics is a prerequisite for this course

See University catalog/nursing advisor for pre-and-corequisite courses.

Combined BSN/MSN for Foreign-Educated Physician Track

Admission Requirements

The Combined BSN/MSN track is a pathway for foreign-educated physicians (FEPs) from culturally diverse backgrounds to:

- obtain the BSN degree
- become Registered Nurses (RNs)
- attain the MSN degree
- become eligible to take the Advanced Registered Nurse Practice (ARNP) national certification exam

The combined BSN/MSN track is an accelerated program that builds upon the knowledge and skills of the social and physical sciences from a prior BS degree. It is comprised of **63** upper division credits and 43-47 graduate credits, totaling 105 to 109 credit hours. Admission to the MSN component is contingent upon meeting the MSN admission requirements.

To be admitted to the BSN/MSN track, students must:

1. Have completed a medical degree from an accredited non-US university;
2. Have transcripts evaluated by Josef Silny & Associates or by an equivalent transcript evaluation company;
3. Obtain a TOEFL score of 550;
4. Meet nursing entry requirements for computation and reading skills;
5. Meet the admission criteria to be admitted to the University and to the College of Nursing and Health Sciences; and
6. Successfully complete the following nursing prerequisites (with grade of 'C' or above): statistics, human growth & development across the life span, human nutrition, anatomy & physiology, microbiology, chemistry. Transcripts will be evaluated by NWCNHS.
7. The Florida Board of Nursing and clinical agencies require the disclosure of arrest and conviction records for misdemeanors and/or felonies; therefore, this information will be required at the time of application. Applicants are required to submit to criminal background checks and drug testing. Expenses associated with background checks and drug testing (including repeat testing) are the responsibility of the student. Findings may affect a student's ability to participate in clinical experiences and complete the program, and/or obtain registered nurse licensure.

To advance to the MSN component of this track, (Semesters V-VIII), students must:

1. Have a cumulative GPA of 3.5 or above for Semesters I to IV; and
2. Be licensed as a registered nurse (RN) by the end of Semester V.

Degree Conferrals

Students enrolled in the MSN component must apply to graduate with the BSN during the 4th week of semester VI; BSN degree will be posted at the end of semester VI. Students will graduate with the MSN at the end of semester VIII.

BSN Stop-out Options

1. Low GPA Stop-out Option: Students with <3.5 cumulative GPA for Semesters I to IV will take NUR 4636C (Care of Communities: Community Health Nursing, 4 credits) and NUR 4945L (Senior Clinical

Practicum, 4 credits) in Semester V OR VI. BSN degree will be awarded at the end of semester V or semester VI depending on clinical space availability of NUR 4945L. Students must apply for graduation of the BSN component by the 4th week of the semester they intend to graduate.

2. Failure to Pass NCLEX Stop-out Option: Students not passing NCLEX-RN by the end of Semester V will take NUR 4945L (Senior Clinical Practicum, 4 credits) in Semester VI. BSN degree will be awarded at the end of semester VI. Students must apply for graduation of the BSN component by the 4th week of the semester they intend to graduate.
3. Stop out students will graduate with BSN and will be discontinued from the combined BSN-MSN track.

Curriculum

Semester I – 18 (15 UG/3 Grad)

NUR 3029	Foundations of Nursing Practice	3
NUR 3029C	Foundations of Nursing Practice Laboratory	2
NUR 3029L	Foundations of Nursing Practice Clinical	3
NUR 3066C	Health Assessment and Promotion in Nursing Practice	4
NUR 3119	Professional Nursing: Concepts and Issues	3
NGR 6172	Pharmacological Concepts in Advanced Nursing Practice (*MSN Requirement*)	3

Semester II – 15 (9 UG/6 Grad)

NUR 3226	Nursing Care of Adults I	3
NUR 3226L	Nursing Care of Adults I Clinical	3
NUR 3821	Professional Nursing Leadership: Concepts and Issues – *GL*	3
NGR 5110	Theories in Nursing *(MSN Requirement-Not required for BSN)*	3
NGR 5141	Pathophysiological Basis of Advanced Nursing Practice (*MSN Requirement*)	3

Semester III – 14 (14 UG)

NUR 3535	Psychosocial Nursing	3
NUR 3535L	Psychosocial Nursing Clinical	3
NUR 3227	Nursing Care of Adults II	3
NUR 3227L	Nursing Care of Adults II Clinical	3
NUR 4286	Nursing Care of Older Adults	2
NUR 3821	Professional Nursing Leadership: Concepts and Issues – *GL*	3

Semester IV – 17 (17 UG)

NUR 4455	Care of Families: Childbearing Nursing	3
NUR 4455L	Care of Families: Childbearing Nursing Clinical	3
NUR 4355	Care of Families: Childrearing Nursing	3
NUR 4355L	Care of Families: Childrearing Nursing Clinical	3
NUR 4667	Nursing in Global Health Care Systems – *GL*	3
NUR 4940	Senior Clinical Synthesis	2

Low GPA Stop-out Option: Students with <3.5 cumulative GPA for Semesters I to IV will take NUR 4636C (Care of Communities: Community Health Nursing, 4 credits) and NUR 4945L (Senior Clinical Practicum, 4 credits) in Semester V or VI, and end with a BSN degree.

Semester V – 13 (4 UG/9 Grad)

NUR 4636C	Care of Communities: Community Health Nursing	4
NGR 5131	Culture and Advanced Nursing Practice (*MSN Requirement – Not required for BSN*)	3
NGR 5035C	Advanced Client Assessment (*MSN Requirement – Not required for BSN*)	3
NGR 5810	Research Methods in Nursing (*MSN Requirement*)	3

Failure to Pass NCLEX Stop-out Option: Students must pass the NCLEX on first attempt during semester V. Students not passing the NCLEX-RN on first attempt by the end of the semester V will take NUR 4945L (Senior Clinical Practicum, 4 credits) in semester VI and will be eligible for a BSN degree at the end of semester VI. (+4 UG credits for Stop Out Students only)

Semester VI

NGR 6201C, or 6301C, or 6601C	Advanced Adult-Gerontology, Child, or Family Health Nursing I	3-4
NGR 6201L, or 6301L, or 6601L	Advanced Adult-Gerontology, Child, or Family Health Nursing Practice I*	3-4
NGR 5XXX	Elective	3

Students must apply for graduation from the BSN by 4th week of semester VI.

Semester VII

NGR 6202C, or 6302C, or 6602C	Advanced Adult-Gerontology, Child, or Family Health Nursing II	3-4
NGR 6202L, or 6302L, or 6602L	Advanced Adult-Gerontology, Child, or Family Health Nursing Practice II*	3-4
NGR 6910C	Research Project	3

Semester VIII

NGR 6209, or 6337, or 6748	Clinical Decision Making in Advanced Adult-Gerontology, Child or Family Health Nursing	3
NGR 6700L, or 6337L, or 6619L	Role Synthesis in Advanced Adult-Gerontology, Child, or Family Health Nursing Practice*	4

Eligible to take ARNP National Certification Exam after completion of semester VIII.
Students must apply for graduation from MSN at the beginning of semester VIII.

*All students must have a majority of ARNP preceptors in all NP practicum courses.

Repeating Nursing Courses and Dismissal

A grade of "C" or higher in all NUR courses and a grade of "B" or higher in all NGR courses is necessary for continuing in the combined BSN/MSN track. A course in the BSN/MSN track can be repeated only once. If a student fails the same NUR course twice, or two NUR clinical and/or clinical-related courses, or two NGR courses, he/she will be dismissed from the BSN/MSN for FEP track.

Certificate Programs

Occupational Therapy Prerequisite Certificate

The Occupational Therapy Prerequisite Academic Certificate Program provides undergraduate level instruction for the completion of the prerequisites needed to become eligible to apply to the Professional Master of Science in Occupational Therapy. The certificate will enable students to complete coursework required to apply to the accredited Professional Master of Science in Occupational Therapy while concurrently completing the requirements for a Bachelor of Arts (BA)/Bachelor of Science (BS) degree offered at Florida International University (FIU). This certificate program is open to degree seeking students.

The Occupational Therapy Prerequisite Certificate Program consists of 26 credits of undergraduate coursework.

Admissions Requirements

Any student in good academic standing (with a minimum 3.0 cumulative GPA) completing the requirements for a Bachelor of Arts (BA)/Bachelor of Science (BS) degree offered at FIU or any student already holding a BA or BS degree who has a 3.0 GPA in the last 60 credits of the undergraduate degree is eligible to apply for this certificate program. A minimum grade of "C" or better is required for all certificate courses. To meet the minimum criteria for application into the Occupational Therapy graduate program a grade of a "B" or higher must be earned for Physiology, Pathology, and Human Anatomy.

Required Courses

BSC 2010	General Biology	3
BSC 2010L	General Biology Lab	1
DEP 2000	Human Growth and Development	3
CLP 4146	Psychopathology	3
HSC 3549	Physiology for Health Professionals	3
STA 2122	Statistics for Behavioral and Social Sciences I	3
HSC 4553	Fundamentals of Pathology	3
HSC 3537	Medical Terminology	3
ZOO 3731	Human Anatomy	3
ZOO 3731L	Human Anatomy Demonstration	1

Additional Requirements

To remain in the Occupational Therapy Prerequisite Certificate Program students must maintain a minimum **3.00** cumulative GPA in the certificate coursework. To be awarded the Occupational Therapy Prerequisite Certificate Program the student must achieve a **3.00** cumulative GPA.

Physical Therapy Prerequisite Certificate

The Physical Therapy Prerequisite Certificate Program provides undergraduate level instruction for the completion of the prerequisites needed to become eligible to apply to the Doctorate in Physical Therapy (DPT). The certificate will enable students complete coursework required to apply to the accredited Doctorate in Physical Therapy while concurrently completing the requirements for a Bachelor of Arts (BA)/Bachelor of Science (BS) degree offered at Florida International University (FIU). This certificate program is open to degree-seeking students.

The Physical Therapy Prerequisite Certificate Program consists of 40 credits of undergraduate coursework.

Admission Requirements

Any student in good academic standing (with a minimum 3.0 cumulative GPA) completing the requirements for a Bachelor of Arts (BA)/Bachelor of Science (BS) degree offered at FIU or any student already holding a BA or BS degree is eligible to apply for this certificate program.

Prerequisite(s)

The following courses are required by this certificate program. Once enrolled in the Physical Therapy Prerequisite Certificate Program, any of these courses not already completed must be taken at FIU. A grade of "C" or better is required in all certificate courses.

Required Physical Therapy Prerequisite Certificate Courses

BSC 2010	General Biology I	3
BSC 2010L	General Biology I Lab	1
PSY 2012	Introduction to Psychology	3
DEP 2000	Human Growth and Development	3
CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
PHY 2048	Physics with Calculus I	4
PHY 2048L	Physics with Calculus I Lab	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	Physics with Calculus II Lab	1
	OR	
PHY 2053	Physics with Calculus I	4
PHY 2048L	Physics with Calculus I Lab	1
PHY 2054	Physics with Calculus II	4
PHY 2049L	Physics with Calculus II Lab	1
STA 2122	Statistics for Behavioral and Social Sciences I	3
HSC 3549	Physiology for Health Professionals	3
	OR	
PCB 3702	Intermediate Human Physiology	3
HSC 3537	Medical Terminology	3
ZOO 3731	Human Anatomy	3

Additional Requirements

To remain in the Physical Therapy Prerequisite Certificate Program students must maintain a **3.00** cumulative GPA or higher in certificate coursework. To be awarded the Physical Therapy Prerequisite Certificate Program the student must achieve a **3.00** cumulative GPA or higher in undergraduate coursework.

Speech-Language Pathology Certificate

The Certificate Program seeks to provide undergraduate level instruction in the identification, prevention and management of speech and language disorders. The certificate will prepare students with bachelor's degrees in other areas with the required coursework to apply to the master's program in speech-language pathology. The master's degree is the entry level degree for speech-language pathologists. However, with a bachelor's degree and the 25 credits completed for this certificate, students

will be able to apply for a state license as a speech-language pathology assistant. ***PLEASE NOTE: This program is being phased out effective end of Spring semester 2016 and is no longer accepting applications for admissions.***

The Certificate requires the completion of the following 25 credits.

SPA 4112	Phonetics	3
	or	
LIN 4214	Phonetics	3
SPA 4002	Survey of Communication Disorders	3
SPA 4101	Anatomy & Physiology of Speech and Hearing	3
SPA 4101L	Anatomy & Physiology of Speech and Hearing Lab	1
SPA 4004	Introduction to Speech & Language Development & Disorders	3
SPA 4011	Speech and Hearing Science	3
SPA 4050	Clinical Management in Communication Disorders	3
SPA 4030	Introduction to Audiology	3
LIN 3013	General Linguistics	3

Course Descriptions

Definition of Prefixes

APK-Applied Kinesiology; ATR-Athletic Training; HIM-Health Information Management; HSA-Health Services Administration; HSC- Health Sciences; IHS - Interdisciplinary Health Sciences; NUR-Nursing Practice and Theory; NSP-Nursing: Special; OTH-Occupational Therapy; PAD-Public Administration; PET-Physical Education Therapy; PHC-Public Health; PHT-Physical Therapy; SPA-Speech Language Pathology

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

Courses that meet the University's Global Learning requirement are identified as GL.

APK 3120L Physiology for the Exercise and Sports Sciences Lab (1). The function of the human body will be studied in a small group setting using class assignments, figures, models, and physiologic measurements. Prerequisites: PET 3325C and PET 3325L.

HIM 3006 Introduction to HIM Profession (3). Introduces the student to the historical development of health information management and focuses on the work and responsibilities of health information professionals and their relationship with other health care providers. The student will acquire a full understanding of the medical record, including its development, purpose, content, format analysis, value and uses along with the methods used to file and track records. (F)

HIM 3226 Basic ICD-9-CM Coding (3). Concepts and principles of nomenclatures and classification systems used to record and compare health data. Development of ICD-9-CM coding skills and applications for research. Prerequisites: Human anatomy and physiology and medical terminology. (F)

HIM 3236 Advanced ICD-9-CM Coding Procedures (3). Introduction to coding as it relates to DRG system. Record analysis and data quality addressed. CPT, DSM III and current coding issues and regulations presented and discussed. Encoder experience included.

HIM 3306 Introduction to Management in Health Care (3). General principles of management of a health information system in any type of health care facility, including hospitals, intermediate and long term care facilities, clinics, HMO's etc. The basic concepts of management as related to the health care industry are addressed. (SS)

HIM 3437 Fundamentals of Medical Science I (3). Beginning with the cell and progressing through the various organ systems, the conceptual patterns of disease are explored and defined by etiology and the immune and repair responses generated by the body. The diagnostic and treatment modalities for each are studied and identified in the medical record for correlation with coding procedures. Prerequisites: Human Anatomy and Physiology. (F)

HIM 3438 Fundamentals of Medical Science II (3). A review of body systems to explore the various disease processes and pathological conditions which affect the organs involved. Includes detailed explanations of how the diagnostic work-ups are recorded in the medical record and how to recognize and interpret the significant findings and make intelligent coding decisions. Prerequisites: Human anatomy and physiology. (S)

HIM 3626 Research Methods in Health Information Management (3). This course is designed to introduce students to research concepts and tools. Emphasis is placed on research design and data collection and analysis techniques. Discussion of basic health statistics. Prerequisites: Introduction to Health Information Management, Introduction to Management, Statistics. (S)

HIM 3675 Communication Skills for Health Care Professional (3). This course provides an understanding of process of formal communication for the health care profession. It offers an overview of communication techniques leading to sound decision making and effective team work. It prepares students to formulate and present ideas clearly and persuasively. Prerequisites: Intro to Management, Intro to HIM profession, DPI. (F)

HIM 3806 Directed Practice I (1). Orientation of the student to the hospital health information department and adjunct diagnostic or therapeutic units; including the outpatient department, emergency room, admitting office, x-ray, pharmacy, physical therapy, laboratory, and pathology department. Corequisite: HIM 3006. (F)

HIM 3816 Directed Practice II (1). Orientation of the student to health information department functions. Rotation of the student through technical functions of the department, following the flow of the patient's record after discharge. Includes the discharge procedure, analysis, coding and indexing systems; statistical reporting; correspondence; control of the incomplete medical record; and processing of the completed record. Prerequisites: Directed Practice I, Basic ICD-9-CM Coding, Introduction to Management. Corequisite: HIM 3236. (S)

HIM 4256 CPT-4 Coding and Reimbursement Issues (3). CPT-4/HCPCS coding practices, data collection and outpatient reimbursement issues will be presented and discussed. Prerequisites: Anatomy, Physiology, Medical Terminology, Basic and Advanced ICD-9CM Coding. (SS)

HIM 4344 HIM Departmental Systems (3). Application of management principles to health information systems, including: development of manuals, job descriptions, interviewing and evaluation techniques, forms design, environmental planning etc. External activities assigned. Prerequisites: Introduction to HIM Profession and Introduction to Management, DPI. (F)

HIM 4406 Multi-Institutional Health Information (3). Standards and procedures for long-term, ambulatory care, home health, rehabilitation, psychiatric, dental, hospice, and other health care services are investigated and compared. Prerequisites: Introduction to HIM Profession, Research Methods, Introduction to Management, Quality Assessment. (S)

HIM 4508 Clinical Quality Assessment and Improvement (3). Course is designed to introduce student to quality management techniques. It includes areas of UR, RM, QA, and QI. Role of computers in QA/QI is explored. Prerequisites: Introduction to HIM Profession, Introduction to Management, DPI, DPII, Research Methods. (F)

HIM 4676 Problem-Solving Skills in Health Information Management (3). Through illustrative case reports, group discussions, role playing, oral reports, lectures, buzz sessions, and review of the literature; students explore effective methods for identifying and arriving at satisfactory solutions to specific types of problems they may expect to encounter in the administration of health information services. Prerequisites: HIM 4508, HIM 4837, HIM 4256. (S)

HIM 4837 Directed Practice III (1). Experience in quality improvement, risk management, and utilization review areas. Clinical experience in acute care and non-acute care facilities. Prerequisite: Directed Practice I, Directed Practice II, Quality Assessment and Improvement, HIM Department Systems. (F)

HIM 4838 Internship in Health Information Management (3). Management experience in a health information department under the supervision of a credentialed Health Information Professional. Emphasis on administrative and medical staff relationships. Prerequisites: DPI, DPII, DPIII. (S)

HIM 4905 Directed Independent Study (1-3). Individual conferences, assigned readings, and reports on investigations related to the Health Information Management profession. (F,S,SS)

HIM 4932 Special Topics (3). Designed to address topics not otherwise offered in the curriculum but specific to or required for health information management. Topics to be announced yearly. (F,S,SS)

HSA 3111 Introduction to Health Services Systems (3). Students examine the history and current functions of health and social services delivery systems in the United States. Focus is on the components, their interaction and internal/external controls.

HSA 3180 Leadership and Management for Health Professionals (3). This course introduces students to an overview of the basic of leadership and management with an emphasis on the roles, functions and skills necessary in the changing health care environment. Prerequisites: ECO 2023, ACG 2021, CGS 2060, STA 2023 or STA 3145 or department consent.

HSA 3412C Cultural Competency in Health Sciences (3). Focus on selected systems of beliefs and values of cultural groups to develop cultural competence to minimize barriers in healthcare. Prerequisite or corequisite: HSA 3111.

HSA 4104 Team Approach to Health Service Delivery (3). Team formation, structure, composition, maturity, growth, and the process are identified. Team management in health facilities are discussed.

HSA 4110 Healthcare Organizational Behavior and Resource Management (3). Analysis of organizational behavior and resource management and the implications for leadership and management of healthcare systems. Prerequisites: HSA 3111, HSA 3180.

HSA 4113 Global Issues and Trends in Healthcare – *GL* (3). Developing issues and trends involving global healthcare systems are analyzed to determine their impact on service, delivery, financing, quality measures, evidence-based practice, and accessibility. Prerequisites: HSA 4431, HSA 3412C, HSC 3661, HSA 4170, HSA 4110, HSA 4421, or department consent.

HSA 4140 Program Planning and Evaluation (3). Basic concepts of planning and evaluation as the fundamental tools of program design and development are examined. Prerequisites: HSA 4421, HSA 4700.

HSA 4150 Global Healthcare Systems and Policy – *GL* (3). Develop basic knowledge of Global healthcare systems and policies including healthcare outcomes, evidence based practices, sociopolitical systems and roles of various healthcare providers. Prerequisites: HSA 3412C, HSA 4431, HSA 4421, HSA 4700.

HSA 4170 Healthcare Financial Management (3). This course is an introduction to economics and financial management in diverse healthcare organizations. Prerequisites: HSA 3111, HSA 3180.

HSA 4183 Applied Management in Health Care Organization (3). Management theory and principles are examined in their application to the administrative process. Case studies are emphasized to illustrate operational conditions found in health care settings. Strategic Management is emphasized.

HSA 4184 Human Resources Management and Supervision (3). The role of health care supervisors is examined with respect to interviewing, performance appraisal, disciplining, counseling, job orientation, in-service education and responsibilities. Prerequisites: HSA 3111, HSA 3180, and HSC 4751 or PAD 4704 or ENC 3213 or PAD 3438.

HSA 4190 Information and Communication Technology for Health Professionals (3). This online course assists the student in developing information and communication skills using the Internet. It demonstrates the use of technology in clinical practice, research and education. Prerequisites: HSA 3180, HSC 3661.

HSA 4192 Healthcare Quality Management (3). Development and evaluation of healthcare quality management techniques including work systems, job analysis, space utilization, inventory control, and operations management. Prerequisites/Corequisites: HSA 4700, HSA 4190, HSA 4170, HSA 4110, and HSA 4421.

HSA 4193 Automated Management and Information Systems (3). The analysis, design, and installation of management information systems in health care organizations is studied. Evaluation of computer systems from several perspectives are examined. Prerequisites: HSA 4192 or permission of the instructor.

HSA 4421 Legal Aspects of Healthcare (3). Corporate structure and legal liabilities of health care institutions and professionals is studied from a local, state, and federal regulatory position. Prerequisites: HSA 3111, HSA 3180, ENC 3213 or COM 3110 or PAD 3438.

HSA 4430 Health Economics (3). This course is designed as an introduction to health economics. Health economics is concerned with issues related to scarcity of resources in health care markets. Prerequisites: HSA 3111, HSA 3180, HSC 4751 or PAD 4704 or ENC 3213 or PAD 3438.

HSA 4431 Values, Ethics, and Conflict Resolution in Health and Urban Affairs (3). Explores individual and organizational values, related values, related theories, ethical systems and their influence on behavior of individuals in government agencies, law enforcement and health care professions.

HSA 4700 Quality and Evidence-Based Healthcare Services (3). This course incorporates basic research methods, processes and models in analyzing research studies and incorporating current quality standards and evidence-based protocols into healthcare. Prerequisites: HSA 3111, HSA 3180, ENC 3213 or COM 3110 or PAD 3438.

HSA 4850 BHSA Administrative Internship (3). The student who has completed all required upper division course work is provided an opportunity to observe and engage in administrative practice in a health care setting. Prerequisites: HSA 4431, HSA 3412C, HSC 3661, HSA 4170, HSA 4110, HSA 4421, and department consent.

HSA 4905 Undergraduate Independent Study (1-3). Students take part in in-depth research or an action-oriented project under the supervision of their faculty advisor. Preparation and approval of the content must be made one semester in advance. Prerequisite: Permission of faculty advisor.

HSC 1001C Perspectives of Health Science Professions (3). A study of public health issues, disease, preventive medicine and wellness as they relate to nutrition, physical and occupational therapy. Utilizes lab and field work.

HSC 2100 Healthy Lifestyles through Wellness (3). A survey of wellness issues including preventive health care, substance abuse prevention, stress management, sexually transmitted diseases, psychological illness, nutrition and exercise.

HSC 3002 Introduction to Health Science Professions (3). Introduction to health care delivery in the United States with emphasis on the roles/responsibilities of health care providers. Additional topics include legal, ethical, safety, and wellness issues.

HSC 3537 Medical Terminology (3). Provides the student with basic medical language skills including, pronunciation, spelling, and definitions as a foundation for developing the degree of competency required to read and understand medical reports and communicate with physicians and other medical professionals. Prerequisites: Human Anatomy and Physiology. (F,S)

HSC 3549 Clinical Physiology for Health Professionals (3). An integrated, systems-based approach to the study of human physiology with relevant clinical correlations and case studies. Prerequisites: BSC 2023 or BSC 2010.

HSC 3579 Wellness of Women (3). Concepts relating to women's health, including sexuality, preventative health care, nutrition, exercise, reproductive diseases and the social/political health care of women.

HSC 3661 Communication Theory and Practice for Health Professions (3). Theory and practice of effective communication for health care professionals. Emphasis on communication between healthcare provider-client; provider-provider; provider-family. Prerequisite or Corequisite: HSA 3111.

HSC 3701 Leadership and Management in Health Science Professions (3). Introduces health sciences profession students to the generic principles of leadership and management for effective and efficient functioning in the health care arena.

HSC 4553 Fundamentals of Pathology (3). Study of human diseases/disorders of the immune, cardiovascular, hematopoietic, central nervous, musculoskeletal, respiratory, urinary/reproductive, gastrointestinal and endocrine systems. Prerequisites: PCB 2099 or HSC 3549 or PCB 3702.

HSC 4905 Health Independent Study (3). Faculty supervised project in health-related topics in association with the student's special interests.

HSC 4910 Introduction to Research Methods in the Health Sciences (3). Introduces the student to the research process in an interdisciplinary, multidisciplinary health sciences environment.

NUR 3029 Foundations of Nursing Practice (3). Development of essential nursing skills, using the nursing process, for managing acute and chronic care of diverse individuals in a multicultural environment. Prerequisite: Admission to Nursing Major (Generic BSN or FEP:BSN). Corequisites: NUR 3029C, NUR 3029L.

NUR 3029C Foundations of Nursing Practice Laboratory (2). In a laboratory setting, students develop essential nursing skills using the nursing process for management of acute and chronic care of diverse individuals. Prerequisite: Admission to Nursing Major (Generic BSN or FEP:BSN). Corequisites: NUR 3029, NUR 3029L.

NUR 3029L Foundations of Nursing Practice Clinical (3). In the clinical setting, students apply nursing skills, using the nursing process, for managing acute and chronic care of individuals in a multicultural environment. Prerequisite: Admission to Nursing Major (Generic BSN or FEP:BSN). Corequisites: NUR 3029, NUR 3029C.

NUR 3066C Health Assessment and Promotion in Nursing Practice (4). Health and physical assessment of diverse individuals and health promotion; disease and injury prevention, evidence-based teaching/learning in multicultural environment. Prerequisite: Admission to Nursing Major (FEP:BSN or RN:BSN).

NUR 3119 Professional Nursing: Concepts and Issues (3). Concepts and issues in professional nursing, including historical and theoretical aspects, standards, and use of communication, collaboration, advocacy, and technology within a global environment.

NUR 3125 Pathophysiologic Basis for Nursing Practice (3). Adaptive responses of cells, tissues, organs and systems in the pathogenesis, clinical manifestations, and nursing management of common diseases across the life span of diverse individuals. Prerequisite: Admission to Nursing Major (Generic BSN). (F,S)

NUR 3145 Pharmacologic Basis for Nursing Practice (3). Focuses on the role of pharmacotherapeutic agents for diverse individuals across the life span. Nursing management related to pharmacodynamics, adverse effects, interactions and education. Prerequisites: Admission to Nursing Major (Generic BSN), NUR 3029, NUR 3029L, NUR 3029C, NUR 3125. Corequisites: NUR 3226, NUR 3226L. (F,S)

NUR 3192C Emergency Measures in Selected Health Crises (1). Emergency measures in selected health crises using CPR and preventive techniques. Prerequisite: Permission of the instructor.

NUR 3226 Nursing Care of Adults I (3). First of two courses in adult health nursing. Nursing management of diverse individuals with complex health alterations. Prerequisites: Admission to Nursing Major (Generic BSN or FEP:BSN), NUR 3029, NUR 3029C, NUR 3029L. Corequisite: NUR 3226L.

NUR 3226L Nursing Care of Adults I Clinical (3). First of two clinical courses in adult health nursing. Nursing management of diverse individuals with complex alterations. Prerequisites: Admission to Nursing Major (Generic BSN or FEP:BSN), NUR 3029, NUR 3029C, NUR 3029C. Corequisite: NUR 3226.

NUR 3227 Nursing Care of Adults II (3). Second of two courses in adult health nursing. Nursing management of diverse individuals with complex health alterations. Prerequisite: Admission to Nursing Major (Generic BSN or FEP:BSN). Corequisites: NUR 3227L, NUR 3685L.

NUR 3227L Nursing Care of Adults II Clinical (3). Second of two clinical courses in adult health nursing. Nursing management of diverse individuals with complex alterations. Prerequisite: Admission to Nursing Major (Generic BSN or FEP:BSN). Corequisites: NUR 3227, NUR 3685L.

NUR 3516 Crisis Intervention and Nursing (3). This course examines the crisis state, what it is, when it occurs and how the nurse can aid the individual, family or group in crisis.

NUR 3535 Psychosocial Nursing (3). Development of nursing skills for managing care of diverse individuals with psychosocial diseases/disorders in multicultural communities. Prerequisites: Admission to Nursing Major (Generic BSN or FEP:BSN), NUR 3226, NUR 3226L. Corequisites: NUR 3535L, NUR 4686L.

NUR 3535L Psychosocial Nursing Clinical (3). In the clinical setting, development of nursing skills for managing care of individuals with psychosocial diseases/disorders in multicultural communities. Prerequisites: Admission to Nursing Major (Generic BSN or FEP:BSN), NUR 3226, NUR 3226L. Corequisites: NUR 3535, NUR 4686L.

NUR 3666 Evidence-Based Nursing and Research in Global Health Care – *GL* (3). Develop research knowledge and skills for evidence-based nursing care delivery. This is a global learning course that counts towards your global learning graduation requirement. Prerequisite: Admission to Nursing Major (Generic BSN or RN:BSN).

NUR 3668 Nursing Leadership in Global Health Care – *GL* (3). Development of nursing leadership and management skills for care delivery at local, state, national, and global levels. This is a global learning course. Prerequisite: Admission to Nursing Major (Generic BSN).

NUR 3685L Integrative Nursing Care I (0). First of two courses in the development of inter- and intra-professional collaborative care for managing care of diverse patients/clients and their families in simulated and community settings. Prerequisite: Admission to Nursing Major (Generic BSN or FEP:BSN).

NUR 3805 Professional Nursing I: Socialization (3). Socialization into the role of professional nursing is introduced with emphasis on responsibilities as a direct care provider, teacher learner, and collaborator. (F,S,SS)

NUR 3821 Professional Nursing Leadership: Concepts and Issues – *GL* (3). Introduction to professional nursing with a focus on leadership skills for care delivery at local, state, national, and global levels. Prerequisite: Admission to nursing major.

NUR 4178 Complementary and Alternative Therapies in Nursing and Healthcare (3). Provides the theory, practice and patterns of use in complementary and alternative practices and products (CAPPs). Integrates CAPPs knowledge with conventional healthcare using National Institutes of Health NCCAM framework. Prerequisite: Permission of the instructor.

NUR 4286 Nursing Care of Older Adults (2). Development of nursing skills, including interventions and evaluation, for managing care of diverse older adults/families in a multicultural global environment. Prerequisites: Admission to Nursing Major (Generic BSN or FEP:BSN), NUR 3227, NUR 3227L.

NUR 4355 Care of Families: Childrearing Nursing (3). Development of nursing skills, using the nursing process, for providing a continuum of care of children and their families in various, multicultural settings within their community. Prerequisites: Admission to Nursing Major (Generic BSN or FEP:BSN), NUR 3227, NUR 3227L. Corequisites: NUR 4355L, NUR 4667. (F,S)

NUR 4355L Care of Families: Childrearing Nursing Clinical (3). Implementation of nursing skills, using the nursing process, to provide a continuum of care for of children and their families in community-based clinical settings. Prerequisites: Admission to Nursing Major (Generic BSN or FEP:BSN), NUR 3227, NUR 3227L. Corequisites: NUR 4355, NUR 4667. (F,S)

NUR 4455 Care of Families: Childbearing Nursing (3). Development of nursing skills for managing care of diverse childbearing women/families in a multicultural environment. Prerequisites: Admission to Nursing Major (Generic BSN or FEP:BSN), NUR 3226, NUR 3226L. Corequisite: NUR 4455L. (F,S)

NUR 4455L Care of Families: Childbearing Nursing Clinical (3). In the clinical setting, development of nursing skills for managing care of childbearing women/families in a multicultural environment. Prerequisites: Admission to Nursing Major (Generic BSN or FEP:BSN), NUR 3226, NUR 3226L. Corequisite: NUR 4455. (F,S)

NUR 4636C Care of Communities: Community Health Nursing (4). Application of nursing skills for managing care of diverse communities, groups, and populations in a multicultural environment. Prerequisites: Admission to Nursing Major (Generic BSN), NUR 4667, NUR 3668. (F,S,SS)

NUR 4636L Approaches to Nursing IV: Community Nursing: Clinical Experience (3). In the clinical area, the nursing process is applied in assisting individuals, families, and communities as clients with adaptation to potential and actual stressors. (F,S,SS)

NUR 4665 Introduction to International Nursing Research (3). Examines international nursing research methods and design with a focus on global health, specifically related to health disparities in underserved populations in local, national, and international areas.

NUR 4667 Nursing in Global Health Care Systems – *GL* (3). Develop basic knowledge of global healthcare systems and models. This is a global learning course that counts towards your global learning graduation requirement. Prerequisite: Admission to Nursing Major (Generic BSN).

NUR 4686L Integrative Nursing Care II (1). Second of two courses in the development of inter- and intra-professional collaborative care for managing care of diverse patients/clients and their families in simulated and community settings. Prerequisites: Admission to Nursing Major (Generic BSN), NUR 3227, NUR 3227L, NUR 4455, NUR 4455L. Corequisites: NUR 3535, NUR 3535L, NUR 4355, NUR 4355L. Prerequisites: Admission to Nursing Major (FEP:BSN), NUR 3227, NUR 3227L. Corequisites: NUR 3535, NUR 3535L, NUR 4286, NUR 3668.

NUR 4905 Independent Study in Nursing (1-5). Faculty supervised introduction to problems in nursing in accord with the student's special interest.

NUR 4940 Senior Nursing Synthesis (2). Transition from student to graduate role through synthesis of nursing knowledge in preparation for the registered nursing licensure examination. Prerequisites: Admission to Nursing Major (Generic BSN or FEP:BSN), NUR 3535, NUR 3535L.

NUR 4945L Senior Clinical Practicum (4). Nursing care management of groups of patients through a practicum experience in a selected clinical setting that requires critical thinking, nursing skills and social and multicultural competence. Prerequisites: Admission to Nursing majors (RN:BSN or FEP:BSN), NUR 3535, NUR 3535L, NUR 4355, NUR 4355L. Corequisite: NUR 4636C. (F,S,SS)

NUR 4947 Directed Field Experience in Nursing (3). Application and refinement of nursing in a clinical specialty area. Prerequisite: Permission of the instructor.

NSP 3801 Interprofessional Approaches to Health Care (1). Working in collaboration with medical students and other health professionals, students will develop skills (e.g. communication, conflict resolution, etc.) to work effectively in a health care team. Prerequisite: Admission to Nursing Major (Generic BSN).

NSP 4185 Transcultural Issues and the Nurse (2). The course is designed to guide the student into direct relationships with individuals of ethnic and racial differences, and to facilitate the development of a therapeutic relationship.

OTH 3000 Foundations of Occupational Therapy (3). History and theory of occupational therapy, including scope of practice and introduction to clinical reasoning. (F)

OTH 4418 Impact of Neurological Dysfunction on Human Performance (3). Covers functional basis of neuroscience as needed to understand neuromotor, neuromotor perceptual, and neuropsychiatric performance in function and dysfunction.

OTH 4904 Independent Study (VAR). To be arranged with instructor according to the student's specialty. (F,S,SS)

PAD 3438 Communication Skills for Policy and Management (3). Designed to enable students to develop oral and written skills required to communicate effectively in organizational and public policy settings.

PAD 4723 Applied Research Methods for Policy and Management (3). Research design, sampling, critical evaluation, basic research ethics, experiments and quasi experiments, reliability and validity surveys, design-implementation, qualitative and quantitative methods, secondary analysis evaluation and presentation.

PET 4632 Therapeutic Exercise for the Injured Athlete (3). The theory behind the use of therapeutic exercise for the care and treatment of injured athletes. Prerequisite: PET 4622. Corequisite: PET 4632L. (F,S)

PET 4632L Therapeutic Exercise for the Injured Athlete Lab (1). Practical, hands on experience in utilizing the proper technique and understanding the reason why the use of therapeutic exercises are used for the care and treatment of the injured athlete. Prerequisite: PET 4622. Corequisite: PET 4632. (F,S)

PET 5716 Analysis and Observation of Teaching in Physical Education (3). This course analyzes the teaching-learning process in physical education. The emphasis is on systematic observation instruments and guidelines for systematic development of instructional skills. (F)

PET 5935 Special Topics in Athletic Training (1-3). This course presents current trends and professional issues in Athletic Training.

PHC 4024 Principles of Applied Epidemiology (3). Methods and techniques used by epidemiologists investigating the distribution and causes of diseases are studied. A holistic approach to principles of disease surveillance and control is studied. Prerequisite or Corequisite: HSA 3111.

PHC 4302 Introduction to Environmental Public Health (3). This course covers a description and analysis of environmental/occupational factors that affect the health of a community.

PHC 4509 Introduction to Health Promotion in Public Health (3). This course is an introduction to the role of health promotion in public health; it will address successes and failures in marketing public health program; it will discuss practical ways to prevent premature causes of death and policies.

PHT 4012 Introduction to Physical Disability and Physical Therapy I (3). The first of a two course sequence designed to provide a comprehensive introduction to physical disability and the role of the physical therapist in the management of disability. Prerequisites: Admission to BSHS/ Pre-physical therapy track or permission of the instructor.

PHT 4013 Introduction to Physical Disability and Physical Therapy II (3). The second of a two course sequence designed to provide a comprehensive introduction to physical disability and the role of physical therapist in the management of disability. Prerequisites: Intro to Disability and PT I or permission of the instructor.

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, voice disorders, and disorders of fluency. Prerequisite: Must be admitted to SLP Certificate Program in CSD.

SPA 4004 Introduction to Speech and Language Development and Disorders (3). The study of normal speech and language acquisition and associated disorders. Prerequisite: Must be admitted to SLP Certificate Program in CSD.

SPA 4011 Speech and Hearing Science (3). Study of speech and hearing physiology, acoustic phonetics, and speech perception. Prerequisite: Must be admitted to SLP Certificate Program in CSD.

SPA 4030 Introduction to Audiology (3). Principles of auditory reception; the hearing mechanism; problems involved in measuring, evaluating, and conserving hearing. Prerequisite: Must be admitted to SLP Certificate Program in CSD.

SPA 4050 Clinical Management in Communication Disorders (3). The course focuses on procedures for working in various practicum settings. It includes observation of evaluation and treatment sessions. Prerequisite: Must be admitted to SLP Certificate Program in CSD.

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: Must be admitted to SLP Certificate Program in CSD.

SPA 4101L Anatomy and Physiology of Speech and Hearing Lab (1). Lab to accompany SPA 4101. Prerequisite: Must be admitted to SLP Certificate Program in CSD. Corequisite: SPA 4101.

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: Must be admitted to SLP Certificate Program in CSD.

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West, James, DNP, CRNA, APRN, *(University of Alabama at Birmingham), Visiting Clinical Assistant Professor, Nurse Anesthesia*
Yeung, Tina, PhD., MHA, *(University of Central Florida), Clinical Assistant Professor, Health Services Administration*
Young-Whiting, Chanadra, Ed.D., MPH/HAS, *(Nova Southeastern University), Assistant Chair and Clinical Associate Professor, Health Services Administration*
Youngblut, JoAnne, Ph.D., RN, FAAN, *(University of Michigan), Professor, Nursing*

Robert Stempel College of Public Health & Social Work

Dean	**Tomás Guilarte**
Associate Dean, Academic Affairs	**Mark Macgowan**
Associate Dean, Graduate Education	**Stanislaw Wnuk**
Associate Dean, Research	**Jason Richardson**
Director, Student and Alumni Affairs	**Magnolia Hernandez**
MPH Program Director	**Vukosava Pekovic**

Chairs and Directors:

Biostatistics	**Zoran Bursac**
Dietetics and Nutrition	**Adriana Campa**
Environmental Health Sciences (Interim)	**Kim Tieu**
Epidemiology	**Wasim Maziak**
Health Policy and Management	**Benjamin Amick**
Health Promotion and Disease Prevention	**Elena Bastida**
School of Social Work	**Mary Helen Hayden**

The Robert Stempel College of Public Health and Social Work offers programs of study leading to Bachelor's degrees in Dietetics and Nutrition and Social Work. The Dietetics and Nutrition Department also offers an accredited pre-professional practice program. The college offers minors in Nutrition and Social Welfare. A Master's degree in Public Health (with specializations in biostatistics, environmental health sciences, epidemiology, health policy and management, and health promotion and disease prevention); a Ph.D. in Public Health (with specializations in environmental and occupational health, epidemiology, and health promotion and disease prevention); a Master's degree in Dietetics and Nutrition (MS), a Master's degree in Social Work (MSW), a Master of Arts in Disaster Management, a Doctoral degree in Dietetics and Nutrition (PhD), and a Doctoral degree in Social Welfare (PhD) are also offered. Each program is committed to preparing students for the pursuit of excellence in professional and scholarly endeavors as well as life-long learning processes in the era of globalization, scientific and technological advances, and demographic changes. We clearly recognize that the health and well-being of any community is affected by interaction among multiple determinants. Hence, the curriculum offered by all programs within the college is interdisciplinary. Our emphasis on involving practitioners, academic researchers, and the community to improve and promote public-health, nutrition and social work is ideal for enhancing student learning.

Accreditation

The Robert Stempel College of Public Health & Social Work is accredited by the Council on Education for Public Health. The Didactic and Coordinated Program (DPD and CP) in Dietetics and Nutrition are accredited by The Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics. The BSW and MSW programs are accredited by the Council on Social Work Education.

Office of Student and Alumni Affairs

The Office of Student and Alumni Affairs serves as a liaison between students in the Robert Stempel College of Public Health & Social Work and university-wide student support services. The office works closely with department chairs and the school director to coordinate admissions and advising services, and to provide students with information about scholarships, internships, community engagement opportunities, and career development resources to help ensure student and alumni success.

The college has a dynamic, professional staff dedicated to promoting the college and assisting and supporting our students while they pursue their academic goals.

For additional and updated information about degrees offered, entrance requirements, and services, please visit our website: **http://stempel.fiu.edu.**

Introductory Fire Officer Development Certificate

Ruben D. Almaguer, *Assistant Vice President Disaster Management & Emergency Operations*
Executive Director Academy for International Disaster Preparedness

Coordinating Committee:
Joann Brown, *Department of Communication*

This is a professional certificate awarded to degree-seeking students at the time of the awarding of his/her bachelor's degree, or upon completion of the appropriate course work to a student who already has a Bachelor's degree.

FFP 3XXX	Fire Service Course Delivery	3
FFP 3XXX	Firefighting Tactics and Strategies I	3
FFP 3XXX	Building Construction for Fire Science	3
FFP 3XXX	Company Officer	3
FFP 3XXX	Fire Prevention Practices	3
FFP 3XXX	Private Fire Protection Systems I	3
FFP 3XXX	Firefighting Tactics and Strategies II	3
FFP 3XXX	Fire Service Course Design	3

Advanced Fire Officer Development Certificate

Ruben D. Almaguer, *Assistant Vice President Disaster Management & Emergency Operations*
Executive Director Academy for International Disaster Preparedness

Coordinating Committee:
Joann Brown, *Department of Communication*

This is a professional certificate awarded to degree-seeking students at the time of the awarding of his/her Bachelor's degree, or upon completion of the appropriate course work to a student who already has a Bachelor's degree.

FFP 3XXX	Ethical and Legal Issues for the Fire Service	3
FFP 3785	Chief Officer	3
FES 3780	Analytical Approaches to Public Fire Protection	3

FES 3046	Personnel Management for Fire and Emergency Service	3
FES 3720	Strategic Planning	3
FES 3533	Community Risk Reduction	3

School of Social Work

Mary Helen Hayden, *Director*
Jennifer Abeloff, *Clinical Assistant Professor and Associate Director*
Richard Beaulaurier, *Associate Professor and Ph.D. Program Coordinator*
Shanna Burke, *Assistant Professor*
Shimon Cohen, *Clinical Instructor and BSSW Coordinator of Field Education*
Mario De La Rosa, *Professor and Director, Center for Research on U.S. Latinos HIV/AIDS and Drug Abuse*
Ivania Delgado, *Clinical Instructor*
Beatrice Farnsworth, *Clinical Instructor and Assistant Supervisor of Social Work, Neighborhood HELP™*
Nicole Fava, *Assistant Professor*
Andres Gil, *Professor and Vice President for Research*
Natalia Giordano, *Clinical Instructor*
Victoria Gray, *Clinical Instructor*
Hui Huang, *Assistant Professor*
Rosa Jones, *Founding Professor and Vice President for Student Affairs Emeritus*
Elise Linder, *Clinical Instructor and M.S.W. Coordinator of Field Education*
Mark Macgowan, *Professor and Associate Dean, Robert Stempel College of Public Health and Social Work*
Lourdes Martin, *Clinical Assistant Professor and Supervisor of Social Work, NeighborhoodHELP™*
Miriam Potocky, *Professor*
David Saltman, *Clinical Instructor*
Ray Thomlison, *Professor*
Nan Van Den Bergh, *Clinical Professor Emeritus*
Eric F. Wagner, *Professor and Director, FIU-Banyan Research Institute on Dissemination, Grants and Evaluation*
Stephen Wong, *Associate Professor*

Social Work offers graduate and undergraduate studies leading to the Bachelor's and Master's degrees in Social Work. The School also offers a Ph.D. in Social Welfare.

This profession requires a high degree of knowledge, skill, and dedication; a desire and ability to work effectively with people and to help solve social problems; a scientific understanding of society and human behavior; skills of social work practice; and identification with values of the profession.

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, College's and School's regulatory and accrediting agencies. Changes may be made without advance notice. The curricula described in this catalog are continually subject to review in order to respond to the mandates of the Florida Department of Education, Board of Governors, the Legislature, the Council on Education for Public Health and the Council on Social Work Education. The School 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.

Bachelor of Science in Social Work

Degree Program Hours: 120

The program offers an integrated educational experience that combines the theoretical and the practical. It is designed to prepare the student for generalist practice as a beginning professional social worker, for entrance into a graduate school of social work, and for participation in society as an informed citizen. The curriculum applies a bio-psychosocial model within the context of a social systems framework to understand client systems, address problems and develop intervention. The program is grounded in the core competencies set forth by the Council on Social Work Education. Students are expected to meet all core competencies by the end of their studies. Students are also provided grounding in public health core knowledge.

The program is accredited by the Council on Social Work Education.

The four semester program includes a sequence of academic courses as well as field education under qualified supervision in social service agencies in South Florida. Students are able to engage in practice behaviors that integrate their knowledge from the classroom into their practice in the field. As part of field education, social work students may also participate with students from the Herbert Wertheim College of Medicine and the Nicole Wertheim College of Nursing and Health Sciences in the Green Family Foundation Neighborhood HELP™, an inter-professional team approach in Miami-Dade communities.

Field agencies require the disclosure of conviction records for misdemeanors and/or felonies, current screenings for drug use, and health screenings. Therefore, students are often required to submit state and federal background checks, drug screening tests, and health screenings prior to the initiation of the practicum. Findings in the background checks and/or drug screenings tests may affect a student's ability to participate in field internship and, thus, complete the social work program. Students are further advised that Florida and most other states may restrict or deny social work licensure for persons with a felony conviction and some misdemeanors convictions. **Students with a criminal background must consult with the BSSW Program Coordinator before continuing in the program.**

Due to the unique nature of evening and weekend placements, at the BSSW level, no evening or weekend placements are available. **The School of Social Work is under no obligation to provide such placements. In addition, students cannot complete their field placements at an agency at which they are employed.**

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
POS 2041	POSX041 or POSX042 or PUPX099
BSC 2023 or PCB 2099	BSCX005 or BSCX085 or BSCX010 or PCBX099
ECO 2013 or ECO 2023	ECOX000 or ECOX023
DEP 2000 or PSY 2012	PSYX012 or PSYX020
SYG 2000 or SYG 2010	SYGX000 or SYGX010

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

POS 2041	American Government
BSC 2023	Human Biology
	or
PCB 2099	Foundations of Human Physiology
ECO 2013	Macroprinciples
	or
ECO 2023	Microprinciples
DEP 2000	Human Growth and Development
	or
PSY 2012	Introduction to Psychology
SYG 2000	Introduction to Sociology – *GL*
	or
SYG 2010	Social Problems – *GL*

Course required for the degree:

STA 2122	Statistics for Behavioral and Social Sciences I

Program Requirements

Prior to enrollment in the upper division in the social work program, students must have:

1. Completed 60 semester hours of course work or have completed the Associate in Arts degree or its equivalent;
2. Satisfied general University requirements for admission including the University's Core Curriculum requirements;
3. Met the University's lower division requirements;
4. Completed all of the pre-requisite courses or their equivalent with a grade of "C" or higher. These courses include: college-level courses in biology (including coverage of human biology) and statistics, 12 semester hours in the social and behavioral sciences which must include one course each in sociology, psychology, economics and American government.
5. Achieved a minimum grade point average of 2.75 or higher.

For additional information regarding the undergraduate social work program of study and degree program requirements, contact the School directly.

Upper Division Program: (60 credits)

Required Courses: (54 credits)

Block I

SOW 3113	The Social Environment and Human Behavior I	3
SOW 3232	Social Welfare Policy and Services I	3
SOW 3203	Introduction to Social Work	3
SOW 3403	Social Work Research	3
PHC 3101	Introduction to Public Health	3

Block II

SOW 3100	The Social Environment and Human Behavior II	3
SOW 3233	Social Welfare Policy and Services II – *GL*	3
SOW 3313	Social Work Practice with Families and Individuals	3
SOW 3620	Social Work and Human Diversity – *GL*	3
SOW 3350	Interviewing Techniques Lab	3

Block III

SOW 4322	Social Work Practice with Groups	3
SOW 4511L	Practicum I	7
SOW 4522	Field Seminar I	2
Upper Division Elective		3

Block IV

SOW 4332	Social Work Practice with Communities and Organizations	3
SOW 4512L	Practicum II	7
SOW 4523	Field Seminar II	2
Upper Division Elective		3

For planning your program of study, please meet with your academic advisor. Additional information regarding admission requirements for the BSSW program as well as major maps can be found at ***http://mymajor.fiu.edu/browse/470SOCWKBS***.

Remarks: Students should be aware that courses in this program are sequenced. Students must check with their advisors for pre and corequisite courses. Prerequisite course requirements will be enforced. Students will be administratively dropped from courses when they lack the required prerequisite course or courses. A grade of 'C' or higher in all courses required for the major is necessary for graduation. A passing grade in field courses is required for continuation in the program. Field courses cannot be repeated.

Students in the BSSW program who fail a required social work course (a 'D' or lower) three (3) times may not take the course again and will automatically be dismissed from the program.

Transfer Credits

Criteria for considering upper-level transfer credit include: a review of the prior educational institution's catalog description and syllabi of courses put forth for evaluation, status of the prior institutions with CSWE, and date when the course was taken. Courses that were taken six (6) or more years from the time of admission will not be considered eligible for transfer credit.

A "C" grade is required for a course to be considered eligible for transfer credit; and up to 15 credit hours normally can be transferred toward the degree at the discretion of the BSSW Coordinator. More than 15 upper level transfer credits may be awarded by the BSSW Coordinator to those applicants who present a record of previous study in accredited programs acceptable for substitution.

Minor in Social Welfare

A five-course minor in social welfare is available to baccalaureate degree-seeking students who are interested in careers in the human services field or who wish to study how common human needs are addressed within social welfare programs. The courses that comprise the minor will provide students with the opportunity to relate to the special concerns of our region, including poverty, crime and delinquency, child abuse and neglect, and family instability. The minor is available at Modesto A. Maidique Campus. A 2.75 GPA is required for admission into the minor. Prerequisites may be required for some of the

courses listed. Students must earn a "C" or higher in the five (5) courses in order to obtain the minor.

SOW 3113	The Social Environment and Human Behavior I	3
SOW 3100	The Social Environment and Human Behavior II	3
SOW 3232	Social Welfare Policy and Services I	3
SOW 3233	Social Welfare Policy and Services II – *GL*	3
SOW 3203	Introduction to Social Work[1]	3
SOW 3801	Self-Awareness and Self-Modification for Practice	3
SOW 4272	Comparative Social Welfare Policy	3
SOW 4341	Behavioral Approaches to Social Work Practice	3
SOW 4654	Child Welfare: Policy and Practice	3
SOW 4658	Interventions in Child Maltreatments	3

[1]This course is required for the minor in social welfare. The remaining 12 semester hours are to be selected from the social work courses listed above.

Certificate in Child Welfare Services

This certificate is intended to provide specialized training for students working in the arena of child protection and services. This certificate program is open to degree-seeking students only.

Requirements: (24 Credits)

Admission into Social Work (BSSW) program.

SOW 4658	Interventions in Child Maltreatments	3
SOW 4654	Child Welfare: Policy and Practice	3
SOW 4511L	Field Practicum I (in a Child Welfare Setting)	7
SOW 4512L	Field Practicum II (in a Child Welfare Setting)	7
SOW 4522	Field Seminar I	2
SOW 4523	Field Seminar II	2

For additional and updated information about degrees offered, entrance requirements, and services, please visit our website:
http://stempel.fiu.edu/academics/school-social-work/

Dietetics and Nutrition

Adriana Campa, *Chair, Associate Professor*
Deborah Abel, *Clinical Assistant Professor and Director of Graduate Certificate in Pediatric Nutrition*
Marianna Baum, *Professor*
Michele Ciccazzo, *Associate Professor and Dean Emeritus*
Catherine Coccia, *Assistant Professor*
Katharine R. Curry, *Professor Emeritus*
Penelope S. Easton, *Professor Emeritus, Founding Chair*
Evelyn B. Enrione, *Associate Professor. Director, Dietetic Internship, Director, MS Program*
Susan P. Himburg, *Professor Emeritus and Associate Vice-President, Academic Planning and Accountability*
Fatma Huffman, *Professor and Director of Doctoral Program*
Juan P. Liuzzi, *Associate Professor*
Marcia Magnus, *Associate Professor*
Joan A. Marn, *Clinical Instructor and Director, Didactic Program*
Vijaya Narayanan, *Clinical Associate Professor*
Cristina Palacios, *Associate Professor*
Tania Rivera, *Clinical Assistant Professor*
Sabrina Sales Martinez, *Assistant Professor*
Dian O. Weddle, *Associate Professor Emeritus*

Bachelor of Science in Dietetics and Nutrition

The Department of Dietetics and Nutrition offers undergraduate studies leading to a Bachelor of Science in Dietetics and Nutrition. The undergraduate student may choose from one of two programs of study to earn the degree, dietetics or nutrition science. The dietetics track (Didactic Program in Dietetics) is intended for students interested in becoming a Registered Dietitian. The nutrition science track is designed for students interested in other health professions.

Students taking courses within the department (prefix DIE, FOS, HUN, and FSS Hospitality course) should earn a grade of "C" or higher. A grade lower than a "C" will require that the student retake the course(s) and successfully pass with a grade of "C" or higher.

Students must receive a "C" or higher in all science courses and course labs required for a dietetics major (Gen CHM 1045/lab and 1046/lab, Org CHM 2200/lab or Org CHM 2210/lab and 2211/lab, BCH 3033, MCB 2000/lab, PCB 3702 or HSC 3549 and BSC 2010/lab. Any course(s) transferring into one of the above-mentioned science course(s) will need to meet the criteria. Any foreign equivalence must meet the same criteria.

Admission Requirements for Undergraduate Programs

Freshmen applicants must follow regular University admission procedures and upon admission declare their specific major in Dietetics and Nutrition. Students must complete the Program Prerequisite courses as part of their 60 credit hours of lower-division course work. To remain in the program, FIU undergraduates must maintain a minimum cumulative GPA of 2.7. See Academic Standing and Satisfactory Progress for additional information.

Admission Requirements for Transfer Students

Students seeking to transfer to FIU must follow regular University Transfer Student admission procedures. Transfer students are encouraged to complete the Program Prerequisite courses as part of their 60 credit hours of lower-division coursework. In order to declare a major in Dietetics and Nutrition, Transfer students must meet the following requirements for admission:

- A.A. Degree from a Florida public institution or completion of FIU University Core Curriculum
- Minimum cumulative GPA of 2.7
- Grade of "C" or higher earned in the following courses:
  - CHM 1045/L Chemistry 1 with Lab
  - CHM 1046/L Chemistry 2 with Lab
  - BSC 2010 Biology
  - HUN 2201 Principles of Nutrition

Change of Major

Students who wish to declare a major in Dietetics and Nutrition will be held to the degree requirements in effect at the time of the change of major. Students with 60 or more credit hours will be held to the admissions criteria for Transfer Students; students with fewer than 60 credits must meet course requirement milestones as determined by the department and be on track to complete ALL Program Prerequisite courses in a timely manner.

Major Maps

Once accepted into an undergraduate program in the University, students must log into their **my.fiu.edu** account to obtain their major maps and their assigned advisor information. The major map outlines the student's program of study which details the course sequencing and requirements to ensure the successful and timely completion of their degree. For any questions about course work and degree requirements, students should contact their advisor.

Academic Standing and Satisfactory Progress

Students are expected to make good progress towards completion of degree requirements based on critical indicators such as maintaining a minimum 2.7 GPA and earning grades of "C" or higher in all science prerequisites and core courses. If a student fails to meet a critical indicator, they will be required to meet with an academic advisor to discuss their eligibility to continue in the program. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Common Prerequisite Courses and Equivalencies

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Dietetics Track (Didactic Program): 120 hours

Current accreditation information about the Didactic Program in Dietetics (DPD) may be found on the department website. Upon successful completion of the

DPD requirements, students are eligible to receive a Didactic Program Verification Statement signifying they have completed the requirements of a dietetics education program accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND®).

Prerequisites

Students desiring to pursue the didactic track in Dietetics and Nutrition need the following FIU course equivalents in addition to completing the general education requirements:

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
CHM 2210	Organic Chemistry I	4
CHM 2210L	Organic Chemistry I Lab	1
CHM 2211	Organic Chemistry II	3
CHM 2211L	Organic Chemistry II Lab	1
	OR	
CHM 2200	Survey of Organic Chemistry	3
CHM 2200L	Survey of Organic Chemistry Lab	1
BSC 2010	General Biology	3
BSC 2010L	General Biology Lab	1
MCB 2000	Introductory Microbiology – *GL*	3
MCB 2000L	Introductory Microbiology Lab	1
PSY 2012	Introduction to Psychology	3
	OR	
INP 3004	Introduction to Industrial/Organizational Psychology	3
ANT 3451	Anthropology of Race and Religion	3
	OR	
COM 3461	Intercultural/Interracial Communication – *GL*	3
	OR	
SYP 3000	The Individual in Society	3
ECO 2013	Principles of Macroeconomics	3
	OR	
HUN 3191	World Nutrition – *GL*	3
STA 3111	Statistics I	3
	OR	
STA 3145	Statistics for the Health Professions	3
	OR	
STA 2122	Intro to Statistics	3
HUN 2201	Principles of Nutrition	3

Upper Division Program

Required Courses: (60 credits)

DIE 3005	Orientation to Dietetics	1
FOS 3021	Fundamentals of Food	3
FOS 3021L	Fundamentals of Food Lab	1
HUN 4403	Life Cycle Nutrition	3
HSC 3549	Clinical Physiology for Health Professionals	3
	OR	
PCB 3702	Intermediate Physiology	3
FOS 4041	Food Science	3
FOS 4041L	Food Science Lab	1
FSS 3233C	Institutional Food Service Production	3
HUN 4240	Nutrition and Biochemistry	3
HUN 4241	Advanced Nutrition	3
DIE 3125	Management of Dietary Systems	3
DIE 3125L	Management of Dietary Systems Lab	1
DIE 3310	Dietetics in Community Health	3
DIE 3244	Medical Nutrition Therapy	3
DIE 3244L	Medical Nutrition Therapy Lab	1
DIE 3434	Nutrition Education – *GL*	2
DIE 3434L	Nutrition Education Lab	1
DIE 4246	Clinical Nutrition	3
DIE 4246L	Clinical Nutrition Lab	1
DIE 4365	Management of Nutrition Programs	3
DIE 4365L	Applied Dietetic Management of Nutrition Programs	1
DIE 4435	Nutrition Counseling	3
DIE 4435L	Nutrition Counseling Lab	1
HUN 4404	Nutrition, Physical Activity and Special Populations	3
DIE 4506	Senior Seminar	3
DIE 4564	Evidence Based Research in Dietetics	3
DIE 4963	Comprehensive Dietetic Examination	1

Recommended Electives

Selected courses in: computer science, education, statistics, social work, health science, adult education, business, anthropology, sociology. These courses need to be discussed with an advisor before scheduling.

Nutrition Science Track: 120 hours

Prerequisites

Students desiring to pursue the Nutrition Science track in Dietetics and Nutrition need the following FIU courses equivalents in addition to completing the general education requirements:

CHM 1045	General Chemistry I	3
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
BSC 2010	General Biology	3
BSC 2010L	General Biology I Lab	1
BSC 2011	General Biology II	3
BSC 2011L	General Biology Lab II	1
MCB 2000	Introductory Microbiology – *GL*	3
MCB 2000L	Introductory Microbiology Lab	1
PSY 2012	Introduction to Psychology	3
MAC 1147	Pre-Calculus Algebra and Trigonometry	4
	OR	
MAC 1114	Trigonometry	3
	AND	
MAC 1140	PreCalculus Algebra	3
STA 2122	Statistics for Behavioral and Social Sciences I	3
	OR	
STA 3111	Statistics I	3

Additional Courses Required: (12 credits)

HUN 2201	Principles of Nutrition	3
CHM 2210	Organic Chemistry I	4
CHM 2210L	Organic Chemistry I Lab	1
CHM 2211	Organic Chemistry II	3
CHM 2211L	Organic Chemistry II Lab	1

Upper Division Program

Required Courses: (41 credits)

HUN 3191	World Nutrition – *GL*	3
FOS 3021	Fundamentals of Food	3
FOS 3021L	Fundamentals of Food Lab	1
HUN 4403	Life Cycle Nutrition	3
PCB 3702	Intermediate Physiology	3
	OR	
HSC 3549	Clinical Physiology for Health	

	Professionals	3
FOS 4041	Food Science	3
FOS 4041L	Food Science Lab	1
PCB 3063	Genetics	3
BCH 3033	General Biochemistry	3
	OR	
CHM 4304	Biological Chemistry I	3
DIE 3310	Dietetics in Community Health	3
	OR	
HUN 4404	Nutrition, Physical Activity and Special Populations	3
DIE 3244	Medical Nutrition Therapy***	3
HUN 4241	Advanced Nutrition	3
DIE 4246	Clinical Nutrition***	3
HUN 4701	Nutrigenomics	3
DIE 4564	Evidence Based Research in Dietetics	3

***Lab is not required but recommended

Recommended Electives

Depending on the student's career objectives, students should enroll in selected courses in: calculus, physics, computer science, education, statistics, social work, health science, psychology, business, anthropology, and sociology. These courses need to be discussed with an advisor before scheduling.

If the student is interested in a future career in the medical field, electives should be discussed with a pre-health advisor. The Pre-Health Advising office is located in DM 331A and can be contacted at (305) 348-0515 or **preprofc@fiu.edu**.

Minor in Nutrition

A 12-credit nutrition course sequence at the undergraduate level affords students the opportunity to study food and nutrients, their physiological functions, normal nutritional requirements, socioeconomic influences on food choices and other aspects of food technology. The required science foundation courses provide the necessary background of chemistry and biological sciences to understand the physiological and biochemical basis of nutrition, as a multi-disciplinary science with relevance to health. Students minoring in nutrition learn to interpret nutrition research and contemporary claims and theories as a basis for improving food habits. Students interested in entering health professional fields of physical or occupational therapy, schools of medicine, dentistry or veterinary medicine find the nutrition minor relevant to their future careers because of diet and health relationships.

This nutrition minor will not meet licensure requirements for qualifications as a nutritionist in the State of Florida. A license is required to provide nutritional counseling to individuals.

Minor Requirements

HUN 2201	Principles of Nutrition	3
HUN 4241	Advanced Nutrition[1]	3
HUN 4403	Life Cycle Nutrition	3

[1]Prerequisite: Human Physiology, Organic Chemistry, Biochemistry

In addition, one of the following courses:

HUN 3191	World Nutrition – *GL*	3
FOS 3021	Fundamentals of Food	3
	AND	
FOS 3021L	Fundamentals of Food Lab	1
FOS 3004	Food and the Consumer	3
FOS 4041	Food Science[2]	3
	AND	
FOS 4041L	Food Science Lab[2]	1

[2]Prerequisite: FOS 3021, FOS 3021L, and HUN 2201

Note: The following science courses are required to fulfill the prerequisites in the nutrition minor:

CHM 1045	General Chemistry I
CHM 1046	General Chemistry II
CHM 2210	Organic Chemistry I
CHM 2211	Organic Chemistry II or CHM 2200 for CHM 2210 and CHM 2211
CHM 2200	Survey of Organic Chemistry
HUN 4240	Nutrition and Biochemistry
	OR
BCH 3033	General Biochemistry
HSC 3549	Clinical Physiology for Health Professionals
	OR
PCB 3702	Intermediate Physiology
	OR
PCB 3703, 3704	Human Physiology I, II

For additional and updated information about degrees offered, entrance requirements, and services, please visit our website: **http://rscphsw.fiu.edu/students_affairs/index.html**.

Course Descriptions

Definition of Prefixes

DIE-Dietetics; FES- Fire and Emergency Services; FFP-Fire Fighting and Protection; FOS-Food Science; FSS-Food Service Systems; HSC- Health Sciences; HUN-Human Nutrition; IDS-Interdisciplinary Studies; PHC-Public Health; SOW-Social Work

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

Courses that meet the University's Global Learning requirement are identified as GL.

DIE 3005 Orientation to Dietetics (1). Survey of role and responsibilities of the dietitian. Legal and ethical considerations necessary for the student dietitian in clinical experiences. Educational and personal qualifications for specialization in dietetics. Prerequisites: Admission to Dietetics major, HUN 2201. (SS,F)

DIE 3125 Management of Dietary Systems (3). Survey of various types of institutional food service systems; management concepts in planning, implementing, and evaluating food service systems. Prerequisite: Admission to Dietetics major. Prerequisite or Corequisite: FSS 3233C. (SS)

DIE 3125L Applied Management of Dietary Systems (1). Application of principles of food service production and management including production, service, food sanitation and safety. Prerequisites: Admission to Dietetics major, FSS 3233C. Corequisite: DIE 3125. (SS)

DIE 3126 Dietetic Information Systems (3). Survey of various types of institutional food service systems; management concepts in planning, implementing, and evaluating food service systems.

DIE 3175 Dietetic Management Practicum (4). Developing skills for DIE 3125 and DIE 4365. Clinical assignments in several food service institutions in this area. Clinical component: open only to students in the Coordinated Program. Prerequisites: DIE 3355 and DIE 4277. (F)

DIE 3244 Medical Nutrition Therapy (3). Techniques of assessing nutritional status and adjusting nutrient/energy intake to accommodate medical treatment. Prerequisites: Admission to Dietetics major, Organic Chemistry (CHM 2200 or equivalent), Physiology (HSC 3549 or equivalent), HUN 4403. (F)

DIE 3244L Medical Nutrition Therapy Lab (1). Application of nutritional assessment and dietary prescriptions to accommodate medical treatment. Prerequisite: Admission to Dietetics major. Corequisite: DIE 3244. (F)

DIE 3310 Dietetics in Community Health (3). Study of community agencies providing nutrition guidance for differing age groups. Emphasis on influencing nutrition and health care policy. Prerequisites: Admission to Dietetics major, HUN 2201, DIE 3005, HUN 4403. (F)

DIE 3355 Dietetics in Community Health Practicum (2). Observation and participation in activities of community agencies. Nutrition education and counseling experiences. Clinical component: Open only to students in the Coordinated Program. Corequisite: DIE 3310. (F)

DIE 3434 Nutrition Education – *GL* (2). Planning for groups/individual basic nutrition and clinical nutrition education, and working with the instructional media. Prerequisites: Admission to Dietetics major, HUN 4403. Corequisites: FOS 3021, DIE 3434L. (F)

DIE 3434L Nutrition Education Laboratory (1). Students plan and practice various forms of nutrition education individual, groups and instructional media. Prerequisite: Admission to Dietetics major. (F)

DIE 4195 Special Problems in Dietetic Administration (1-3). In-depth study of a problem in dietetic administration chosen to coincide with a student's interest and career goals. Student will develop objectives stated in behavioral terms and demonstrate skills in information gathering, analysis, and technical writing. Prerequisite: Permission of the instructor.

DIE 4246 Clinical Nutrition (3). Study of the complex dietetic problems accompanying metabolic disorders. Determination of nutrient requirements based on pathophysiological conditions. Prerequisites: Admission to Dietetics major, DIE 3244. (S)

DIE 4246L Clinical Nutrition Laboratory (1). Application of nutrient requirements for the treatment of complex pathophysiological conditions. Prerequisites: Admission to Dietetics major, DIE 3244 and DIE 3244L. Corequisite: DIE 4246. (S)

DIE 4277 Clinical Nutrition Practicum (4). Participation in activities in clinical affiliations focusing on nutritional assessment, planning, treatment and follow-up of patients. Clinical component: open only to students in the Coordinated Program. Corequisite: DIE 4246. Prerequisite: DIE 3355. (S)

DIE 4296 Special Problems in General Dietetics (1-3). In-depth study of a problem chosen to coincide with student's interest and career goals. Student develops behavioral objectives and demonstrates skills in information gathering, analysis and technical writing. Prerequisite: Permission of the instructor. (F,S,SS)

DIE 4365 Dietetic Management of Nutrition Programs (3). Advanced concepts of managerial functions as an institutional consultant, a member of a community nutrition program, a private therapeutic consultant, full time institutional food service administrator. Advanced standing required. Prerequisites: DIE 3125 or permission of the instructor, Admission to Dietetics major, basic competency in management principles. (F)

DIE 4365L Applied Dietetic Management of Nutrition Programs (1). Observation and participation in community agencies, institutions, and simulated setting the development of entry level competencies in the management of nutrition and food service programs. Prerequisite: DIE 3125 and DIE 3125L. Corequisite: DIE 4365. (F)

DIE 4435 Nutrition Counseling and Communication Skills (3). Nutrition counseling methods and communication skills for development of entry level competencies. Advanced standing in dietetics required. Prerequisites: Admission to Dietetics major, DIE 3244, DIE 3434. (S)

DIE 4435L Nutrition Counseling and Communication Skills Lab (1). Small group video recorded practice in instruction counseling communication skills. Prerequisite: Admission to Dietetics major. Corequisite: DIE 4435. (S)

DIE 4506 Seminar in Dietetics and Nutrition (3). Professional skills development for career effectiveness in today's job world; emphasis on speaking and writing related to contemporary nutrition issues. Prerequisites: Admission to Dietetics major, senior standing. (F,S,SS)

DIE 4536 Advanced Practicum in Dietetics (9). In-depth study combining theoretical concepts and clinical experience. Learning experience planned cooperatively by the student, campus instructor, and clinical instructor to meet student needs and goals. Prerequisites: DIE 4246, DIE 4277, and permission of Director of the Coordinated Program. Clinical component: Open only to students in the Coordinated Program. (S)

DIE 4537 Supervised Dietetics Practice I (6). Practical application of knowledge and skills in a supervised practice setting. Prerequisites: Permission of the instructor. (SS)

DIE 4538 Supervised Dietetics Practice II (6). Continuation of practical application of knowledge and skills in a supervised practice setting. Prerequisite: Permission of the instructor.

DIE 4564 Evidence Based Research in Dietetics (3). Research methodology for planning, conducting and analyzing evidence based research in applied dietetics. Prerequisite: Admission to Dietetics major. (F,S)

DIE 4963 Comprehensive Dietetic Examination (1). A comprehensive examination of the dietetics and nutrition curriculum. Prerequisite: Senior standing. (F,S,SS)

FES 3046 Personnel Management for Fire and Emergency Services (3). This course examines relationships in personnel administration and human resource development within fire related organizations.

FES 3533 Community Risk Reduction (3). This course examines the ethical, sociological, organizational, and political components of a community risk reduction plan related to the fire service.

FES 3734C Emergency Management and Homeland Security (3). The course examines the issues related to domestic and international terrorism from an emergency management perspective. Emphasis is placed on how to plan for, respond to & recover from such events.

FES 3780 Analytical Approaches to Public Fire Protection (3). This course examines the tools and techniques of rational decision making in fire and emergency management agencies. Including Geographic Information Systems (GIS).

FES 3804C Disaster Response (3). An understanding of the characteristics, functions, and resources of an integrated disaster response system are covering in conjunction with the rules of various emergency management services.

FES 3807C Disaster Recovery (3). This course emphasizes the policies, topics, & procedures necessary to respond to a natural or human-induced disaster.

FES 3824C Business Continuity Crisis Management (3). This course examines business continuity management (BCM) and the underlying assumptions that accompany the theoretical and practical approaches to this process from a disaster management perspective.

FES 3833C Emerging Issues in Environmental Disaster Management (3). This course will provide you with the knowledge & skills needed to plan for, respond to & recover from natural or man-made disasters.

FES 3842C International Disaster Management (3). This course will discuss practical and theoretical issues associated with international disaster management.

FES 3854C Risk and Vulnerability Assessment (3). This course examines the processes and actions emergency managers take in assessing risk & vulnerability of communities prior to a man-made or natural disaster.

FES 3859C All-Hazards Preparation (3). Analyze how to protect critical facilities and infrastructure from hazardous events. Analyze planning processes for hazard mitigation, disaster recovery, and continuity of operations.

FFP 3785 Chief Officer (3). This course will examine the requirements of being a chief officer in the fire service.

FOS 3004 Food and the Consumer (3). Study of purchasing, storage, and preparation of food. Consideration of life style influences on food choices. Designed to develop skills in purchasing and preparing foods to meet personal, social, and physical needs. Demonstration laboratory included.

FOS 3021 Fundamentals of Food (3). Study of selection, processing, and preparation of food with attention to quality and nutrient retention. Corequisite: FOS 3021L. (F,SS)

FOS 3021L Fundamentals of Food Laboratory (1). Techniques of food preparation to maintain nutrients and food quality. Corequisite: FOS 3021. (F,SS)

FOS 4041 Food Science (3). Physical and chemical changes in food occurring as a result of various methods of processing, preparation, and storage. Prerequisites: Admission to Dietetics major, Organic Chemistry, HUN 3122 or HUN 2201, FOS 3021, or equivalents. Corequisite: FOS 4041L. (S,SS)

FOS 4041L Food Science Laboratory (1). Experimental laboratory in the physical and chemical characteristics of food. Prerequisite: Admission to Dietetics major. Corequisite: FOS 4041. (S,SS)

FSS 3316 Food Science for Institutions (3). Proper food handling in institutional settings with use of sound management principles closely coordinated with food science advances and government regulations. Laboratory and field trips to strengthen theoretical concepts. Prerequisite: FOS 3021.

HSC 4751 Statistical Applications (3). The intent of this course is to familiarize students with the basic approaches to social research as applied in healthcare settings. Emphasis will be placed on techniques for organizing and presenting data for policy and management decision-making.

HUN 2000 Foundations of Nutrition Science (3). An integrated functional survey of nutrition science as it relates to human physiology, physiological chemistry, food chemistry and biotechnology. Intended for the non-science major. Corequisite: Foundations of Nutrition Science Laboratory. (All semesters).

HUN 2000L Foundations of Nutrition Science Laboratory (1). To apply the scientific method to nutrition science as it relates to human physiology, physiological chemistry, food chemistry and biotechnology. Corequisite: Foundations of Nutrition Science. (All semesters).

HUN 2201 Principles of Nutrition (3). Nutrients and their interrelationships, requirements of individuals, and food sources. Investigates current controversies, fads/fallacies, and health related issues. (F,S,SS)

HUN 3122 Applied Nutrition (3). Study of the scientific principles of nutrition and impact of culture on nutrition and health. Recommended for Junior-Senior non-majors.

HUN 3191 World Nutrition – *GL* (3). Strategies for improving cross-cultural competence in conducting needs assessments, program planning, and implementation in nutrition services. Prerequisite: HUN 2201. (F,S,SS)

HUN 3294 Women's Nutrition Issues (3). Focus is on women, health and nutrition. Covers nutrition throughout women's life cycle, principles of absorption, digestion, metabolism, food composition, local to international issues. New labeling laws, current nutrition research. (F)

HUN 3414 Nutrition for the Athlete (3). Exploration of nutrition in the enhancement of health and athletic performance. Nutrition claims targeted to the exercising population will be evaluated. Prerequisite: HUN 2201.

HUN 4240 Nutrition and Biochemistry (3). Study of the relationship of nutrition and biochemistry with emphasis on digestion, absorption, metabolism of nutrients, and determination of norms. Prerequisites: Admission to Dietetics major, CHM 2211, CHM 2211L or CHM 2200, CHM 2200L. (F,S,SS)

HUN 4241 Advanced Nutrition (3). Roles of nutrients in metabolic processes. Effects of excesses and deficiencies. Prerequisites: Admission to Dietetics major, HSC 3549 or PCB 3702, BCH 3033 or HUN 4240, HUN 2201 and HUN 4403. (F,S)

HUN 4403 Life Cycle Nutrition (3). Nutrient requirements, dietary adequacy, food habits, special nutritional concerns during pregnancy, infancy, childhood, adolescence, and adulthood including aging. Prerequisites: HUN 2201 or HUN 3122. (F,S)

HUN 4404 Nutrition, Physical Activity and Special Populations (3). Study of nutrition and physical activity, nutrition and special populations, especially pediatrics and older adults. Prerequisites: Admission to Dietetics major, DIE 3244, DIE 3244L. (S)

HUN 4701 Nutrigenomics (3). Nutrigenomics is an emerging discipline that studies both the impact of nutrition on gene expression and the relationship between diet, genetics and disease. Prerequisites: PCB 3063 and BCH 3033 or CHM 4304, HUN 2201. (S)

IDS 3183 Health Without Borders – *GL* (3). This is an undergraduate course to orient students; regardless of their major field of studies, with a global perspective of the interrelatedness of factors affecting health that transcends borders.

IDS 3189 International Nutrition, Public Health and Economic Development – *GL* (3). This course will examine the impact of global public health, nutrition and economic development on the physical and political environment. Recommended also for non-majors.

PHC 2402 Sexual Issues in Public Health (3). Public Health policy and its relation to understanding sexual health and the variety of factors that affect individual's sexual lives.

PHC 3101 Introduction to Public Health (3). This course examines principles of public health practice, with emphasis on history, philosophy, scope, law and regulations, and recent trends of public health.

PHC 4024 Principles of Applied Epidemiology (3). Methods and techniques used by epidemiologists investigating the distribution and causes of diseases are studied. A holistic approach to principles of disease surveillance and control is studied. Prerequisite or Corequisite: HSA 3111.

PHC 4189 Disaster Management Ensuring Success and Avoiding Failure (3). This course analyzes disasters for best practices, contributions made by various agencies and potential areas that could be improved upon.

PHC 4234 Public and Private Continuity Planning for Emergencies (3). This course evaluates disaster management, crisis management, contingency planning, and organizational continuity, recovery and restoration issues facing public and private sector organizations.

PHC 4250 Crisis Leadership in Disasters (3). Analyze disasters through methods of leadership. Developing effective leaders who take responsibility and build teams in the preparation, response, and recovery phases of an incident is paramount.

PHC 4302 Introduction to Environmental Public Health (3). This course covers a description and analysis of environmental/occupational factors that affect the health of a community.

PHC 4308 Biological Basis of Environmental Public Health (3). This course will introduce students to cell biology and basic anatomy, physiology, pathophysiology of major organ systems.

PHC 4318 Introduction to Biological Basis of Environmental Public Health (3). This course will introduce students to cutting-edge research in the field of environmental public health with a focus towards better treatment and prevention of human diseases.

PHC 4375 Community Participation in Homeland Security (3). This course evaluates and analyzes the role of community involvement in assisting professional disaster managers in keeping communities safe before, during and after an incident.

PHC 4376 Disaster by Design: Exercise Development for Homeland Security Professionals (3). This course analyzes the role disaster exercises play in the preparation phase of disaster planning. Students will design and participate in such exercises.

PHC 4940 Internship in Disaster Management (3). On-the-job learning experiences at approved organizations allow interns to assist and observe all job functions and duties related to various aspects within their respective industry.

PHC 4509 Introduction to Health Promotion in Public Health (3). This course is an introduction to the role of health promotion in public health; it will address successes and failures in marketing public health program; it will discuss practical ways to prevent premature causes of death and policies.

SOW 2001 Explanation of Human Services Professions (3). An overview of human services professions focusing on social work, generalist human services, couples and family counseling, clinical and counseling psychology, and school counseling.

SOW 3100 The Social Environment and Human Behavior II (3). Study of individual development, personality, and behavior from a bio-psychological and sociocultural perspective with emphasis on the life cycle, giving attention to racial/ethnic, gender and sexual orientation variables. Prerequisites: Social Work majors and by permission only; SOW 3113, Biology with Human Content.

SOW 3113 The Social Environment and Human Behavior I (3). Study of the socio-cultural factors (including racial, ethnic, and gender and sexual orientation variables) affecting human development and behavior in families, groups, organizations, and communities. Prerequisites: Social Work majors or by permission of the instructor only; biology with human content.

SOW 3203 Introduction to Social Work (3). An overview of the profession of social work within the institution of social welfare. Historical and philosophical development, field of practice, values, and ethics.

SOW 3232 Social Welfare Policy and Services I (3). This course considers the major social welfare programs in the United States: how they emerged and developed, and how they operate today. Analysis of financial resources, decision-making processes, and structure of delivery systems serves as a basis for understanding policy assessment. Prerequisites: Social Work majors or by permission of the instructor only; American government; economics. Corequisites: American government; economics.

SOW 3233 Social Welfare Policy and Services II – *GL* (3). This course examines the frameworks and methods used to analyze social welfare policy and programs. Special attention is paid to current policy issues in the Social Welfare system and strategies that can be used to achieve policy change. Prerequisites: Social Work majors and by permission only; American Government, Economics, SOW 3232, SOW 3203.

SOW 3313 Social Work Practice with Families and Individuals (3). Overview of generalist social work practice with a focus on individuals and families. Social work practice framework and principles, use of values/ethics and skill development are included. Prerequisites: Social Work majors and by permission only; SOW 3113, SOW 3203, SOW 3100. Corequisite: SOW 3100.

SOW 3350 Interviewing Techniques Lab (3). This is a competency-based course providing students with basic interviewing skills for Social Work practice. Emphasis is on acquisition of interviewing behavior rather than theory. Prerequisites: Social Work Majors or by permission only Corequisites: SOW 3313 or by permission only

SOW 3403 Social Work Research (3). Introduction to the basic language, methods, and skills of scientific research for beginning social work practice. Problem formulation, literature review, definition of variables, sampling, data collection and analysis, and report writing are addressed. Prerequisites: Social Work majors or by permission of the instructor only; statistics.

SOW 3620 Social Work and Human Diversity – *GL* (3). Prepares students for generalist social work practice with diverse populations focusing on knowledge, attitude, and skills. A global learning course. Prerequisites: Social Work majors or by permission of the instructor only; SOW 3203.

SOW 3801* Self-Awareness and Self-Modification for Practice (3). An experience oriented course directed toward helping students become aware of their own interpersonal processes and how these may influence their skill and effectiveness as professional helping persons. Emphasis is on personal learning.

SOW 4272* Comparative Social Welfare Policy (3). A combination seminar and lecture course in which students will analyze and compare social welfare policy, problems, and programs in various countries.

SOW 4322 Social Work Practice with Groups (3). This course is designed to provide the theories and techniques of generalist social work practice with small groups in a wide range of social service agencies and with a diverse client population. Prerequisites: Social Work majors and by permission only; SOW 3113, SOW 3232, SOW 3203, SOW 3403, SOW 3100, SOW 3233, SOW 3313, SOW 3620, SOW 3350. Corequisites: SOW 4511L, SOW 4522.

SOW 4332 Social Work Practice with Communities and Organizations (3). Provides an understanding of planned change at the community level from a social work perspective, as well as strategies and methods utilized in community organization practice. Identification of generalist skills and prevalent models of groups and community organization in social work practice. Prerequisites: Social Work majors and by permission only; SOW 3113, SOW 3232, SOW 3203, SOW 3403, SOW 3100, SOW 3233, SOW 3313, SOW 3620, SOW 3350, SOW 4322, SOW 4511L, SOW 4522. Corequisites: SOW 4512L, SOW 4523.

SOW 4341* Behavioral Approaches to Social Work Practice (3). An introduction to the basics of learning theory as applied to social work settings. A review of principles of cognitive and learning theory applied to generalist practice.

SOW 4511L Practicum I (7). The first of two practicum courses that provide students with the opportunity to apply and integrate generalist social work knowledge and skills in a supervised experience. Prerequisites: Social Work majors and by permission only; SOW 3113, SOW 3232, SOW 3203, SOW 3403, SOW 3100, SOW 3233, SOW 3313, SOW 3620, SOW 3350. Corequisites: SOW 4322, SOW 4522.

SOW 4512L Practicum II (7). The second of two practicum courses that provide students with the opportunity to apply and integrate generalist social work knowledge and skills in a supervised practice experience. Prerequisites: Social Work majors and by permission only; SOW 3113, SOW 3232, SOW 3203, SOW 3403, SOW 3100, SOW 3233, SOW 3313, SOW 3620, SOW 3350, SOW 4322, SOW 4511L, SOW 4522. Corequisites: SOW 4332, SOW 4523.

SOW 4522 Field Seminar I (2). This seminar is taken concurrently with SOW 4511L and SOW 4322. It is designed to analyze the field practicum experience by emphasizing the integration of theory and practice. Prerequisites: Social Work majors and by permission only; SOW 3113, SOW 3232, SOW 3203, SOW 3403, SOW 3100, SOW 3233, SOW 3313, SOW 3620, SOW 3350. Corequisites: SOW 4322, SOW 4511L.

SOW 4523 Field Seminar II (2). This seminar is taken concurrently with SOW 4512L and SOW 4332. It is designed to analyze the field practicum experience by emphasizing the integration of theory and practice. Prerequisites: Social Work majors and by permission only; SOW 3113, SOW 3232, SOW 3203, SOW 3403, SOW 3100, SOW 3233, SOW 3313, SOW 3620, SOW 3350, SOW 4322, SOW 4511L, SOW 4522. Corequisites: SOW 4332, SOW 4512L.

SOW 4654* Child Welfare: Policy and Practice (3). This course will explore professional practice and policy issues in child welfare with emphasis on interventions in child maltreatment. Prerequisites: SOW 3113 and SOW 3232.

SOW 4658* Interventions in Child Maltreatments (3). This course will examine best practices in the health, mental health and socio emotional development of children and adolescents within the child welfare system. Prerequisite: SOW 3113.

SOW 4679 Behavioral Health Issues Related to Disasters (3). A combination seminar and lecture course in which undergraduate students learn the fundamentals of mental and behavioral health issues in disaster response and recovery. Prerequisite: SOW 3113, or DEP 2000 or CLP 2001, or PSY 2012 or permission of instructor.

SOW 4684* Professional Values in the Human Services (3). This course is designed to assist students in identifying, exploring, and experiencing the values inherent in professionalism, as they are manifested in the various human service professions. Material will be presented in a didactic and experiential manner with emphasis upon student involvement in the value clarification process. Prerequisite: Senior standing.

SOW 4905* Individual Study (1-9). Individually selected program of supervised study related to specific social work issues. Prerequisite: Permission of the instructor. (F,S,SS)

SOW 4932* Current Topics in Social Work (3). This course presents an extensive examination of current issues and problems in social work. Interventive technology to address these issues will be presented.

*Social Work Elective

For additional and updated information about degrees offered, entrance requirements, and services, please visit our website: **http://rscphsw.fiu.edu/students_affairs/index.html**.

Robert Stempel College of Public Health & Social Work

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Shaw-Ridley, Mary, Ph.D. *(Texas Woman's University), Associate Professor, Health Promotion and Disease Prevention*

Thomlison, Ray, Ph.D. *(University of Toronto), Professor, Social Work*

Tieu, Kim, PhD, *(University of Saskatchewan), Professor and Interim Chair, Environmental Health Sciences*

Trepka, Mary Jo, M.D., Ph.D. *(University of Colorado), Associate Professor, Epidemiology*

Wagner, Eric F., Ph.D. *(University of Pittsburgh), Professor, Social Work and Director, FIU-Banyan Research Institute on Dissemination, Grants, and Evaluation*

Weddle, Dian O., Ph.D. R.D., FADA *(University of Illinois), Associate Professor Emeritus, Dietetics and Nutrition*

White, Vandon E., Ph.D. *(Purdue University), Professor Emeritus, Health Policy and Management*

Wnuk, Stanislaw F., Ph.D. *(Adam Mickiewicz University), Professor, Environmental Health Sciences and Associate Dean, Graduate Education*

Wong, Stephen, Ph.D. *(Western Michigan University), Associate Professor, Social Work*

Yoo, Changwon, Ph.D. *(University of Pittsburgh), Associate Professor, Biostatistics*

For additional and updated information about degrees offered, entrance requirements, and services, please visit our website: **http://stempel.fiu.edu/faculty-and-staff/index.html**.

Chaplin School of Hospitality and Tourism Management

Michael Cheng, *Interim Dean*
Diann R. Newman, *Vice Dean*
Joseph M. Cilli, *Department Chair and Director of Distance Learning*
Miao Wang, *Associate Professor and Associate Department Chair, Marriott Tianjin China Program*
Rocco M. Angelo, *Professor Emeritus and E.M. Statler Professor, Alumni Relations*
Mohammed A. Qureshi, *Associate Dean of Administration and Facilities*
Lindsay Ackerman, *Instructor*
Imran Ahmad, *Research Assistant Professor*
Rossy Ambe-Cohen, *Instructor and Director, Food and Beverage Program*
Eric Beckman, *Assistant Professor*
Lisa N. Cain, *Assistant Professor*
Patrick J. Cassidy, *Instructor*
Howook "Sean" Chang, *Assistant Professor*
Brian Connors, *Clinical Instructor*
Hui Dai, *Instructor*
Nathan Dodge, *Clinical Instructor*
Dalton Draper, *Chef Instructor*
Joel Feigenheimer, *Instructor and NAC Endowed Professor*
Dale R. Gomez, *Director of Instructional & Information Technology, Clinical Instructor*
Barry Gump, *Harvey R. Chaplin Eminent Scholar Chair*
Mike T. Hampton, *Professor*
William Hebrank, *Instructor*
Wenbo Huang, *Assistant Professor*
Miranda Kitterlin, *Associate Professor and Coca-Cola Endowed Professor*
Yunfei Li, *Instructor*
Twila-Mae Logan, *Clinical Associate Professor*
Carolin Lusby, *Assistant Professor*
Steven V. Moll, *Associate Professor*
Elisa Moncarz, *Professor Emeritus*
Andrew Moreo*, Assistant Professor*
Dongyun Oh, *Assistant Professor*
Roger Probst, *Chef Instructor*
Nancy Scanlon, *Associate Professor*
Fang Shu, *Instructor*
Jizhe "Jim" Sun, *Instructor*
Mary L. Tanke, *Associate Professor*
Wei Tao, *Instructor*
John H. Thomas, *Clinical Associate Professor*
Xin "Damon" Tian, *Assistant Professor*
Hongye Wang, *Assistant Professor*
Jinlin Zhao, *Professor and Director, Graduate Programs*

The Chaplin School of Hospitality and Tourism Management offers Bachelor and Master degrees in Hospitality Management that combine practical experience with classroom theory to assist the student in gaining the understanding, skills, and techniques needed to qualify for progressively responsible job opportunities, and to achieve his or her career goals in the hospitality/tourism 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 internship program provides each student a structured field experience normally not available to a student until he or she has entered the industry after graduation.

An Industry Advisory Council - which includes outstanding executives in the lodging, foodservice, 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 and tourism industries.

The School was designated a Program of Distinction by the former Florida Board of Education.

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 FIU Board of Trustees. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Locations

The School is located on 200 tropical acres in a resort-like setting at the scenic Biscayne Bay Campus at Biscayne Boulevard and Northeast 151 Street, North Miami, Florida.

The Hospitality Management undergraduate degree program is completely available online. Some courses are available in the evening and selected courses in Hospitality and Tourism Management are presented at the FIU Modesto A. Maidique Campus. The FIU undergraduate degree program is also offered at our campus in Tianjin, China.

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 Admissions section of the catalog. Applicants must be eligible for admission to the University before admission to the School. In addition, transfer students with 60 credits or more must earn a minimum 2.25 GPA for admission to the School. A minimum TOEFL score of 550 paper-based, 80 internet-based (iBT), or a minimum IELTS of 6.5 is required for international applicants. The following exceptions apply: (1) Applicants who completed 4 years of high school in the United States or other English-speaking countries, (2) Applicants who hold an undergraduate or graduate degree from an institution within the United States or other English-speaking countries. International students may be required to pass an assessment in writing and oral interview in order to be admitted into the program.

Undergraduate Study

Students must follow regular University admission procedures and upon admission declare their specific major in one of these areas of Hospitality Management or choose the general Hospitality degree option. A maximum of 60 credits will be granted for both Associate in Arts and Associate in Science degrees. One may enroll on either a full-time or a part-time basis. International students must enroll full-time. Students with less than 60 transfer credits must meet freshman admission criteria. All students must meet the University's Core Curriculum requirements prior to graduation. Students with an Associate in Arts degree

from an institution within the Florida College System will have met the University Core Curriculum requirements.

It is not necessary to have been previously enrolled in a hotel, restaurant, or tourism program. The curriculum will provide the specialized professional education to equip the student for a career in hospitality and tourism management. Students with background in liberal arts, business, education, or technology, for example, are qualified to enroll in the program.

A maximum of 60 lower division undergraduate semester credits may be transferred. More credits may be transferred from a related upper-division program at a four-year institution.

There is a requirement that all students complete at least 500 hours of practical training work experience in the hospitality or tourism industry. In addition, the student is required to complete one of the two internship options available: 1) Hospitality Internship - 500 additional practical training work hours in the hospitality or tourism industry or 2) Advanced Internship - 300 hours

Bachelor of Science in Hospitality Management

Degree Program Hours: 120

Lower Division Preparation (60)

To qualify for admission to the hospitality program, FIU transfer students with 60 credits must have a minimum 2.25 GPA and must be otherwise acceptable into the program. Students with less than 60 transfer credits need to meet the freshman criteria established by the University. All University Core Curriculum requirements must be completed prior to graduation from the University.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
None	HFTX000[1] or HFTX003

[1]FIU does not require HFTX000 for admission to its program.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Lower Division Courses (18 credit hours)

HFT 1000	Introduction to Hospitality and Tourism Management*	3
HFT 2401	Accounting for the Hospitality Industry*	3
HFT 2441	Hospitality Information Technology*	3
HFT 2220	Human Resources Management for the Hospitality Industry*	3
ECO 2013	Macroeconomics*	3
	or	
ECO 2023	Microeconomics*	3
SPC 2608	Public Speaking*	3

Note: Courses listed with a * indicate courses that can be met by approved courses taken from a transfer institution. If these courses are not taken prior to transferring into program, they may be completed as elective credits as part of the degree program.

Hospitality Core Requirements (32 credit hours)

FSS 3230C	Introductory Commercial Food Production	3
FSS 4234C	Advanced Food Production Management	3
HFT 3453	Lodging Operations Control	3
HFT 3263	Restaurant Management	3
HFT 3503	Hospitality Marketing Strategy – *GL*	3
HFT 3603	Hospitality Industry Law – *GL*	3
HFT 4323	Hospitality Facilities Environmental Systems – *GL*	3
HFT 4413	Hospitality Analytics and Revenue Management	3
HFT 4464	Financial Analysis in the Hospitality Industry	3
HFT 4474	Management Accounting for the Hospitality Industry	3
HFT 1070	Pathways to Hospitality 1	1
HFT 3072	Pathways to Hospitality 2	1

General Hospitality Management Majors (16 credit hours)

Select twelve credits plus either HFT 4945 or HFT 3941, and HFT 4294 under the advisement with a Chaplin School academic advisor.

Beverage Management Major Courses (16)

HFT 3861	Beverage Fundamentals	3
HFT 3864	Introduction to Brewing Science	3
HFT 3866	Wine Technology, Merchandising, and Marketing	3
HFT 4867	The Business of Wine	3
HFT 4945	Advanced Internship in Hospitality/Tourism Management – section focus: Beverage Management;	1
	or	
HFT 3941	Internship in Hospitality Management	1
HFT 4294	Senior Seminar in Hospitality Management – section focus: Beverage Management	3

Culinary Management Major Courses (16)

FSS 4234C	Advanced Food Production Management	3
FSS 4336	Culinary Event Management	3
FSS 3242C	International Cuisine	3
HFT 3941	Internship in Hospitality Management	1
HFT 4833	Culinary Innovation and Entrepreneurship – *GL*	3
HFT 4945	Advanced Internship in Hospitality/Tourism Management – section focus: Culinary Management	1
HFT 4294	Senior Seminar in Hospitality Management – section focus: Culinary Management	3

Event Management Major Courses (16)

HFT 3741	Planning Meetings and Conventions	3
HFT 3753	Convention and Trade Show Management	3
	or	
HFT 4508	Group Business Sales and Services	3
HFT 3754	Exposition and Events Management	3

HFT 4757	Advanced Events Management	3
HFT 4945	Advanced Internship in Hospitality/Tourism Management – section focus: Event Management	1
	or	
HFT 3941	Internship in Hospitality Management	1
HFT 4294	Senior Seminar in Hospitality Management – section focus: Event Management	3

Hotel/Lodging Management Major Courses (16)

HFT 3314	Hospitality Property Management	3
HFT 4240	Managing Service Organizations	3
HFT 4936	Hotel Management Seminar	3
HFT 4508	Group Business Sales and Services	3
HFT 4945	Advanced Internship in Hospitality/Tourism Management – section focus: Hotel/Lodging Management	1
	or	
HFT 3941	Internship in Hospitality Management	1
HFT 4294	Senior Seminar in Hospitality Management – section focus: Hotel/Lodging Management	3

Restaurant/Foodservice Management Major Courses (16)

FSS 4106	Purchasing and Menu Planning	3
HFT 4809	Management of Food Service Industry Segments	3
HFT 4812	Food Service Systems Development	3
HFT 4853	Food Service Trends and Challenges	3
HFT 4945	Advanced Internship in Hospitality/Tourism Management – section focus: Restaurant/Foodservice Management	1
	Or	
HFT 3941	Internship in Hospitality Management	1
HFT 4294	Senior Seminar in Hospitality Management – section focus: Restaurant/Foodservice Management	3

Travel and Tourism Management Major Courses (16)

HFT 3713	International Travel and Tourism – *GL*	3
HFT 3701	Sustainable Tourism Practices – *GL*	3
HFT 3733	Tour Production and Distribution	3
HFT 4509	Tourism Destination Marketing	3
HFT 4945	Advanced Internship in Hospitality/Tourism Management – section focus: Travel and Tourism Management	1
	or	
HFT 3941	Internship in Hospitality Management	1
HFT 4294	Senior Seminar in Hospitality Management – section focus: Travel and Tourism Management	3

Courses waived in the hospitality/tourism core may be replaced with another course from the hospitality or tourism management program or be used to fulfill University Core Curriculum requirements.

Industry Experience Requirement:

A minimum of 500 documented hours of hospitality/tourism related practical training work experience is required. In addition, the student is required to complete one of the two internship options available:
300 hours in HFT 4945 Advanced Internship, **or**
500 hours of hospitality/tourism related practical training work experience in HFT 3941
Either of the two internship options must be major related and approved by an advisor. Work experience documentation is required. Students with extensive industry management experience may apply for a waiver of the work experience and Advanced Internship.

Combined BS/MS in Hospitality Management

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than 12 graduate credits may be applied toward both degrees. Students must earn a "B" or higher grade in these 4 courses in order to apply towards the Master's degree.

Admission Requirements

- Current enrollment in the Bachelor's Degree program in Hospitality Management at FIU.
- Completed at least 75-90 credit hours of course work.
- Current GPA must be 3.2 or higher.

General Requirements

- Complete the separate 4+1 application.
- Applications should be submitted in the first semester of the student's senior year.

Required (33 credits):

HMG 6280	Global Issues in Hospitality and Tourism	3
HMG 6225	Multicultural Human Resources Management for the Hospitality Industry	3
	or	
HMG 6246	Organizational Behavior in the Hospitality and Tourism	3
HMG 6296	Strategic Management for Hospitality and Tourism	3
HMG 6257	Hospitality and Tourism Industry Research Analysis	3
HMG 6477	Accounting and Financial Management	3
HMG 6476	Feasibility Studies for the Hospitality Industry	3
	or	
HMG 6478	Restaurant Development	3
HMG 6916	Hospitality Industry Research Project	3

HMG 6697	Hospitality Law Seminar	3
HMG 6946	Graduate Internship	0
HMG 6466	Hospitality and Tourism Revenue Management	3
HMG 6596	Marketing and Sales in Hospitality and Tourism	3
Elective Course		3

Overlap

Up to 4 courses (12 credits) may be used to satisfy both the bachelor's and master's degree requirements. Courses must be 5000- or 6000- level School of Hospitality and Tourism Management Graduate Courses and students must earn a grade of a "B" or higher.

Data Science 4+1 Program

With their advisor's approval, students from all undergraduate majors including Computer Science, Hospitality Management, Information Systems and Biostatistics may apply to the Data Science 4+1 program. If accepted, students will be allowed to take up to 12 credits of graduate data science courses which will apply towards both their undergraduate degree requirements and the master's degree program in data science.
The admission requirements are:

1. Current enrollment in an approved bachelor's degree program at FIU.
2. Completed between a minimum of 75 and maximum of 90 credits.
3. Current GPA must be 3.3 or higher.
4. GRE quantitative score of 148 or higher.
5. Completed prerequisites for the master's in Data Science program or demonstrated competencies in the specialization areas (the latter option requires approval by the graduate program director of the appropriate specialization area)
6. Complete the separate 4+1 application, including signed approval by the director or designee from the graduate program.

Hospitality Management 4+1 Program

With their advisor's approval, students from undergraduate majors other than Hospitality Management may apply to the Hospitality 4+1 program. If accepted, students will be allowed to take up to 12 credits of graduate hospitality management courses which will apply towards both their undergraduate degree requirements and the master's degree program in hospitality management.
The admission requirements are:

1. Current enrollment in an approved bachelor's degree program at FIU.
2. Completed between a minimum of 75 and a maximum of 90 credits.
3. Current GPA must be 3.2 or higher
4. Complete the separate 4+1 application, including signed approval by the director or designee from the graduate program.

Minor Programs

Minor in Beverage Management

Required Courses: (12)

HFT 3861	Beverage Fundamentals	3
HFT 3864	Introduction to Brewing Science	3
HFT 3866	Wine Technology, Merchandising, and Marketing	3
HFT 4867	The Business of Wine	3

or

Substitutions are permitted under advisement with a Chaplin School of Hospitality and Tourism Management academic advisor.

Minor in Hotel/Lodging Management

Required Courses: (12)

HFT 3314	Hospitality Property Management	3
HFT 4240	Managing Service Organizations	3
HFT 4936	Hotel Management Seminar	3
HFT 4508	Group Business Sales and Services	3

or

Substitutions are permitted under advisement with a Chaplin School of Hospitality and Tourism Management academic advisor.

Minor in Restaurant/Foodservice Management

Required Courses: (12)

FSS 4106	Purchasing and Menu Planning	3
HFT 4809	Management of Food Service Industry Segments	3
HFT 4812	Food Service Systems Development	3
HFT 4853	Food Service Trends and Challenges	3

or

Substitutions are permitted under advisement with a Chaplin School of Hospitality and Tourism Management academic advisor.

Minor in Travel and Tourism Management

Required Courses: (12)

HFT 3701	Sustainable Tourism Practices – *GL*	3
HFT 3713	International Travel and Tourism – *GL*	3
HFT 3770	Cruiseline Operations and Management	3
HFT 4509	Tourism Destination Marketing	3

or

Substitutions are permitted under advisement with a Chaplin School of Hospitality and Tourism Management academic advisor.

Minor in Hospitality Studies

Students select 12 credits in hospitality or tourism management and create their own minor according to their particular interests. This minor available to non-hospitality majors only.

Minor in International Hospitality Studies

Students select 12 credits in hospitality or tourism management and create their own minor according to their particular interests. This minor is available to non-hospitality majors only in our International Program Centers.

Certificate in Hospitality and the Internet of Things (IoT)

This interdisciplinary Certificate provides both traditional students and practicing professionals with a unique

learning experience that enhances their design and management capabilities in the emerging field of hospitality and IoT. The program focuses on an integrated approach to apply the Internet of Things to hospitality management principles through interdisciplinary coursework. Interested applicants must contact the Chaplin School's Assistant Director of Advising prior to registering for the program. This certificate program is open to both degree and non-degree seeking students.

This 18-credit certificate will be awarded to a student who successfully demonstrates competency in:

Four core courses (12 credits):

HFT 4207	Hospitality Management and IoT	3
HFT 4507	Law, Ethics and Compliance in the Internet of Things	3
CAP 2750	Data Analytics for the Internet of Things (Elec. and Computer Eng.)	3
CNT 2720	Introduction to Internet of Things (Electrical and Computer Engineering)	3

Two Electives (6 credits):

HFT 3764	Travel Information Technology	3
HFT 4445	Hospitality Technology Design Thinking and Innovation	3
HFT 4509	Hospitality and Tourism on the Internet - Online Marketing	3
CNT 4185	IoT Privacy (Electrical and Computer Engineering)	3

Course Descriptions

Definition of Prefixes

FOS - Food Science; FSS - Foodservice Systems; HFT - Hotel, Food, Tourism Courses that meet the University's Global Learning requirement are identified as GL.

FOS 3207 Food Service Sanitation (0). Principles and practices involved in safe handling of food products including HACCP procedures. Offers the opportunity for Food Safety Certification.

FOS 4206 Sanitation in Food Service Operations (3). The causes and prevention of foodborne illness are stressed. Emphasis is placed on the current problems confronting the industry, with recent food developments as they relate to sanitation. The Hazard Analysis Critical Control Point system (HACCP) is included.

FSS 1005 Introduction to the Culinary Arts (3). Principles and skills required in preparing breads, desserts, salads and entrees including theory of food production, functions and ingredients, purchasing, equipment used and sanitation will be covered.

FSS 3073 International Baking, Confectionary and Desserts (3). Provides a professional understanding and foundation of management for food production in a pastry department or industrial baking facility within the foodservice industry.

FSS 3230C Introductory Commercial Food Production (3). Study of basic and intermediate commercial food production management skills required in menu design. This knowledge will be applied in the production of appetizers, salads, main course items, and desserts.

FSS 3232C Intermediate Quantity Food Production Techniques (3). An advanced commercial food production course which provides the student with the opportunity to achieve competence and to develop techniques in soups, salads, sauces, and the entrees of meat, poultry, and seafood. Prerequisites: FSS 3230C or equivalent.

FSS 3233C Institutional Food Service Production (3). Theory and application of commercial and institutional food service in an industrial environment, including large scale purchasing procedure, training in large production equipment, on-the-job training. Prerequisites: FOS 3021 or FOS 4041.

FSS 3242C International Cuisine (3). An opportunity for food aficionados to explore modern interpretations of international classic cuisine. Includes lecture, demonstration and preparation of favorite international dishes from restaurant menus around the world. Open to non-majors.

FSS 3285 Art in the Culinary Arts (3). Analysis of art used in the hospitality industry and in the creation of artistic culinary preparations made from edible material used to enhance receptions and buffets.

FSS 3311C School Food Service Production (3). Managerial approach to commercial food production in educational service emphasizing supervisory aspects of planning, production and controls.

FSS 4106 Purchasing and Menu Planning (3). Basic information on sources, grades and standards, criteria for selection, purchasing, and storage for the major foods, including the development of specifications. Consideration of the menu pattern with particular emphasis on costing, pricing, and the work load placed on the production staff. Item analysis and merchandising features are emphasized.

FSS 4234C Advanced Food Production Management (3). A course in advanced food production and service techniques to provide the student with realistic production, service and managerial experience. Students will be rotated through production and service stations and, as managers, will be required to plan menus, supervise preparation and service, handle customer relations, and keep accurate accounting records on the profit and loss phases of the operation. Staffing, merchandising, and cost control procedures are integral parts of the course. Prerequisite: FSS 3230C.

FSS 4336 Culinary Event Management (3). A unique course allowing the opportunity for students with advanced culinary skills to learn the art and science of managing culinary events. Prerequisites: FSS 3230C or consent of instructor.

FSS 4339C Advanced Culinary Event Management (3). An advanced course designed for students that have previous background in culinary events. This course will provide leadership opportunity in managing the Bubble Q event as part of the South Beach Wine & Food Festival. Prerequisites: FSS 4336 or consent of instructor.

FSS 4434 Food Facility Layout and Design (3). Defines and explains concepts, principles, and procedures in evaluating and/or developing varied commercial foodservice facilities that will increase profit by reducing investment and operating cost and/or by increasing capacity. Actual installations are intensively reviewed. Current trends in foodservice methodology and technology are studied in detail, and foodservice equipment manufacturing processes and distribution economics are observed and evaluated.

FSS 4741C Contemporary Cuisine (3). Provides an opportunity for students skilled in food production and service techniques to expand their knowledge of food preparation into the area of world renowned traditional and contemporary dishes.

HFT 1000 Introduction to Hospitality and Tourism Management (3). A survey course providing an overview of the industry, its history, problems, and general operating procedures in the fields of hotel, foodservice, travel, and tourism.

HFT 1001 Careers in Hospitality Management (3). Orientation to the hospitality industry, its history, magnitude, challenges and career opportunities.

HFT 1070 Pathway to Success I (0-3). Designed to provide students with a comprehensive overview of academic policies, procedures, and requirements for matriculation and graduation from the Chaplin School of Hospitality and Tourism Management.

HFT 1750 Introduction to Conference & Convention Planning (3). Introductory course covering career opportunities in the conference/convention business; procedure involved in planning and marketing events. Students will plan and execute a special event.

HFT 1772 Introduction to the Cruise Line Industry (3). Introductory course focusing on the cruise line industry, its relationship to other segments of the hospitality industry. Why cruising is the fastest growing travel industry and career opportunities offered.

HFT 2220 Human Resources Management for Hospitality Industry (3). An overview of human resources management in hospitality industry designed to improve and advance student's skills through understanding of both hourly and management human resource policies.

HFT 2401 Accounting for the Hospitality Industry (3). Introduction to the principles of accounting as they apply to the hospitality industry.

HFT 2441 Hospitality Information Technology (3). This course covers current computer applications in the hospitality industry including information technology specific to hotel and restaurant accounting, finance, marketing, and management.

HFT 3006 Emotional Intelligence and Soft Skills for the Hospitality (3). This course will help students develop character traits and interpersonal skills associated with high emotional intelligence to improve work relationships with others.

HFT 3013 Protocol for Hospitality and Tourism (1). Protocol for Hospitality and Tourism focuses on the "operating rules" of 21st Century Business Etiquette and Dining Protocols -attributes which are necessary components for success in the business world.

HFT 3033 Sustainability Team Management (3). This beginner level course teaches students how to understand, create, communicate and manage a green team in an organization and create a playbook for sustainability victories.

HFT 3066 The Art and Science of Winemaking (3). A hands-on overview of the scientific principles and operation of craft wineries and winemaking technology. Relevant chemical, biological, and physical processes will be examined. Prerequisite: Students must be 21 years old to enroll in this class.

HFT 3072 Pathway to Success (0-3). This course exposes students to all career services offered by CSHTM. Students will review career/education goals in line with strengths, skills and values, and will leverage all career services.

HFT 3073 Social Responsibility in the Hospitality Industry – *GL* (3). This course examines hospitality companies and global issues that will affect their communities and business. It includes service learning and reflection of your individual responsibilities.

HFT 3074 Personal Empowerment in the Hospitality Industry – *GL* (3). Student will increase their interpersonal skills in a business setting by applying a set of tested techniques that will increase their professional success. They will develop personal strengths.

HFT 3202 Fundamentals of Management in the Hospitality Industry (3). A basic course in general management concepts and practices to acquaint the student with theories and principles of organization, the tools of managerial decision-making, and the management process, with particular reference to the hospitality industry. Case studies are used.

HFT 3263 Restaurant Management (3). Analysis of principal operating problems facing managers in the restaurant industry. Various control systems necessary for profitability and quality are examined.

HFT 3271 Nightclub Management (3). The purpose of this course is to provide the student with an understanding of Nightclub Management and how it fits within the Hospitality Industry.

HFT 3277 Club Operations Management (3). Lecture, discussion, case studies, and field trips specifically designed to expose the future club manager, golf professional, and turf manager to club operations. Introduction to the uniform system of accounts for clubs, annual club studies for operating results, control systems, taxation, budgeting, and management reports.

HFT 3314 Hospitality Property Management (3). The problems of cost and operation of pest control, security, parking, general cleaning and upkeep, laundry, fire prevention, pools, tennis courts, and care of guest rooms and public space, with emphasis on equipment, personnel, and modern innovations. The housekeeping and property management function of the hotel.

HFT 3424 Accounting and Controls for Food Service Operations (3). Analysis of accounting and operational problems in specialized food service sectors. Procedures, approaches and techniques of management control explored for efficiency using accounting knowledge.

HFT 3440 Applied Computers Technology in Food Service (1). Introductory computer course including menu graphics; word processing, communications, MS Office, the WWW and computer methods in foodservice.

HFT 3444 Survey of Computer Use by Hospitality Managers (3). An introduction to the novice computer user to basic computer skills and computer use in the hospitality industry.

HFT 3453 Lodging Operations Control (3). Focuses on controlling expenses and revenues of a full-service lodging operation using qualitative and quantitative techniques. Based on using the uniform system of accounts for the lodging industry.

HFT 3457 Food and Beverage Control (3). Fundamentals of food and beverage cost controls in the hospitality industry.

HFT 3503 Hospitality Marketing Strategy – *GL* (3). Examines marketing principles, theories and concepts and the use of management principles and techniques of analysis, planning, implementation and control to maximize marketing effectiveness in hospitality organizations.

HFT 3505 Hospitality Buyer Behavior (3). An analysis of influences on buyer and the process involved in their purchase of hospitality services and the implications for marketing/strategy design and execution.

HFT 3521 Hospitality Sales and Marketing Techniques (1). An experiential course that gives students the opportunity to practice and develop personal-selling skills by doing field sales projects for industry partners (may be repeated for up to 3 credits). Prerequisite: Permission of the instructor.

HFT 3603 Hospitality Industry Law – *GL* (3). Introductory course in hotel/restaurant law with an emphasis on risk management and security. The student is introduced to the laws, rules and regulations applicable to the hospitality industry worldwide.

HFT 3613 Beverage Management Law (3). A basic course in alcoholic beverage law. The student is introduced to the fundamental laws, rules and regulations applicable to the retail alcoholic beverage industry in the State of Florida. The student is introduced to methods of enforcement of laws, rules and regulations; the principals that control licensing and permitting within the industry; and municipal code violation enforcement.

HFT 3643 Hospitality Real Estate (3). Introduction to the hospitality real estate environment including: hospitality property purchase and lease transactions and demand for property acquisitions using industry metrics.

HFT 3691 Gaming Industry Law (3). This course presents legal issues arising out of the gaming industry, including government regulation, contracts, premises liability, employment, anti-discrimination laws and treatment of guests and employees with disabilities and issues particular to the gaming industry.

HFT 3692 Ocean and Coastal Law for the Hospitality Industry (3). A survey of legal issues related to coastal land/water with particular concern for business/recreational uses. Critical environmental issues will be examined and how these issues are handled worldwide.

HFT 3700 Fundamentals of Tourism (3). An introduction to the broad fields of travel and tourism. Among the topics covered are cultural tourism, eco-tourism, sociology of tourism, tourism components and supply, tourism development, the economic role of tourism demand, and the marketing of tourism.

HFT 3701 Sustainable Tourism Practices – *GL* (3). Sustainability in the global tourism industry is examined through certifying organizations, destinations, international stakeholders. Global impacts and indicators are discussed.

HFT 3703 Adventure Tourism – *GL* (3). Will explore adventure tourism, studying ecotourism and issues of sustainable development in tourism. Students will be immersed in cross-cultural experiences and learn through hands on and shared experiences.

HFT 3713 International Travel and Tourism – *GL* (3). Study of the global tourism industry, organizations, tourist behavior, history and globalization. Economic, socio-cultural and environmental impacts on destinations and culture are examined.

HFT 3718 Travel and Tourism Systems (3). The course provides a foundation for the concept of travel and tourism as a system. Study of the importance of interrelated activities of the components integral to international and domestic travel and tourism: destination planning and development.

HFT 3727 Travel Industry Law (3). Legal strategies, tactics and principles for the multi-faceted travel industry. Covers applicable statutes, regulations and international agreements.

HFT 3733 Tour Production and Distribution (3). Comprehensive study of group and wholesale tour operations. Includes design, supplier negotiations and pricing aspects of tours. Examines marketing, sales and promotional techniques of the tour product.

HFT 3735 Destination and Cultures (3). A geographical analysis of worldwide tourist destination regions and their major attractions. The course emphasizes how geographic and cultural factors are critical to the attractiveness of a tourist destination.

HFT 3741 Planning Meetings and Conventions (3). Introduction to the meeting and convention industry, concentrating on specific and practical research, planning, supervision and control guidelines used by today's Professional Meeting Planner.

HFT 3753 Convention and Trade Show Management (3). A course concentrating on organizing, arranging and operating conventions, trade shows, and expositions. Emphasis is placed on the modes and methods of sales used in booking conventions and trade shows, as well as the division of administrative responsibility in their operation.

HFT 3754 Exposition and Events Management (3). Comprehensive study of strategies for planning, developing and marketing public/trade show events.

HFT 3760 Tourist Transport Systems (3). Explores relationships between tourists and modern transport providers, the impact of societal and environmental issues, the intense service nature and resulting challenges of operations and management.

HFT 3764 Travel Information Technology (3). This course provides a foundation for understanding and mastery of travel industry specific technologies, examines new technologies used in the travel industry which encourage unsurpassed quality, service and efficiency in today's national and global travel industry.

HFT 3770 Cruise Line Operations & Management (3). Overview of cruise industry: its history and evolutions, operating and marketing procedures, career opportunities, ship profiles, itineraries, and ports of call. Guest speakers and optional field trip included.

HFT 3782 Casino Hotel Management (3). This course concentrates on all aspects of the gaming business, including organizational structure, new property development and space allocation, financial projections and controls.

HFT 3789 Advanced Festival Management (3). This course is a practicum on advanced planning and managing of festival events, in continuation of Festival Management. Students will participate in SOBE Wine and Food Festival. Prerequisite: HFT 3795

HFT 3795 Festival Management (3). Students will plan and provide directions for execution and general management of festivals such as art, music, food and beverages and other specialty shows, focusing on SOBE Wine and Food Festival.

HFT 3791 Social Event Planning (3). Designed to focus the basic concepts of event planning as they specifically apply to the area of social events and weddings, including infrastructure design and budget management.

HFT 3793 Sociology of Leisure (3). An introduction to the fundamental psychological and sociological concepts and theories as they relate to the motivation behind travel and tourism.

HFT 3813 Marketing for Food Service Operations (1). Examines marketing principles, theories and concepts and the use of management principles and techniques. Stresses marketing for food services.

HFT 3835 Role of Food Service in Tourism (3). A theoretical approach to the multicultural dimensions of food service and cultures of origin, a practical display and discussion of food production and presentation according to the different types of existing services.

HFT 3855C Introduction to the Brewing Process (3). This class is designed to expose students to some basic home brewing techniques and give them practical experience in home-brewing beer. Students will brew ales in a hands-on laboratory.

HFT 3855L Introduction to the Brewing Process Laboratory (1). Lab to accompany class designed to expose students to some basic home brewing techniques and give them practical experience in home-brewing beer. Students will brew ales in a hands-on laboratory. Prerequisite: Minimum age 21. Corequisite: HFT 3855.

HFT 3861 Beverage Fundamentals (3). Provides a comprehensive review of the beverage industry including the history of alcohol, the development of the beverage industry in the U.S. and a review of beverages with an emphasis on Spirits. Prerequisite: Minimum Age 21.

HFT 3862L Wines of the Old World (3). A survey of the wines of the New World focusing on French and Italian wine groups, the most common methods of wine production; French and Italian wine classification systems. Prerequisite: Minimum age 21.

HFT 3864 Introduction to Brewing Science (3). A hands-on overview of the scientific principles and operation of craft breweries, and microbrewery technology. Relevant chemical, biological, and physical processes will be examined. Prerequisite: Minimum age 21.

HFT 3865 Wines of the New World (3). Classroom discussion accompanied by class tastings of selected wines. An emphasis on identifying by taste the grape varietal of different wines from each region.

HFT 3866 Wine Technology, Merchandising, and Marketing (3). A course in oenology and the fundamentals of wine technology (viticulture and vinification methods). The major types of wine and the factors influencing their quality; principles of sensory evaluation; wine merchandising and marketing. Prerequisite: Minimum age 21.

HFT 3868 Wine and Culture (3). A survey of the legendary old world and new world wine regions with a special emphasis on the cultural background that enabled these vineyards to develop and flourish.

HFT 3870 The Components of Wine (3). An overview of various specific components (sound and spoilage) found in wines. The biological and chemical aspects of winemaking, wine quality and spoilage. The regulations surrounding wine and wine judging. Prerequisite: Minimum age 21.

HFT 3871 Introduction to Food and Wine Pairing (3). An introductory study of how wines pair with foods. Small portions of simple foods will be paired with an assortment of red and white, dry to sweet wines. Prerequisite: Must be 21 years or older.

HFT 3873 The History of Wine (3). This course will provide a history of wine from prehistoric times to the late Victorian era, it covers all aspects of wine from its early use by the Gods of mythology to ancient and modern practices: food, weather, customs, living conditions, cost of production, what they ate, etc. Prerequisite: Must be 21 or older.

HFT 3892 Caribbean Cuisine (3). An exploration of Caribbean cuisine in terms of history, ethnicity and lifestyle through lectures, food demonstrations and tastings.

HFT 3894 Global Food and Culture – *GL* (3). Study of the ways in which global issues influence the how food functions in the global community.

HFT 3900-3905 Independent Studies (VAR). With permission from the Associate Dean, students may engage in independent research projects and other approved phases of independent study. Prerequisite: Consent of instructor.

HFT 3923 Life After College Seminar (0). This workshop will review writing skills, interview skills, how to research a company and conduct a job search. Students will participate in mock interviews and learn about on-campus recruitment programs.

HFT 3930 Intensive Pod in Hospitality Industry (1). This course will provide intensive instruction on a particular topic or skill not otherwise offered in the curriculum. This course is repeatable.

HFT 3935 Culinary Cultures of the Middle East (3). This multidisciplinary course explores the overlapping culinary cultures of the Middle East and surveys how food helps to influence regional and personal identity. Topics include major regional foodstuffs, gender cooking roles, diet, dining out, and religious holidays, and celebrations.

HFT 3941 Internship in Hospitality Management (0-3). Practical training and experience in all the major phases of hospitality operations and visitor industry. Reports are required. Prerequisite: Permission of the instructor.

HFT 4064 Beverage Management (3). An entrepreneurial and interactive course where students apply principles of beverage management learned during the semester to the development of a business plan related to the beverage industry.

HFT 4207 Hospitality Management and IoT (3). This course introduces the fundamental concepts of hospitality marketing management and human resources management and their interplay with the Internet of Things (IoT).

HFT 4222 Human Resources Development and Training for Hospitality Industry Managers (3). A course designed to provide specific applications of proven training systems and methods for managers in the hospitality industry. The case study method will be used.

HFT 4224 Human Relations in the Hospitality Industry (3). Designed to improve management skills for effective relationships with hospitality associates and guests. Course includes diversity appreciation, community service and team building.

HFT 4240 Managing Service Organizations (3). In-depth study of management issues relating to service and quality assurance in the service industry. Examines service linkages to marketing operations and human resources.

HFT 4274 Introduction to Vacation Ownership (3). A comprehensive study of timeshare, fractional club and condo hotels, including property management, sales and marketing, development, financing and legal aspects of these segments.

HFT 4284 Global Hospitality Business Environment (3). Advanced management seminar examining the role of social, cultural, political, legal, ethical, economic and technological factors in how management is practiced in hospitality firms worldwide.

HFT 4287C Contemporary Management Issues in the Asian Hospitality Marketplace (3). This course explores the Asian Hospitality Industry and provides the students an insight into major cultural issues and management differences as compared to the Western marketplace.

HFT 4292C Entrepreneurship in the Hospitality and Tourism Industry (3). Provides students with an overview of all major areas that must be considered when analyzing, designing and planning a new business venture or an acquisition.

HFT 4293 Hotel Food Service Operations Seminar (3). Senior course reviewing current foodservice operations, practices, procedures and problems throughout all areas and facets of the hotel industry.

HFT 4295 Leadership in the Hospitality Industry (3). To introduce the student to the fundamentals of leadership and basic leadership skills for organizational success. Prerequisite: Graduating Seniors.

HFT 4294 Senior Seminar in Hospitality Management (3). Student groups identify and research a major problem of a hospitality enterprise. Discussions will focus on problems and solutions. Final report required. Seniors only.

HFT 4323 Hospitality Facilities Environmental Systems – *GL* (3). A comprehensive survey of engineering, maintenance, and efficiency controls in hotels, restaurants. Emphasizes the importance of Operations Facilities Engineering Management and the environment.

HFT 4343 Hotel and Restaurant Planning and Design (3). Considers analysis, evaluation, and scheduling of the economic, technical, aesthetic, and merchandising factors involved in the systematic planning, programming and design cycle for hotels and restaurants. Actual hotel and restaurant projects will serve as the basis for discussion and student project work.

HFT 4344C QSR Management (3). A study of management in a wide range of Quick Service Food Restaurants, including site criteria, design and layout, operations, marketing techniques and human relations.

HFT 4365 Environmental/Quality Management in the Hospitality Industry (3). A multidimensional course reviewing global sustainability and environmental movements. This defined impact on the hospitality industry. Integrates courses and opportunities related to sustainability.

HFT 4413 Hospitality Analytics and Revenue Management (3). Detailed study of methods used in serving and tracking guest history and yield management in the hospitality industry. Demonstrates state-of-the-art technology and concepts.

HFT 4433C Financial Accounting in the Casino/Gaming Industry (3). The purpose of this course is to provide students with a broad overview of casino accounting processes, financial analysis, internal and external regulatory compliance, capital budgeting and business plan development. Prerequisite: HFT 2401.

HFT 4445 Hospitality Technology Design Thinking and Innovation (3). This course focuses on systemic approaches to innovation in the hospitality industry. Includes hands-on experiences in the principles of design thinking and leadership to solve business challenges.

HFT 4464 Financial Analysis in the Hospitality Industry (3). Facilitates understanding and use of financial analysis in the hospitality industry. Topics include decision-making based on ratio analysis, leverage, financing sources and other financial issues. Prerequisite: HFT 2401.

HFT 4465 Financial Analysis for Tourism (3). Facilities understanding and use of financial analysis. Topics include decision-making based ratio-analysis, leverage, budgeting, financing sources and other financial issues. Prerequisite: HFT 2401.

HFT 4473 Resort Development (3). Analysis of management systems and methods for development of full-service resorts. Comparison of specialized requirements for different types of resorts based on location, climate, activities, and life-style. Considers management responsibilities for feasibility analysis, project development, construction supervision, pre-opening requirements and operations.

HFT 4474 Management Accounting for the Hospitality Industry (3). Advanced study of the decision-making process involved in the hospitality industry. Emphasis on budgeting, pricing decisions, cost-volume-profit analysis and capital budgeting. Prerequisite: HFT 2401.

HFT 4493C Food Service Computer Systems (3). Study of computer systems in the restaurant and food service industry. The student is required to implement a simulated restaurant including personnel files, daily management, menu explosion and analysis, and inventory tracking. A research project will be assigned.

HFT 4502 Marketing Research in the Hospitality Industry (3). Fundamental research methods for tourism industry: data collection, analysis, write-up, and presentation. Emphasis placed on research implication relevant to management and problem solving.

HFT 4503L Hospitality Marketing Management Laboratory (2). An experiential course that allows students within a team to apply ideas, theories and techniques of management to real-world business challenges (may be repeated for up to 6 credits). Prerequisite: HFT 3521.

HFT 4504 Hospitality and Tourism on the Internet (3). This course provides working knowledge of the structure of the internet and web site hosting. Current principles of online marketing are examined in detail. Prerequisite: Consent of instructor.

HFT 4507 Law, Ethics and Compliance in the Internet of Things (3). This course introduces the fundamental concepts of hospitality marketing management and human resources management and their interplay with the Internet of Things (IoT).

HFT 4508 Group Business Sales and Services (3). Examines the practices of selling and servicing space by hotels, convention centers, arenas/halls to convention and events producers. Includes how to reach, sell and service these important groups and people.

HFT 4509 Tourism Destination Marketing (3). Comprehensive study of strategies and advanced techniques used in marketing tourism destinations and products. Marketing plan developed.

HFT 4512C Hospitality Promotion Strategy (3). This course deals with the practical aspects of designing and implementing a hospitality advertising, public relations, and promotional program. Planning, budgeting, media, and campaign creation will be studied. Prerequisites: HFT 3503 or HFT 4509.

HFT 4514 Hospitality Marketing Strategy Case Studies (3). A case-method course in strategic marketing analysis and decision making for the hospitality services industry. Students engage in intensive class discussion and write reports on hospitality cases.

HFT 4520 Personal Sales Tactics for the Hospitality Industry (3). An investigation of personal selling approaches and procedures used in hospitality sales environments combined with practical application role plays and skill rehearsals.

HFT 4524 Sales Management for the Hospitality Industry (3). Explores innovative management techniques used in hospitality sales for effective sales development and revenue generation. Practical application, simulations, research and field study used.

HFT 4545 Managing High-Functioning Teams (3). Course covers factors contributing to effective teams. Students will experience and process activities to help group members build skills for teamwork. This is an experimental course requiring a high level of participation.

HFT 4604 Employment Law for Hospitality Management (3). Study of employment law including minimum wage, overtime, exempt employees, sexual harassment, discrimination under Civil Rights Act Title VII, ADA, Immigration Act and Family & Medical Leave Act.

HFT 4653 Franchising in the Hospitality Industry (3). This course provides a better understanding of franchising in the hospitality industry from academic and practitioner perspectives. Discusses the reasons for using franchising as a growing strategy.

HFT 4654 Financial and Legal Aspects of Real Estate Development in the Hospitality Industry (3). A study of the legal implications and financing alternatives for development of new properties and conversions. Prerequisites: HFT 3603 and HFT 4464.

HFT 4708 Coastal and Marine Tourism (3). Exploration of positive and negative impacts, management techniques and practices of worldwide coastal and marine environments.

HFT 4711 Cultural/Heritage Tourism (3). Course addresses the significance of cultural resources (such as historical sites, art, and customs), program development, and visitor management to educate the traveler and preserve cultural diversity.

HFT 4714 Implementation and Management of Tourism Projects (3). Practical development, implementation, and management of tourism projects and programs with emphasis on international and developing nation situations.

HFT 4737 Managing Tourism Services (3). This course will introduce the student to management issues relating to service and quality assurance in travel and tourism systems. It includes examination of the concept of service and quality as a basic function of sustainability and analysis of the importance of the linkages of service and quality within sustainable travel and tourism products.

HFT 4757 Advanced Events Management (3). This course focuses on advanced planning and managing of special events, from ideas and concepts through the actual event implementation and follow-up. Students will have the opportunity to focus on detailed elements of event management.

HFT 4762 Airline Management (3). An in-depth study of the airline industry as a component of the hospitality tourism industry. Includes operation of various departments, costs of operations, regulation issues and career opportunities.

HFT 4763 Airline Computer Reservation Systems (3). An intensive study of the airline reservation system including computer software, travel documents, tickets, price itineraries as well as worldwide travel information retrieval.

HFT 4783 Casino Marketing (3). The purpose of this course is for the student to develop a professional marketing skill-set. The student will additionally develop an understanding of marketing concepts as they apply to the hotel casino industry. This course will help students understand the components of effective marketing in the management of successful hotel casino operations.

HFT 4785 Casino Operations Management (3). Topics include: historical, legal, social and operational aspects of the casino industry; odds assessment, game types, and cash management. Paramutual wagering, casinos, and sports books examined.

HFT 4802C Catering Management (3). A study of the techniques, logistics, and responsibilities involved in the management of on-premise and off-premise, catering companies.

HFT 4805 Contract Food Services Management (3). Management of various non-commercial and contract foodservice operations including business and industry, hospital/medical center, school/college, and recreational.

HFT 4809 Management of Food Service Industry Segments (3). An in-depth study of all segments of the food service industry including all major areas of food service operations as they relate to various industry segments.

HFT 4812 Food Service Systems Development (3). Course presenting the systems and procedures to develop a food service operation from concept to opening. Prerequisites: HFT 2401, HFT 3263, and HFT 3503.

HFT 4833 Culinary Innovation and Entrepreneurship – *GL* (3). A unique course allowing the opportunity for students with advanced culinary skills to learn the art and science of managing culinary innovation and entrepreneurship.

HFT 4853 Food Service Trends and Challenges (3). Advanced level course covers management issues relevant to current trends and challenges facing the food service industry. Topics covered will vary as appropriate for current situations.

HFT 4867 The Business of Wine (3). Overview of the wine business including: importers, whole-salers, growing grapes, making wine, retailing in supermarkets, restaurants, and liquor stores, analytical tastings, matching wine and food.

HFT 4869 Celebrity Wine Course (3). Learn from the leading experts in the wine industry. The course includes sensory evaluation and appreciation of wines, marketing, wine and food pairings, and employment opportunities. Prerequisite: Must be 21 years or older.

HFT 4936 Hotel Management Seminar (3). A senior course examining the power of partnerships and interrelationships between hotel/resorts and other key segments of the visitor industry (airport, cruise port, convention center, attractions, sport teams, and stadiums/arenas, etc.) Considers current lodging and visitor industry problems and practices, developing policies and procedures, and implementing them.

HFT 4945 Advanced Internship in Hospitality/Tourism Management (0-9). The Advanced Internship is a practical hospitality/tourism work experience structured to provide exposure to management and training functions, job rotation tasks and/or projects not previously performed. Minimum 300 hours/ten weeks field experience. Prerequisites: Documented completion of 1,000 hospitality related work hours of which 500 hours must be completed while enrolled at FIU. Permission of an advisor.

HFT 4955 Study Abroad: Hospitality and Tourism (3-6). An integrated program of learning conducted in foreign environments for hospitality management majors. They will be exposed to different cultures and taught how to manage businesses in other countries.

Chaplin School of Hospitality and Tourism Management

Interim Dean **Michael Cheng**
Vice Dean **Diann R. Newman**
Professor Emeritus and E.M.Statler Professor, Alumni Relations **Rocco M. Angelo**
Associate Dean of Administration and Facilities **Mohammed A. Qureshi**
Department Chair **Joseph M. Cilli**
Associate Department Chair, Marriott Tianjin China Program **Miao Wang**

Faculty

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Ambe-Cohen, Rossy, *(Florida International University), Visiting Instructor and Director, Food and Beverage Program, Foodservice Management*
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Beckman, Eric, Ph.D. *(University of Tennessee), Assistant Professor, Events and Economic Impact*
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Tanke, Mary L., Ph.D. *(Purdue University), Associate Professor, and Ernest R. Graham Professorship, Management*
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Zhao, Jinlin, Ph.D. *(Virginia Polytechnic Institute and State University), Professor and Director, Graduate Studies, Management*

Steven J. Green School of International and Public Affairs

Founding Dean **John F. Stack, Jr.**
Associate Dean, Graduate Studies and Innovation **Shlomi Dinar**
Associate Dean, Planning, Administration and Student Success **Jeffery Gonzalez**
Senior Director, for Strategic Initiatives **Pedro D, Botta**

Launched in 2008, the Steven J. Green School of International and Public Affairs at FIU educates the leaders and changemakers of tomorrow through innovative teaching and research that advances global understanding, contributes to policy solutions and promotes international dialogue. The Green School enrolls more than 5,000 students and employs nearly 360 faculty. It offers 38 interdisciplinary degree programs at the bachelor's, master's and doctoral levels, as well as 35 undergraduate and graduate certificate programs. The Green School encompasses eight signature departments: Criminology and Criminal Justice, Economics, Global and Sociocultural Studies, History, Modern Languages, Politics and International Relations, Public Policy and Administration and Religious Studies. Home to 16 of the university's most prominent international centers, institutes and programs, the Green School is an affiliate member of the Association of Professional Schools of International Affairs (APSIA.)

Undergraduate Programs

The Green School offers departmental programs of study leading to bachelor's degrees in crime science, criminal justice, economics, French and Francophone studies, geography, history, international relations, Latin American and Caribbean Studies, political science, Portuguese, public administration, religious studies, sociology and anthropology, and Spanish. The Green School also offers interdisciplinary programs leading to Bachelor's degrees in Asian studies.

Minor programs of study are offered in Asian studies, criminal justice, economics, French language and culture, general translation studies, geography, history, international relations, Italian language and culture, Japanese language and literature, labor studies, political science, Portuguese, public administration, religious studies, sociology and anthropology, and Spanish language and culture.

Certificate Programs

Students can earn certificates in the following areas: African Studies, Afro-Latin American Studies, Ancient Mediterranean Civilization, Asian Studies, Asian Globalization and Latin America, Chinese Studies, Conflict and Dispute Resolution, Cuban and Cuban-American Studies, European and Eurasian Studies, Food Studies, German Language and Culture, Global Black Studies, Haitian Studies, Human Rights and Political Transitions, Jain Studies, Japanese Studies, Jewish Studies, Labor Studies, Languages and Cultures of North Africa, Latin American and Caribbean Studies, Leadership Studies, Middle East and Muslim World Studies, National Security Studies, North American Studies, Portuguese Language and Brazilian Culture Studies, Pre-Law Skills and Professional Values, Pre-Modern Cultures, Professional Language, Public Policy Studies, South and Southeast Asia Area Studies, Study of Spirituality, and Translation and Interpretation.

Admission Requirements

Applicants must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the Green School.

All students are encouraged to seek advising as early as possible in the department/program of their choice, even if they have not yet been admitted into that major.

Lower Division Preparation

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

School Requirements for a Baccalaureate Degree

Candidates to the bachelor's degree must satisfy individual departmental requirements, and the following School requirements, in addition to the University-wide requirements listed elsewhere:

1. A minimum of 120 semester hours in acceptable coursework is required.
2. At least half of the upper division credits in any major must have been taken at FIU.
3. In the last 60 semester hours of enrollment, students must earn nine semester hours of elective credits through coursework outside the major, six of which are to be taken outside the department sponsoring the program.
4. Students must earn a grade of "C" or higher in all courses required for the major.
5. Of the total number of hours submitted for graduation, a minimum of 48 semester hours must be in upper division courses.
6. Students must demonstrate competency in a foreign language or in American Sign Language at the level of the second semester of a college language sequence. (High school courses cannot be used to fulfill this requirement.) This requirement may be met by successfully completing with a grade of 'C' or better: a) the second semester of a two-semester sequence basic language course or b) any second-year or third-year foreign language course. This requirement may also be fulfilled by presenting acceptable scores in the Advanced Placement Exam, the SAT II, the CLEP exam, or other approved instruments. Students should consult their advisors for more specific information.

7. One- and two-credit physical activity courses (with the prefixes PEL, PEM, PEN) cannot be included as part of the hours needed for graduation.

Admission Requirements for Secondary Education Majors in the School of International and Public Affairs

To qualify for admission to the program, undergraduate candidates must have met all the lower division requirements, lower division GPA of 2.5 or higher, and achieve the competencies of the FTCE General Knowledge Exam (GK)> All students must pass the GK Exam by the time they reach 72 credit hours in their program of study. A student who meets these minimum requirements is not automatically assured admission.

Additional School Requirements for Secondary Education Majors

Clinical Experiences and Fingerprint Requirements

The State of Florida Department of Education requires all applicants to be fingerprinted and cleared by the local school district in which they will complete their clinical experiences. Students with a CHR (criminal history record) should be prepared to promptly provide documentation of adjudication in order to facilitate review and determination of eligibility for placement by the school district Details regarding specific district requirements, deadlines and documentation are available in the Office of Clinical Experiences in the Ziff Education Building.

Given the unique nature of the teaching profession requiring mastery of cognitive skills, demonstration of appropriate interpersonal skills, and professional behavior, the faculty retains the right to "counsel out" of the program and/or to not recommend for internship placement any student whose level of interpersonal competence and professional behavior is considered incompatible with that required for effective functioning as a teacher.

Student Teaching Requirements

Students are required to take and pass the GK prior to applying for student teaching. The student teaching application and instructions are available in the office of Clinical Experiences in the Ziff Education Building. The deadline to apply for Fall placement is February 1. For Spring placement the deadline is June 1.
Students are required to take and pass the Professional Education (Ped), and the Social Science 6-12 Subject Area Exam (SAE) before beginning student teaching placement. Students must provide evidence of passing scores on all required exams by the deadline provided.

Graduation Requirements

Students in the secondary education majors must also meet the following graduation requirements: 1) earn a cumulative GPA of 2.5 or higher and 2) no grades of less than a C allowed.

All Students graduating from an Initial Teacher Preparation Program must pass prior to graduation the Florida Teacher Certification Exam. (which includes the Professional Education, the Subject Area, the General Knowledge Exams), and demonstrate successful completion of the Florida Educator Accomplished Practices. Students who fail one or more sections of the FTCE will not be cleared for graduation.

School Requirements for a Minor

Students wishing to earn a minor must satisfy individual departmental/program requirements and the following School requirements:

1. At least half of the courses used to fulfill the requirements must have been taken at FIU.
2. Earn a grade of "C" or higher in all courses required for the minor.

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 constituencies and to respond to the mandates of the Florida Board of Education 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.

Labor Studies Minor

Labor Studies is the examination of issues that people confront in their pursuit for a rewarding employment. The focus of inquiry is on workers as individuals, as members and/or leaders in their unions or associations, and as citizens of their communities. The Minor in Labor Studies is an 15-credit course of study designed to offer degree-seeking students from a wide range of backgrounds an understanding of the major issues in the field. The minor enhances interdisciplinary connections among Business, Criminology, Education, Human Resource Management, International Relations, Labor Studies, Law, Political Science, Psychology, Public Administration, Sociology, Women's and Gender Studies, and complements studies in other areas.

Requirements

Minimum of 15 credit hours. Courses are to be selected in consultation with an advisor. A grade of "C" or better is required for all courses Other related courses may be accepted as electives pending approval by the Labor Center Academic Program Coordinator.

Two Required Core Courses: (6 credits)

LBS 3001	Labor and Globalization – *GL*	3
LBS 4654	Comparative and International Labor Studies – *GL*	3

Two Labor Studies Courses: (6 credits

LBS 3943	Internship in Labor Studies	3
LBS 4101	Theories of the Labor Movement	3
LBS 4154	Workers and Diversity – *GL*	3
LBS 4210	Women And Work – *GL*	3
LBS 4461	Labor Dispute Resolution	3
LBS 4483	Organizational Conflict	3
LBS 4501	Labor Law	3

One Elective: (3 credits)

AMH 3270	Contemporary U.S. History	3
AMH 4500	United States Labor History	3
CPO 4053	Political Repression and Human Rights	3

ECO 2013	Principles of Macroeconomics	3
ECO 2023	Principles of Microeconomics	3
ECO 3101	Intermediate Microeconomics	3
ECO 4701	World Economy	3
ECP 4204	Theory of Labor Economics	3
INP 3004	Introductory Industrial/Organizational Psychology	3
INR 4501	Multinational Organizations	3
LBS 3468	Introduction to Mediation – *GL*	3
LBS 3480	Introduction to Conflict Resolution – *GL*	3
LBS 3482	Methods of Conflict Resolution	3
LBS 4101	Theories of the Labor Movement	3
LBS 4150	Contemporary Labor Issues	3
LBS 4154	Workers and Diversity – *GL*	3
LBS 4210	Women And Work – *GL*	3
LBS 4260	Union Leadership and Administration	3
LBS 4401	Labor Contract Negotiations	3
LBS 4484	Applying Conflict Resolution Techniques – *GL*	3
LBS 4487	Conflict Theories	3
LBS 4501	Labor Law	3
LBS 4654	Comparative and International Labor Studies – *GL*	3
LBS 4905	Topics in Labor Studies	1-3
LBS 4930	Topics in Labor Studies	1-3
SYO 4370	Work and Society	3
POS 3152	Urban Politics	3
POS 4071	Corporate Power and American Politics	3
WOH 4223	History of the Global Economy	3

For additional information, please consult with the Academic Program Coordinator.

Course Descriptions

Definition of Prefixes

LBS - Labor Studies

Courses that meet the University's Global Learning requirement are identified as GL.

LBS 3001 Labor and Globalization – *GL* (3). Students examine the challenges and struggles of working people in the United States, including low-wage jobs, role of unions, and the impact of immigration and globalization on labor markets.

LBS 3468 Introduction to Mediation – *GL* (3). Provides an introduction to the principles and processes of meditation. Among the topics covered are active and reflective listening skills, reframing, gender, power, and ethics in mediation.

LBS 3480 Introduction to Conflict Resolution – *GL* (3). Examines the dynamics of everyday conflicts across a variety of settings, from personal relationships to the workplace. It purpose is to enhance and strengthen students skills when managing conflict.

LBS 3482 Methods of Conflict Resolution (3). An exploration of alternative dispute resolution approaches and their specific benefits.

LBS 3943 Internship in Labor Studies (3). Practical training and experience in various aspects of labor organization policies, practices, and procedures through placement with a local labor organization. Reports and papers required. Prerequisite: Permission of the instructor.

LBS 4101 Theories of the Labor Movement (3). This course deals with theories which have attempted to explain the origins, developments, and functioning of the labor movement.

LBS 4150 Contemporary Labor Issues (3). Studies of contemporary labor issues selected from such areas as collective bargaining, arbitration, mediation, legislation, regulative and administrative law, employment discrimination, and union grievances.

LBS 4154 Workers and Diversity – *GL* (3). Explores the workforce participation of women and other minority groups, the social phenomena that contribute to the continuation of discriminatory practices, and policies to address these issues. Prerequisites: Junior or Senior standing.

LBS 4210 Women And Work – *GL* (3). Course examines issues and events that shaped and continue to impact working women's varied participation in the workplace, both in the United States and internationally.

LBS 4260 Union Leadership and Administration (3). Administration of labor organizations; labor policies and practices; legal requirements and financial administration of unions. Prerequisite: LBS 3001.

LBS 4401 Labor Contract Negotiations (3). A comprehensive study of collective bargaining with emphasis upon the private sector. Included will be negotiations and scope of contracts, day-to-day contract administration, and major bargaining issues.

LBS 4461 Labor Dispute Resolution (3). Theory and practice of dispute resolution in industry arbitration processes, grievances, mediation, fact-finding, and conciliation. Arbitration of industrial claims and disputes, commercial arbitration. Prerequisite: LBS 3001.

LBS 4483 Organizational Conflict (3). An exploration of issues of organizational dynamics centered on change and change-resistance generated conflicts.

LBS 4484 Applying Conflict Resolution Techniques – *GL* (3). Provides the opportunity to practice a comprehensive set of conflict resolution skills and techniques across variety of settings.

LBS 4487 Conflict Theories (3). Based on social science theories and beliefs about human nature, this course informs students about how, under what conditions and why conflict erupts, and how it can be managed.

LBS 4501 Labor Law (3). Studies the history and current functioning of labor law with special emphasis upon the private sector.

LBS 4610 Cross Cultural Dimensions of Latin American Labor Relations – *GL* (3). Students will explore the conditions of low-wage jobs, informality, the role of labor unions, and the impact of immigration and globalization on labor markets and labor relations in Latin America.

LBS 4653 Labor Movements in Developing Countries (3). The role that unions play in developing or recently developed countries; the relationship between economic development strategies and union structure/strategy; role of unions in representing popular social sectors; special emphasis on Latin American and Asian labor movements.

LBS 4654 Comparative and International Labor Studies – *GL* (3). Study of labor issues from a comparative and international perspective with emphasis upon the impact of international organizations on labor relations systems and labor relations models.

LBS 4900 Directed Study in Labor Studies (3). Supervised reading and/or field research and training.

LBS 4905/4930 Topics in Labor Studies (1-3). Selected topics or themes in Labor Studies. The themes will vary from semester to semester. With a change in content, course may be repeated.

LBS 4949 Cooperative Education in Labor Studies (1-3). One or two semesters of part or full-time work related to the major. Written reports and supervisor evaluations required. Prerequisite: Permission of Labor Studies Program.

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 contribute to discriminatory practices and development of policies to eliminate discriminatory practices.

LBS 5215 Women in the Workplace (3). Students explore women's changing role in the U.S. and global economy. Special attention is given to the role of race, class, and ethnicity within the context of gender and work.

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 negotiations patterns in contract content, impact of external laws, public sector unions, grievance arbitration and interest arbitration. Prerequisite: Permission of the instructor.

LBS 5464 Labor Arbitration (3). Study of labor dispute resolution with emphasis on grievances, fact-finding, and arbitration.

LBS 5465 Mediation Techniques (3). Examines the role of mediation in resolving civil, commercial, family, public and workshop disputes. Incorporates mediation principles and skills, different approaches to mediation, and current research in mediation. Prerequisite: Permission of the 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 the 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 the 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 the instructor.

LBS 5486 The Dynamics of Conflict Management (3). Investigate conflict and violence, and help students to develop strategies to defuse them in the classroom.

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 the instructor.

LBS 5658 Labor Movements and Economic Development (3). Relationships between unions and economic development strategies in developing/recently developed countries; emphasis on social movement unionism and unions in Latin America and Asia. Prerequisite: Permission of the 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 Research (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 the instructor.

LBS 6906 Directed Individual Study (3). Specialized intensive study in areas of interest to student. Student plans and carries out independent study project under the direction of faculty member. Topics must relate to content of Labor Studies or ADR. Prerequisite: Permission of the instructor.

LBS 6945 Internship Labor Studies / Alternative Dispute Resolutions (3). Practical training and experience in organization according to students needs and interests. Reports and papers required. Prerequisite: Permission of the instructor.

Interdisciplinary Courses

The Steven J. Green School of International and Public Affairs has several interdisciplinary programs which are not based in a specific academic department. The courses offered by these programs therefore are not found in the departmental listings in the Catalog. For this reason, they are included here.
Courses that meet the University's Global Learning requirement are identified as GL.

AFA 2004 Black Popular Cultures: Global Dimensions – *GL* (3). In-depth examination of key issues including black popular cultures in global perspectives with a focus on historical processes, race, racialization, gender, sexuality, language, religion and identity.

AFA 4104 Teaching the African-American Experience (3). Teachers Institute which includes literature, culture, history, politics, and the arts designed to meet Florida

State Teachers Certification requirements. Includes instruction on pedagogy, teaching methods and FCAT.

AFA 4241 The African Diaspora in Latin America (3). A survey within different and specific Latin American contexts, of the major characteristics of communities of African diaspora in Central America, the Spanish-speaking Caribbean, and South America.

AFA 4243 Global Capitalism and the African Diaspora in the Modern World System – *GL* (3). This course surveys the emergence and evolution of the African Diaspora in relationship to changes in the global economy, and how that history continues to shape the conditions of African descendants.

AFA 4340 Health, Society and Culture in the African World (3). Examines the social and humanistic aspects of health care in the African world. Its interdisciplinary and comparative framework offers students the opportunity to explore the intersections of social policy, cultural traditions, history, values, and behaviors with scientific principles and methods.

AFA 4351 Hip Hop Culture, Social Consciousness and Social Entrepreneurship (3). Examines the values and ethics in hip hop culture and their relevance in advocacy and social policy.

AFA 4370 Global Hip Hop – *GL* (3). Examines the global, transnational and Africana dimensions of Hip Hop.

AFA 4372 Race, Gender and Sexuality in Hip Hop – *GL* (3). Examination of sexual, gender and racial/ethnic identity constructions in Hip Hop cultures both in United States and globally.

AFA 4905 Independent Study (0-6). Student-generated research projects in African and African Diaspora studies. Independent investigations, reports on individual and assigned readings with AADS core and affiliated faculty.

AFA 4930 African and African Diaspora Studies Theory (3). The nature, meaning and intent of intellectual production in Africa and the diaspora. Examines the works of key thinkers that have made visible some of the submerged or appropriated realities of African peoples.

AFA 4931 Special Topics in African Diaspora Studies (3). An examination of different features of African-New World Studies, not normally offered in the basic curriculum or otherwise offered. May be repeated.

AFA 4933 Special Topics in Black Transnationalism (3). A course designed to give groups of students special studies in the black experience transnationally.

AFA 4941 African and African Diaspora Studies Internship (0-6). Practical application in a supervised setting outside of the classroom of knowledge adquired in the classroom. May be repeated. Prerequisite: Permission of the department required.

AFA 5005 African and African Diaspora Studies Theory (3). Explores the emergence of three fields of inquiry in Africana Studies: African Studies, African Diaspora Studies, and African-American Studies. Focus on major themes, ideas, and diverse conceptual and theoretical perspectives. Prerequisite: Graduate standing.

AFA 5302 Africana Visual Arts (3). A study of Africana, African, and/or African Diaspora Visual aesthetics. It examines relationships between Africana Visual arts and other creative forms. Prerequisite: Graduate standing.

AFA 5341 Health Issues in the African World (3). Examination of the history of the biomedicine system and its relationship to African populations, and the evolution of this relationship with respect to disease in the contemporary world. The course is organized to promote awareness of the impact of culture, ethnicity, racism, class on public health research.

AFA 5855 Research Methods and Scholarly Writing in Africana Studies (3). This proseminar addresses research methods for the multi- and inter-disciplinary study of sociocultural realities to African and African Diaspora peoples, globally.

AFA 5932 Special Topics in African and African Diaspora Studies (3). An examination of different features of Continental Africa and the African Diaspora not normally offered in the basic curriculum or otherwise offered. May be repeated. Prerequisite: Graduate standing.

AFS 3011 African Civilization, Religion and Philosophy – *GL* (3). An introductory level overview of Ancient African origins of Civilization, Religion and Philosophy.

AFS 3317 China and India in Africa – *GL* (3). This course will provide a balanced and nuanced understanding of the historic and contemporary dynamics of China in Africa and India in Africa.

AFS 3331 Women and Human Rights in Sub-Saharan Africa – *GL* (3). An examination of women's human rights in Africa in the context of global feminist social movements, evolving norms, institutions, and practices.

AFS 3332 Gender and Sexualities in Sub-Saharan African Contexts – *GL* (3). An examination of gender and sexuality in contemporary Sub-Saharan Africa, including notions of gendered and sexualized identifications and key aspects of personhood in Sub-Saharan African societies.

AFS 3823 African Arts and Modernity (3). The course explores modern African art from 1960s to present. It examines various processes of artistic modernization in Africa through global and transnational connections and influence.

AFS 4200 African Drums I (3). A beginner hands-on course for students who are interested in West African music, dance, drum, performance, and culture.

AFS 4201 African Drums II (3). An advanced course on the complex arts of West African drums and drumming techniques that immerses students in the Malian and Senegalese polyrhythmic traditions, especially dundun and djembe drums. Prerequisite: Permission of the instructor.

AFS 4210 Topics in African World Visual Arts – *GL* (3). Overview of Africana, African, and/or African Diaspora Visual aesthetics. It examines relationships between Africana Visual arts and other creative forms.

AFS 4215 African Photography (3). This course explores the history of photography in Africa and provides a rich analysis of how the camera, once a colonial mechanism, became a tool of empowerment for African photographers.

AFS 4265 Latin America and the Caribbean in Africa: South-South Interactions – *GL* (3). An introduction to the historical and dynamic relationships that have unfolded since the 1500s between Latin America and the Caribbean, on one side, and Sub-Saharan Africa on the other.

AFS 4367 Metropolitan Africa (3). Seminar course focused on urbanism and architecture in Africa since the nineteenth century.

EUS 4920 Colloquium: European Studies (3). Interdisciplinary course, co-taught by faculty from the humanities and social sciences, provides students a comprehensive picture on a subject relevant to modern Europe. Topics will vary.

ISS 3130 Fundamentals of National Security (3). An examination of the national security apparatus of the United States and the manner in which the US responds to key related controversies.

ISS 3214 Fundamentals of Globalization (3). This course examines globalization in all its diverse forms of world-wide interconnection, including its effect on international security, political economy, culture and other issues.

ISS 3222 Issues in American Foreign Policy (3). An examination of the major contemporary foreign policy issues facing the United States and the United States response to them.

ISS 3280 Canadian Government, Politics and Policy (3). Analyzes development of the Canadian nation-state, provinces, territories, political institutions, political parties; compares U.S. and Canadian policies.

ISS 3613 Issues in Global Cybersecurity Policy (3). Examines the most pressing issues facing governments, businesses and society in the global arena.

ISS 3652 Cybersecurity and Globalization (3). Surveys cybersecurity in the global context by reviewing the role of governments in shaping cyber policy and developing international norms.

ISS 3653 Fundamentals of Global Cybersecurity (3). Provides a foundational understanding of the technical and non-technical considerations influencing global cybersecurity policy.

ISS 3940 Interdisciplinary Social Sciences – Public Policy Internship (3-6). Supervised work experience with federal, state, local government, or in a public non-profit organization. Involves professional and technical job duties depending on the employer.

ISS 4284 North America Integration (3). Analyzes issues related to U.S., Canadian, and Mexican relations and examines increasingly close, if uneven, Canadian/Mexican/U.S. trade partnership, climate/environmental issues, and security integration.

ISS 4364 Introduction to Structured Analytic Methods (3). An introduction to structured analytical methods and the application of those methods to contemporary cases.

ISS 4385 Effective Governmental Communication (3). Improves communications for governmental professions, enhancing research and effective writing skills and developing briefing techniques.

ISS 4614 International Cybersecurity Law and Ethics (3). Surveys US cyber law and how policymakers fashion regulatory schemes around the world to shape day-to-day realities related to cybersecurity.

ISS 4651 Topics in Global Cybersecurity Policy (3). Examine pressing topics to include: cyber-terrorism, cybersecurity in healthcare, Internet of Things, with rotating topics taught by practitioners in the field of cybersecurity.

ISS 4669 Global Cybersecurity Strategies (3). Surveys current concepts and trends in cybersecurity strategy used in both the public and private sectors.

ISS 4930 Topics in Globalization (3). An intensive examination of a topic of globalization. Subject matter will vary according to Instructor. Topic will be announced in advance.

ISS 5135 National Security Essentials (3). An examination of the U.S. national security structure, current security-related controversies and potential U.S. responses to security threats.

ISS 5388 Communicating Analytically (3). Improves analytic communications for government professionals, enhancing research and effective writing skills and developing briefing techniques.

LAH 4460 Peoples, Culture and Politics of Haiti (3). An introduction to the cultures and history of the Haitian people from Africa to the New World. The students will become familiar to the life, cultures of the Indians of the Caribbean: Taino, Arawak and Caribs.

LAH 5465 Peoples, Culture and Politics of Haiti (3). Advanced study of the cultures and history of the Haitian people from Africa to the New World, including life, cultures of the Indians of the Caribbean: Taino, Arawak and Caribs.

Asian Studies

Steven Heine, *Director, Asian Studies*

Affiliated Faculty:
Thomas A. Breslin, *Politics and International Relations*
Mitzi Carter, *Asian Studies and Global and Sociocultural Studies*
Young Rae Choi, *Global and Sociocultural Studies*
Naoko Komura, *Modern Languages*
Li Ma, *Modern Languages*
Matthew Marr, *Global and Sociocultural Studies*
Amy Bliss Marshall, *History*
Asuka Mashav, *Modern Languages*
Eric Messersmith, *Asian Studies*
Shenggao Wang, *Modern Languages*
Lidu Yi, *Chinese Art & Art History*
Julie Zeng, *Politics and International Relations*

Bachelor of Arts in Asian Studies

The B.A. degree in Asian Studies is an interdisciplinary program that draws on faculty from the Steven J. Green School of International and Public Affairs and other professional schools at FIU. The courses are coordinated by Asian Studies, which also sponsors workshops, lectures, cultural events, and study abroad programs.

Like the certificate program in Asian Studies, the bachelor's program provides students with a rich learning experience about a fascinating and increasingly important region of the world, and is intended to enhance the student's competitiveness upon graduation. The program provides a multidisciplinary approach covering the philosophy, religion, art history, language and literature of Asia as well as issues in history, politics, geography, sociology/anthropology, and international relations.

The B.A. has four tracks: **International Political Economy of Asia**, emphasizes social scientific studies involving economics, international relations, politics, and sociology; **Asian Cultural Studies**, emphasizes the humanities and arts disciplinary approaches; **East Asian Studies** emphasizes advanced language studies by requiring six semesters of Chinese, Japanese, or other Asian language, which may be done with (a) six semesters in one Asian language, or (b) four semesters in one Asian language and two semesters in another Asian language (only 6 credits will be counted from the second language); and **Asian World Affairs**, emphasizes the role of the Asian region in contemporary world affairs.

For further information please contact the Asian Studies office, located at SIPA 505, at **asian@fiu.edu** or at (305) 348-1914. Also, visit our website at **http://asian.fiu.edu**. Students with outstanding academic records should contact us about joining the Asian Studies Honors Society.

Lower Division Preparation

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
None	None[1]

[1]All Florida College System students are encouraged to complete the Associate in Arts degree.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, Search Program Listing by Alphabetic Order.

Upper Division Program

The Major requires 36 hours of upper division course work. It is designed to allow students to focus on Asian political economy or culture or East Asian languages.

Common Requirements (all tracks)

Language Requirements (6 credits)

Four Semesters of Chinese, Japanese, or other Asian Language.

Core Courses: (30 credits)

1. ASN 3410 – Intro to East Asia – *GL* (3 credits)
2. 18 credits from the Asian Studies course list (9 credits in International Political Economy and 9 credits in Asian Cultural Studies).
3. 6 credits in main concentration. For the International Political Economy and Asian Cultural Studies tracks this could include area studies and/or language courses; and for the East Asian Studies track this must be a third year in the first Asian language or one year in a second Asian language.
4. 3 credits in a supervised research course (ASN 4510 or ASN 4390) or equivalent based on approval of Program Director.
5. Students may receive credits through Study Abroad courses or an Internship program.

International Political Economy of Asia Track Electives:

CHI 3440	Chinese for Business
CPO 3502	Politics of the Far East
CPO 3643	Russian Politics
CPO 4401	The Arab-Israeli Conflict
CPO 4507	Comparative Political Economy of Asia
CPO 4541	Politics of China
CPO 4553	Government Politics of Japan
ECO 4701	World Economy
ECO 4703	International Trade Theory and Policy
ECS 3003	Comparative Economic Systems
ECS 3200	Economics of Asia
ECS 3704	International Economics
FIN 3652	Asian Financial Markets and Institutions
GEA 3554	Geography Russia/Central Eurasia
GEA 3635	Population and Geog. Middle East

GEA 3705	Geography of Central Asia and the Caucuses
INR 3081	Contemporary International Problems – *GL*
INR 3223	Japan and the US
INR 3224	International Relations of East Asia
INR 3226	International Relations of Central Asia and the Caucuses
INR 3227	International Relations of South Asia
INR 3262	International Relations of Russia and the Former USSR
INR 3274	International Relation of the Middle East
INR 3703	International Political Economy
INR 4032	Asia and Latin America in World Affairs
INR 4082	Islam in International Relations
INR 4232	International Relations of China
INR 4521	Politics of Regional Integration
INR 4931	Topics in International Relations
ISS 3240	World Prospect and Issues
JPN 3140	Japanese for Business
LBS 4653	Labor Movements in Developing Countries
LBS 4654	Comparative and International Labor Studies – *GL*
MAN 4600	International Management
MAN 4661	Business in Asia
MAR 4156	International Marketing
SYD 3650	Sociology of Gender and Power in Asia
SYD 4610	Topics In Sociology
SYO 4550	Comparative Sociology
SYP 3456	Societies in the World
SYP 4454	Globalization and Society

Visit our website at **http://asian.fiu.edu** for a comprehensive list of electives.

Asian Cultural Studies Track Electives:

AMH 4544	The United States and the Vietnam War
AML 4930	American Writers and the Orient
ANT 3241	Myth-Ritual-Mysticism – *GL*
ARC 4754	Asian and African Architecture
ARH 4552	Arts of China and Japan
ASH 3440	History of Japan
ASH 4300	East Asian Civilization and Culture
ASH 4404	History of China
ASN 3403	Zen and the Art of Tea Ceremony
ASN 3410	Intro to East Asia – *GL*
ASN 4404	Zen and the Art of Tea Ceremony II
COM 3410	Cultural Communication-Patterns of Asia
DAN 4136	Global Perspectives in Dance and Culture I
DAN 4137	Global Perspectives in Dance and Culture II
EDF 4954	Art Education Abroad in China – *GL*
EVR 3402	Asian Environmental Issues
JPN 3500	Japanese Culture and Society – *GL*
JPN 4930	Special Topics in Japanese
JPT 3521	Japanese Literature and Cinema
LIN 4624	Bilingualism and Language Policy
MUH 3514	Music of the World – *GL*
MUH 3570	Survey of Asian Music
PEM 4401	Comp Analysis of Japanese Martial Arts
PET 3403	Intro to Martial Arts
PHH 3810	Philosophy of Buddhism
PHH 3840	Indian Philosophy
PHI 3762	Eastern Philosophy and Religious Thought
PHP 3840	Chinese and Japanese Philosophy
REL 3027	Meditation and Mystical Traditions
REL 3028	Sacred Places, Sacred Travels
REL 3123	Asian Religions in the Americas
REL 3145	Women and Religion
REL 3310	Intro to Asian Religions
REL 3313	Sources of Modern Asian Society
REL 3314	Religions of the Silk Road
REL 3330	Religions of India – *GL*
REL 3340	Survey of Buddhism – *GL*
REL 3399	The Art of Yoga and Meditation
REL 4311	Religious Classics of Asia
REL 4312	The Jews of Asia and Africa
REL 4345	Zen Buddhism
REL 4351	Religion and Japanese Culture
SPW 4133	Eastern Thought and L.A. Literature: Octavio Paz
SPW 4470	Eastern Cultures and Travel Writing in Spanish Literature

Visit our website at **http://asian.fiu.edu** for a comprehensive list of electives.

East Asian Studies Track Electives:

CHI 1130	Chinese I
CHI 1131	Chinese II
CHI 2200	Intermediate Chinese
CHI 2201	Intermediate Chinese II
CHI 3440	Business Chinese
JPN 1130	Japanese I
JPN 1131	Japanese II
JPN 2200	Intermediate Japanese I
JPN 2201	Intermediate Japanese II
JPN 3140	Japanese for Business
JPN 3400	Advanced Japanese I
JPN 3401	Advanced Japanese II
JPN 3420	Japanese Through Technology
JPW 4130	Reading Japanese Literature
JPW 4131	Reading Japanese Non-Fiction

Visit our website at **http://asian.fiu.edu** for a comprehensive list of electives.

Asian World Affairs Track Electives:

Four courses in contemporary and/or comparative Asian issues, course sample list below. Please see advisor about other course options. Advanced language courses can be used to fulfill the electives.

ASH 3440	History of Japan	3
ASH 4300	East Asian Civilization and Culture	3
ASN 3016	China Then and Now	3
ASN 4810	East Asian Texts in Translation	3
CPO 4507	Comparative Political Economics of Asia	3
INR 3223	Japan and the United States	3
INR 4232	International Relations of China	3
JPN 4930	Special Topics in Japanese	3
SYD 4654	Contemporary Chinese Society	3
SYD 4451	Japanese Society in Global Perspective	3

Bachelor of Arts in Asian Studies with Honors

The Honors track is designed for promising students who possess a strong desire for intellectual challenge and growth that focuses on their interest in Asia. The Honors track provides students with a more in-depth foundation in the traditional cultures and modern socio-economic societies of Asia; and further prepares them for advanced studies as well as for careers in the public and private sectors.

Requirements

a. To earn a B.A. with honors in Asian Studies, a student must maintain a 3.5 GPA in Asian Studies courses.
b. Candidates for the B.A. with honors in Asian Studies will complete the same requirements as the B.A. major with one exception. In addition to the 18 semester hours on the concentration of choice (i.e. international political economy of Asia, Asian cultural studies, or East Asian studies), students will take 3 additional semester hours of "Honors Thesis" (ASN 4970), during which the thesis or honors paper will be proposed, researched, written and defended orally.
c. In the semester prior to graduation, the student will enroll under the direction of an appropriate member of the Asian Studies or affiliated faculty.
d. When the thesis is approved by the faculty member, the coordinator of ASN 4911 will organize and schedule a defense of the honors paper/thesis, at which he or she will present the research and will respond to questions from faculty and students. This requirement will be deemed to have been met upon a majority positive vote of faculty.
e. The honors paper/thesis normally would be approximately 25-30 pages, must be presented according to FIU regulations (available in the department office), and will be deposited in the FIU library. The honors paper/thesis must demonstrate that the student has mastered skills in defining a topic, research and expository writing, as well as oral skills required for presentation and defense of the honors paper/thesis.

Bachelor of Arts in Asian Studies: Chinese Area Studies Major (36 credits)

Required Coursework

Language: (9 credits)
Two years of Chinese Language Required

- First year language (CHI 1130 and CHI 1131) is a prerequisite that does not count toward the major requirements
- Three semesters of intermediate Chinese language courses (2000 level or above) – 9 credits (or demonstrated proficiency at this level, in which case additional area studies courses would be required); advanced language courses can fulfill the elective requirements

Area Studies (27 credits)

ASN 3410	Introduction to East Asia – *GL*	3
ASN 4510	Dynamics of Asia	3
	or	
ASN 4390	Modern Asia (Capstone Course)	3

- **Chinese-specific courses – 12 credits**

ARH 4552	Arts of China and Japan	3
ARH 4557	Contemporary Chinese Art	3
ASH 4404	History of China	3
ASN 3016	China Then and Now	3
CHT 3391	Chinese Literature and Cinema	3
CHT 3502	Chinese Culture and Society	3
CPO 4541	Politics of China	3
INR 4232	International Relations of China	3
INR 4707	The Political Economy of China	3
REL 3318	Chinese Religion and Culture	3
SYD 4654	Contemporary Chinese Society	3

- **Asian area studies electives – 9 credits**

ASH 4300	East Asian Civilization and Culture	3
ASN 3200	Asia Through Films	3
ASN 3329	Women in Asian Society	3
ASN 3414	Visual Cultures of East Asia	3
ASN 4404	Zen and the Art of the Tea Ceremony II	3
ASN 4810	East Asian Texts in Translation	3
CPO 4507	Comparative Political Economics of Asia	3
INR 3224	International Relations of East Asia	3
REL 3310	Introduction to Asian Religions	3
REL 3314	Religion on the Silk Road	3
REL 3340	Survey of Buddhism – *GL*	3
SYD 3650	Sociology of Gender and Power in Asia	3

Bachelor of Arts in Asian Studies: Japanese Area Studies Major (36 credits)

Required Coursework

Language: (12 credits)
Three years of Japanese Language Required

- First year language (JPN 1130 and JPN 1131) is a prerequisite that does not count toward the major requirements
- Two years of advanced Japanese language courses – 12 credits (or demonstrated proficiency at this level, in which case additional area studies courses would be required)

Required Courses: (9 credits)

ASN 3410	Introduction to East Asia – *GL*	3
JPN 3500	Japanese Culture and Society – *GL*	3
ASH 3440	History of Japan	3

Japanese/Asian Area Studies Courses: (9 credits)
Please see an advisor for approved courses or see program website at **http://asian.fiu.edu**.

Capstone/Seminar Courses: (6 credits)

ASN 4913	Research in Japanese Studies *(or equivalent)*	3
ASN 4510	Dynamics of Asia	3
	or	
ASN 4390	Modern Asia	3

Combined BA/MA in Asian Studies

The combined BA/MA degree program allows highly qualified undergraduate students to pursue an accelerated MA degree in Asian Studies. Students accepted into this program will be able to complete the MA degree as early as one year sooner than would otherwise be possible.

Students accepted into the Asian Studies Honors track are particularly encouraged to apply for this program.

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

A complete application requires:

- Current enrollment in BA program in Asian Studies at FIU
- Completion of 90 credits of undergraduate coursework
- Overall GPA of 3.2 (including undergraduate and graduate courses)
- One letter of recommendation
- Statement of purpose discussing interests in the field

Students should consult the graduate catalog and the Asian Studies website for a more comprehensive discussion of admission requirements (**http://asian.fiu.edu**).

The program gives students the opportunity to take up to 12 credits of graduate coursework that will count towards both the BA and the MA. Students may take up to four 5000-level or higher graduate courses and follow the regular MA curriculum after they earn their BA degree.

Undergraduate Senior Year

Fall Semester – apply to the program by the end of the semester
Spring Semester – take 12 credits, including 9 graduate credits in 5000-level or higher courses

Graduate Program

Summer Semester – take 3 graduate credits (5000-level or higher)
Fall Semester – take 9 graduate credits (5000-level or higher)
Spring Semester – take 9 graduate credits (5000-level or higher, including thesis or master's essay)

Students in the combined BA/MA program in Asian Studies must complete all other requirements for the MA degree in Asian Studies (please consult the graduate catalog and the Program's online graduate handbook). Students in this program have up to a year to complete the master's degree after receipt of the bachelor's degree. Students who fail to meet this year post BA requirement or who elect to leave the combined program at any time and earn only the BA degree will have the same access requirements to regular graduate programs as any other student, but will not be able to use the 9 graduate credits in both the bachelor's and master's degrees.

Minor in Asian Studies

This program is designed with an interdisciplinary approach to Asian Studies. This 15 credit minor supports specialized focuses such as area, comparative, or language studies. It prepares students interested in careers in international business, state or federal government, foreign affairs, and education, and more.

Required Course: (3 credits)

Students must choose one of the below courses in Asian Studies; students should consult with an advisor about current course offerings.

ASN 4510	Dynamics of Asia
ASN 4390	Modern Asia
ASN 3410	Introduction to East Asia – *GL*
ASN 3403	Zen and the Art of Tea Ceremony
ASN 3200	Asia Through Films

Electives: (12 credits)

Students must select 12 elective credits from interdisciplinary, upper division courses with emphasis on Asia. Students are encouraged to take language courses, participate in the study abroad programs, and internships.

For more information, contact the Asian Studies office, SIPA 505. Email: asian@fiu.edu; phone: (305) 348-1914; website: **http://asian.fiu.edu**.

Course Descriptions

Definition of Prefixes

ASN-Asian Studies; FLE-Foreign Language Education
Courses that meet the University's Global Learning requirement are identified as GL.

ASN 2002 Introduction to Asian Societies (3). Overview of Asian societies, including their interaction and impact on modern times.

ASN 3015 South Asian Cultures (3). An overview of South Asian culture.

ASN 3016 China Then and Now (3). Examination of China, focusing on its culture, history, religion, and societal life.

ASN 3125 Intro to Spirituality of Japan (3). Examines both pre-modern and modern aspects of spirituality of Japan, from Tale of Genji to Spirited Away.

ASN 3143 Corporate Culture China (3). An overview of Chinese language and culture used in corporate practices within China and internationally.

ASN 3153 Topics in Korean Culture (3). Examines the basic concepts of Korean history, language, and food and social customs to gain a deeper understanding of contemporary Korean culture.

ASN 3154 Traditional and Modern Korea (3). Introduces some of the main features of North and South Korean societies and surveys the trajectory of contemporary Korean culture as it has emerged from its traditional origins.

ASN 3200 Asia Through Films (3). Overview of Asian culture, history, and society through Asian cinema.

ASN 3202 Japanese Anime and Manga (3). Examines a historical, cultural, and societal perspective of anime and manga in Japan, dating pre-modern to pre and post-WWII to modern times.

ASN 3329 Women in Asian Society (3). A multidisciplinary examination of the roles of and attitudes towards women in contemporary Asia. Analysis of how modernization and globalization affect women's status.

ASN 3410 Introduction to East Asia – *GL* (3). An overview of East Asia from traditional to modern times including the interaction among Asian cultures as well as between Asia and the world.

ASN 3414 Visual Cultures of East Asia (3). Major visual cultural expressions of traditional and modern China, Japan, and Korea, ranging from paintings, calligraphy, and performance to contemporary cuisine and K-pop.

ASN 3503 Exploring East Asia: Virtual Reality Travel (3). Examines both pre-modern & modern East Asian cities. Virtual Reality allows East Asian cities visits directly from home. Visits to major cities and sites in China, Japan, and Korea.

ASN 3931 Special Topics in Asian Studies (3). An examination of specific topics in Asian Studies. The content is to be determined by the instructor.

ASN 3935 Auto/Biography in East Asia (3). An examination of Asian culture and society through biographies, autobiographies and oral histories. Topics may vary each semester.

ASN 4111 Japan and the New East (3). Issues of nationalism, regionalism and globalism in light of the emerging role of Japan in relation to the ascendancy of China and the implications for East Asia.

ASN 4212 Asian Studies Seminar (1-3). An opportunity for undergraduate students to develop applied knowledge of various aspects of Asian culture as well as Asia's role in contemporary world affairs.

ASN 4390 Modern Asia (3). Focus on modernization and the transition from pre-modern, including elements such as westernization, industrialization, and the roles of capitalism, communism, and imperialism.

ASN 4404 Zen and the Art of the Tea Ceremony II (3). Theory, practice, aesthetics and cultural history of Chado, the Tea Ceremony of Zen Buddhism.

ASN 4510 Dynamics of Asia (3). An interdisciplinary study of the classical and contemporary periods in Asian civilizations, including tradition and modernization, culture and the arts, gender and diversity, and international relations. Content may vary from semester to semester. Course may be repeated.

ASN 4810 East Asian Texts in Translation (3). Reading and interpretation of classical sources from literature and religion in East Asia.

ASN 4911 Independent Research in Asian Studies (1-6). Topics selected to meet academic needs for students doing research in same special area in Asian Studies. Prerequisite: Permission of the instructor.

ASN 4913 Research in Japanese Studies (3). Advanced undergraduate research course focusing on specialized topics in Japan including pre-modern and modern Japanese society and government, thought and culture.

ASN 4941 Internship in Asian Studies (0-3). Students to intern in local, national, and overseas organizations with ties to Asia. The nature of the work to be determined in conjunction with the advisor. May be repeated. Prerequisite: Permission of the department required.

ASN 4970 Honors Thesis (3). Writing and completion of undergraduate honors thesis. Prerequisites: Permission from the Program Director and senior standing.

ASN 5050 Methods in Asian Studies (3). An examination of interdisciplinary methods for studies of Asia covering premodern and modern, language and area studies, fieldwork and deskwork, and qualitative and quantitative approaches.

ASN 5131 Zen and the Arts II (3). Theory, practice, aesthetics and cultural history of Chado the Tea Ceremony of Zen Buddhism.

ASN 5149 Topics in Modern China (3). Advanced studies in contemporary Chinese society from the early period of the People's Republic to the period since economic reforms in 1978.

ASN 5171 International Relations of Contemporary China (3). Survey of the dynamic interaction between external and internal factors on China's international relations.

ASN 5211 Asian Cultures and Influences (3). Examines diverse forms of Asian cultural manifestations and examples of self-expression, and the manner in which these styles have influenced modern Western movements (Transcendentalism and the Beats).

ASN 5213 Asian Studies Colloquium (1-3). Graduate students will develop applied knowledge of various aspects of Asian culture as well as Asia's role in contemporary world affairs.

ASN 5306 Applying Asian Cultural Values in Business (3). Critical survey of traditional Asian values. Topics to include the way they have been applied to the world of entrepreneurship, cultural constructions of the Asian business community and philosophical approaches to the formation of entrepreneurial strategies.

ASN 5315 Topics in Modern Asia (3). Focus on modernization, or the transition from pre-modern (classical and medieval) to elements of the modern, including westernization, industrialization, and the roles of capitalism, communism, imperialism, and colonialism, as well as the impact of post-colonialism and post-modern society in Asia.

ASN 5431 Studies of Women in East Asia (3). Provides a multidisciplinary examination of the experience and representations of women in East Asia with a focus on the traditional and contemporary periods.

ASN 5605 Silk Road: Then and Now (3). Examination of the historical and contemporary significance of the Silk

Road as an avenue for commercial and cultural exchange between East and West.

ASN 5815 Studies of East Asian Texts (3). Advanced studies of classical and contemporary East Asian readings, including interpretation and analysis from traditional and contemporary perspectives. Prerequisite: Permission of the instructor.

ASN 5910 Independent Research in Asian Studies (1-6). Topics will be selected to meet academic needs for students doing research in some specialized area of Asian studies. Prerequisite: Permission of the instructor.

ASN 5932 Special Topics in Asian Studies (3). An examination of specific topics in Asian Studies. The content to be determined by instructor.

FLE 4853 Chinese Studies Pedagogy (3). Introduction to Chinese language pedagogy, providing knowledge and tools for teaching Chinese language and culture in a classroom, in a variety of pedagogical settings. Prerequisite: Permission of the instructor.

FLE 5855 Pedagogical Methods for Chinese Language (3). Introduction to Chinese language pedagogy, providing knowledge and tools for teaching Chinese language and culture in a classroom and a variety of pedagogical settings. Prerequisite: Permission of the instructor.

Criminology and Criminal Justice

Lisa Stolzenberg, *Professor and Chair*
Carleen Vincent Robinson, *Senior Instructor and Associate Chair*
Candice Ammons Blanfort, *Visiting Instructor*
Rosa Chang, *Senior Instructor and Graduate Director*
Ellen G. Cohn, *Associate Professor*
Stewart J. D'Alessio, *Professor*
Kristin Elink-Schuurman-Laura, *Instructor*
Jamie L. Flexon, *Associate Professor*
Amy Hyman Gregory, *Instructor and Undergraduate Director*
Tim Goddard, *Associate Professor*
Rob Guerette, *Associate Professor*
Suman Kakar Sirpal, *Associate Professor*
Besiki Luka Kutateladze, *Associate Professor*
Ryan C. Meldrum, *Associate Professor*
Robert Peacock, *Assistant Professor*
Stephen Pires, *Associate Professor*
Rebecca Richardson, *Assistant Professor*
Juan M. Saiz, *Senior Instructor*
Luis P. Salas, *Professor*
Theodore Shields, *Senior Instructor*
Kristen Zgoba, *Assistant Professor*

Bachelor of Science in Criminal Justice

Degree Program Hours: 120

Lower Division Preparation

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
None	None

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Upper Division Program

Criminal Justice majors must complete 24 semester hours of core courses and 12 semester hours of criminal justice electives with a grade of 'C' or higher in all core and criminal justice elective classes. Students must satisfy the Green School Language Requirement.

Core Courses: (24)

Eight courses are required for all criminal justice majors:

CCJ 2020	Introduction to Criminal Justice	3
CCJ 4014	Criminological Theory	3
CCJ 4700	Research Methods in Criminal Justice	3
CCJ 4701	Measurement and Analysis in Criminal Justice	3
CJL 4064	Criminal Justice and the Constitution	3
DSC 4012	Terrorism and Homeland Security – *GL*	3
CJE 4174	Comparative Criminal Justice Systems – *GL*	3
CCJ 4497	Crime Control and Public Policy	3

Criminal Justice Electives: (12)

Any 3000 or 4000 level courses within criminal justice (with the prefixes CCJ, CJC, CJE, CJJ, CJL, DSC).

General Electives

A minimum of 15 semester hours must be 3000 or 4000 level courses. Nine semester hours of electives must be taken outside of criminal justice. One- and two-credit physical activity courses (with the prefixes PEL, PEM, PEN) cannot be included as part of the hours needed for graduation. Independent study courses may not be taken outside of criminal justice.

Students are encouraged to double major or pursue a minor in related fields. Students may also consider appropriate academic certificates such as National Security Certificate, Professional Leadership Studies and Law, Ethics and Society, Public Policy Studies and Pre-Law Certificate.

Internship Program

It is highly recommended that students apply for an internship with a criminal justice agency. Students must have an overall minimum GPA of 2.0. For information on the application process and course requirements, see http://cj.fiu.edu/internship/.

Law Enforcement Apprenticeship Program (LEAP)

LEAP combines classroom instruction with specialized police training and workplace experience to produce successful law enforcement professionals and future leaders in the field. LEAP provides students with college credits towards the completion of the Bachelor of Science degree programs in Criminal Justice (BSCJ) or Crime Science (BSCS). For additional information, see https://cj.fiu.edu/leap/.

Bachelor of Science in Crime Science

Degree Program Hours: 120

Lower Division Preparation

Students admitted to the university are directly admitted to their chosen major. Students are expected to make adequate progress based on critical indicators such as GPA in specific courses or credits earned. In cases where students are not making adequate progress, a change of major may be required. Advisors will redirect students to more appropriate majors when critical indicators are not actualized.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
STA 2023	STAX023 or STAX037
BSC 2010 and BSC 2010L	BSCX010C or BSC 2010L (BSCX010 and BSCX010L)
CHM 1025 and CHM 1025L	CHMX025C or (CHMX025 and CHMX025L)

Courses that form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites. For generic course substitutions/ equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: https://www.flvc.org. Search Program Listing by Alphabetic Order.

Common Prerequisites

STA 2023	Statistics for Business and Economics Prerequisite: High school algebra	3
BSC 2010	General Biology I Prerequisite or Corequisite: BSC 2010L	3
BSC 2010L	General Biology I Lab	1
CHM 1025	Fundamentals of Chemistry Prerequisites or Corequisite: CHM 1025L	3
CHM 1025L	Fundamentals of Chemistry Lab	1

Upper Division Program

Crime science majors must complete 43 credit hours of core courses and 17 credit hours of general electives with a grade of 'C' or higher in all core and elective classes. Students must satisfy the Green School Language Requirement.

Core Courses (43 credits)

CCJ 4014	Criminological Theory	3
CCJ 4700	Research Methods and Analysis	3
CCJ 4701	Measurement and Analysis in Criminal Justice	3
CCJ 4072	GIS and Crime Mapping	3
CJE 3444	Security and Crime Science – *GL*	3
CJE 3610	Criminal Investigation	3
CJL 4133	Criminal Evidence	3
CHS 3501	Survey of Forensic Science	3
CHS 3501L	Survey of Forensic Science Laboratory	1
CCJ 4225	The Courts and Forensic Science	3
DSC 4012	Terrorism and Homeland Security – *GL*	3
CJE 4694	Cyber Crime	3
CTS 1120	Fundamentals of Cybersecurity	3
EEL 4806	Ethical Hacking and Countermeasures	3
CJE 4717	Senior Capstone in Crime Science	3

GL = Global Learning Course

General Electives (17 credits)

Students must complete 5 credit hours of 3000 or 4000 level courses and 9 credit hours outside the Criminology and Criminal Justice Department. Students are strongly encouraged to complete an internship to gain practical experience in the field (CCJ 4940). For information on internships, see http:/cj.fiu.edu/internship/.

Accelerated MS in Criminal Justice Programs

Combined BS/MS in Criminal Justice: This program accelerates completion of the MS in Criminal Justice for qualified students enrolled in the BS in Criminal Justice at FIU.
Criminal Justice 4+1 Program: This program accelerates completion of the MS in Criminal Justice for qualified students enrolled in an approved bachelor's degree program at FIU (other than the BS in Criminal Justice). Admission Requirements: Students must have completed 75-90 credits and meet the admissions criteria for the MS in Criminal Justice. Only 5000-level or higher courses, and no more than 12 credits may be applied toward both degrees.
Completion Requirements: Students must complete their bachelor's degree at FIU, including up to 12 credits of graduate criminal justice courses with a C or higher grade and maintain a 3.0 in graduate courses.

Minor in Criminal Justice (15)

Students must complete CCJ 2020, CCJ 4014, CCJ 4700, CCJ 4701, and CJL 4064.

Course Descriptions

Definition of Prefixes

CCJ-Criminology and Criminal Justice; CJC-Corrections; CJE-Law Enforcement; CJJ-Juvenile Justice; CJL-Law and Process; DSC-Domestic Security
Courses that meet the University's Global Learning requirement are identified as GL.

CCJ 2010 Criminology (3). Examines the nature, extent, and causes of crime and criminal behavior.

CCJ 2020 Introduction to Criminal Justice (3). An examination of the history, organization, and function of the criminal justice system, including police, courts, and corrections.

CCJ 3060 Ethical Issues and Challenges of Investigations (3). Explores the ethical challenges and issues facing criminal investigations, with a focus on detectives and forensic experts.

CCJ 3450 Criminal Justice Administration (3). Application of organization and administration theories to the criminal justice system.

CCJ 3628 Homicide (3). A comprehensive study of homicide in the United States through the examination of individual cases, typology construction, and models.

CCJ 3651 Drugs and Crime (3). Examines the history and consequences of mind-altering drugs, and criminal behavior as it is affected by drugs, the legal response to substance abuse, treatment and prevention of substance abuse.

CCJ 3666 Victimology (3). A comprehensive study of victimization, including the relationship between the victims and offenders, and their interaction with the criminal justice system.

CCJ 3934 Contemporary Issues in Criminal Justice (3). An intensive examination of a contemporary topic in criminal justice. May be repeated for different topics.

CCJ 3941 Law Enforcement Apprenticeship Program (3-15). LEAP combines classroom instruction with specialized police training and workplace experience to produce successful law enforcement professionals and future leaders in the field. Prerequisites: 60 credits.

CCJ 4007 Development of the Criminal Justice System (3). A survey of the history and development of the criminal justice system from ancient to modern times, with a focus on understanding current criminal justice issues through a historical perspective.

CCJ 4014 Criminological Theory (3). Advanced study and critical appraisal of various theories of crime causation, including an examination of biological psychological, economic, and sociological perspective on the etiology of crime.

CCJ 4032 Crime and the Media (3). An examination of the role of the media in reporting crime and the extent to which media coverage of crime and the criminal justice system impacts the commission of crimes and the operation of the system.

CCJ 4034 Crime Documentaries (3). A study of selected criminology and criminal justice topics through the medium of documentary films and academic research publications (articles, book chapters, research reports, etc.).

CCJ 4045 Transnational Crime (3). Explores transnational crimes and the issues involved in investigating such crimes.

CCJ 4054 Ethics in Criminal Justice (3). An introduction to ethical decision making in the criminal justice system.

CCJ 4072 GIS and Crime Mapping (3). Utilizes ArcGIS software to help students examine and identify patterns of crime incidents through a geographical lens.

CCJ 4225 The Courts and Forensic Science (3). Examines the criminal justice system and its reliance on forensic evidence in the court room.

CCJ 4294 Criminal Trials (3). Provides an in depth understanding to the concepts of a criminal trial.

CCJ 4361 Death Penalty (3). An examination of the problems and issues related to the death penalty in the United States.

CCJ 4497 Crime Control and Public Policy (3). This senior capstone course provides in-depth analysis of crime and the efforts to control crime through public policy. Prerequisites: 90 credits, Criminal Justice Major, CCJ 4014, and CCJ 4700. Corequisite: CCJ 4701.

CCJ 4633 Guns and Violence (3). The course explores research on the relationship between guns, violence, and gun control.

CCJ 4634 Biosocial Criminology (3). This course provides students with an overview of current thinking, research, and debate centered on the overlapping role that genes, the brain, and social environments play in the commission of violent and antisocial behavior. Prerequisites: CCJ 4014.

CCJ 4641 Organized Crime (3). Historical development of organized crime in the U.S.; defining “organized crime” from U.S. and international perspective; patterns of criminal activity; critique of police and prosecutorial efforts to curb organized crime.

CCJ 4644 White Collar Crime (3). The nature of white-collar crime and its social control is examined including the definition, typologies, theories, law, policing, regulating, prosecuting, defending, and its adjudication.

CCJ 4662 Race, Crime, and Justice (3). Examines the intersection between race and crime in the criminal justice system, in addition to the role that race plays in policing, courts, corrections, and the death penalty.

CCJ 4663 Women, Crime and the Criminal Justice System (3). Women as deviants, criminals, victims, and professionals in the criminal justice system.

CCJ 4694 Human Trafficking – *GL* (3). Examines issues related to human trafficking and immigration from an international and global perspective.

CCJ 4700 Research Methods in Criminal Justice (3). A study of basic methods used in criminal justice research. Emphasis on research designs, including experimental, quasi-experimental, and evaluation research. Measurement, sampling, questionnaire construction, and survey research are also covered.

CCJ 4701 Measurement and Analysis in Criminal Justice (3). This course explores the current knowledge, trends, and future directions in the measurement and analysis of crime and the criminal justice system. Prerequisite or corequisite: CCJ 4700.

CCJ 4765 Marijuana (3). This course is designed to provide students with an in-depth examination of marijuana use in American society.

CCJ 4910 Supervised Research (3). Undergraduate students engage in research in criminal justice under the direction of a faculty member. Prerequisites: CCJ 4700, CCJ 4701.

CCJ 4940 Internship in Criminal Justice (0-12). Provides an opportunity for the student to observe the criminal justice system in operation. Prerequisite: GPA of 2.0 minimum.

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). This course focuses on the nature, scope, and causes of delinquency and considers problems of assessment and measurement of delinquency.

CCJ 5669 Minorities in Justice Administration (3). This course focuses on current research and theories of racial, ethnic, and gender discrimination within America's criminal justice system.

CCJ 6926 Teaching Practicum in Criminal Justice (3). This course provides graduate students with pedagogical, teaching and learning techniques to teach undergraduate

classes in criminal justice. Prerequisite: 18 graduate credit hours in criminal justice

CCJ 6946 Internship in Criminal Justice (0-6). Provides an opportunity for the graduate student to observe the criminal justice system in operation. Prerequisite: Student must have a minimum of 3.0 GPA.

CJC 2000 Corrections (3). Examines corrections from historical and contemporary perspectives and provides an overview of correctional philosophies, practices, and procedures.

CJC 4166 Community Corrections (3). Surveys history, and current status of community correctional programs, including diversion, probation, parole, and other community programs for adult offenders.

CJC 4310 Institutional Corrections (3). Surveys history and current status of jails and adult prisons with emphasis on punishment rationales, institutional programs and procedures, inmates' social structures, correctional officers, and contemporary issues.

CJC 4510 Punishment and Society (3). Explores the phenomenon of mass incarceration and its consequences.

CJE 3001 Professional Development in Criminal Justice (3). An overview and exploration of development of the criminal justice profession.

CJE 3110 Policing in Society (3). Examines the establishment, role and function of policing in democratic society.

CJE 3444 Security and Crime Science – *GL* (3). Examines situational and legislative approaches to the prevention of crime and the apprehension of suspects. Emphasis on theories, problem-solving, implementation and consequences of these approaches.

CJE 3610 Criminal Investigation (3). This course provides students with a basic understanding of the investigatory process. Analysis of problems encountered in interviewing, interrogating, evidence collection, and admissibility will be examined.

CJE 3617 Cold Case Investigation (3). Explores best practice cold case investigation techniques as well as discuss resources available to investigators. Prerequisite: Senior Standing in Crime Science

CJE 4144 Private Security (3). This course examines the role of private security in the prevention of crime against the assets of formal organizations and their employees.

CJE 4174 Comparative Criminal Justice Systems – *GL* (3). A comparative study of the major legal traditions (e.g., common law, civil law, socialist law) and analysis of the criminal justice system across the world, including police, courts, and corrections.

CJE 4410 Community Policing (3). Examines the historical, philosophical, and practical dimensions of the police and community collaboration to solve and prevent crime.

CJE 4585 Interviews and Interrogations (3). An overview of best practices in interviewing techniques and interrogation tactics in the criminal justice system. Compares and contrasts witness/victim interviews and suspect interrogations.

CJE 4694 Cyber Crime (3). Examines the types, extent and response to cyber crime, including the constitutional protections and procedural law that governs its detection and prosecution.

CJE 4717 Senior Capstone in Crime Science (3). This senior capstone course integrates material learned in the Crime Science curriculum. Prerequisite: Senior standing in Crime Science

CJE 5024 Violent Crime & Criminal Behavior (3). This course deals with violent criminal behavior and the criminal justice system's reaction to violence.

CJE 6716 Law Enforcement Practicum (3-6). Combines classroom instruction with specialized police training and workplace experience to produce successful law enforcement professionals and future leaders in the field.

CJJ 2001 Juvenile Justice (3). Examines the nature and extent of delinquency and the justice system response to juvenile crime.

CJL 3410 Criminal Procedure (3). An in-depth study of the 4th through 8th Amendments of the Constitution, and their impact on the criminal justice process.

CJL 3512 The Courts (3). An overview of jurisdiction, policies, and procedures of courts in the administration of criminal justice.

CJL 4064 Criminal Justice and the Constitution (3). A case law study of constitutional issues related to the administration of criminal justice.

CJL 4133 Criminal Evidence (3). A study of evidentiary principles and rules of evidence, and their application in a courtroom setting.

CJL 4412 Criminal Law (3). Examines the structure, function, and principles of criminal law, including the acts, mental state, and attendant circumstances that are necessary elements of crime.

DSC 4012 Terrorism and Homeland Security – *GL* (3). This course examines issues of terrorism and homeland security.

Economics

Cem Karayalcin, *Professor and Chairperson*
Mahadev G. Bhat, *Professor (joint appointment with Environmental Studies)*
Prasad V. Bidarkota, *Associate Professor*
John H. Boyd III, *Associate Professor*
Jesse L. Bull, *Associate Professor*
Joel D. Carton, *Senior Lecturer*
Irma de Alonso, *Professor Emerita*
Ji Gu, *Instructor*
Sheng Guo, *Assistant Professor*
Panagis S. Liossatos, *Professor Emeritus*
Norihiko Matsuda, *Assistant Professor*
Kaz Miyagiwa, *Professor*
Pallab Mozumder, *Associate Professor (joint appointment with Environmental Studies)*
Tobias Pfutze, *Associate Professor and Director of Graduate Programs*
Mihaela Pintea, *Associate Professor*
Alfonso Rodriguez, *Instructor*
Jorge Salazar-Carrillo, *Professor and Director, Center for Economic Research and Education*
Abu Shonchoy, *Assistant Professor*
Mira Wilkins, *Professor Emeritus*
Maria F. Willumsen, *Associate Professor*
Hakan Yilmazkuday, *Associate Professor*
Demet Yilmazkuday, *Instructor and Undergraduate Director*

The major in economics provides the student with an understanding of economic problems and institutions, and with analytical tools to apply this knowledge to contemporary problems. The program is designed for the student desiring a career in business, government, international agencies, or multinational corporations; and for those planning graduate study in economics, business, law, public administration, urban studies, or international relations.

Bachelor of Arts

Degree Program Hours: 120

Lower Division Requirements:

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
ECO 2013	ECOX013 or ECOXXXX
ECO 2023	ECOX023 or ECOXXXX

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing for Alphabetic Order.

Common Prerequisites

ECO 2013	Principles of Macroeconomics
ECO 2023	Principles of Microeconomics

Courses required for the degree:

MAC 2311	Calculus I
	or
MAC 2233	Calculus for Business
STA 2122	Statistics for Behavioral and Social Sciences I
	or
STA 2023	Statistics for Business and Economics

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Upper Division Program: (60)

Required Courses for the Major: (18)

ECO 3101	Intermediate Microeconomics	3
ECO 3203	Intermediate Macroeconomics	3
ECO 3410	Measurement and Analysis of Econ Activity	3
ECO 4421	Introduction to Econometrics	3
ECO 4932	Topics in Theory [1]	3
ECO 4903	Undergraduate Seminar	3

ECO 3410 and ECO 4421 each satisfy the FIU requirement in Computer Competency. ECO 4903 satisfies the requirement in Oral Competency.

Elective Courses for the Major: (15)

Five additional upper-division economics courses, of which at least two must be from the following list of courses which require an intermediate theory course as a prerequisite: ECO 4224, ECO 4401, ECO 4504, ECO 4703, ECO 4713, ECP 4031, ECP 3203, ECP 4204, ECP 4314, ECP 4403, ECO 4100, ECO 4237, ECS 4011, ECS 4014.

Electives: (27)

[1]This requirement can also be met by taking ECO 4933. [2]The following courses **cannot** be used as Elective Courses for the Major: ECO 2013, ECO 2023, ECO 3041, ECO 3202, ECO 3949, ECO 4906, ECO 4949.

Tracks in the Major

Economic majors have the option of choosing their electives in economics in such a way as to satisfy the requirements for one or more specialized Tracks in the major. If the requirements for a Track are satisfied, the student's transcript will show a major in economics with specialization in the Track.

Each Track consists of:

1. A core set of economics courses from which the student must successfully complete at least two;
2. A secondary set of economics courses from which the student must successfully complete at least one.

One or more Tracks may not be offered in a given year. Majors in economics may choose among the following Tracks:

Track in International Economics

Core Courses:

ECO 4703	International Trade Theory & Policy	3
ECO 4713	International Macroeconomics – *GL*	3

Secondary Courses:

ECS 3003	Comparative Economic Systems	3
ECO 4701	World Economy	3
	or	
ECO 5709	World Economy	3

Track in the Economics of Public Policy

Core Courses:

ECO 4504	Public Finance	3
ECP 4204	Theory of Labor Economics	3

Secondary Courses:

ECP 3203	Introduction to Labor Economics	3
ECO 3223	Money & Banking	3
ECP 3302	Introduction to Environmental Economics	3
ECP 3410	Introduction to Public Economics	3
ECP 4314	Natural Resource Economics	3
ECP 3451	Law & Economics	3

Track in the Economics of Business and Industry

Core Courses:

ECP 4403	Industrial Organization	3
ECO 4100	Managerial Economics	3
ECO 4237	Money Interest & Capital	3
ECO 4400	Economics of Strategy and Information	3

Secondary Courses:

ECO 3223	Money and Banking	3
ECO 4224	Issues in Money Banking	3
ECP 3203	Introduction to Labor Economics	3

Track in Economic Development

Core Courses:

ECS 4011	Development Economics I	3
ECS 4014	Development Economics II	3

Secondary Courses:

ECO 4703	International Trade Theory & Policy	3
ECO 4713	International Macroeconomics – *GL*	3
ECP 4031	Cost-Benefit Analysis	3
ECS 3013	Introduction to Economic Development	3
ECS 3401	The Brazilian Economy	3
ECS 3402	The Political Economy of South America	3
ECS 3403	Economics of Latin America	3
ECS 3404	Economic Integration/Latin America	3
ECS 3430	The Economic Development of Cuba/Past & Present	3
ECS 3431	Economics of the Caribbean Basin	3
ECS 3432	Economic Integration/Caribbean	3
ECS 3200	Economics of Asia	3

Bachelor of Science

Degree Program Hours: 120

Lower Division Preparation:

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
ECO 2013	ECOX013 or ECOXXXX
ECO 2023	ECOX023 or ECOXXXX

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org.** Search Program Listing for Alphabetic Order.

Common Prerequisites:

ECO 2013	Principles of Macroeconomics
ECO 2023	Principles of Microeconomics

Other Degree Requirements:

MAC 2311	Calculus I
	or
MAC 2233	Calculus for Business
STA 2122	Statistics for Behavioral and Social Sciences I
	or
STA 2023	Statistics for Business and Economics

Note: Students who are contemplating going on to study graduate-level Economics are encouraged to take MAC2311, MAC2312, and MAC2313.

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Degree Requirements: (60 hours)

Required Economics Courses: (24 hours)

Each of the following eight courses are required for the B.S. in Economics:

ECO 3101	Intermediate Microeconomics	3
ECO 3203	Intermediate Macroeconomics	3
ECO 3410	Measurement and Analysis of Econ Activity	3
ECO 4401	Math for Economists	3
ECO 4465	Quantitative Economics	3
ECO 4421	Introduction to Econometrics	3
ECO 4932/33	Topics in Theory	3
ECO 4903	Undergraduate Seminar	3

Note: ECO 3410 and ECO 4421 each satisfy the FIU requirement in Computer Competency. ECO 4903 satisfies the requirement in Oral Competency.

Elective Economics Courses: (9 hours)

In addition to the eight required Economics courses, majors must complete three upper-division Economics electives (ECO, ECP, or ECS courses)

Note: The following courses cannot be used as Elective Economics Courses: ECO 3041, ECO 3202, ECO 3949, ECO 4906, ECO 4949.

General Electives: (27 hours)

To complete the degree program, majors will need to earn an additional 27 credits, on top of the required 33 credits of Economics. Students are encouraged to earn those additional credits in pursuit of a second major or a minor in a related field such as Math, Statistics, Business, Political Science, International Relations, or Public Administration.

Combined BA/MA in Economics

The Bachelor of Arts/Master of Arts (BA/MA) degree in Economics program is designed for outstanding undergraduate students. It provides a strong base of knowledge and skills in economics, and at the same time accelerates completion of the Master of Arts degree. Students may take advantage of the overlap of courses in the BA and MA programs to receive their MA degrees in a shorter period than it would otherwise be possible.

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

The BA program in economics requires that students take 9 upper division elective courses. Students in the BA/MA program would take elective courses that would satisfy both the BA and MA requirement.

To apply their GPA needs to be significantly above average (3.25). Students would also be required to maintain a high GPA (3.0) to remain in the program. The grade requirements for an MA in economics would apply to courses that are counted toward the MA degree.

Admission Requirements

- Current enrollment in the Bachelor's degree program in economics at FIU.
- Completed Calculus I (MAC 2311) and Calculus II (MAC 2312) or equivalents.
- Current GPA of 3.25 or higher.
- Three letters of recommendation.
- Approval of the Graduate Committee.
- Official GRE scores.

General Requirements

Meet the requirements of both the BA and the MA degree in economics.

Overlap: Up to 4 courses (12 credits) may be used in satisfying ***both*** the Bachelor's and Master's degree requirements in economics.

BA in Economics/Masters in Public Health

The BA/MPH program is designed for outstanding undergraduate students. It provides a strong base of knowledge and skills in economics, and at the same time accelerates completion of the Master of Public Health degree. Students may take advantage of the overlap of courses in the BA and MPH programs to receive their MPH degrees in a shorter period than it would otherwise be possible.

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

To apply, their GPA needs to be significantly above average (3.25). Students would also be required to maintain a high GPA (3.0) to remain in the program. The grade requirements for an MPH in Health Policy and Management would apply to courses that are counted toward the MPH degree.

Admission Requirements

- Current enrollment in the Bachelor's degree program in economics at FIU.
- Current GPA of 3.25 or higher.
- Three letters of recommendation.
- Approval of the Health Policy and Management admissions committee.
- Official GRE scores. Scores must be less than 5 years old.

General Requirements

Meet the requirements of both the BA in Economics and the MPH in Health Policy and Management.

Overlap: Up to 4 courses (12 credits) may be used in satisfying both the Bachelor's in Economic and the MPH degree requirements. Students will take the following MPH courses as electives during their final year in the BA program:

PHC 6102	Introduction to Public Health Policy and Management	3
PHC 6430	Public Health Economics	3
PHC 6063	Health Policy Database Applications	3
PHC 6436	Advanced Issues in Economic Evaluation of Healthcare Programs	3

MPH Core Curriculum: (15 credits)

PHC 6000	Epidemiology I: Introduction to Public Health Epidemiology	3
PHC 6052	Biostatistics I	3

PHC 6102	Introduction to Public Health Policy and Management	3
PHC 6315	Introduction to Environmental Health	3
PHC 6410	Health Behavior and Public Health	3

Major in Health Policy and Management: (15 credits)

PHC 6104C	Public Health Management and Leadership	3
PHC 6154C	Evidence Synthesis Applied to Clinical Settings and Health Policy-Making	3
PHC 6155C	Health Policy Analysis	3
PHC 6430C	Public Health Economics	3
PHC 6148	Strategic Planning for Healthcare Organizations	3

Suggested Elective Courses: (9 credits)

PHC 6063C	Health Policy Database Applications I	3
PHC 6087C	Health Policy Database Applications II	3
PHC 6436	Advanced Issues in Economic Evaluation of Health Care Programs	3

Practicum and Culminating Experience: (6 credits)

PHC 6945	Practicum in Public Health	3
PHC 6930C	Integrative Seminar in Public Health	3

PHC 6945 (Practicum) **and PHC 6930C** (culminating experience) are both required for all MPH students.
The Practicum may be taken after completing a minimum of 30 hours, including all core courses. The Practicum may be waived if the student has at least 3 years of relevant practice experience working in a public health practice setting. The waiver request is prepared and submitted by the student, through their Faculty Advisor and Department Chair, for final approval/disapproval by the Academic Public Health Director. If the Practicum requirement is waived, the student will need to substitute 3 additional approved hours so that the total curriculum hour requirement of 45 is met. MPH students are expected to complete PHC 6930C Integrative Seminar in Public Health during their last semester in the program.

Minor in Economics: (18)

Required Courses for the Minor (12)

ECO 2013	Principles of Macroeconomics	3
ECO 2023	Principles of Microeconomics	3
ECO 3101	Intermediate Microeconomics	3
ECO 3203	Intermediate Macroeconomics	3

Elective Courses for the Minor: (6)

Two additional economics courses[1]

[1]The following courses cannot be used as Elective Courses for the Minor: ECO 3041, ECO 3202, ECO 3949, ECO 4906, ECO 4949.

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.
Courses that meet the University's Global Learning requirement are identified as GL.

ECO 1000 Introduction to Economics (3). A one-semester introduction to economics. Includes microeconomics: the economics of individual units in the economy, like households and firms; and macroeconomics: the economics of aggregate problems like inflation, unemployment, and growth. Does not substitute for either ECO 2013 or ECO 2023.

ECO 2013 Principles of Macroeconomics (3). Introduction to economic analysis of the overall economy: national income accounting, unemployment, inflation, monetary and fiscal policies, budget deficits and debt, long-run growth. (F,S,SS)

ECO 2023 Principles of Microeconomics (3). Introduction to economic analysis of individual units—households and firms. Operation of markets; supply and demand analysis. (F,S,SS)

ECO 3041 Consumer Economics (3). Consumer behavior; advertising and other influences affecting demand. Patterns of consumer expenditure; effects of public policy on family incomes and consumption patterns. The consumer protection movement. Does not count as economics elective toward economics major. (F,S,SS)

ECO 3101 Intermediate Microeconomics (3). Analysis of markets, theory of firm, demand and production theories, general equilibrium, and welfare economics. Prerequisite: ECO 2023. (F,S)

ECO 3202 Applied Macroeconomics (3). Aggregate economic performance and business conditions analysis, nature and causes of economic expansions and recessions, inflation, balance of trade, balance of payments, and exchange rate problems, fiscal and monetary policies, short-run instability and long-run growth. Cannot be taken for credit concurrently with, or after taking ECO 3203. Prerequisite: ECO 2013. (F,S,SS)

ECO 3203 Intermediate Macroeconomics (3). Analysis of the aggregate economy in the long-run (full employment, economic growth, productivity) and the short-run (unemployment, business cycles); economic policy for short-run stability and long-run growth (monetary and fiscal policies, budget deficit, inflation, and debt); balance of payments and exchange rate. Prerequisite: ECO 2013. (F,S)

ECO 3223 Money and Banking (3). Elements of monetary theory; relationships between money, prices, production, and employment; factors determining money supply; history and principles of banking, with special references to the United States. Prerequisite: ECO 2013. (F)

ECO 3303 Development of Economic Thought (3). Evolution of economic theory and doctrine. Contributions to economic thought from ancient times to J. M. Keynes. Emphasis on institutional forces shaping the continuum of economic thinking. (S)

ECO 3304 Economic Forces and the Development of Western Ideas (3). Analyzes the emergence and evolution of western views and doctrines in light of the interaction of market forces, technology, and key events.

ECO 3410 Measurement and Analysis of Economic Activity (3). Covers statistical methods as applied in economics. Topics include estimation and hypothesis testing, analysis of variance, and single and multiple

regression models. Prerequisites: STA 2023 or equivalent. Satisfies requirement in computer literacy. (F,S)

ECO 3933 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 3949 Cooperative Education in Economics (1-3). A student majoring in Economics may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Does not count as economics elective toward economics major.

ECO 4100 Managerial Economics (3). Economic analysis of problems managers of firms face, such as choosing production levels, deciding how much labor to hire, budgeting capital, and dealing with uncertainty. Prerequisites: ECO 3101, Calculus, and Statistics.

ECO 4237 Money, Interest, and Capital (3). Economic analysis of the asset markets and the effect of monetary policy; interest rates and intertemporal choice; asset pricing; efficient market hypothesis and economic behavior models in asset markets. Prerequisites: ECO 3101 and ECO 3203 or permission of the instructor.

ECO 4224 Issues in Money and Banking (3). Current controversies in the conduct of monetary policy; innovations in financial markets and instruments, and their impact on the targets and long-run goals of central banks. Prerequisites: ECO 3203 or ECO 3202.

ECO 4321 Radical Political Economy (3). The relationship between Marxist and orthodox economists. Attention given to the New Left and other current criticisms of capitalist economies. Multinational corporate policy, concentration of economic power, income distribution, and Third World development.

ECO 4400 Economics of Strategy and Information (3). Combines neoclassical economics with game theory and the economics of information to better understand markets in the real world. Prerequisites: Calculus and Intermediate Microeconomics (ECO 3101) or permission of instructor.

ECO 4401 Introduction to Mathematical Economics (3). Mathematical formulation of economic theory. Mathematical treatment of maximizing and optimizing behavior; applications to consumer and business firm theory, value, economic strategies, growth and stability. Emphasis on understanding of analytical techniques. Prerequisites: ECO 3101 or ECO 3203 (preferably both), and Calculus. (F,S)

ECO 4421 Introduction to Econometrics (3). Application of statistics and economic theory to formulating, estimating, and drawing inferences about relationships among economic variables. Coverage includes linear regression model, heteroscedasticity, serial correlation, multicollinearity, and simultaneous equations. Prerequisites: ECO 3101, ECO 3203, and ECO 3410, or permission of the instructor. Satisfies requirement in computer literacy. (F,S)

ECO 4465 Quantitative Economics (3). An introduction to contemporary computational methods and numerical analysis in economics and econometrics using a modern structured programming language. Prerequisite: ECO 3101, ECO 3202, ECO 3410, ECO 4421

ECO 4504 Introduction to Public Finance (3). Describes the way resources are allocated in a market economy and cases where markets fail. Analyzes government expenditure policy, principles of taxation, and the various taxes in use today. Prerequisite: ECO 3101. (S)

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

ECO 4623 American Business History (3). The growth of American business from 1880 to present; integration, diversification, and foreign expansion. Business strategies and managerial structures.

ECO 4701 World Economy (3). A broad overview of the international economy in historical perspective. Topics: economic demography, trade flows, capital movements, diffusion of technology, the emergence of transnational institutions. The student obtains a conception of how economic interdependence has developed.

ECO 4703 International Trade Theory and Policy (3). Causes and consequences of international trade; effects of tariffs and quotas; strategic trade and industrial policies; political economy of protectionism; international economic integration; factor movements; and multinational firms. Prerequisite: ECO 3101. (F)

ECO 4713 International Macroeconomics – *GL* (3). Analysis of output, inflation, business cycles and economic policy in open economy settings; exchange rate regimes (fixed versus flexible exchange rate); fiscal, monetary, and exchange rate policies. Prerequisite: ECO 3203. (S)

ECO 4733 Multinational Corporation (3). Growth and development of multinational enterprise. Theories of direct foreign investment. Impact on the United States and other developed and less developed nations. Policy implications relating to employment, economic growth, balance of payments, taxation, and national defense. National sovereignty and the multinational corporation.

ECO 4903 Undergraduate Seminar (3). Small class in which students will discuss readings, write research paper, and defend research and ideas orally. Satisfies SACS requirement in oral competency. Prerequisites: ECO 3101 and ECO 3203.

ECO 4906 Undergraduate Tutorial (1-6). Supervised readings, individual tutorial, and preparation of reports. Requires consent of faculty supervisor and Department Chairperson. Does not count as economics elective toward economics major.

ECO 4932, 4933 Topics in Theory (3,3). Study of a particular topic or a selected number of topics in economics theory not otherwise offered in the curriculum. Prerequisites: ECO 3101, ECO 3203, and MAC 2311 or permission of the instructor. (F,S)

ECO 4934 Special Topics (3). A course designed to give students a particular topic or a limited number of topics not otherwise offered in the curriculum. May be repeated for credit with permission of Department. Prerequisite: Permission of the instructor.

ECO 4949 Cooperative Education in Economics (1-3). A student majoring in economics may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Does not count as economics elective toward economics major.

ECO 5206 Economics of Asia (3). Overview of the opportunities and challenges presented by the Asian-Pacific economies.

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 Chairperson. 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.

ECP 3123 Economics of Poverty (3). Poverty in the United States: its measurement and history. Theory of personal income distribution. Present and proposed policies to alleviate poverty.

ECP 3143 Economics of Racism (3). Analysis and examination of the economic costs of racism to the individual and society. A perspective from mercantilism to the post industrial contemporary world; international racial aspects of development, income distribution and wealth.

ECP 3203 Introduction to Labor Economics (3). Basic introduction to supply and demand for labor. Discusses labor markets in both historical and institutional context emphasizing why certain patterns have occurred and contemporary institutions developed. Prerequisite: ECO 2023.

ECP 3254 Women, Men and Work in the USA (3). Analyzes the performance of women in comparison to men in the US labor market.

ECP 3302 Introduction to Environmental Economics (3). Economic principles applied to environmental problems. Relationship of market and non-market forces to environmental quality. Development of tools for policy analysis. Prerequisites: ECO 2023, or permission of the instructor. (F,S,SS)

ECP 3410 Introduction to Public Economics (3). An introduction to the applied economics of the public sector and the microeconomics of public policy making and administration.

ECP 3451 Law and Economics (3). The relationship of economic principles to law and the use of economic analysis to the study of legal problems. Topics include: property rights and contracts, and economic analysis of legal decision making. Prerequisites: ECO 2013 and ECO 2023 or equivalents.

ECP 3533 Health Systems Economics (3). Identification of health systems issues and basic instruments of health systems analysis including the market mechanism, insurance and cost-benefit analysis.

ECP 3555 Women and the Economy (3). Study of women and the economy, paying attention to family, work, and pay. Prerequisite: ECO 2023

ECP 3613 Introduction to Urban Economics (3). Study of urban areas, their characteristics and economic functions. Topics include location decisions of firms and households, economies of agglomeration, transportation, land use, zoning, urban growth and development policies, urban dimensions of economic and social problems, and the public sector in urban areas. (F)

ECP 4004 Seminar on Current Economic Topics (3). Faculty and student discussion of contemporary economic and social issues.

ECP 4031 Cost-Benefit Analysis (3). Covers cost-benefit analysis, cost-effectiveness analysis, benefit-risk analysis, risk-risk analysis, and systems analysis as applied in the government sector for public investment decisions. Prerequisites: ECO 3101 or equivalent.

ECP 4204 Theory of Labor Economics (3). Neoclassical theory of labor demand and labor supply, human capital theory and critiques. Current programs of human resource development and income maintenance are discussed. Prerequisite: ECO 3101.

ECP 4314 Natural Resource Economics (3). Natural resources and the economy; economics of renewable and nonrenewable resource harvesting and management; public policy options for influencing resource consumption and their environmental implications. Prerequisites: ECP 3203 and ECO 3101, or permission of the instructor.

ECP 4403 Industrial Organization (3). Theory of the firm, market structure; business strategies and conduct. Topics include information and advertising, product durability, technical change, antitrust and trade policies, and regulation. Prerequisite: ECO 3101.

ECS 3003 Comparative Economic Systems (3). Analysis of alternative economic systems. Emphasis on the contrast between market-oriented capitalist economies and Soviet-style planned economies, and on the process of transition from planned to market-oriented systems. Prerequisites: ENC 1101 and ENC 1102.

ECS 3013 Introduction to Economic Development (3). Structural and institutional determinants of economic development; economic analysis and policy formation. Topics include theories of economic development, economic growth, income distribution, rural-urban migration, industry and agriculture, unemployment, education, international trade, economic reform, and the environment. Prerequisites: ECO 2013 and ECO 2023. (F,S)

ECS 3021 Women, Culture, and Economic Development – *GL* (3). Analysis of problems facing

women in developing countries, focusing on gender and cultural issues and their relationships to economic development. Prerequisites: ECO 2013 and ECO 2023 or permission of the instructor.

ECS 3200 Economics of Asia (3). Economic analysis of the problems of poverty, malnutrition and income inequality in South Asia. Rural poverty and agricultural transformation. The East Asian Miracle. The Asian Crisis. Economic liberalization in Asia. Prerequisites: Macro and Micro Principles or permission of the instructor.

ECS 3401 The Brazilian Economy (3). Examines the evolution of Brazilian economy, focusing on the process of its industrialization in the 20th century, the policies to achieve it, its impact on the socioeconomic environment and the adjustments of institutions to the structural changes in the economy. Prerequisites: ECO 2013 and ECO 2023.

ECS 3402 The Political Economy of South America (3). An introduction to the political economy of the South American countries, with emphasis on the opening of the region's economies, privatization and deregulation, debt crisis, foreign investment, poverty, income distribution, human resources, and regional trade agreements. Prerequisites: ECO 2013 and ECO 2023. (F)

ECS 3403 Economics of Latin America (3). Study of current economic issues facing Latin American countries, including population growth, poverty, inequality, inflation, trade and balance of payment problems, economic reform, and regional integration. Prerequisites: ECO 2013 and ECO 2023. (S)

ECS 3404 Economic Integration/Latin America (3). Analysis of the methods, meaning and implications of economics in Latin America. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation.

ECS 3430 The Economic Development of Cuba/Past and Present (3). Survey of the Cuban economy under capitalist and Marxist ideologies. Emphasis on the transition stage and on current policies of economic and social change. (F)

ECS 3431 Economics of the Caribbean Basin (3). Survey of the economic systems of the major countries of the Caribbean. Special attention devoted to current problems of economic growth and social transformation. Prerequisite: ECO 2013.

ECS 3432 Economic Integration/Caribbean (3). Analysis of the methods, meaning, and implications of economic integration in the Caribbean. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation.

ECS 3704 International Economics (3). Explorations of why nations trade, effects of trade on distribution, commercial policy, balance of payments adjustment; exchange rate determination, Eurocurrency markets, and international institutions. Prerequisites: ECO 2013 and ECO 2023.

ECS 4011 Development Economics I (3). Problems of poverty, malnutrition, inequality, and development. Population growth and development. Rural-urban resource flows. The urban informal sector. Credit markets in agriculture. Land-labor contracts. Prerequisites: Intermediate Microeconomics (ECO 3101) and Intermediate Macroeconomics (ECO 3203) or permission of the instructor.

ECS 4014 Development Economics II (3). Economic analysis of why some countries are rich and some are poor, why some countries grow fast and others do not. The role of ideas, infrastructure, R & D, and education play in economic growth. Prerequisites: ECO 3101 and ECO 3203 or permission of the instructor.

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. Prerequisites: Graduate standing or permission of the instructor.

ECS 5406 Latin American Economies (3). Economic theory and its applications to current economic issues of Latin America. Examines aggregate demand and supply, fiscal and monetary policies, international trade trends, and economic development. Taught in Spanish. May not be taken for credit towards a degree in Economics.

Global and Sociocultural Studies

Guillermo J. Grenier, *Professor and Chair*
Mathew David Marr, *Associate Professor and Associate Chair*
Aslihan Akkaya, *Lecturer*
Young Rae Choi, *Assistant Professor*
Jorge Duany, *Professor and Director, Cuban Research Institute*
Juliet S. Erazo, *Associate Professor*
Chris S. Girard, *Associate Professor*
Ricardo M. Gonzalez, *Senior Lecturer*
Kevin Grove, *Associate Professor*
Percy C. Hintzen, *Professor and Director, African and African Diaspora Studies*
Gail M. Hollander, *Associate Professor and Director, Graduate Program*
A. Douglas Kincaid, *Associate Professor and Director, Undergraduate Program*
Qing Lai, *Assistant Professor*
Lee, Rennie, *Assistant Professor*
Katherine Lineberger, *Lecturer*
Shearon A. Lowery, *Associate Professor*
Sarah J. Mahler, *Associate Professor*
Roderick P. Neumann, *Professor*
Ulrich Oslender, *Associate Professor*
Mark B. Padilla, *Professor*
Vrushali B. Patil, *Associate Professor*
Andrea J. Queeley, *Associate Professor*
Jean M. Rahier, *Professor*
Geneviève Reid, *Assistant Professor*
Sheilla Rodriguez-Madera, *Professor*
Derrick Scott, *Lecturer*
Benjamin N. Smith, *Associate Professor*
Richard S. Tardanico, *Associate Professor*
Nelson Varas-Diaz, *Professor*
Dennis W. Wiedman, *Clinical Associate Professor*

Faculty Emeriti
Janet M. Chernela, *Professor Emerita*
Ralph S. Clem, *Professor Emeritus*
Stephen M. Fjellman, *Professor Emeritus*
Barry B. Levine, *Professor Emeritus*
Anthony P. Maingot, *Professor Emeritus*
Betty Hearn Morrow, *Professor Emerita*
Alex Stepick III, *Professor Emeritus*

Bachelor of Arts in Geography

Degree Program Hours: 120

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
Two GEO courses	GEOXXXX[1] and GEOXXXX[1]

[1]*Two introductory courses in Geography with GEO prefix.*

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Academic Order.

Common Prerequisites: (6)
Two 2000-level GEO courses

Lower-Division Requirement: (3)
GEA 2000 World Regional Geography – *GL*

Upper Division Program: (60)

Upper Division Required Courses: (12 hours)
GEO 3421 Cultural Geography
or
GEO 3471 Political Geography
or
GEO 3502 Economic Geography – *GL* 3
GIS 3048 Applications of Geographic Information Systems 3
SYA 3300 Research Methods 3
SYA 4011 Social Theory 3

Department Electives: (18)
Six additional upper division courses as follows:
Three upper division GEO courses (at least one 4000-level) 9
One upper division GEA courses 3
One upper division anthropology course 3
One upper division sociology course 3

Additional Upper Division Electives: (30)
Additional geography courses are recommended where feasible. A minimum of 9 credits must be taken outside the major, 6 of which must be taken outside the GSS department.

Bachelor of Arts in Geography: Social Studies Education Major

This program prepares students interested in the social sciences for teaching Social Studies at the secondary level. The major incorporates current results from education research, effective curriculum materials, use of technology, and a global perspective in collaborative learning. Program requirements include field experiences and an internship. Interested students are encouraged to contact the department for additional details and information on teacher support programs.

To qualify for admission to the program, undergraduate candidates must have met all the lower division requirements including: 60 credit hours of lower-division courses, all general education requirements, lower division GPA of 2.5 or higher, and achieve the competencies of the FTCE General Knowledge Exam (GK).

All students must pass the GK Exam by the time they reach 72 credit hours in their program of study. 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.

Lower Division: (6 hours)
(SUS Common Prerequisites)
Two GEO 2000-level courses 6

Additional requirements for the degree (6 credits)

GEA 2000	World Regional Geography – *GL*	3
POS 2041	American Government – *CL*	3

Upper Division (30 credits total)

GEO 3421	Cultural Geography	
or		
GEO 3471	Political Geography	
or		
GEO 3502	Economic Geography – *GL*	3
GIS 3048	Applications of Geographic Information Systems	3
SYA 3300	Research Methods	3
SYA 4011	Social Theory	3

Department Electives: (18)

Six additional upper division courses as follows:

Three upper division GEO courses (at least one 4000-level)	9
One upper division GEA courses	3
One upper division anthropology course	3
One upper division sociology course	3

AND (30 Credits)

EDP 3004	Educational Psychology	3
SSE 3346	Social Science Content and Pedagogy	3
SSE 3XXX	Social Science Subject Area Knowledge	3
SSE 4383	Perspectives in Social Science Education	3
SSE 4380	Developing a Global Perspective – *GL*	3
SSE 4384	Special Teaching Lab	3
SSE 4942	Student Teaching	6
RED 4325	Subject Area Reading	3
TSL 4324	TESOL Issues and Strategies for Content Area Teachers – *GL*	3

Minor in Geography

A student majoring in another academic discipline earns a Minor in Geography by successfully completing approved coursework of 15 semester hours with a grade of 'C' or better.

Required Courses

Lower Division

GEO 2000	Introduction to Geography	3
GEA 2000	World Regional Geography – *GL*	3

Upper Division

Three upper division geography courses, at least one with a GEA prefix and one with a GEO prefix 9

Geographic Information Systems (GIS) courses offered in any department also qualify.

Bachelor of Arts in Global Studies

Degree Program Hours 120

Lower Division Preparation

Students admitted to the university are directly admitted to their chosen major. Students are expected to make adequate progress based on critical indicators such as GPA in specific courses or credits earned. In cases where students are not making adequate progress, a change of major may be required. Advisors will redirect students to more appropriate majors when critical indicators are not actualized.

Minimum of 48 upper division credits

Major Requirements: 39 hours plus 21 electives: 60 credit hours

- 3 hours Introduction to Major
- 6 hours Core Courses
- 3 hours Theory
- 3 hours Methods
- 9 hours Upper Division Thematic Electives
- 9 hours Upper Division Area Studies Electives
- 6 hours Other Upper Division Electives

Degree Requirements (39 credit hours)

Intro to Major* (3 credit hours)

(One of the following)

ANT 2000	Introduction to Anthropology – *GL*	3
GEA 2000	World Regional Geography – *GL*	3
SYG 2000	Introduction to Sociology – *GL*	3

Core Courses* (6 credit hours)

IDS 3315	Gaining Global Perspectives – *GL*	3
SYP 4454	Globalization and Society – *GL*	3

Theory* (3 credit hours)

ANT 3034	Anthropological Theories	3
GEO 3421	Cultural Geography	3
GEO 3471	Political Geography	3
GEO 3001	Geography of Global Change – *GL*	3
GEO 3502	Economic Geography – *GL*	3
SYA 4010	Sociological Theories	3

**Or* any -other GSS-adviser-approved theory course offered by the Department of Global and Sociocultural Studies or in another department.

Methods Requirements* (3 credit hours)

SYA 3300	Research Methods	3
ANT 3497	Introduction to Qualitative Research Methods	3
SYA 3400	Introduction to Quantitative Social Research	3
GIS 3048	Applications of Geographic Information Systems	3
SYA 4352	GIS and Social Research	3

**Or* any other adviser-approved research methods course in the Department of Global and Sociocultural Studies or in another department.

1 Global Learning designated course. FIU's Quality Enhancement Plan (QEP 2010) places a two-course GL requirement for all undergraduate students.

Upper Division Thematic Electives (9 credit hours)

Culture, Societies, Identities*

GEO 4414	Geography and Gender	3
GEO 3412	Cultural Geography – *GL*	3
GEO 5557	Globalization	3
ANT 4473	Anthropology of Globalization – *GL*	3
ANT 3212	World Ethnographies – *GL*	3
SYP 3456	Societies in the World – *GL*	3
ANT 3241	Myth, Ritual, and Mysticism – *GL*	3
REL 3308	Studies in World Religions – *GL*	3
REL 3367	Islamic Faith and Society – *GL*	3
AMH 4671	Race, Gender, Science in the Atlantic World – *GL*	3

AMH 4573	African American History from Late 19th Century to the Present – *GL*	3
AMH 4588	Introduction to Latina/o History	3
EUH 4617	Race and Migration in Modern Europe	3
EUH 4675	History of Islam and Muslims in Europe	3
HIS 4264	Global Imperial-Indigenous Encounters 1500- Present – *GL*	3
LAH 4737	Music, Modernity and Identity in Latin America – *GL*	3

Social Movements, Security and Conflict*

GEO 4477	Critical Geo Politics	3
GEO 3602	Urban Geography	3
GEO 3471	Political Geography – *GL*	3
SYP 3300	Social Movements	3
PAD 3800	Managing Global Cities – *GL*	3
PAD 3802	Introduction to Urban and Regional Studies – *GL*	3
PHM 4362	Global Justice – *GL*	3
LBS 3001	Labor and Globalization – *GL*	3
LBS 3468	Introduction to Mediation – *GL*	3
LBS 3480	Introduction to Conflict Resolution – *GL*	3
LBS 4154	Workers and Diversity – *GL*	3
LBS 3001	Labor and Globalization – *GL*	3
LBS 3480	Introduction to Conflict Resolution – *GL*	3
LBS 4610	Cross Cultural Dimensions of Latin American Labor Relations – *GL*	3
CJE 4174	Comparative Criminal Justice Systems – *GL*	3
AMH 3310	Social Movements in Modern United States History – *GL*	3
ISS 3130	Fundamentals of National Security	3
ISS 4930	Topics in Globalization: Global Cyber Threats & Policy Implications	3
AMH 3310	Social Movements in Modern United States History – *GL*	3
EUH 3576	The Russian Revolution and the Soviet Union	3
EUH 4033	Nazism and the Holocaust	3
HIS 3308	War and Society – *GL*	3
HIS 4264	Global Imperial – Indigenous Encounters 1500 to the Present – *GL*	3
LAH 4750	Law and Society in Latin America	3
LAH 3718	History of US- Latin American Relations	3
LAH 4483	Cuba Since 1959	3
WOH 3244	World War II: A Global History – *GL*	3

Global Health and Environment*

GEO 4607	Urban Environmental Geography	3
GEO 4476	Political Ecology	3
GEO 4373	Geography of the Global Conservation System	3
GEO 4391	Marine Geography	3
ANT 3462	Medical Anthropology	3
ANT 4480	Anthropological Approaches to Global Health	3
SYO 3400	Medical Sociology	3
SYO 3401	Sociology of Health Behavior	3
SYO 4410	Sociology of Mental Illness	3
SYO 4420	Comparative Sociology of Health Care Systems	3
SYP 4013	The Body in Society	3
SYP 4562	Domestic Violence	3
SYP 3750	Sociology of Life Course	3
EVR 4595	South Florida Environmental Conflicts	3
IDS 3214	Our Coastal Environment from the Bay of the World	3
SYD 4604	Cities and Sustainability: Latin America, Africa, and Asia in a Globalizing World	3
ANT 3403	Cultural Ecology	3
AMH 3314	Public Health and Medicine in United States History – *GL*	3
HIS 4492	A History of United States Policy	3
LAH 4722	Health, Medicine, and Disease in Latin American Social History – *GL*	3
WOH 4206	Global History of Domestic Violence – *GL*	3

Global Markets, Resources and Development*

ECO 4713	International Macroeconomics – *GL*	3
ECS 3021	Women, Culture, and Economic	3
GEO 3502	Economic Geography	3
IDS 3163	Global Supply Chains & Logistics – *GL*	3
SYP 4441	Sociology of World Development	3
WOH 4223	History of the Global Economy	3

**Or* any -other GSS-adviser-approved course offered by the Department of Global and Sociocultural Studies or in another department which covers the major themes.

Upper Division Area Studies Elective (9 hours: 3000 or higher)

Three courses substantially grounded in a world area, exemplifying the transnational issues explored in the chosen theme. The world areas are:

Africa
Asia
Latin America
Middle East and Central Asia
Europe and Eurasia

Additional Degree Electives (6 hours 3000 level or higher).

We strongly recommend that the students take one of our two internship courses: SYA 3949 Internship; GEO 4940 Internship.

We strongly recommend complimenting the major requirements with electives leading to certificates and/or second majors in Social Science Research Methods, Geographic Information Systems (GIS), Latin American and Caribbean Studies, Asian Studies, African and African Diaspora Studies and Global Security Policy or a double major in Global Studies and Soc/Anth or Geography.

Necessary credits to fulfill the SIPA modern language requirements can be taken using the Additional Electives available for the degree. The School's requirement is a competency requirement, not a credits requirement. That is to say the student must demonstrate competency at or exceeding that of a second semester college level foreign language course. Proficiency is demonstrated by scoring at least ‘intermediate- high’ on the ACTFL/ETS exam for Spanish, Portuguese, or French. For other languages, corresponding tests of proficiency and levels of achievement will be required. This proficiency can be met by receiving credit for the second semester of a foreign language or higher (e.g., SPN 1131 or higher) with a C minimum grade.

Bachelor of Arts in Sociology/ Anthropology

Degree Program Hours: 120

Lower-Division Required Courses

Students seeking to obtain a degree in Sociology/Anthropology are required to declare either the Anthropology major or the Sociology major and to fulfill the requirements of the declared major. A grade of "C" or higher is required in each major course. It is recommended that Anthropology and Sociology majors take SYA 3300 (Research Methods) no later than the first semester of their junior year.

A minimum of 9 credit hours of upper division courses must be taken outside the Bachelor of Arts in Sociology/Anthropology.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
ANT 2000	SYGX000[1] and ANTX000

[1]*Acceptable substitutes: ANTX410*

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Bachelor of Arts in Sociology/ Anthropology – Anthropology Major

Common Prerequisite (3 hours)

ANT 2000	Introduction to Anthropology – *GL*	

Upper Division Required Core Courses: (15 hours)

ANT 3212	World Ethnographies – *GL*	3
ANT 3034	Anthropological Theories	3
SYA 4011	Social Theory	3
SYA 3300	Research Methods	3

One of the following additional research methods courses:

ANT 3497	Introduction to Qualitative Research Methods	3
SYA 3400	Introduction to Quantitative Social Research	3
GIS 3048	Applications of Geographic Information Systems	3
SYA 4352	GIS and Social Research	3

Or any other adviser-approved research methods course in the Department of Global and Sociocultural Studies or in another department. 3

Upper Division Department Electives: (12 hours: 3000 level or higher)

Two additional Anthropology (ANT) courses 6

One Geography (GEA/GEO) course. (GEO 3510 Earth Resources, taught in the Department of Earth and Environment, is a natural sciences course that does not fulfill this requirement 3

One Sociology (SYA/SYD/SYG/SYO/SYP) course 3

Other Electives: (30 hours)

A minimum of 9 hours must be taken outside the Sociology/Anthropology degree program. A minimum of 18 hours must be upper division (3000 level or higher).

Bachelor of Arts in Sociology/ Anthropology – Sociology Major

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
SYG 2000	SYGX000[1] and ANTX000

[1]*Acceptable substitutes: ANTX410*

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisite (3 hours)

SYG 2000	Introduction to Sociology – *GL*

Upper Division Required Core Courses: (15 hours)

SYP 3456	Societies in the World	3
SYA 4010	Sociological Theories	3
SYA 4011	Social Theory	3
SYA 3300	Research Methods	3
SYA 3400	Introduction to Quantitative Social Research	3

Upper Division Department Electives: (12 hours: 3000 level or higher)

Two additional Sociology (SYA/SYD/SYG/SYO/SYP) courses 6

One Anthropology (ANT) course 3

One Geography (GEA/GEO) course. (GEO 3510 Earth Resources, taught in the Department of Earth and Environment, is a natural sciences course that does not fulfill this requirement.) 3

Minor in Sociology and Anthropology

Students who minor in Sociology/Anthropology do not declare a disciplinary track. Students are not required, but are recommended, to take either ANT 2000 or SYG 2000, or both. The minor in Sociology/Anthropology requires completion of the following courses with a grade of "C" or better:

Upper Division (15 credits)

Theory

One of the following courses:

ANT 3034	Anthropological Theories	3

or

SYA 4010	Sociological Theories	3
	or	
SYA 4011	Social Theory	3

General
Four additional upper division anthropology **or** sociology courses (**3000-level or higher**) 9

Combined BA Sociology & Anthropology/M.P.H in Health Policy and Management

Admission Requirements
Students who meet the following requirements will be able to apply for admission to the Master of Public Health program:
• Current enrollment in the bachelor's degree program in Sociology/Anthropology at FIU.
• Current G.P.A. of 3.25 or higher.
• Three letters of recommendation from undergraduate faculty familiar with the student's work.
• Approval of the Health Policy and Management admissions committee.
• Approval of the University Graduate School.

Degree Requirements
Students must meet the requirements of both the B.A. in Sociology/Anthropology with majors in either anthropology or sociology and the M.P.H. in Health Policy and Management.
Up to four courses (12 credits) may be used to satisfy the requirements for a B.A. in Sociology/Anthropology and the M.P.H. degree requirements. Students will take the following MPH courses as electives during their final year in the BA program. The electives will be counted as part of the hours students must take outside the majors of anthropology or sociology.

PHC 6000	Introduction to Public Health Epidemiology	3
PHC 6102	Introduction to Public Health Policy and Management	3
PHC 6410	Health Behavior and Public Health	3
PHC 6430	Population Health Management I	3

Course Descriptions

Definition of Prefixes

ANG Anthropology Graduate; ANT-Anthropology; EVR-Environmental Studies; GEA-Geography: Regional Areas; GEO-Geography: Systemic; GIS-Geography: Information Science; IDS-Interdisciplinary Studies; 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.
Courses that meet the University's Global Learning requirement are identified as GL.

ANG 5267 Environmental 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. Prerequisites: Graduate standing or permission of the instructor. (SS)

ANG 5396 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. Prerequisite: Permission of Instructor.

ANG 5397 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. Prerequisite: Permission of Instructor.

ANG 5905 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of the instructor.

ANG 5906 Directed Individual Studies (3). Supervised readings and/or field research and training.

ANG 5915 Directed Field Research (VAR). Permission of the instructor required.

ANT 2000 Introduction to Anthropology – *GL* (3). This course surveys the four subfields of anthropology, including physical anthropology and human evolution, archaeology, cultural anthropology, and linguistics. Introduces basic anthropological theories and concepts.

ANT 3034 Anthropological Theories (3). This course examines the process of theory building and explanation in the social sciences, and outlines the historical and philosophical foundations of anthropological thought. Theorists and schools of thought reviewed include Darwin and evolution; Boas and historical particularism; Freud and culture and personality; and Malinowski and functionalism.

ANT 3212 World Ethnographies – *GL* (3). Introduces students to ethnography, which is the art of writing culture. Teaches students to compare and contrast cultures through ethnographic reading, writing, and critiques.

ANT 3241 Myth, Ritual, and Mysticism – *GL* (3). Anthropological approaches to the study of myth, ritual, and mysticism, as religious and symbolic systems. The social and psychological functions of myth and ritual in small-scale and complex societies will be compared.

ANT 3302 Sex, Gender, & Culture (3). Cross-cultural ethnographic data will be utilized to examine the enculturation of sex roles, attitudes, and behavior; cultural definitions of maleness and femaleness; and varieties of human sexual awareness and response.

ANT 3401 Contemporary American Society (3). The application of classical anthropological methods and concepts to the analysis of contemporary American culture. Investigation of a unique cultural scene will involve the student in field work and the preparation of an ethnographic report.

ANT 3403 Cultural Ecology (3). Examines systems of interaction between humans and their environment; the roles of social, cultural, and psychological factors in the maintenance and disruption of ecosystems; and interrelations of technological and environmental changes.

ANT 3442 Urban Anthropology (3). Anthropological study of urbanization and urban life styles, with particular emphasis on rural-urban migration and its impact on kinship groups, voluntary associations, and cultural values.

ANT 3451 Anthropology of Race and Ethnicity (3). Considers ethnicity and concepts of race in cross-cultural perspectives with emphasis on the historical and cultural and construction of identity, intercultural relationships, and social stratification.

ANT 3462 Medical Anthropology (3). Anthropological approaches to the study of health and disease. Emphasis on cultural systems approach to the study of illness and health care. (S)

ANT 3467 Food and Culture (G) (T2, T3) (3). Introduction to the anthropology of food: European conquest of the New World, theories of famine, the industrial food system, food and nationalism, the organic food movement.

ANT 3497 Introduction to Qualitative Research Methods (3). Introduction to qualitative data collection, analysis, and documentation. Fieldwork experiences include observation, interviewing, and utilizing non-obtrusive measures. Prerequisites: SYA 3300 (Research Methods) or another introductory research methods course (such as CCJ 4700 or PSY 3213), and departmental approval.

ANT 3610 Language and Culture (3). Examines the relationship between language and culture, with emphasis on the linguistic structuring of perception and culture; speech styles and their relationship to the identities and inequalities associated with gender, class and ethnicity; and the politics of bilingualism and multilingual nations.

ANT 4305 Coastal Cultures (3). Introduces students to the anthropological study of coastal and maritime societies, their folklore, and particular cultural adaptations by examining ethnographic examples from around the world.

ANT 4312 American Indian Ethnology (3). Examination of the socio-cultural patterns of selected American Indian groups from pre-history to the present with an emphasis in political, social, economic, artistic and religious life.

ANT 4332 Latin America (3). Examines cultures and societies of the Latin American region. Topics may include indigenous and peasant cultures, social movements, urban and global transformations, and class, gender and ethnicity.

ANT 4334 Contemporary Latin American Women (3). The lives of 20th century Latin American women and gender analysis along class and ethnic dimensions. Discussion of religion, family, gender roles, machismo, and women's roles in socio-political change.

ANT 4340 Caribbean Cultures (3). Provides an overview of cultures and societies of the Caribbean and Circum-Caribbean region with a focus on local cultures and their historical transformations, transnationalism and globalization, and class, gender and ethnicity.

ANT 4343 Cuban Culture and Society (3). Examines the culture of contemporary Cuba, with emphasis on the Cuban Republic, the transformations associated with the 1959 revolution, the impact of international relations, and transnational Cuban communities.

ANT 4352 African Peoples and Cultures (3). This course includes a survey of the cultures and civilizations of Sub-Saharan Africa. It includes discussions of history, geography, sociopolitical structures, religion, art, music, and oral literature.

ANT 4360 - 4477 Area Studies (3). Surveys selected world areas with an emphasis on ethnicity, social stratification, and processes of social change and globalization. Areas to be studied may include: (1) North America; (2) South or Latin America; (3) the Caribbean; (4) Africa; and (5) Asia. Specific topics may vary. May be repeated for credit with change of topic.

ANT 4391 Anthropology Through Film (3). Explores key issues in anthropology through using visual media, including film and web-based materials. Cross-cultural comparisons highlight this medium's influence on local, national, and global cultures.

ANT 4396 Africa and Africans in Film (3). Analyzes representations of Sub-Saharan Africa and Africans in various cinematic traditions (including documentaries), and examines these representations in socioeconomic and political contexts. Prerequisite: Permission of instructor.

ANT 4461 Hallucinogens and Culture (3). Cross-cultural examination of the political, religious, and socio-cultural factors related to altered states of consciousness, including dreams and images. Applications to contemporary psychology are explored.

ANT 4473 Culture and Globalization – *GL* (3). Cross-cultural examination of globalization and of socioeconomic, environmental and political controversies surrounding this mega-trend, including the greening of the global economy.

ANT 4476 Indigenous Peoples Today in Global Perspective (3). Examines contemporary Indigenous peoples in various parts of the world highlighting commonalities shaping indigenous communities and people's lives in response to globalization.

ANT 4480 Anthropological Approaches to Global Health (3). Provides a survey of how medical anthropologists engage with the growing field of global health, drawing on anthropological case studies such as HIV/AIDS, reproductive health, and political ecology.

ANT 4905 Directed Individual Study (1-2). Supervised readings and/or field research and training. Prerequisite: Permission of the instructor.

ANT 4915 Directed Field Research (1-2). Permission of the instructor required.

ANT 4930 Topics in Anthropology (3). Special courses dealing with advanced topics in the major anthropological subdisciplines: (1) social and cultural anthropology, (2) applied anthropology, (3) physical anthropology, (4) linguistics, and (5) archaeology. Instruction by staff or visiting specialists. Topics to be announced. Instructor's permission required. May be repeated.

ANT 4941 Holocaust Documentation Internship (3). History and significance of the Holocaust; issues in oral history; interviewing Holocaust survivors; transcribing and archiving interview data.

EVR 4595 South Florida Environmental Conflicts (3). Research on environmental conflicts in South Florida. Theories of environmental conflicts, research design, semi-structured interview and survey methods, group research projects.

GEA 2000 World Regional Geography – *GL* (3). A systematic survey of the major regions and countries of the world, with regard to their physical, cultural, and political characteristics. Emphasis upon climate, natural resources, economic development, and population patterns.

GEA 3212 People, Place, and Environment of North America (G) (3). Geography of the countries of North America with emphasis on physical aspects, human migration and development, population, economic resources and culture.

GEA 3320 People, Place, and Environment of the Caribbean (G) (3). Explores dynamic entanglements between local peoples & environments in Caribbean region; emphasis on situating these w/in wider global social/economic/political/cultural changes, colonial era-present.

GEA 3400 People, Place, and Environment of Latin America (G) (3). Introduction to the physical, cultural, and political geography of Latin America. Emphasis on population patterns and problems of population growth, systems of land use and tenure, economic development, natural resources, and agriculture.

GEA 3500 People, Place, and Environment of Europe (G) (3). Introduction to the physical, cultural, and political geography of Europe emphasizing the evolution of the states and the geographical factors facilitating the integration movement.

GEA 3554 People, Place, and Environment of Russia and Central Eurasia (G) (3). A geographical analysis of the countries of the former Soviet Union. Emphasis on resources, population, union urbanization, and economic development.

GEA 3600 People, Place, and Environment of Africa – *GL* (G) (3). The course explores the key development theories and approaches deployed on the continent over the last 150 year through the lens of resources (water, bodies, land, oil and diamonds, etc.).

GEA 3635 People, Place, and Environment of the Middle East (G) (3). Introduction to the physical, cultural, and political geography of the Middle East. Emphasis on population patterns, natural resources, and economic development.

GEA 3704 People, Place, and Environment of East Asia (3). Provides an overview of East Asia from a critical geographic perspective. Students will explore various historical and contemporary issues on the region with geographic lenses and themes.

GEA 4202 People, Places, and Environments of Borderlands (G) (3). Examines the role of borders in human society. Comparative analysis of specific border zones. In-depth exploration of one borderland: society, culture, economics, and political processes.

GEA 4905 Independent Study (1-6). Directed independent research in regional geography. Requires prior approval by instructor.

GEA 4930 Topics in Geography (G) (3). Varies according to the instructor and semester. May be repeated with departmental permission.

GEO 2000 Introduction to Geography (3). Leading concepts of human and environmental geography. Physical, cultural, economic and political factors in the spatial patterns of natural and human systems.

GEO 3001 Geographies of Global Change – *GL* (G) (3). Explores uneven geographies of development & urbanization, colonial era to present day. Emphasizes interconnected & contested nature of social, environmental, political, economic, & cultural change.

GEO 3110 Research Methods in Geography (3). Introduces students to the relationship between social theory and research in geography. Investigates geography's methods for collecting and analyzing empirical data.

GEO 3421 Cultural Geography (G) (T1, T2) (3). The study of spatial variations among cultural groups and the special functioning of society. Focuses on describing and analyzing geographic differences in language, religion, economy, and government.

GEO 3471 Political Geography (G) (T2) (3). Examines the uneven spatial distribution of power in the world. Emphasis is on the nation-state, sovereignty, territoriality, but also on challenges to hegemonic space, e.g. from social movements.

GEO 3502 Economic Geography – *GL* (G, IPE) (T1,T2) (3). Explores spatial facets of the economy at the international level, including trade, development, manufacturing, and technology.

GEO 3602 Urban Geography (G) (T1) (3). The study of spatial organization within and among urban settlements. Analysis of both the empirical and theoretical aspects of urbanism are covered, with an emphasis on current urban problems.

GEO 4354 Geography of the Global Food System – *GL* (G) (T2,T3) (3). Analyzes the spatial organization of the global food system and its importance to world economic development. Explores food security, trade, and environment.

GEO 4373 Geography of the Global Conservation System (3). Traces origin and growth of global-scale system of conservation areas in context of global political-economic trends and posits system as key force in sociocultural and political life worldwide.

GEO 4391 Marine Geography (3). Examination of the human and physical components of marine geography, including marine processes, coastal development, and the issues of managing marine resources.

GEO 4412 Geography and Gender (3). Examines the connections between space, place and gender across the scales of the body, home, workplace, nation, colony, postcolony and transnational.

GEO 4476 Political Ecology (G) (T1,T3) (3). Principles of human geography and political economy structure analyses and explanation of ecological problems. Emphasizes spatial aspects of society and environment interactions.

GEO 4607 Urban Environmental Geography (3). Ecology, sociology, and geography of metropolitan areas in the context of energy, matter, and sustainability, including the importance of humans in the urban environment. Prerequisite: Upper division standing.

GEO 4905 Independent Study (1-6). Directed independent research in systematic geography. Requires prior approval by instructor. (F,S,SS)

GEO 4940 Internship in Geography (G) (T1,T2,T3) (3). Introduces Geography majors and minors to real-world experience through internship in local, national, and overseas government, NGO, and private sector enterprises. Prerequisites: Declared GSS majors and 3.0 GPA and SYA 3300.

GEO 5415 Topics in Social Geography (G, IP) (3). Topics discussed include geographic aspects of population and ethnicity, with emphasis on sources and analysis of data and pertinent concepts. Prerequisites: GEA 2000 or permission of the instructor. (S)

GEO 5479 Advanced Political Ecology (3). People are often engaged in conflict over nature and the landscapes where they would live, work, and recreate. Seminar illuminates roles of geography, history, and power in these conflicts. Prerequisite: Graduate status.

GEO 5557 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 5906 Directed Individual Studies (3). Supervised readings and/or field research and training.

GIS 2000 Cartography & Mapping in Geography (3). Introduction to the history of cartography and map production. Descriptions of map errors, maps as science and as art. Also more technical map creation with aerial photography and satellite images.

GIS 2040 Introduction to Applied Skills in GIS (3). Introduction to the different GIS skills and software programs such as ArcMap, ESRI certifications, and other open source platforms online. Prerequisite: GIS 2000.

GIS 3048 Applications of Geographic Information Systems (G) (3). Introduction to geographic spatial analysis using a variety of data.

GIS 5038 Remote Sensing (3). Satellite image and aerial photo interpretation and analysis fundamentals.

GIS 5620 Surveillance, Intelligence, and International Relations (3). This seminar focuses on the role of advanced technology in obtaining information via orbital or land-based surveillance systems on issues of international relations such as warfare and globalization. Prerequisites: Graduate standing or permission of the instructor.

GIS 5935 Topics in Geographic Information Systems (3). Geographic concepts are studied in a computer-based mapping environment. Both social and physical data are used. Students receive a background in spatial analysis and basic cartography.

IDS 3214 Our Coastal Environment from the Bay of the World – *GL* (3). Natural science principles applied to the world's coastal and marine environments, with emphasis on human use of and interaction with those environments, using cases from Florida and around the globe.

IDS 3315 Gaining Global Perspectives – *GL* (3). Students learn to socially locate themselves vis-à-vis others and how their perspectives affect perceiving and understanding others. Students acquire and apply new perspectives to see as others do.

ISS 3234 Heavy Metal in Latin America (3). Explores the emergence and current status of heavy metal music in Latin America and examines how the music has reflected the region's social and political context.

SYA 3300 Research Methods (3). Topics include the formulation of research problems; research design; data collection methods; hypothesis testing; and analysis, interpretation, and reporting results. Departmental permission required. (F,S)

SYA 3400 Introduction to Quantitative Social Research (3). Introduction to quantitative methods used in the analysis of sociological data, as well as data in other areas of social research.

SYA 3949 Internship (0-3). Working in an organization for the semester to acquire relevant professional experience related to the major. May be repeated. Prerequisites: Admission to majors with 3.0 GPA, SYA 3300, ANT 3034 or SYA 4010 or SYA 4011 and permission of the department required.

SYA 4010 Sociological Theories (3). Compares/contrasts propositions of key sociological theorists on origins/characteristics/transformations of societies. Explores application of theories for understanding & addressing social problems. (F,S)

SYA 4011 Social Theory (3). Focuses on one or more theoretical perspectives from the standpoint of a particular empirical research issue or set of issues. Topics may vary by instructor and by semester. Prerequisites: Either ANT 2000, GEA 2000, or SYG 2000, or instructor's permission.

SYA 4352 GIS and Social Research (3). Applications of GIS in social research. Includes the relevance of critical perspectives on space, place, and cartography to GIS social research.

SYA 4450 Advanced Research Methods (3). Advanced topics in sociological research are explored. Focus will be on measurement and analysis issues, although topics related to sampling and data collection are also addressed. Prerequisites: SYA 3300 (Research Methods) and SYA 4010 (Sociological Theories).

SYA 4905 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: 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. (S)

SYA 5357 Graduate GIS and Latin American Societies (3). Introduces geographic information systems (GIS) in the context of Latin American socio-spatial and environmental problems and transformations.

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.

SYD 3600 Community and Society (3). Examines approaches to the study of communities, addressing their problems at the levels of cities, regions, and the world.

SYD 3620 Miami: A Sociological Perspective (3). Explores the history, society, cultures, economy, politics, and ecology of transnational Miami.

SYD 3804 Sociology of Gender (3). An examination of women's and men's roles, statuses, and life opportunities in society. Consideration of current theories of gender inequality.

SYD 3811 Feminist Theories of Society (3). Examines traditions of feminist theorizing in sociology.

SYD 4237 Immigration and Refugees (3). Examines causes and consequences of immigration and the forcible displacement of people. Investigates the experiences of immigrants and refugees.

SYD 4410 Urban Sociology (3). Focus on urbanization & cities. Topics may include political power & subordination/socio-spatial inequalities/neighborhoods & communities/local & global economic changes/ecological degradation/policy.

SYD 4412 Cities in Asia (3). Explores social life in cities of Northeast and Southeast Asia, focusing on major subtopics in urban studies including gentrification, inequality, globalization, and social movements.

SYD 4451 Japanese Society in Global Perspective – *GL* (3). This course is an introduction to contemporary Japanese society from a global perspective. We examine Japan's position in global society's, sometimes taking a transnational or comparative approach.

SYD 4604 Globalization & Sustainability in the Developing World (3). Examines environmental sustainability of poor cities in a globalizing world. Methodological analysis of problems and potential solutions. Prerequisites: SYG2000 or ANT2000 or EVR1017 or permission of the instructor.

SYD 4606 World Jewish Communities (3). An overview of Jewish communities throughout the world. Analyze their origins, migrations, demographic and social characteristics. Covers Ashkenazi, Sephardi, and Oriental communities.

SYD 4610 Topics in Sociology (3). Special courses on the social structures and related problems of specific geographical and cultural areas. Topics may vary. May be repeated for credit with change of topics. Can be taken for credit no more than twice with any given instructor.

SYD 4621 Cubans in the U.S. (3). An overview of Cuban migration to the U.S. and the establishment of Cuban communities in this country. Emphasis on the development and dynamics of the enclave in Miami.

SYD 4630 Latin American and Caribbean Societies (3). Exploration of the types of social structures, statuses, and roles, and the resulting distributions of power and authority in the hemisphere.

SYD 4654 Contemporary Chinese Society (3). Addresses changes in, and interrelationships among, contemporary Chinese politics, society, economy, and culture, including their nexus with worldwide transformations.

SYD 4700 Racial and Ethnic Relations (3). Discusses the social construction of racial and ethnic relations. Investigates ideologies, inequalities, identities, conflicts, movements, and change

SYD 4704 Seminar in Racial & Ethnic Relations (3). Explores special topics concerning the social construction of racial and ethnic relations. Prerequisites: SYD 4700 or permission of the instructor.

SYD 4800 Theories of Gender and Society (3). Examines theories of gender in classical and contemporary sociological theory. Prerequisites: SYA 4010 or permission of the instructor.

SYD 4802 Societies and Sexual Minorities (3). Social construction and development of sexual and gender identities in Western societies and cross-culturally. Topics include various contemporary social issues regarding sexuality and minority status.

SYD 4820 Men and Masculinity (3). Examines the social construction of male gender society.

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.

SYD 5607 Advanced World Jewish Communities (3). Overview of Jewish communities throughout the world. Analyzes their origins, migrations, demographic and social characteristics. Covers Ashkenazi, Sephardi, and Oriental communities. Prerequisite: Graduate Standing.

SYD 5656 Global Japan (3). An examination of the dynamics of contemporary social issues in Japan and Japan's role in a globalized society.

SYD 5708 Advanced Race, Gender, Sexuality: Entanglements Across Time and Space (3). Examines the transnational, interrelated history of race and gender from the 16th century to the present.

SYG 2000 Introduction to Sociology – *GL* (3). Introduces sociological perspectives and methods, and the sociological study of issues such as socialization, gender, race/ethnicity, social class, and global inequality.

SYG 2010 Social Problems – *GL* (3). Examines social problems in critical and global perspectives. Considers social problems in terms of global issues such as inequality, poverty, politics, crime/justice, violence, genocide, and war.

SYG 3002 Basic Ideas of Sociology (3). The course introduces the student to the ideas of community, authority, status, alienation, and the sacred, as used in sociological literature.

SYG 3325 Deviance in Society (3). Examines loca/glob cultural patterns in the social construction of deviance & social control. Topics may include deviant identities/sexualities/mental health/disability/crime & justice/cyber-deviance

SYG 4060 Sociology of Sexuality (3). Applies sociological perspectives to sexual attitudes and behavior, examining various world cultures. Topics include premarital and extramarital sex, sexual orientation, and prostitution.

SYO 3120 Families and Social Change (3). Explores the diversity, characteristics, and challenges of families and households as embedded in changing patterns of society, economy, culture, and politics.

SYO 3400 Health & Medicine in Society (3). Presents an overview of the social facets of health/illness, healthcare approaches, and healthcare policies in local and global perspective.

SYO 3401 Health Behavior (3). A sociological investigation of health behavior, with topics including the social construction of health; personal/familial/social/cultural determinants of health behavior; and health care delivery.

SYO 4300 Political Sociology (3). Explores power & conflict in local & global social life. Topics may include: formation of nation states/soc. Movements/soc. Inequalities/colonialism/immigration/humanrights/environmental problems.

SYO 4370 Work and Society (3). Provides an overview of the relationships among labor, economic and social systems, and political economy. Topics include changing patterns of employment and unemployment, social class, industrial and service economies, and processes of globalization.

SYO 4420 Comparative Health Systems (3). Compares and contrasts health care policies, organization, and systems across the globe, utilizing a sociological perspective.

SYO 4530 Social Inequalities (3). Explores origins, patterns, and consequences of multiple inequalities. Topics may include: power/subordination, individual/intersecting inequalities, problems & soc. Movements re: inequalities.

SYP 3000 The Individual in Society (3). Introduction to the study of the individual as a social being, with emphasis on theoretical conceptions of the relationship between the individual and society, and structural and cultural constraints versus individual agency.

SYP 3300 Social Movements and Collective Action (3). An introduction to the study of social movements, with emphasis on their relationship with social inequalities, identities, political and cultural conflict, and state authority as organized at the national, subnational, and transnational levels. Topics may include a comparison of historical and contemporary social movements, local, national and transnational movements; and the relationship between mass media, public attitudes, and social action.

SYP 3456 Societies in the World – *GL* (3). Investigates societies in comparative, historical, & global perspective. Possible topics: social class, gender, race-ethnicity, culture, politics, economy, globalization, migration, & environment.

SYP 3520 Crime & Society (3). Examines social construction of crime & its consequences for society. Considers theory & policy related to crime, law enforcement, & crim. justice in relation to political power & social inequalities.

SYP 3530 Youth, Crime, and Society (3). Explores the social construction of crime among youth, including theoretical and policy perspectives on juvenile crime, police-youth relations, and juvenile justice in social and political context.

SYP 3750 Sociology of Life Course (3). Examines the interplay between the development of human lives and changing social structures across the entire life span.

SYP 4013 The Body in Society (3). Examines the human body as a sociocultural construction that varies across time and space, including the influence of forces such as gender, sexuality, race/ethnicity, social class and age.

SYP 4410 Conflict in Society (3). Examines conflict in society and social relationships. Investigates causes and resolutions, with emphasis on methods of resolution and their influence on social change.

SYP 4454 Globalization and Society (3). Examines the economic, political and social dimensions of globalization and the theories used to describe and account for globalization. Course material may focus on particular world regions and comparisons between or among world regions. Prerequisites: ANT 2000 or SYG 2000.

SYP 4562 Domestic Violence (3). Applies sociological perspectives to the topic of domestic violence. Analyzes cultural roots and social structures that promote and reinforce violence in intimate relationships. Prerequisites: SYG 2000 or ANT 2000.

SYP 4631 Sociology through Film (3). Popular and documentary films as data for the analysis of various sociological problems.

SYP 4730 Aging in Society (3). Examines interplay betw. aging individuals/groups & culture/social structures. Explores major sociological theories of aging in light of current research.

SYP 4740 Sociology of Death (3). An exploration of 'death' as social and structural, as well as personal phenomenon. Examines death & dying through the sociological and other critical social science perspectives.

SYP 5447 Development and Post-Development (3). Examines theories and case studies concerning development and post-development in global perspective.

History

Victor M. Uribe, *Professor and Chairperson*
Saad Abi-Hamad, *Instructor*
Jessica L. Adler, *Assistant Professor*
Tovah Bender, *Senior Instructor and Director of Undergraduate Studies*
Michael J. Bustamante, *Assistant Professor*
Julio Capó, *Associate Professor*
Noble David Cook, *Professor Emeritus*
Alexandra Cornelius, *Senior Instructor and Associate Chairperson*
Gwyn Davies, *Associate Professor*
Rebecca Friedman, *Associate Professor*
Jenna M. Gibbs, *Associate Professor*
M. Sherry Johnson, *Professor*
Hilary J. Jones, *Associate Professor*
Kenneth J. Lipartito, *Professor*
Judith Mansilla, *Instructor*
Amy Bliss Marshall, *Assistant Professor*
Catherine Mas, *Assistant Professor*
Aurora Morcillo, *Professor*
Okezi T. Otovo, *Associate Professor and Director of Graduate Studies*
Joyce Peterson, *Professor Emeritus*
Terrence Peterson, *Assistant Professor*
Bianca C. Premo, *Professor*
Darden Asbury Pyron, *Professor Emeritus*
Howard B. Rock, *Professor Emeritus*
Jeremy David Rowan, *Senior Lecturer*
Dan Royles, *Assistant Professor*
Mark D. Szuchman, *Professor Emeritus*
Elizabeth Terry-Roisin, *Assistant Professor*
Chantalle F. Verna, *Associate Professor*
Kirsten E. Wood, *Associate Professor*

Bachelor of Arts in History

Degree Program Hours: 120

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Upper Division Program: (60)

All Students are required to take:

- HIS 3051 Junior Seminar: Approaches to History
- HIS 4935 Senior Seminar

One course, at the 3000 or 4000 level, in three of the following areas:

- United States
- Latin America
- Africa
- Asia
- Europe
- World or Comparative History

Any five additional History courses (at the 3000 or 4000 level). (15 credits)

12 Electives (at the 3000 or 4000 level) in any Department at FIU, to make up the prescribed number of credits required for graduation. (Ten credits maximum at the 1000 or 2000 level for those entering as juniors or seniors.)

Bachelor of Arts in History with Honors

To earn the B.A. in History with Honors, a student must maintain a 3.5 GPA in History courses. Instead of “any four 3000 or 4000 level History classes” in the category of “additional History classes” as required for the B.A. major, candidates for the B.A. in History with Honors will complete the following Honors Track courses:

HIS 4052	Honors Historical Methods	3
HIS 4973	Honors Thesis in History	3

Students interested in the Honors Track should learn the languages necessary for research in their chosen field(s) as early in their academic careers as possible, and should be prepared to utilize their linguistic skills whenever possible in all their coursework at FIU. Completion of the Honors Track is recognized on student transcripts upon graduation.

Bachelor of Arts in History: Social Studies Education Major

This program prepares students interested in Social Studies and social sciences for teaching at the secondary level. The new degree incorporates current results from education research, effective curriculum materials, use of technology, and a global perspective in collaborative learning. Program requirements include field experiences and internship. Interested students are encouraged to contact the department for additional details and information on teacher support programs.

To qualify for admission to the program, undergraduate candidates must have met all the lower division requirements including: 60 credit hours of lower-division courses, all general education requirements, lower division GPA of 2.5 or higher, and achieve the competencies of the FTCE General Knowledge Exam (GK).

All students must pass the GK Exam by the time they reach 72 credit hours in their program of study. 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.

Lower Division: (6 credits)

(Common Prerequisites as Detailed Under the BA Degree in History)

WOH 2001	World Civilization– *GL*	3
AMH 2020	American History Introductory Survey Since 1877 – *GL/CL*	3
	or	
AMH 2042	Modern American Civilization – *GL*	3

Note: Students may count AMH 2010 or AMH 2041 towards the major, but not both. Students may count AMH 2020 or 2042 towards the major, but not both.

Additional requirements for the degree (6 credits)

GEA 2000	World Regional Geography – *GL*	3
POS 2041	American Government – *CL*	3

Upper Division (3000-4000 level – 30 credits total)

All Students are required to take:

- HIS 3051 Junior Seminar: Approaches to History
- HIS 4935 Senior Seminar
- One course, at the 3000 or 4000 level, in United States History (AMH)

One course, at the 3000 or 4000 level, in two of the following areas:

- Latin America
- Africa
- Asia
- Europe
- World or Comparative History Any five additional History courses (at the 3000 or 4000 level) (15 credits)

And (30 credits)

EDP 3004	Educational Psychology	3
SSE 3346	Social Science Content and Pedagogy	3
SSE 3XXX	Social Science Subject Area Knowledge	3
SSE 4383	Perspectives in Social Science Education	3
SSE 4380	Developing a Global Perspective – *GL*	3
SSE 4384	Special Teaching Lab	3
SSE 4942	Student Teaching	6
RED 4325	Subject Area Reading	3
TSL 4324	TESOL Issues and Strategies for Content Area Teachers – *GL*	3

Combined Bachelor of Arts/Master of Arts in History

This accelerated BA/MA degree program allows our highly qualified undergraduate students the opportunity to pursue a Master's degree in History while they are completing their undergraduate studies. Applicants must meet the admissions criteria for the graduate degree program to which they are applying.

Students who pursue this track must complete all requirements for the undergraduate history major, including the prerequisites and the senior seminar, our capstone course. As part of their joint degree, students also will enroll in three 5000-level courses (9), which will count towards the B.A. and the M.A. After completing all undergraduate credits, including the double counted courses, students will receive the B.A. In the semester following receipt of the B.A., they will take a minimum of three credit hours at the graduate level. In their final year, they will take 18 credit hours at the graduate level, including a two-semester Research Seminar (6 credits), Historical Methods (3 credits), and graduate seminars (9 credits).

Entrance Requirements

1. At the time of application, students must be scheduled to complete a minimum of 75 credits towards their bachelors' degree by the end of the current semester. These credits must include at least 4 upper-division history courses (preferably at FIU). Students generally begin the application process at the beginning of first semester of their 3rd year.
2. Students who satisfy the above requirement may submit an application on a rolling basis, but the admission decision will not be finalized until the current semester's grades are posted.
3. Applicants must have at least a 3.25 upper-division GPA (UG60) and a minimum 3.5 GPA in upper-division FIU history courses. (Upper-division courses not taken at FIU may be considered at the discretion of the Graduate Committee.) These GPA requirements are minimum requirements, and admission is not guaranteed to students who meet those thresholds.
4. Applicants must provide two letters of recommendation from full-time FIU History faculty. (Letters from full-time faculty not at FIU may be considered at the discretion of the Graduate Committee.)
5. Applicants must write a statement of purpose and submit a writing sample that is relevant to the discipline.

The History Department's Graduate Committee will make the final decision regarding admission to the program. Students should consult the graduate catalog, the History Department website, and the Graduate Program Director for a more comprehensive discussion of admission and program requirements.

Credit/Course Requirements

Senior Year

In their senior year, students will complete three History courses at the 5000 level (9 credits) and complete the exit requirement for the undergraduate History major, the Senior Seminar, HIS 4935 (3 credits). Students will be advised to take one graduate class and the senior seminar in the first semester of their senior year, and two graduate classes in the second semester of their senior year.

Students must apply for graduation so that they will receive the B.A. at the end of their senior year.

Fifth Year

During the fifth year, students will complete 18 hours of graduate level work, including the following:

One two-semester; History Graduate Research Seminar (begins in Fall only)	6
Graduate Methods Course, HIS 6059	3

Three Courses at the 5000 or 6000 level, 5000-level courses taken in the fifth year may not be cross-listed with 4000-level courses 9

Students are expected to finish their MA coursework within a year of receiving their B.A.. Students who do not finish with a year may continue in the program at the discretion of the Graduate Program Director.

Minor in History

Five general History courses (at the 3000 or 4000 level) 15 credits.

Teacher Certification

Students with a bachelor's degree in History can apply for temporary teacher certification, allowing them to work while applying for full certification. Students who complete the Education Minor will have fulfilled some of the requirements of full certification. We therefore encourage students to minor in Education while they complete the requirements for our major.

Students interested in the Teacher Certification should contact the College of Education at (305) 348-2721.

Course Descriptions

Definition of Prefixes

AFH-African History; AMH-American History; ASH-Asian History; EUH-European History; HIS-General; LAH-Latin American History; WOH-World History

Courses that meet the University's Global Learning requirement are identified as GL.

AFH 2000 African Civilizations – *GL* (3). Examines key developments of African civilizations.

AFH 4100 History of Africa I – *GL* (3). African history from the origins of humanity to the nineteenth century. Topics include the rise of centralized societies, the Atlantic slave trade, early Christianity and Islam.

AFH 4200 History of Africa II (3). African history from the nineteenth century to the present. Topics include European colonialism, the struggle for independence, and contemporary challenges.

AFH 4254 History of Postcolonial Africa – *GL* (3). To understand Africa's role in the world today by examining the social, cultural, political, and economic forces that have shaped Africa since 1950.

AFH 4450 History of South Africa – *GL* (3). Examines the development of the South African nation in terms of its African and European heritage from the early Khoisan societies through apartheid and Mandela's election.

AFH 4504 Slavery and the Slave Trade in Africa (3). Explores Africa 1500-1800; slavery and slave trade in Africa; Islam and Christianity; abolition, colonial empire, the end of slavery; memories of transatlantic slave trade and contemporary slavery.

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.

AMH 2010 American History, 1607-1850 (3). A survey of American history from the founding of Virginia to the antebellum era. Analysis of colonial America, the American Revolution, the Constitution, and the growth of a new republic.

AMH 2020 American History Introductory Survey Since 1877 – *GL/CL* (3). A survey of American history since 1877 including such topics as industrialization, political reform, experiences in war, social conflict, and changing conceptions of the meaning of democracy.

AMH 2041 Origins of American Civilization – *GL* (3). Examines key developments of the United States, from European Settlement through the early republic.

AMH 2042 Modern American Civilization – *GL* (3). Examines the development of the United States from the early republic to the present. Topics include society, culture, politics and economics. Written work meets the state composition requirement.

AMH 3012 American History, 1600-1763 (3). The American social colonial experience from the earliest settlements at Jamestown and Plymouth to the eve of the American Revolution. Particular emphasis will be placed on religion, social structure, politics, and slavery.

AMH 3141 American History, 1790-1860 (3). An exploration of early national U.S. history, with particular attention to party politics, religious pluralism, sentimental culture, reform movements, and economic development.

AMH 3270 Contemporary U.S. History (3). An examination of the major trends, forces and personalities that have shaped the recent American past.

AMH 3310 Social Movements in Modern United States History – *GL* (3). The course examines social movements including the Civil Rights, Feminist, and Black Power Movements within a broader context of Cold War anticolonial activism.

AMH 3314 Public Health and Medicine in US History – *GL* (3). Explores the central themes and questions pertaining to the history of medicine, public health, and health care in the United States.

AMH 3317 America and the Movies (3). An examination of the social and cultural history of 20th century America through its movies.

AMH 3331 American Intellectual History I (3). This course will trace the origins and development of the main ideas and intellectual themes of Anglo-American history during the colonial and early national period, 1600-1815. It will stress social ideas and popular concepts, and relate them to the formation of dominant American national characteristics.

AMH 3332 American Intellectual History II (3). This course will emphasize the full flowering of individualistic liberalism in 19th Century American thought, and trace the implications of and reaction against this tradition down to the present.

AMH 3341 United States Food History – *GL* (3). History of food production and consumption in the United States from the 19th through the 20th centuries. Uses historical evidence to evaluate contemporary debates about food systems.

AMH 3444 The Great American West (3). The course will explore the meaning of the West for both the settlers and modern Americans. Using song, film, novels, art, etc., the course will examine the lives and values of the Indians, mountain men, farmers, ranchers, and cowboys.

AMH 3484 Miami History (3). A history of Miami and South Florida from the time of the Tequestas and Calusas until today with attention to social, political, economic and cultural development.

AMH 3560 History of Women in the United States (3). The changing dimensions of women's lives from the colonial era of U.S. history to the present. The course will examine the changing economic, social, and political position of women as well as the development of feminist movement and organizations.

AMH 3630 Environmental History of the United States (3). The interaction between humans and the natural world in the U.S. from colonial contact to the present. Includes agriculture, environmentalism, natural resource use, Florida's environmental history.

AMH 3643 Early America in Fact, Film, and Fiction (3). Exploration of key topics in early American history by comparing traditional historical sources and interpretations with those found in historical films and fiction.

AMH 4130 The American Revolution (3). An exploration of the nature of the Revolution from the beginning of the conflict in 1763 through the ratification of the Constitution in 1789. Discussion of the political and economic differences between the colonists and England, along with the meaning the war had to the different classes of Americans.

AMH 4140 Age of Jefferson (3). A survey of Jeffersonian America (1790-1828) with emphasis on the origins of American politics, the emerging American economy, the rise of American nationalism, and Jeffersonian mind.

AMH 4170 Civil War and Reconstruction (3). The rise and sources of militant sectionalism in the United States, the war itself, and the restoration of the nation.

AMH 4230 The Roaring Twenties and the Great Depression (3). A political, economic, social, and intellectual history of the 1920s and the great depression of the 1930s.

AMH 4254 U.S. and World War II (3). Examination of the political and military history of the Second World War with an emphasis on America's role and campaigns.

AMH 4273 America in the 1960s (3). Social, cultural, and political history of the United States during the dynamic 1960s.

AMH 4373 Entrepreneurs in U.S. (3). Focusing on entrepreneurism, course covers American ideals (capitalism, individualism, upward mobility, the free market, independence) in historical context. Examines why these ideals have changed, colonial era to the present.

AMH 4375 Technology and American Society (3). The history and impact of technology and innovation on American society, politics, and culture from the 18th century to the present.

AMH 4421 Florida Under Five Flags: Florida History from Precontact to 1877 (3). Overview of Florida from the fifteenth through nineteenth centuries. Examines the changing economic, social, and political position of the peninsula and provides an understanding of how Florida has been shaped by its geography and colonial experience.

AMH 4500 United States Labor History (3). Transformations in the nature of work, the experience of the working class, and the development of the American labor movement, with special attention to issues of race, region, and gender.

AMH 4540 US Military History from the Colonial Era to the Present (3). Examines the military heritage of the United States from the Colonial Wars until the present, focusing on the operational and strategic levels of warfare.

AMH 4544 The United States and the Vietnam War (3). Emphasizes the cultural differences between the U.S. and Vietnam, and examines why and how the United States got involved in Vietnam and ended up fighting a major war in Southeast Asia.

AMH 4561 Early American Women's History (3). Women in colonial and nineteenth-century America, including some or all of the following; colonialism, Native Americans, witch-craft, migration, slavery, industrialization, Civil War, lynching.

AMH 4562 Modern American Women's History (3). History of women in the U.S. since the Civil War. Topics covered include reconstruction, workforce participation, suffrage, feminist theory, warfare, motherhood, women's liberation.

AMH 4570 African-American History (3). Black society in the United States and its relation to the political, economic, social, and cultural history of America.

AMH 4571 African American History from the 17th to the late 19th Centuries (3). Examines the experience of African Americans from the colonial period to the Reconstruction era. Topics include: slave cultures; development of free black communities; civil war.

AMH 4573 African American History from the Late 19th Century to the Present – *GL* (3). Examines the experience of African Americans from the emergence of Jim Crow to the Black Power Movement. Topics include the Great Migration, Marcus Garvey, the Civil Rights and Black Power Movements.

AMH 4588 Introduction to Latina/o History (3). Latina/o communities in the U.S., 1848-present. Explores relationship between social/racial formation, identity politics, immigration policy, & community mobilization. Miami as "Latinopolis."

AMH 4671 Race, Gender, Science in the Atlantic World – *GL* (3). Examines the ways in which scientists and

physicians in the Atlantic World categorized, defined, and assigned meaning to racial and gendered differences.

AMH 4914 South Florida History: Research (3). A history of South Florida from the Tequestas and Calusas to the present. The main focus is student research using primary sources including manuscript censuses, microfilmed newspapers and archives.

AMH 4930 Topics in U.S. History (3). Selected topics or themes in U.S. history. The themes will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule).

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 professors. 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.

ASH 3223 History of the Middle East 1800-present (3). Examines the major political and social developments in modern Middle Eastern history from 1800 to the present. [4]

ASH 3380 Consumer Culture in Asia – *GL* (3). Covering the development of 20th century East Asian consumer culture through related events, ideas, and legacies of: work; leisure; family life; social relations; media; advertising; and technology.

ASH 3440 History of Japan (3). Survey of the history of Japan from the origins of Japanese civilization in the early centuries BCE to the contemporary era, with an in-depth focus on selected topics such as the transitions from classical to medieval and early modern to modern periods.

ASH 3631 The Pacific War in Asia – *GL* (3). An exploration of the events, ideas and legacies of WWII in Asia; also an examination of the changing conduct of war, the image of the warrior, and issues concerning power, culture and ideology.

ASH 4300 East Asian Civilization and Culture (3). The historical developments of Chinese and Japanese civilizations and cultures from the earliest beginnings and classical period through the middle ages and eighteenth century as well as the modern era.

ASH 4384 History of Women in Asia (3). Examines the history of women in Asia in relation to religious ideologies, philosophies, family roles, work roles, imperialism and nationalism, global feminism, and women's bodies.

ASH 4404 History of China (3). Examines Chinese politics, ideas, economics and society from the 19th Century to the present. Impact of European imperialism, decline and fall of the Qing dynasty, Nationalist and Communist Revolutions, women, modernization, and democracy movement are covered.

ASH 4451 Samurai, Sumo, Shopkeepers and Shogun: A Social and Cultural History of Edo Japan (3). An exploration of the cultures of urban samurai, wealthy merchants, and plebian artisans (of all genders) in Edo, Osaka, and Kyoto, Japan as they evolved over two centuries from 1600 to 1800.

ASH 4453 History of Travel in Japan (3). History of Japan's cultural, social, political and religious history through the examination of travel and travel literature.

ASH 4614 History of Women and Gender in the Modern Middle East (3). Examination of questions of feminism in the modern Middle East in relation to religion, law, colonialism, modernity, nationalism, and citizenship.

ASH 5446 Readings in Japanese History (3). Students read books from different historigraphical traditions and with conflicting interpretations about a subject in Japanese history. Subject will vary according to professor. Repeat with approval. Prerequisite: Graduate standing.

ASH 5905 Readings in Asian History (3). Graduate reading seminar dedicated to issues of gender, identity, and authority in China, Japan, and other regions of Asia.

ASH 5930 Topics in Asian History (3). An examination of topics in Asian history such as gender, modernization, transnational encounters, or the intersection of culture and politics. Comparative approach emphasized.

EUH 2011 Western Civilization: Early European Civilization – *GL* (3). Examines key developments of Early European Civilizations, from the earliest history through the classical period.

EUH 2021 Western Civilization: Medieval to Modern Europe – *GL* (3). Examines key developments of European Civilizations, from the medieval through the early modern periods.

EUH 2030 Western Civilization: Europe in the Modern Era – *GL* (3). Examines key developments of European Civilizations in the modern period.

EUH 3143 War and Politics in the Age of the Reformation – *GL* (3). The political development, military conflicts, and social change caused by the Reformation, 1500-1700.

EUH 3181 Medieval Culture (3). Selected topics in the cultural history of Europe from 500 to 1500: epic and knightly romance; Christian theology and spirituality; scholastic philosophy; Romanesque and Gothic arts; the rise of literature in the vernacular; the culture of the layman; and the contribution of women.

EUH 3193 The Black Death – *GL* (3). Focuses on one epidemic--the Black Death of 1347-1350 in Western Europe--and the way it profoundly affected the lives of all those living in a society. We will consider the nature of the epidemic itself and the short and long term effects in areas such as the economy, religion, medicine, the treatment of minorities, and the arts.

EUH 3205 Nineteenth-Century Europe 1815-1914 (3). This course will deal with the political, diplomatic, economic, social, and cultural history of Europe from 1815 until 1914. Special attention will be given to the Industrial Revolution.

EUH 3245 European History, 1914-1945 (3). Europe in the era of the two World Wars, with special emphasis on communism and fascism.

EUH 3282 European History, 1945 to Present (3). Europe since the Second World War examined in its political, diplomatic, social, economic, and cultural aspects.

EUH 3400 Greek History (3). The origins of the Greek polis in Mycenaean times, its domination of civilization in the first millennium B.C., its transformation under Alexander and his successors. The political history, culture, values, and social dynamics of Greek civilization.

EUH 3411 Ancient Rome (3). The formation of the Roman republic, its rise to domination in the Mediterranean, its transformation into the Roman Empire, and its final disintegration. The political history, culture, values, social dynamics, and enduring force of the Roman civilization.

EUH 3511 Tudor and Stuart England (3). An examination of the fascinating historical figures and momentous changes in the monarchy and church during this period; explores beyond the court to the experiences of the vast majority of English people who were part of neither of these institutions but whose lives were intertwined with both.

EUH 3570 Russian History (3). An overview of Russian History from the time of tribal Slavs until today. The course will focus especially on the changing conditions of the Russian peasantry and on the unique development of the Russian state.

EUH 3576 The Russian Revolution and the Soviet Union (3). This course deals with Russia since 1917 and focuses particularly on the theory and practice of communism in the Soviet Union. The impact of communism on the lives of the people, whether in politics, economics, or culture, will be examined.

EUH 3611 European Cultural and Intellectual History (3). This course will examine the development of the key ideas in European political and social theory, in conceptions of the natural world and of the individual which have come to dominate European culture in the last four hundred years.

EUH 4025 Saints, Relics and Miracles in Medieval Europe (3). Synthetic view of medieval Europe through the lens of saints veneration. Topics include saints as patrons, miracles and magic, pilgrimage, bureaucratic canonization, gender and mysticism.

EUH 4033 Nazism and the Holocaust (3). The history of the Third Reich and the Holocaust. The development of the German State and the emancipation of the Jews; the rise of racial antisemitism; Hitler and the emergence of Nazism as a political force; the 'Final Solution' and European and American responses.

EUH 4185 Viking History and Society – *GL* (3). The political, cultural, economic, and religious development of Viking society, 600-1300 C.E.

EUH 4286 Topics in European History (3). An examination of selected topics or themes in early modern and modern European history. The themes will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule).

EUH 4312 History of Spain (3). A survey of Spanish history from the Reconquista through the Civil War, with particular emphasis on the Golden Age.

EUH 4315 History of Modern Spain (3). Examines social and political history of Modern Spain from 1808 to transition to democracy in post-Franco era. Reading knowledge of Spanish required. Taught in English and Spanish.

EUH 4384 The Premodern Mediterranean – *GL* (3). Explore the history of geographic region including three continents and numerous different cultures and religions, a preeminent site for exchange before the transatlantic or global exchange.

EUH 4408 The Age of Alexander The Great, 400-280 BC (3). Covers the life and times of Alexander the Great, 356-323 BC. Includes an analysis of the generations immediately before and after Alexander, to place him in context. Extensive use is made of limited primary sources for Alexander's era.

EUH 4414 Roman Provinces (3). Assessing the impact of the Roman Empire on its indigenous inhabitants, the transformation processes employed to create a homogenized Roman identity and the degree to which assimilation proved effective.

EUH 4434 Italy During the Renaissance – *GL* (3). Examine the era of the Italian Renaissance, 1300 to 1500. Topics include the culture, politics, religion, and economy; intellectual and artistic movements; the Renaissance in historical understanding.

EUH 4451 History of Modern France, 1815-1968 (3). Survey of French history form the restoration through the student revolt of May 1968, with attention to questions of change and continuity in the French response to modernity.

EUH 4453 The French Revolution and Napoleon (3). A study of French and European history from 1798 to 1815, with an emphasis on the political development of the Revolution, social groups within France, and the rise of Napoleon.

EUH 4462 History of Modern Germany, 1815-1945 (3). A survey of German history from the unification movement through WWII. Topics discussed include Hitler's relation to the German past, liberalism, modernization.

EUH 4501 England to 1688 (3). A survey of ancient, medieval and early modern English history with attention to continental comparisons and contrasts.

EUH 4521 Victorian Britain: Culture, Society and Empire (3). Examines key cultural, political, and social developments in nineteenth-century Britain and its empire while introducing students to landmark scholarship on gender, class, and race in the Victorian era.

EUH 4542 Modern Britain, 1688-Present (3). A political, social, and cultural examination of Britain's rise and fall as a global power. Topics include revolution, urbanization,

industry, class society, empire, world wars, and decolonization.

EUH 4602 The Enlightenment (3). This course deals with the French Enlightenment of the Eighteenth Century, particularly with Voltaire, Diderot, and Rousseau. Impact of the Scientific and English Revolutions on Enlightenment.

EUH 4606 Key Texts in Western Culture from the Reformation to the 20th Century (3). The history of Western Civilization from the Reformation to the present, studied through particularly significant texts.

EUH 4610 Women and Gender in Europe, 1750-Present (3). Examines how women contributed to the development of modern European history. Also explores how ideas about gender and sexuality shaped, and were influenced by, the nature of politics, economics and culture.

EUH 4615 Family, Love, and Marriage in Premodern Europe – *GL* (3). Explore the structure and evolution of intimate personal relationships in Europe pre-1800. Examine these topics in their own right and in relation to changes in politics, religion, and economics.

EUH 4617 Race and Migration in Modern Europe (3). Examines the patterns of human movement within and connected to Europe, and their relationship to changing definitions of race and national belonging.

EUH 4660 Modern Europe, 1789-Present (3). European history from the French Revolution until today, with special attention to liberalism, nationalism, socialism, communism, and fascism. The course will touch on the main points of the national histories of the various European states, from Britain to Russia.

EUH 4675 History of Islam and Muslims in Europe (3). The history of interactions between Muslims and Europe from the Medieval Period to the period of European colonialism and decolonization.

EUH 4953 Czech History and Culture – Study Abroad (3). Covers the major historical forces and movements which have shaped this area of the world, especially in the last 150 years. The course is taught by FIU and Czech faculty. Prerequisite: Permission of the instructor.

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 professors. 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.

HIS 3051 Junior Seminar: Approaches to History (3). Covers methods, theories, and practices used by historians. Topics vary. Required for majors before enrolling in HIS 4935. Prerequisite: History major standing.

HIS 3065 Public History: Theory, Method, and Practice (3). Introduces students to the theory and practice of public history, including interpretation in museums and historical sites, oral history, digital history, and historical memory.

HIS 3151 Archaeological Methods and Perspectives (3). Introduction to the history of archaeology, to archaeological methodology and theory, and to current issues in public archaeology, including cultural resource management.

HIS 3304 Black in Paris – *GL* (3). Examines the experiences of African, African American, and Caribbean intellectuals in France. The course explores the way France functioned as both a haven and a site of anticolonial activism.

HIS 3308 War and Society – *GL* (3). An examination of the ways societies have organized themselves for external and internal wars. The course will also explore the changing conduct of war, the image of the warrior, and the ways in which military institutions have crystallized class structures.

HIS 3314 Women and Gender in Medieval Eurasia (3). Discusses the establishment of patriarchal structures in ancient Mesopotamia, and resistance to those structures in Islamic Central and West Asia, Christian Europe, and Confucian/Buddhist East Asia.

HIS 3330 Great Archaeological Discoveries (3). Survey of important archaeological discoveries around the world and their implications for understanding the last 5,000 years of human history.

HIS 4052 Honors Historical Methods (3). Instruction in research skills, principles and methods of critical historical analysis and historiography. Includes exposure to variety of historical approaches. Prerequisite: Permission of the instructor.

HIS 4091 History Through Things: Objects, Artifacts, Museums – *GL* (3). Explores material culture, art, and design in the modern era. Topics studied include consumerism, modernity, and daily life with emphasis on museum collections

HIS 4154 Archaeological Field Work (3-6). Archaeological field work and hands-on instruction in modern excavation practices. Post-finds analysis in the laboratory. Prerequisite: Permission of the instructor.

HIS 4264 Global Imperial – Indigenous Encounters 1500 to the Present – *GL* (3). This course examines how indigenous peoples and imperial settlers interacted across the globe from the fifteenth century to the present, using both indigenous and imperial sources and perspectives. Prerequisite: At least one upper division history course.

HIS 4281 Biography as History (3). Biography as an approach to history. Life stories as ways of examining different national or regional histories within a particular historical context. May be repeated with a change in content.

HIS 4311 History of Feminist Thought (3). American and European thinking about women's rights and identities from the Enlightenment to the present. Includes

intellectual and cultural approaches as well as movements for women's rights.

HIS 4315 Gendered History of the Body (3). Explores the religious, philosophical, political and social construction of the body from a gender perspective.

HIS 4400 The Formation of Urban Society – *GL* (3). A comparative study of the cultural, social, political and economic development of cities. Topics include: the ancient city, industrialization, immigration, poverty and urban planning.

HIS 4454 The History of Racial Theory in Europe and the United States (3). The literature produced by natural and social scientists on the question of race, the shifting notions of racial identity and difference, superiority and inferiority, and the political and social consequences of these ideas.

HIS 4492 A History of U.S. Health Policy (3). Places contemporary health policy controversies into historical perspective by highlighting some of the major health-related issues that have drawn federal intervention during the past two centuries.

HIS 4908 Independent Study (VAR). Individual conferences, assigned readings and reports on independent investigations, with the consent of the instructor.

HIS 4930 Special Topics (3). An examination of specific themes or topics in history. The theme will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule).

HIS 4935 Senior Seminar (3). A seminar to be taken by all history majors, to provide experience in research, writing, and critical analysis. Prerequisite: HIS 3051.

HIS 4941 Internship in History (0-6). Students enrolled in this internship will gain hands-on experience in archives, libraries, museums, or public history projects. This experience will provide useful preparation for a number of careers or fields of study. May be repeated. Prerequisite: Permission of the department required.

HIS 4973 Honors Thesis in History (3). Research and write an honors thesis under direction of faculty member. Prerequisite: Permission of the instructor.

HIS 5067 Public History Theory and Practice (3). Theory and methods of history in non-academic settings, with practical interactions with professional and institutions such as museums, monuments, archives, parks, and government. Prerequisite: Graduate standing.

HIS 5084 History, Memory and the Public (3). Critical examination of theories and texts on museums, monuments, archives, historical sites, community organizations, and/or oral histories. Specific topical focus to be determined by instructor. 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 5347 History of Social Thought (3). Examines the evolution of major currents in Western social thought from the nineteenth century to the present, emphasizing how these ideas have influenced historians' work.

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.

LAH 2020 Latin American Civilization – *GL* (3). Examines key developments of Latin American civilizations.

LAH 3132 The Formation of Latin America – *GL* (3). An examination of Latin America in the colonial period, focusing on conquest, Indian relations, the landed estate, urban functions, labor, and socioeconomic organization from the 15th through the 18th Centuries.

LAH 3200 Latin America: The National Period – *GL* (3). Trends and major problems of Latin American nations from independence to the present.

LAH 3718 History of U.S.-Latin American Relations (3). Surveys the history of the social, economic and political relations between the U.S. and the countries of Central America, South America, and the Caribbean basin during the last two centuries.

LAH 3740 Comparative History of Latin American Rebellions and Revolutions (3). Identifies the historical forces driving revolutionary change in Latin America. Causes of revolutions, directions of the revolutionary movements, and their political agendas.

LAH 4134 Abuse of Power in Colonial Latin America – *GL* (3). Examines practices understood as abuse of political power in colonial Spanish America.

LAH 4201 History of Modern Colombia: War, Music and the Underground Economy (3). Explores the history of Colombia after the early 19th century Independence Revolution and until the 2016 peace accords. Emphasis will be on culture, politics, and war.

LAH 4433 Modern Mexico (3). An examination of the central themes of nation-building in Mexico from 1810 to the present: race, land, political authority, regionalism, dictatorship, and the Mexican Revolution.

LAH 4471 Colonial Caribbean in Comparative Perspective (3). An overview of the Caribbean region from the fifteenth through the nineteenth centuries. Examines the changing economic, social, and political position of the area and provides an understanding of how the colonies have been shaped by their experiences.

LAH 4482 Cuba: 18th—20th Centuries (3). The socioeconomic and political setting in Cuba since the mid-Eighteenth Century. [4]

LAH 4483 Cuba Since 1959 – *GL* (3). Cuba from the triumph of the Revolution to the present. Examines "the Revolution" as a contested historical process. Focuses on intersection of political conflict, culture, ideas, & human experience.

LAH 4600 History of Brazil – *GL* (3). Portuguese rule and African slavery; crisis of colonialism/transition to independence; coffee, abolition, and the Brazilian Empire; Republican Brazil and the Revolution of 1930; postwar developments.

LAH 4634 Politics of Race and Nation in Brazil – *GL* (3). An examination of the historical importance of race to nation-building in 19th and 20th century Brazil, looking both at ideological constructs as well as political projects and social experiences.

LAH 4721 History of Women in Latin America – *GL* (3). Examines women's roles in indigenous societies, in the colonial period, during independence, and in the 19th century. Also explores women and slavery, populism and popular culture, and the rise of the feminist movement.

LAH 4722 Health, Medicine, and Disease in Latin American Social History – *GL* (3). Examines social/cultural history of medicine to illustrate larger trends, power relations/inequalities, and intersections of state and society. Themes include: citizenship, internationalization, gender, race, and ethnicity.

LAH 4731 Latin American Environmental History (3). Examines how environmental factors have shaped historical processes in Latin America from the 15th through the 20th centuries.

LAH 4734 Latin American History Through Film – *GL* (3). Introduces students to central events in the history of colonial and modern Latin America through the use of films. Looks at central historical figures and focuses on critical issues of the period.

LAH 4737 Music, Modernity and Identity in Latin American History – *GL* (3). Cultural and intellectual history of 19th/20th century Latin America with focus on nation-building, identity and race. Music is a central pedagogical tool in readings, lectures and discussions.

LAH 4750 Law and Society in Latin American History (3). Social history of law and legal struggles by colonial Indians, black slaves, peasants, women and contemporary "colonos" (settlers). Its emphasis is on the prevalence of legal confrontations throughout Latin American history.

LAH 4932 Topics in Latin American History (3). Selected topics or themes in Latin American history. The themes will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule).

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 professors. 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.

WOH 2001 World Civilization – *GL* (3). Examines key developments of major world civilizations in a comparative perspective.

WOH 2022 World History since 1500 (3). The historical development of world civilizations since 1500 including historical processes and developments in social, cultural, political, and economic contexts.

WOH 3244 World War II: A Global History – *GL* (3). Examines the origins, experiences, and legacies of the Second World War as a global phenomenon. It also examines the relationship between popular and historical accounts of the war.

WOH 3266 History of the British Empire – *GL* (3). Examines the entire history of the British Empire, and explores classical theories on the motivations and goals behind imperial expansion.

WOH 3281 Jewish History to 1750 (3). Jewish history from the First Exile in 586 BCE to 1750. The development of Jewish institutions in exile and as a nation, the development of the Talmud and the medieval experience.

WOH 3282 Modern Jewish History (3). A survey of the major currents in modern Jewish History. The reaction to the Enlightenment, the American experience, the growth of the Eastern European Shtetl, the Holocaust and the birth of the State of Israel.

WOH 4206 Global History of Domestic Violence – *GL* (3). Explores violence against intimate partners from late Roman antiquity until the present, looking at Europe, Africa, Latin America, and the United States.

WOH 4223 History of the Global Economy (3). Global economy 1500-present. Industrialization, trade, finance, and labor in Europe, US, Asia, Latin America. Comparative economic systems.

WOH 4230 The African Diaspora and the Atlantic Slave Trade (3). Topics include slavery in Africa and the Diaspora, as well as Diasporic religion, kinship, gender, sexuality, language, resistance and creolization.

WOH 4301 The Modern African Diaspora (3). Topics include slave resistance, Black Nationalism, socialism, anti-colonialism, gender, religion, art and literature, race and medicine, and afrocentrism.

WOH 5236 The Transatlantic Slave Trade and the Making of African Diaspora, 1441-1807 (3). Topics include slavery and economy in Africa and the Diaspora,

as well as Diasporic religion, kinship, gender, sexuality, language, oral tradition, resistance, and creolization.

WOH 5237 The African Diaspora Since the End of the Slave Trade (3). Primary emphasis on history of social and intellectual movements. Topics include slave resistance, black nationalism, socialism, anti-colonialism, gender, art and literature, and afrocentrism.

WOH 5935 Topics in World History (3). An examination of specific themes in World History. Topics will vary with a change in theme, the course may be repeated. Prerequisites: Permission of the instructor or graduate standing.

Kimberly Green Latin American and Caribbean Studies

Frank O. Mora, *LACC, Director*
Liesl Picard, *Associate Director*
Joseph Holbrook, *Academic Programs Director*
José Miguel Cruz, *Research Director*

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Joseph Holbrook, *Director of Academic Programs, Kimberly Green Latin American and Caribbean Center*
Ronaldo Parente, *Associate Professor, College of Business*

Bachelor of Arts in Latin American and Caribbean Studies

Degree Program Hours: 120

Lower Division Preparation

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
None	None[1]

[1]All Florida College System students are encouraged to take several religion courses with the REL prefix. All are encouraged to complete the Associate in Arts degree.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Required Courses

Language Requirements: (6 credits)

1. Two semesters in Spanish, Portuguese, Haitian Creole, or French
2. Lower division (1000/2000) courses do not count towards the B.A. language requirements.
3. Two upper division language courses (3000/4000). Students must achieve intermediate proficiency in Spanish, Portuguese, Haitian Creole, or French. To meet prerequisites of these upper division courses, students may successfully test out of these lower division courses.
4. Students who test out of language courses must still take two 3000/4000 language courses.

Required Core Courses: (6 credits)

LAS 3002	Introduction to Latin American and Caribbean Studies – *GL*	3
LAS 4294	Contemporary Latin America and the Caribbean	3

Required Distribution: (24 credits)

1. International Political Economy of Latin America and the Caribbean (9 credits)
2. Latin American and Caribbean Cultures (9 credits)
3. Main Concentration (6 credits with the same related prefixes)
   - o Language and Culture
   - o Governance and Security
   - o Migration and Transient Communities
   - o Students may request either independent studies or two courses on different topics than the three above.

Course Descriptions

Definitions of Prefixes

FLAC – Foreign Language Across Curriculums; LAS – Latin American and Caribbean Studies.
F – Fall semester offering; S – Spring semester offering; SS – Summer semester offering.

LAS 3002 Introduction to Latin American and Caribbean Studies – *GL* (3). Interdisciplinary study of Latin America and the Caribbean, its key regions, historical periods, and concepts. Will alternately be taught in Spanish.

LAS 3321 Brazilian Popular Music in Cultural, Historical, and Political Context (3). Considers the popular music of Brazil in the context of Brazilian culture and politics with a survey of genres including choro, samba, MPB, and many others.

LAS 4294 Contemporary Latin America and the Caribbean (3). Capstone course in Latin American and Caribbean Studies. A multidisciplinary survey of influential scholarship and contemporary debates on key issues in Latin America and the Caribbean. Prerequisites: LAS 3002 or permission of the instructor.

LAS 4900 Independent Study (1-3). Supervised readings or field research and training. Prerequisite: Permission of the instructor

LAS 4940 Internship in Latin American and Caribbean Studies (1-6). Supervised internship related to the study of Latin America and the Caribbean. Prerequisite: Permission of the instructor.

LAS 4950 Ritual, Religion and Shamanism in the Andes: Study Abroad in Ecuador (3). This intensive study abroad program in Ecuador focuses on the indigenous religion and shamanism in the Andes as it intersects with the discipline of art, music, dance, history, and the environment. Prerequisite: Undergraduate standing.

LAS 5120 Ecuador Abroad: Andean Shamanism, Religion, and Ritual (3). Offered in conjunction with the study abroad program in Ecuador and focuses on the indigenous spirituality and religion on the Andes. Field experience includes community service, lectures, workshops. Prerequisite: Graduate standing.

LAS 5301 Culture and Society in the Rio de la Plata (3). Argentinean and Uruguayan societies through an interdisciplinary approach and a series of relevant texts. Prerequisite: Permission of the instructor.

LAS 5907 Independent Study (1-3). Supervised readings or field research and training. Prerequisite: Permission of the instructor. (F,S,SS)

LAS 5920 Teaching Latin American Studies (1). Fundamentals in the teaching of Latin American Studies. Relevance and effectiveness of various methods and strategies, as well as pedagogy-related exercises. Prerequisite: Graduate standing. (F)

LAS 5933 Graduate Seminar in Latin American Studies (3). Exposes graduate students to interdisciplinary issues for students pursuing the MA in Latin American and Caribbean Studies. May be repeated up to 3 times with change of topic. Prerequisite: Graduate Standing. (F,S,SS)

LAS 5955 Haiti Study Abroad (3). Study abroad examination of Haitian Politics and Society. Part of Haitian Summer Institute. Prerequisite: Graduate standing.

Modern Languages

Pascale S. Bécel, *Associate Professor and Chairperson*
Nicolas André, *Senior Instructor*
Melissa L. Baralt, *Associate Professor*
Jean-Robert J. Cadely, *Associate Professor*
Erik Camayd-Freixas, *Professor*
Ricardo E. Castells, *Professor*
James O. Crosby, *Professor Emeritus*
Andrea Fanta Castro, *Associate Professor*
Marisa Filgueras, *Assistant Professor*
Maria Antonieta Garcia, *University Instructor*
Myriam Garcia, *University Instructor*
Nicola Gavioli, *Visiting Assistant Professor*
Maria Asuncion Gomez, *Professor*
Yvonne Guers-Villate, *Professor Emerita*
Marie Guiribitey, *Senior Lecturer*
Santiago Juan-Navarro, *Professor*
Naoko Komura, *Senior Instructor*
Maria Krol, *Senior Instructor*
Li Ma, *Senior Instructor*
Peter A. Machonis, *Professor*
Asuka Mashav, *University Instructor*
Jose Morcillo-Gomez, *Instructor*
Magda Novelli Pearson, *University Instructor*
Ana Roca, *Professor Emerita*
Renee M. Silverman, *Associate Professor*
Juan Torres-Pou, *Professor*
Augusta Maria S. Vono, *University Instructor*
Shenggao Wang, *Senior Instructor*
Maida Watson-Espener, *Professor*

Bachelor of Arts

Degree Program Hours: 120

Lower Division Preparation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
FRE 1130	XXXXXXX[1]
FRE 1131	
FRE 2200	

[1]Must demonstrate proficiency by testing or completion of a foreign language through the intermediate level. The intermediate level is FREX220 or equivalent.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, See Common Prerequisite Manual.

Common Prerequisites

French and Francophone Studies

FRE 1130	French I
FRE 1131	French II
FRE 2200	Intermediate French

Required for the Major:

FRE 2241	Intermediate French Conversation

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
POR 1130	XXXXXXX[1]
POR 1131	
POR 2200	

[1]Must demonstrate proficiency by testing or completion of a foreign language through the intermediate level. The intermediate level is PORX220 or equivalent.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

Portuguese

POR 1130	Portuguese I
POR 1131	Portuguese II
POR 2200	Intermediate Portuguese

Required for the Major:

POR 3400	Advanced Oral Communication

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
SPN 1130	XXXXXXX[1]
SPN 1131	
SPN 2200	

[1]Must demonstrate proficiency in the language by testing or completion of the intermediate level. The intermediate level is SPNX220 or equivalent.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, See Common Prerequisite Manual.

Common Prerequisites

Spanish

SPN 1130	Spanish I
SPN 1131	Spanish II
SPN 2200	Intermediate Spanish

Required for the Major:

SPN 2201	Intermediate Spanish II – *GL*
	or
SPN 2341	Intermediate Spanish II for Heritage Speakers

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with

students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Upper Division Program: (60)

Required Courses

Foreign Language	33 semester hours
Electives	27 semester hours

Students in the Teacher Preparation Program carry two majors: Modern Language and Modern Language Education and must request admission to both programs. (Students interested in teacher certification should contact the College of Arts, Sciences and Education at (305) 348-2082.)

Requirements for all Modern Language Majors

All majors must have a designated faculty advisor, and all are required to take 33 semester hours in the Department of Modern Languages, with a grade of 'C' or higher.

Requirements for Spanish Majors

To undertake a major in Spanish, a student must demonstrate a proficiency in the language at the intermediate level. This may be done by an examination administered by the Department, or by completing SPN 2201 – *GL* (non-heritage learners) or SPN 2341 (heritage learners).

Required credits for a Major in Spanish: (30)

(12 credits of Core Courses and 18 credits of electives)

Core Courses: (12 credits)

SPN 3301	Advanced Spanish for Non-Heritage Speakers	3
	or	
SPN 3343	Advanced Spanish for Heritage Speakers – *GL*	3
SPN 3422	Advanced Grammar and Composition I	3
SPW 3130	Spanish American Literature	3
SPW 3820	Peninsular Spanish Literature	3

(Students who have advanced proficiency in Spanish may replace the six language credits with electives in Spanish at the 3000 or 4000 level with the written permission of their advisors).

Elective Courses: (18 credits)

A total of 18 credits from any of the following areas:
SPW literature/cinema and SPN culture/cinema
Upper division Spanish linguistics
Upper division Spanish translation and interpretation
Culture-based advanced conversation (SPN3401/3410)
Upper division Spanish language

Combined BA/MA in Spanish

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

Admission Requirements

- Current enrollment in the BA in Spanish at FIU.
- Current GPA must be 3.5 or higher.
- Completed at least 90 credits of course work.
- Two letters of recommendation.
- A writing sample consisting of a research paper in Spanish of analytical nature – preferably a term paper or thesis – on a literary subject.
- A resume.
- A statement of purpose, addressing the candidate's goal and objectives in pursuing a master's degree in Spanish.
- Approval of the Spanish Graduate Committee.

Completion Requirements

Required Courses for the BA (33 credits)

SPN 3301	Advanced Spanish for Non-Heritage Speakers *	3
	or	
SPN 3343	Advanced Spanish for Heritage Speakers * – *GL*	3
SPN 3422	Advanced Grammar and Composition*	3
SPW 3820	Peninsular Spanish Literature	3
SPW 3130	Spanish American Literature	3
SPN 3733	Introduction to Spanish Linguistics (or equivalent)	3
One additional course in Spanish Linguistics		3
One additional course in Spanish		3
or		
Spanish American Literature		3

*(Students who have advanced proficiency in Spanish may replace the six language credits with electives in Spanish at the 3000 or 4000 level with the written permission of their advisors).

Electives

Twelve credits of electives

Overlap

Nine credits will be taken at the 5000 or 6000 level and may be used to satisfy both the Bachelor's and Master's degree requirements.

Required Courses for the MA (33 credits)

SPW 5806	Methods of Literary Research	3
FOL 5943	Foreign Language Teaching Methodology	3
One course in either Medieval Spanish Literature		3
or		
Literature of the Golden Age		3
One course in Peninsular Spanish Literature of the 19th or the 20th centuries		3

Two courses in Spanish American Literature		6

Electives

Six graduate credits of electives, as follows: 3 in Spanish or Spanish American Literature, and 3 from one or more of the following areas: Spanish or Spanish American Literature, Linguistics, Translation/Interpretation, or Spanish American Culture.

Comprehensive Exams

The comprehensive examinations should be taken the semester immediately following the completion of all course work.

Requirements for French and Francophone Studies Majors: (33)

Core Courses: (12 credits)

FRE 3420	Review Grammar/Writing I	3
FRE 3421	Review Grammar Writing II	3
FRE 3780	French Phonetics	3
FRW 3101	Introduction to Francophone Literature and Cultural Studies	3

Breath Courses/Francophone Cultural Studies: (12 credits)

All FRW Literature courses

FRE 3500	History of French Society	3
FRE 3504	Language and Culture	3
FRE 4501	Contemporary French Society	3
FRE 4391	French Cinema	3
FRE 4390	French and Francophone Cinema – *GL*	3
HAI 3500	Haiti: Language and Culture	3
FRE 4503	La Francophonie – *GL*	3

Linguistics: (3 credits)

FRE 4503	La Francophonie – *GL*	3
FRE 4791	French Phonology	3
FRE 4800	French Morphology	3
FRE 4840	History of the Language I	3
FRE 4841	History of the Language II	3
FRE 4850	Structure of Modern French	3

Electives: (6 credits)

FRE and FRW courses, including:

FRE 3410	Advanced French Conversation (non-native or near-native speakers)	3
FRE 3413	Communication Arts	3
FRE 3504	Language and Culture	3
FRE 4422	Review Grammar/ Writing III	3

Courses outside the Department with permission of the Director of French and Francophone Studies:

AFH 4342	History of West Africa	3
ASH 3223	History of the Middle East 1800-present	3
EUH 4451	History of Modern France, 1815-1968	3
ARH 4413	Enlightenment and Romanticism	3
ARH 4414	19th-Century European Art	3
ARH 4433	Realism, Impressionism, and Post-Impressionism	3

General Policies

1) Native and near-native French speakers will not be allowed to take FRE 3410 nor FRE 3413.
2) Students will be allowed a maximum of two courses taught in English for required and elective courses towards the degree, including courses taught within Modern Languages and those outside of Modern Languages.
3) FRW 3XXX is a prerequisite for all FRW courses.

Requirements for Portuguese Majors

In order to pursue the Major in Portuguese, students must have a basic command of written and spoken Portuguese, corresponding to our POR 1130-1131 or POR 3202-3233 series (or equivalent), and POR 2200 (or equivalent).

Instructors may waive the prerequisite of POR 2200 for students who demonstrate a satisfactory written and oral intermediate proficiency in Portuguese by testing.

Requirements for Portuguese Majors: (33)

Out of 33 credits, a minimum of 27 credits must be selected from a list of Portuguese core courses including, but not limited to the following:

POR 3400	Advanced Oral Communication
POR 3420	Review Grammar/Writing I
POR 3421	Review Grammar/Writing II
POR 3440	Portuguese for Business
POR 3500	Luso-Brazilian Culture – *GL*
POR 3930	Special Topics in Language Linguistics
POR 4480	Twentieth Century Brazilian Novel
POW 3284	Brazilian Short Story
POW 4390	Brazilian Cinema
POW 4701	Masterworks of Brazilian Literature
POW 4930	Special Topics

Out of the 33 credits, 6 credits may be upper-division courses in second language acquisition, linguistics, culture or transition. Courses focusing on Brazil, Portugal or Lusophone Africa offered by other departments may also count. It is of fundamental importance to discuss your choices with the Portuguese advisors.

Requirements for Other Language Majors

Requirements for Other Language Majors A major in a language other than Spanish or French may take only 21 credits in the major target language, but completion of at least two semesters of a second foreign language is recommended. There is no fixed sequence of courses required, and a student may enroll in any course offered for majors, provided he or she meets the course prerequisites.

Combined BA/MA in Linguistics

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified

by the program catalog, may be applied toward both degrees.

Admission Requirements

- Enrollment in undergraduate program in English, Spanish, French, or Portuguese at FIU.
- Must have completed 75-90 credits.
- Must have completed LIN 3013/LIN 3010 General Linguistics, LIN 4680 Modern English Grammar, FRE 3780 French Phonetics, or SPN 3733 General Linguistics with a grade of "A".
- Current GPA of 3.2 or higher.
- Two letters of faculty recommendation.
- A 2-4 page statement of purpose, explaining academic plans and goals.

Recommended Graduate Courses to Undergraduates
The following graduate courses are recommended to BA students. In order to complete their degree requirements, students may double-count up to 12 graduate credits of coursework toward the Bachelor's and M.A. degrees:

A. English

LIN 5018	Introduction to Linguistics*
LIN 5107	History of the English Language
LIN 5108	Language Universals**
LIN 5206	Phonetics***
LIN 5501	English Syntax**
LIN 5574	Languages of the World**
LIN 6510	Syntax I***
LIN 5715	Language Acquisition
LIN 6602	Language Contact
LIN 5601	Sociolinguistics
LIN 5825	Pragmatics
LIN 5934	Special Topics in Linguistics

B. Spanish

LIN 5018	Introduction to Linguistics*
SPN 5705	The Structure of Spanish
SPN 5845	History of the Language
LIN 5604	Spanish in the United States
SPN 5736	Spanish as a Heritage Language: Acquisition and Development
LIN 5603	Language Planning: Linguistic Minority Issues
LIN 5601	Sociolinguistics
LIN 5720	Second Language Acquisition
LIN 5825	Pragmatics
LIN 5934	Special Topics in Linguistics

C. French

LIN 5018	Introduction to Linguistics*
FRE 5855	Structure of Modern French
FRE 5845	History of Language I
FRE 5846	History of Language II
FRE 5508	La Francophonie
FRE 5735	Special Topics in Linguistics
HAI 5235	Haitian Creole Seminar
LIN 5601	Sociolinguistics
LIN 5825	Pragmatics
LIN 5720	Second Language Acquisition
LIN 5934	Special Topics in Linguistics

D. Portuguese

LIN 5018	Introduction to Linguistics*
LIN 5601	Sociolinguistics
LIN 5825	Pragmatics
LIN 5720	Second Language Acquisition
LIN 5934	Special Topics in Linguistics

*MA core requirement – prerequisite to all other course requirements
**Fulfills the 'structure course' requirement of MA
***Fulfills one of the core requirement of MA

M.A. Degree Requirements

1.Course Work (36 graduate credit hours)
Core Required Courses: (a minimum of "B" is required in core courses)

LIN 5018	Introduction to Linguistics	3
LIN 5206	Phonetics	3
LIN 6085	Research Methods in Experimental Linguistics	3
LIN 6323	Phonology	3
LIN 6510	Syntax I	3
LIN 6805	Semantics	3

One course about the structure of a non-Indo-European Language:

LIN 5108	Language Universals	3
	or	
LIN 5574	Languages of the World	3
	or	
LIN 6572	Structure of a Non-Indo-European Language	3

Electives: 5 LIN prefixed graduate courses (or 6, if LIN 5018 has been waived)
2. Master's Research Project
3. Awarding of Degrees

- The BA will be awarded as soon as all BA requirements of the designated undergraduate program are completed.
- The MA will be awarded after all MA requirements of the Linguistics Program and the BA requirements are completed.

Minor in French Language and Culture

A student majoring in another discipline may earn an academic minor in French Language and Culture by taking:

- 12 semester hours of course work in French language FRE 3410, FRE 3420/3421, FRE 3780;
- three semester hours in French Civilization and Culture FRE 3500 or FRE 4501;
- three semester hours of restricted electives courses in French linguistics, French Translation Skills or French Literature I.

Minor in Portuguese

A student majoring in another discipline may earn an academic Minor in Portuguese. Prerequisite: a basic command of written and spoken Portuguese corresponding to our POR 1130-1131-2200 or POR 3202-3233 series (or equivalent) and POR 2200 (or equivalent).

Instructors may waive the prerequisite of POR 2200 for students who demonstrate a satisfactory written and oral intermediate proficiency in Portuguese by testing.

Requirements for Portuguese Minor: (18)

Out of the 18 credits, 15 credits must be selected from a list of Portuguese core courses including, but not limited to the following:

POR 3400	Advanced Oral Communication
POR 3420	Review Grammar/Writing I
POR 3421	Review Grammar/Writing II
POR 3440	Portuguese for Business
POR 3500	Luso-Brazilian Culture – *GL*
POR 3930	Special Topics in Language Linguistics
POR 4480	Twentieth Century Brazilian Novel
POW 3284	Brazilian Short Story
POW 4390	Brazilian Cinema
POW 4701	Masterworks of Brazilian Literature
POW 4930	Special Topics

Out of the 18 credits, 3 credits may be upper-division courses in second language acquisition, linguistics, culture or transition. Courses focusing on Brazil, Portugal or Lusophone Africa offered by other departments may also count. It is of fundamental importance to discuss your choices with the Portuguese advisors.

Minor in General Translation Studies

In order to obtain an academic minor in General Translation Studies*, a* student takes 12 semester hours in translation/interpretation courses (FOT, FRT, or SPT prefix), with grades of B or better, and nine additional hours in courses of immediate relevance to the program, to be approved by the Director of the program. Normally these will be selected from among offerings in Political Science, Economics, International Relations, Sociology, Anthropology, Computer Science or Modern Languages. At least two of them should be taken outside of Modern Languages. Courses in basic and intermediate instruction shall not be counted for the minor.

Minor in Spanish Language and Culture

Required Credits for Minor

15 credits required for minor: 6 credits of Core Courses, 3 credits of culture and film, and 6 credits of electives.

Two Core Courses (6 credits):

1.	SPN 2201	Intermediate Spanish II – *GL*
	SPN 3301	Advanced Spanish for Non-Heritage Speakers
		or
2.	SPN 2340	Intermediate Spanish for Heritage Speakers – *GL*
	SPN 3343	Advanced Spanish for Heritage Speakers – *GL* (heritage learners)
3.	SPN 3343	Advanced Spanish for Heritage
4.		Speakers – *GL*
	SPN 3422	Advanced Grammar and Composition I (advanced heritage learners)

One course on Hispanic culture or film (3 credits):

SPN 4500	Spanish Culture – *GL*
SPN 4520	Latin American Culture – *GL*
SPN 4521	Topics on Latin American Culture
SPN 4xxx	Spanish Art and Culture (FIU in Spain Program)
SPW 3392	Cuban Culture Through Cinema
SPW 4397	Tradition and Modernity in Latin American Cinema – *GL*
SPW 4391	Contemporary Spanish Cinema

Two Elective Courses (6 credits):

SPN 3401	Advanced Conversation
SPN 3410	Advanced Oral Communication
SPN 3440	Spanish Business Composition/Correspondence
SPN 3422	Advanced Grammar and Composition I
SPN 3423	Advanced Grammar and Composition II
SPN 3733	Introduction to Spanish Linguistics
SPN 3702	Applied Linguistics
SPN 4840	History of the Language
SPW 3130	Spanish American Literature
SPW 3820	Peninsular Spanish Literature
SPT 3800	Foundations to Translation Skills
SPT 3812	Foundations of Interpreting
SPT 4803	Practica in Legal Translation

Minor in Italian Language and Culture

A student majoring in another discipline may earn an academic minor in Italian Language and Culture. ITA 1130 and ITA 1131 (Beginning Italian I and II) are prerequisites. The minor consists of 18 credits of courses in Italian.

Required Courses

ITA 2200	Intermediate Italian	3
ITA 2240	Italian Intermediate Conversation	3
ITA 3420	Review Grammar/Writing I	3
ITA 3421	Review Grammar/Writing II	3
ITA 3410	Advanced Italian Conversation	3

And one of the following courses (3 credits):

ITA 3500	Italian Culture and Society – *GL*	3
ITA 4930	Special Topics	3

Minor in Japanese Language and Literature

A student majoring in another discipline may earn an academic minor in Japanese Language and Literature. JPN 1130 (Japanese I), JPN 1131 (Japanese II), JPN 2200 (Intermediate Japanese I), and JPN 2201 (Intermediate Japanese II) are prerequisites. The minor consists of 18 credits of Japanese courses at the advanced level.

Required Courses (15 credits)

JPN 3242	Intermediate Japanese Conversation	3
JPN 3243	Advanced Japanese Composition	3
JPN 3400	Advanced Japanese I	3
JPN 3401	Advanced Japanese II	3
JPT 3521	Japanese Literature and Cinema	3

Elective Courses (Select 1 course: 3 credits)

JPN 3412	Advanced Japanese Conversation	3
JPN 4930	Special Topics in Japanese	3
JPW 4130	Reading Japanese Literature	3
JPW 4131	Reading Japanese Non-Fiction	3

Other courses may be accepted with the approval of the Japanese Program Coordinator.

Basic Language Instruction

The department offers three-semester sequences of instruction in beginning and intermediate Arabic, Chinese, French, German, Hebrew, Italian, Japanese, Portuguese, Spanish, Russian, and beginning instruction in other languages.

The courses in basic language instruction are designed primarily for persons wishing to acquire conversational ability in a foreign language; but they provide training in all four language skills listening, speaking, reading, and writing. Students are advised to consult the Departmental course listing for specific sections.

Course Descriptions

Definition of Prefixes

ABT-Arabic Culture; ARA-Arabic Language; ASL-American Sign Language; CAT-Catalan Language; CHI-Chinese Language; CHT-Chinese Culture in Translation or Translation Skills; FIL-Film; 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; GET-German Translation; HAI-Haitian Creole Language; HBR-Hebrew; ITA-Italian Language; ITT-Italian Translation; JPN-Japanese Language; JPT-Japanese Culture in Translation of Translation Skills; JPW-Japanese Literature (Writings); KOR-Korean Language; LIN-Linguistics; POR-Portuguese Language; POT-Political Theory; POW-Portuguese Literature (Writings); PRT-Portuguese Translation; PSN-Persian Language; RUS-Russian Language; SPN-Spanish Language; SPT-Spanish Translation; SPW-Spanish Literature (Writings); SWA-Swahili Language; TUR-Turkish Language; WOL-Wolof Language; YOR-Yoruba Language.
(See English listing for additional Linguistics courses.)
Courses that meet the University's Global Learning requirement are identified as GL.

ABT 3502 Arab Literatures and Cultures in Global Perspective – *GL* (3). Global learning foundational course introduces students to literatures, movies, creative arts, media produced in the Arabic speaking world and in the Arab Diaspora (South America-US-Europe).

ABT 3503 Arabic Language and Culture (3). Provides a general understanding of Arabic language and culture. Special emphasis on the language, the script, and the sounds of the language.

ARA 1130 Arabic I (5). Provides training in the acquisition and application of basic language skills.

ARA 1131 Arabic II (5). Provides training in the acquisition and application of basic language skills.

ARA 2200 Intermediate Arabic (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: One year prior study at college level or permission of the instructor.

ARA 2240 Intermediate Arabic Conversation (3). Continuation of the conversational skills learned in the first 2 semesters of the language sequence. Prerequisites: ARA 1130 and ARA 1131, or permission of the instructor.

ASL 1010 American Sign Language I (3). A linguistic foundation in ASL, including a cognitive understanding of basic linguistic principles of the language, expressive (signing) ability and receptive processing of sign language.

CAT 5505 Introduction to Catalan Culture, Literature and Language (3). Catalan culture and society through literary and visual texts. Provides also an introduction to Catalan language. Prerequisite: Advanced level of Spanish.

CHI 1130 Chinese I (5). Provides training in the acquisition and application of basic language skills.

CHI 1131 Chinese II (5). Provides training in the acquisition and application of basic language skills.

CHI 2200 Intermediate Chinese (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: One year prior study at college level or permission of the instructor.

CHI 2201 Intermediate Chinese II (3). To improve students' speaking, writing, listening, reading skills in Chinese. Students learn how to use useful expressions of experience and thought. Prerequisites: CHI 2200 or permission of the instructor.

CHI 3400 Intermediate Chinese Conversation (3). Focuses on conversation. Topics include time, numbers, shopping, clothing, food, transportation, education, culture, etc. Prerequisites: CHI 2200 or CHI 2201.

CHI 3410 Advanced Chinese I (3). Continuation of Intermediate Chinese II - beginning level of advanced training in the acquisition and application of four language skills in Chinese. Prerequisite: CHI 2201.

CHI 3440 Business Chinese (3). Introduces the culture, economy, and commerce of present-day China. Emphasis will be placed on various business situational dialogues and communicative writing.

CHI 3955 Foreign Study: Language and Culture – *GL* (3). Four-week full-time study of Chinese language and culture (3 credit equivalent) in China. Prerequisite: Admission into the study abroad program in China.

CHI 4930 Special Topics in Chinese (3). Topics will be selected to meet academic needs for students doing research on Chinese language. May be repeated with change of content. Prerequisite: Permission of the instructor.

CHT 3391 Chinese Literature and Cinema (3). An introduction to modern Chinese literature and cinema by focusing on Chinese culture, society and intercultural communications between Chinese and Americans. This course will be taught in English.

CHT 3502 Chinese Culture and Society (3). To give students successful knowledge and well-rounded understanding of the culture and society in China. Lecture will focus in topics such as business, history, sociology, and traditional culture.

FIL 4881 Hispanic Culture: Women and Film (3). Images and roles of Hispanic women in Latin America, Spain and the United States. Discussion, analysis, and writing. Course aims to enhance students' understanding of women in Hispanic culture through films and readings.

FIL 5825 Spanish Film (3). The history of film in Spain and discussions of films by the most important 20th Century directors.

FIL 5846 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 1000 Elementary Foreign Language (3). Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. For languages not often taught. This course is not part of a series. No prerequisites.

FOL 3013 Language Skills for Professional Personnel (3). The course is geared to the special linguistic needs of community groups (medical, business, technical, etc.).

FOL 3732 Romance Linguistics (3). The common and distinctive Romance features. Survey of linguistic geography and internal/external influences.

FOL 3905 Independent Study (1-3). Project, field experience, readings, or apprenticeship.

FOL 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and teacher.

FOL 3940 Internship in Foreign Language (0-3). An option for students who wish to Minor or Majoring in a foreign language. The course asks students to apply the skills gained in undergraduate coursework in the particular language to an internship in a professional setting where the use of the target language is necessary. May be repeated. Prerequisite: Permission of the department required.

FOL 3949 Cooperative Education in Modern Languages (3). A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

FOL 3955 Foreign Study (3-12). Study abroad credits. Individual cases will be evaluated for approval.

FOL 4905 Independent Study (1-3). Project, field experience, readings, or research.

FOL 4930 Special Topics (3). Independent readings, research, or project.

FOL 4935 Senior Seminar (3). Topics and approach to be determined by students and instructor.

FOL 4949 Cooperative Education in Modern Languages (3). A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend one or two semesters fully employed in industry or government in a capacity related to the major. Prerequisites: Permission of Cooperative Education Program and major department.

FOL 4958 Foreign Study: Advanced Language Literature (3-12). Study abroad credits. Individual cases will be evaluated for approval.

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 5943 Foreign Language Teaching Methodology (3). Explores communicative approaches to foreign language teaching and learning. Prerequisite: Graduate standing.

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. Prerequisite: Admission to the Foreign Exchange Program.

FOT 2120 Literature in Translation (3). Masterpieces of French literature in English. Comparative use of the original text. Discussion and interpretation.

FOT 3800 Translation/Interpretation Skills (3). Emphasis on basic principles and practice application.

FOT 3810 Creative Writing/Translation (3). Training through non-structured writing. Examination of various approaches to the problems and objectives of creative translation.

FOT 3511 Latin Cinemas – *GL* (3) Examines the cinemas .of Spain and Latin America in a national and transnational context.

FOT 4130 European Literature in Translation (3). For students proficient in more than one foreign language. Content and focus to be determined by student and instructor.

FOT 4801 Professional Translation/Interpretation (3). Techniques and resources for professional translation and interpretation. Prerequisite: FOT 3800.

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. Prerequisites: Graduate standing or permission of the instructor.

FOW 3520 Prose and Society (3). The dynamics of participation and alienation between prose writers and their environment.

FOW 3540 Bicultural Writings (3). Experiment in linguistic pluralism. Content and focus to be determined by the international community.

FOW 3580 Intellectual History (3). The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.

FOW 3582 Literature of Reform (3). The consciousness of change in verbal art.

FOW 3584 Literature of Repression (3). The consciousness of constraints, their adoption and/or rejection in verbal art.

FOW 4152 European Literature in Translation (3). For students proficient in more than one foreign language. Content and focus to be determined by students and instructor.

FOW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FOW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/common features of expressive media.

FOW 4790 The Literary Generation (3). The real and apparent shared ideals of an artistic generation, its influence and range.

FOW 4810 Problems in Reading and Interpretation (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

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 1013 Language Skills for Professional Personnel (1-3). The course is geared to the special linguistic needs of community groups (medical, business, technical, etc.).

FRE 1071 Accelerated Basic French (5). Accelerated course for students with some prior knowledge of French (equivalent to two years of high school French). Encouraging rapid acquisition and preparation for FRE 2200. Prerequisite: Two years of high school French or equivalent. Instructor's permission is required.

FRE 1109 Accelerated French I (3). Accelerated course designed for students who have some prior knowledge of French (equivalent to one year of high schools French). Encourages rapid acquisition and prepares students for FRE 1131.

FRE 1115 Beginning Review (3). Accelerated course for students who already have some basic knowledge of French. Encourages rapid acquisition by intensive exposure to the language. Prerequisites: At least one year of High School French or equivalent.

FRE 1130 French I (5). Course designed specifically for beginning university students with no previous language study. Emphasis on oral French and on acquiring basic language skills.

FRE 1131 French II (5). Emphasis on oral French and on acquiring basic language skills.

FRE 2200 Intermediate French (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: One year prior study at college level or permission of the instructor.

FRE 2241 Intermediate French Conversation (3). Development of oral skills through skits, debates, and hypothetical situations. Open to non-native speakers Prerequisites: One year prior study at college level or permission of the instructor.

FRE 2270 Foreign Study (1-12). Intermediate level. One semester full-time credit for foreign residence and study. Individual cases will be evaluated for approval.

FRE 2443 French for Business (3). Introduces the minor and non-major to the culture, economy, and commerce of modern-day France. Extensive practice in business writing and communication. Conducted in French. Prerequisites: FRE 1131 or permission of the instructor.

FRE 3410 Advanced French Conversation (3). To develop oral proficiency skills and a greater awareness of French culture.

FRE 3413 Communication Arts (3). Develop communicative competence through intensive oral class work. Emphasis on ability to express ideas and appreciation of multiple aspects of French culture.

FRE 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

FRE 3421 Review Grammar/Writing II (3). Instruction and practice in expository writing in French, with emphasis on organization, correct syntax, and vocabulary building. Prerequisite: FRE 3420 or permission of the instructor.

FRE 3441 Advanced Business French (3). Provides intermediate training in the acquisition and application of business skills from an applied language vantage point. Prerequisites: FRE 2200 or FRE 2443 or permission of the instructor.

FRE 3500 History of French Civilization (3). Open to any student who understands the target language. The development of a particular civilization. Emphasis on the evolution of a society, its ideas and its values. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRE 3504 Language and Culture (3). Emphasis on oral skill applied to contemporary culture, to enhance student's knowledge and understanding of French way of life in Francophone world. Emphasis is also placed on acquisition and intensive practice of vocabulary and grammar. Prerequisites: FRE 3410 or FRE 3420 or permission of the instructor.

FRE 3740 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem solving in syntax and phonetics, through the application of modern/ traditional methods.

FRE 3780 French Phonetics (3). An introductory course in French linguistics. Includes the International Phonetic Alphabet and a systematic inventory of all the sounds of French, with refinement exercises in the language laboratory.

FRE 3781 Intermediate French Phonetics (1). Pronunciation of French for non-majors. Includes an introduction to the International Phonetic Alphabet and a systematic review of the sounds of French. Prerequisites: FRE 1130 and FRE 1131.

FRE 3820 Dialectology (3). Definition and analysis. Problem-solving in dialect classification.

FRE 4390 French and Francophone Cinema – *GL* (3). Introduces to Francophone cinema. While comparing movies from France and Francophone world, students explore various issues such as language, race, and postcolonial politics.

FRE 4391 French Cinema (3). In-class viewing and discussion of selected French films to develop knowledge and understanding of this important aspect of French culture from beginnings to the present. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRE 4422 Review Grammar/Writing III (3). A study of various aspects of forms and styles, with emphasis on expository writing in French. Prerequisite: FRE 3421 or permission of the instructor.

FRE 4470 Foreign Study: Advanced Language/ Literature (3-15). Full-semester credit for foreign residence and study/work. (Approval of Department required.)

FRE 4501 Contemporary French Society (3). Course designed primarily for French majors, advanced undergraduates and graduates. Examination of the cultural, ideological, socio-political and economic fabric of France from WWI to the present. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRE 4503 La Francophonie – *GL* (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 4791 French Phonology (3). Contrasts in the sound systems of English and French. Prerequisites: FRE 3780 or permission of the instructor.

FRE 4800 French Morphology (3). Contrasts in the morphology and syntax of English and French.

FRE 4840 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. Prerequisites: FRE 3780 or permission of the instructor.

FRE 4841 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.

FRE 4850 Structure of Modern French (3). Systematic study of the phonology, morphology, syntax, and lexicon of Modern French. Taught in English.

FRE 4935 Senior Seminar (3). Topic and approach to be determined by students and instructor.

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. Prerequisites: 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. Prerequisite: Graduate standing.

FRE 5735 Special Topics in Linguistics (3). Content to be determined by students and instructor. Prerequisite: Graduate standing.

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: Graduate Standing.

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: Graduate standing.

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. Prerequisite: Graduate standing.

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. Prerequisite: Graduate standing.

FRE 5908 Independent Study (1-3). Project, field experience, readings, or research. Prerequisite: Graduate standing.

FRT 3800 Basic Translation Exercises (3). Emphasis on basic principles and practice application. Prerequisite: FRE 3421.

FRT 4801 Professional Translation (3). Techniques and resources for professional translation. Prerequisite: FRT 3800.

FRT 5805 Translation/Interpretation Arts (3). Techniques of professional translation and interpretation. Prerequisite: FRT 4801.

FRW 3101 Introduction to Francophone Literature and Cultural Studies (3). This survey course examines the main literary movements and texts of the French and Francophone world from the Middle Ages to the present, while preparing students to take advanced literature courses. Prerequisites: FRE 3420 and/or FRE 3421.

FRW 3200 French Literature I (3). Close reading and analysis of prose and poetry from the Middle Ages to the 17th Century. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3201 French Literature II (3). Close reading and analysis of French prose, theatre, and poetry, from the 18th to the 20th century. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3280 French 19th Century Novel (3). Four major novels by major 19th century novelists will be selected to illustrate the development of novelist techniques as well as of a different conception of the role of the novel that finally made it an important literary genre. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3300 French Comedies (3). A study in French comedies from the 15th century to the 19th century, with special emphasis on Moliere's plays. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3323 French 19th Century Drama (3). Plays will be chosen to illustrate various literary movements in 19th century French drama: Romanticism, Realism, Naturalism, and Symbolism. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3370 French 19th and 20th Century Short Stories (3). Great short stories by Maupassant, Merimee, Flaubert, Camus, and Sartre will be studied to familiarize the student with literary criticism by a close reading and analysis of short texts. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3532 French Romantic Literature (3). A study of French Romantic generation through the works of Lamartine, Hugo, de Musset, etc. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3810 Literary Analysis (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3905 Independent Study (3). Project, field experience, readings, or apprenticeship. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and instructor. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4123 Travel, Exile, and Cross-Cultural Encounters (3). Drawing on writings from the turn of the century to the present, explores the themes of exile and escape, of cultural and visual appropriations, the repetition and deconstruction of exotic clichés. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4212 French Classical Prose (3). Study of major works of 17th century French authors such as Descartes, Pascal, La Rochefoucauld, La Bruyere, etc. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4213 18th Century French Prose (3). Major works by the 18th century French philosophers that illustrate the evolution of socio-political and aesthetic thought leading to the French Revolution. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4272 French Novels from the Classical Period (3). A study of major 17th and 18th century French novels. Course conducted in French. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4281 French 20th Century Novel (3). A detailed analysis of modern novels, and a general examination of the intellectual currents which these novels illustrate or express (e.g. surrealism, existentialism, nou-veau roman, post-modernism. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4310 Seventeenth-Century French Drama (3). A study of French classical aesthetics through the plays of Corneille, Moliere, and Racine. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4324 French 20th Century Theatre (3). Focuses on the scope and variety of contemporary French theatre from Claudel, through existentialism and the theatre of the absurd, to Cixous and Cesaire. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama). Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4410 French Medieval Literature (3). A study in different literary forms prevalent during the 12th and 15th centuries. Read in modern French; course will be conducted in French. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4420 Sixteenth-Century French Literature (3). A study of major authors of the French Renaissance, Rabelais, Ronsard, Montaigne, etc. Course conducted in French. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4583 Women Writers in French (3). Drawing on the writings of women authors in French, this course explores topics such as: the effects of narrative techniques on subject formation, the poetics of silence and of revolt, sexual difference versus cultural difference. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/ common features of expressive media. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4750 Francophone Literature of Africa (3). Introduction to the Francophone literatures of Africa; study of a literary tradition in French, with special emphasis on post-World War II writers. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4751 Francophone Literature in the Caribbean (3). Introduction to the Francophone literature of the Caribbean; study of a literary tradition in French, with special emphasis on post-World War II writers. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4905 Independent Study (1-3). Project, field experience, readings, or research. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 4930 Special Topics (3). Independent readings, research, or project. Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

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). Prerequisites: FRE 3420 or FRE 3421 or permission of the instructor.

FRW 5934 Special Topics in Language Literature (3). Content and objectives to be determined by student and instructor. Prerequisite: Graduate standing.

FRW 5938 Graduate Seminar (3). Topic and approach to be determined by students and instructor. Prerequisite: Graduate standing.

GER 1130 German I (5). Provides training in the acquisition and application of basic language skills.

GER 1131 German II (5). Provides training in the acquisition and application of basic language skills.

GER 2200 Intermediate German (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: One year prior study at college level or permission of the instructor.

GER 2240 German Intermediate Conversation (3). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisites: One year prior study at college level or permission of the instructor.

GER 2243 German Oral Communication Skills (3). Designed to develop different types of oral communication in German: storytelling, debates, inquiries, complaints etc. Prerequisites: GER 1131 or equivalent.

GER 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

GER 3503 German Language and Culture Through Film (3). Designed to strengthen students' linguistic skills in German and to introduce them to modern German culture through film. Prerequisite: any GER 2000 level course.

GER 4905 Independent Study (1-3). Project, field experience, readings, or research.

GER 4930 Special Topics (3). Independent readings, research, or project.

GER 5060 German for Reading Knowledge (3). Designed primarily for graduate students who wish to attain proficiency for M.A. or Ph.D. requirements. Open to any student who has no prior knowledge of the language.

GER 5061 German for Reading Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisites: GER 5060 or the equivalent.

GET 3003 German Culture and Society (3). Designed to introduce students to Germany, its culture and society, geography and history.

GET 3100 Literature in Translation (3). Masterpieces in German literature in English. Comparative use of the original text. Discussion and interpretation.

GET 4560 Berlin Then and Now (3). Designed to introduce students to major social, cultural and architectural landmarks of Berlin and discuss the impact of social and political changes on the urban and cultural landscape of the city.

HAI 1072 Haitian Creole for Medical and Legal Professionals (3). Course designed for healthcare and legal professionals with no previous training in Haitian Creole. Emphasis on medical and legal terms in daily conversation related to health, hygiene and law.

HAI 1130 Haitian Creole I (5). Course designed for students with no previous training in Haitian Creole. Emphasis on oral Haitian Creole and on acquiring basic language skills.

HAI 2320 Haitian Creole: Reading and Composition (3). Online course for effective writing as a mean of communication to express ideas and to engage with multiple literacies. With a focus on techniques that help develop critical thinking skills. Prerequisite: Permission of the instructor.

HAI 3213 Accelerated Haitian Creole (3). Emphasis on oral skills, contemporary language, and culture.

HAI 3214 Accelerated Intermediate Haitian Creole (3). Builds on accelerated course by continuing and expanding communicative activities. Prerequisites: Accelerated Haitian or permission of the instructor.

HAI 3321 Haitian Creole: Reading and Composition II (3). Reinforces writing and grammar skills acquired in HAI 2320 and develops a more critical thinking ability for all types of literary and *scitt ientific* texts. Prerequisite: HAI 2320 or Instructor's permission.

HAI 3370 Haiti: Study Abroad (3). Orientation to Haiti's history, geography, religious practices, and social customs through classroom instruction, reading, and discussion, culminating in a two week tour of Haiti.

HAI 3500 Haiti: Language and Culture (3). Provides, from a multidisciplinary perspective, a general understanding of the Haitian culture and language.

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.

HBR 1130 Hebrew I (5). Provides training in the acquisition and application of basic language skills.

HBR 1131 Hebrew II (5). Provides training in the acquisition and application of basic language skills.

HBR 2200 Intermediate Hebrew (3). Provides training in the acquisition and application of basic language skills. Prerequisites: One year prior study at college level or permission of the instructor.

HIN 1130 Hindi I (5). Provides training in the acquisition and application of basic language skills.

HIN 1131 Hindi II (5). Second semester of beginning course in spoken and written Hindi language. Prerequisite: HIN 1130 or permission of instructor.

ITA 1130 Italian I (5). Provides training in the acquisition and application of basic language skills.

ITA 1131 Italian II (5). Provides training in the acquisition and application of basic language skills.

ITA 1135 Accelerated Italian I (3). Accelerated course designed for students who have some prior knowledge of Italian (equivalent to one year of Italian in high school). Encourages rapid acquisition and prepares students for ITA1131. Prerequisite: Some prior knowledge of Italian (one year in high school Italian). Instructor permission required

ITA 2200 Intermediate Italian (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: One year prior study at college level or permission of the instructor.

ITA 2240 Italian Intermediate Conversation (3). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisites: One year prior study at college level or permission of the instructor.

ITA 2441 Italian for Business (3). Designed for intermediate students of Italian who wish to further their linguistic knowledge in specific areas of business. Prerequisites: ITA 1130, ITA 1131, and ITA 2200 or permission of the instructor.

ITA 3392 Italian Cinema 1945-1970 (3). Studies the Italian Cinema from the end of the World War II (neorealism) until the early 70's (Comedy Italian Style). Prerequisites: ITA 3421, ITA 3403, ITA 3500 or permission of the instructor.

ITA 3403 La Commedia dell'Arte from Venetian Mask to Galdoni's Theater (3). Studies the theatrical social and political tradition that lead to la Commedia dell'Arte and Goldoni's Theater. Prerequisites: ITA 3410, ITA 3421 or permission of the instructor.

ITA 3410 Advanced Italian Conversation (3). Development of oral proficiency skills at an advanced level and of a greater awareness of Italian culture. Prerequisites: ITA 2200 and ITA 2240 or permission of the instructor.

ITA 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

ITA 3421 Review Grammar/Writing II (3). Instruction and practice in expository writing in Italian, with emphasis on organization, correct syntax, and vocabulary building. Prerequisites: ITA 3420 or permission of the instructor.

ITA 3500 Italian Culture and Society – *GL* (3). An overview of socio-cultural issues in Italy. Prerequisites: ITA 2200 and ITA 2240 or permission of the instructor.

ITA 4905 Independent Study (1-3). Project, field experience, readings, or research.

ITA 4930 Special Topics (3). Independent readings, research, or project.

ITT 3110 Literature in Translation (3). Masterpieces of Italian literature in English. Comparative use of the original text. Discussion and interpretation.

ITT 3503 The Virtual Grand Tour of Italy (3). Explores the literature, history, customs and traditions of some of the most popular cities in Italy through the readings of masterpieces of 19th century by comparing each work to Modem Italy.

JPN 1130 Japanese I (5). Provides training in the acquisition and application of basic language skills.

JPN 1131 Japanese II (5). Provides training in the acquisition and application of basic language skills.

JPN 2110 Introduction to Kanji (3). This course introduces students to the fundamental structure of Kanji (Chinese characters), including a comprehensive review of Kana system. Prerequisite: JPN 1130.

JPN 2200 Intermediate Japanese I (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: One year prior study at college level or permission of the instructor.

JPN 2201 Intermediate Japanese II (3). To help students maintain and further improve their speaking, writing, listening, and reading skills in Japanese in more complex situations. Students learn how to use useful expressions of experience and thought in advanced level of Japanese. Prerequisite: JPN 2200.

JPN 3000 Japanese Calligraphy (3). This course is designed to serve students interested in learning the composition of Japanese Calligraphy. Students will learn Japanese Calligraphy in both traditional and contemporary contexts.

JPN 3140 Japanese for Business (3). A study of Japanese language in a context of Japanese business practices, values and customs.

JPN 3242 Intermediate Japanese Conversation (3). Complimentary course with Interm. JPN II. Provides conversation training for intermediate students through textbook dialogues, class discussions, and oral presentations. Prerequisite: JPN 1130 & JPN 1131.

JPN 3243 Advanced Japanese Composition (3). A writing-intensive course for advanced students. Provides composition training through analysis of Japanese as used in newspapers and short stories. Prerequisite: JPN 2201.

JPN 3400 Advanced Japanese I (3). Continuation of Intermediate JPN II which provides the beginning level of advanced training in the acquisition and application and application of the language skills. Prerequisites: JPN 2201 or equivalent.

JPN 3401 Advanced Japanese II (3). Continuation of Advanced Japanese I which provides advanced training in the acquisition and application of the language skills. Prerequisites: JPN 3400 or equivalent.

JPN 3412 Advanced Japanese Conversation (3). Continuation of Intermediate Japanese Conversation. Provides conversation training for advanced students through debates, speeches, and discussion of Japanese newspapers. Prerequisite: JPN 3242.

JPN 3420 Japanese through Technology (3). Provides training in the acquisition and application of the language skills in reading, listening and typing. Prerequisites: One year prior study at college level or permission of the instructor.

JPN 3500 Japanese Culture and Society – *GL* (3). This course will examine Japanese culture, societal life, class and gender, and the way of the Samurai. It will explore not only the traditional arts but also current social concerns.

JPN 3955 Foreign Study: Japan – *GL* (3). Study of Japanese language and culture (3 credit equivalent) in Japan. Prerequisite: Admission into the study abroad program in Japan.

JPN 4930 Special Topics in Japanese (3). Topics will be selected to meet academic needs for studies doing research on Japanese language. Prerequisite: Permission of the instructor.

JPT 3521 Japanese Literature and Cinema (3). An introduction to modern Japanese literature and cinema which compares literary and cinematic approaches by focusing on Japanese society, culture and aesthetic sense.

JPT 5396 Japanese Literature and Film (3). A critical overview of modern Japanese literature and film, addressing socio-cultural and philosophical issues in the context of historical and cultural transformations. Prerequisites: Graduate student status or permission of the instructor.

JPW 4130 Reading Japanese Literature (3). Reading and analysis of selected literary texts in contemporary Japanese with an introduction to poetry (haiku and waka). Prerequisites: JPN 3401 or permission of instructor.

JPW 4131 Reading Japanese Non-Fiction (3). Advanced writing and reading of non-fictional text focusing on Japanese culture and society. Prerequisites: JPN 3401 or permission of instructor.

JPW 4132 Reading and Translating Japanese Literature (3). Close reading of a wide range of literary texts in Japanese across genres. Students will learn to read and analyze authentic material in the original language, as well as the methods and techniques of literary translation. Prerequisites: JPN 2201 or permission of the instructor.

JPW 5133 Advanced Reading and Translating Japanese Literature (3). Close reading of wide range of literacy texts in Japanese across genres. Students will learn to read and analyze authentic material in the original language, as well as the methods and techniques of literacy translation. Prerequisites: Graduate student status or permission of the instructor.

KOR 1113 Korean I (5). Provides training in the acquisition and application of basic language skills.

KOR 1132 Korean II (5). Second semester of beginning course in spoken and written Korean language. Prerequisite: Korean I or permission of instructor.

KOR 2220 Intermediate Korean I (3). Provides intermediate training in the acquisition and application of Korean language skills. Prerequisites: One year prior study at college level or permission of the instructor, KOR 1132 or equivalent.

LIN 3010 General Linguistics (3). Examination and synthesis of the concepts and perspectives of major contributions to language theory. Equivalent to SPN 3733. Students who take SPN 3733 may not receive credit for LIN 3010 or LIN 3013.

LIN 3200 Phonetics (3). The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 3610 Dialectology (3). Definition and analysis. Problem-solving in dialect classification. Prerequisites: LIN 3010 or LIN 3013 or SPN 3733 or equivalent.

LIN 4326 Contrastive Phonology (3). For students proficient in more than one foreign language. Choice of languages to be determined by students and instructor. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 4433 Contrastive Morphology (3). For students proficient in more than one foreign language. Content and emphasis to be determined by students and instructor. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 4620 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals. Prerequisites: LIN 3010 or LIN 3013 or SPN 3733 or equivalent.

LIN 4624 Bilingualism and Language Policies (3). Linguistic diversity and language policies in North America. The sociolinguistic situation of selected heritage speakers, particularly Hispanic and Asian groups, and issues in bilingualism. Prerequisites: LIN 3010 or LIN 3013 or SPN 3733 or equivalent.

LIN 4702 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern/ traditional methods. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 4722 Problems in Language Learning (3). Primarily designed for prospective teachers, but open to all interested students. The course will aim to devise approaches to difficulties commonly experienced in syntax, usage, reading and comprehension. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

LIN 4931 Special Topics in Linguistics (3). Provides the opportunity for students and instructor to explore topics not included in the regular course offerings. Content to be determined.

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, or SPN 3733, or 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.

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.

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, SPN 3733 or 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.

LIN 5625 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals.

LIN 5689 Seminar in Lexicon Grammar (3). This course introduces students to research in Lexicon Grammar -- syntactic analysis based on a formal classification of large portions of the lexicon. Idioms and NLP applications are also discussed. Prerequisites: LIN 5018 and one structure course (e.g. LIN 5501, SPN 5705, or FRE 5855).

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 5725 Seminar: Issues in Language Learning (3). Seminar in applied linguistics to serve as introduction to theory, research, and practice in language. Examines difficulties experienced in learning syntax, oral comprehension, usage, etc. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or 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. Prerequisites: 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, SPN 3733 or equivalent.
(See English listing for additional Linguistics courses.)

POR 1000 Elementary Portuguese (3). Emphasis on oral skills, contemporary language, and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

POR 1130 Portuguese I (5). Provides training in the acquisition and application of basic language skills.

POR 1131 Portuguese II (5). Provides training in the acquisition and application of basic language skills.

POR 2200 Intermediate Portuguese (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: POR 1130 and POR 1131 (or equivalent) or POR 3202 and POR 3233 (or equivalent).

POR 2340 Portuguese for Heritage Speakers I (3). Begin development of written and oral skills for bilinguals educated outside a Portuguese-speaking country. Assumes fluent speaking ability but limited or no reading and writing skills.

POR 2341 Portuguese for Heritage Speakers II (3). Continued development of written and oral skills for bilinguals educated outside a Portuguese-speaking country.

POR 3202 Accelerated Portuguese I (5). Accelerated course for students fluent in Spanish. Encourages rapid acquisition by intensive exposure to the language through immersion activities, videos, and culture.

POR 3233 Accelerated Portuguese II (5). Accelerated course for students fluent in Spanish. Builds on Accelerated Portuguese I by continuing and expanding communicative activities. Prerequisites: POR 3202 or permission of the instructor.

POR 3244 Portuguese Intermediate Conversation (1). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisite: Ability to speak basic Portuguese.

POR 3343 Advanced Portuguese for Heritage Speakers (3). Improvement of reading and writing skills through grammar review, composition, and literary readings for advanced heritage speakers of Portuguese.

POR 3400 Advanced Oral Communication (3). Development of oral skills through a variety of activities: Readings and recitations, public speaking, debate, skits, video production and drama. Open to native and non-native speakers. Prerequisite: Oral communication ability in Portuguese.

POR 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language. Prerequisites: At least one year study of the language or permission of the instructor.

POR 3421 Review Grammar/Writing II (3). Examination of grammatical theory; discussion of the modern essay. Practice in the detection and correction of errors in usage. The course will focus on current international events as content for informal talks and compositions. Prerequisites: At least three semesters study of the language or permission of the instructor.

POR 3440 Portuguese for Business (3). Presents the special language needs for conducting business in Portuguese, with emphasis on the commerce and culture of modern Brazil. Practice in correspondence, documents, and presentations. Prerequisites: At least three semesters study of the language or permission of the instructor.

POR 3500 Luso-Brazilian Culture – *GL* (3). Open to any student who understands Portuguese. The development of Portuguese speaking civilizations, with emphasis on either Portugal or Brazil: history, art, music, daily life, impact on other cultures. Prerequisite: POR 3400.

POR 3930 Special Topics in Language Linguistics (3). Readings, research, and discussion of topics in Portuguese language or linguistics to be determined by students and instructor.

POR 4470 Foreign Study: Advanced Language Literature (VAR). Up to a full semester credit for foreign residence and study/work. (Approval of Department required)

POR 4480 Twentieth Century Brazilian Novel (3). Emphasis on a particular period and/or region, such as the northeast from 1930-1960: Jorge Amado, Raquel de Queiroz, Graciliano Ramos, Lins de Rego; or similar focus. Prerequisites: At least three semesters study of the language or permission of the instructor.

POW 3284 Brazilian Short Story (3). Short stories by major Brazilian authors serve to expand students' reading ability, help them become familiar with modern Brazilian life, and learn to approach this literacy form critically. Prerequisites: At least three semesters study of the language or permission of the instructor.

POW 3337 Cultural Representations of Brazilian Cities (3). A cultural studies course focusing on representations of major Brazilian cities through novels, short stories, plays, films, and TV series. Prerequisites: POR1130, POR 1131, (or POR 3202, POR 3233), and POR 2200 (instructors may waive POR 2200 by testing).

POW 4390 Brazilian Cinema (3). An examination of Brazilian films and culture from Cinema Novo to the present. Focuses on the northeast, urban society, magic and the Amazon. Taught in Portuguese.

POW 4391 Brazilian Cinema and Human Rights (3). An examination of human rights violations in Brazil through national cinema. Prerequisites: POR 1130, POR 1131, (or POR 3202, POR 3233), and POR 2200 (instructors may waive POR 2200 by testing).

POW 4701 Masterworks of Brazilian Literature (3). Readings from the most important authors of Brazil, in several genres, presented in a chronological framework. Authors include M. de Assis, M. de Andrade, M. Bandeira, C. Lispector, etc. Prerequisites: At least three semesters study of the language or permission of the instructor.

POW 4905 Independent Study (1-3). Project, field experience, readings, or research.

POW 4930 Special Topics (3). Independent readings, research, or project.

PRT 3401 Literature in Translation (3). Masterpieces of Portuguese literature in English. Comparative use of the original text. Discussion and interpretation.

PRT 3510 Witnessing War in Lusophone Cultures – *GL* (3). Introduction to Witness Literature in Portuguese-speaking cultures (Portugal, Brazil, Angola, Mozambique) with a focus on challenges and dilemmas of the act of witnessing war. Prerequisites: POR 3202 and POR 3233 or POR 1130 and POR 1131.

PRT 3800 Portuguese Translation I (3). Review of theories and processes. Extensive practice in translating a variety of short texts, with emphasis on accuracy. Prerequisites: PRT 3810 or permission of the instructor.

PRT 3810 Introduction to Portuguese Translation and Interpretation (3). Fundamentals of translation processes, contrastive analysis of structures in Portuguese and English. Exercise in the accurate rendition of ideas from one language to the other. Prerequisite: Advanced knowledge of English and Portuguese.

PRT 3812 Portuguese Interpretation I (3). Beginning interpretation with emphasis on consecutive and sight translation. Memory development, note-taking, techniques of public speaking, accent reduction. Prerequisites: PRT 3810 or permission of the instructor.

PRT 4391 International Perspectives in Brazilian Cinema (3). Addresses cinema production in Brazil in an international context, with special emphasis on the post-Embrafilme era and international co-production.

PRT 4430 LGBTQ Culture in Brazil (3). Examines LGBTQ cultural production in Brazil (films, novels, music) from the beginning of the 20th century to present times and addresses representations of violation of human rights in Brazil.

PRT 4801 Portuguese Translation II (3). Translation of medium-length texts covering a range of specific topics and prose styles with attention to both accuracy and style. Prerequisites: PRT 3800 or permission of the instructor.

PRT 4802 Portuguese Translation III (3). Emphasis on technical and literary translation; development of special glossaries; stylistic and grammatical challenges. Prerequisites: PRT 4801 or permission of the instructor.

PRT 4813 Portuguese Interpretation II (3). Continued work with consecutive interpretation but emphasizes the simultaneous mode, including research and graded laboratory practice. Work with the speaking voice. Prerequisites: PRT 3812 or permission of the instructor.

PRT 4814 Portuguese Interpretation III (3). Simultaneous conference interpreting: extensive class and laboratory practice and field experience. Prerequisites: PRT 4813 or permission of the instructor.

PSN 1130 Persian I (5). Course designed for students with no previous language study. Emphasis on oral Persian and on acquiring basic language skills.

PSN 1131 Persian II (5). Provides training in the acquisition and application of basic language skills. Prerequisites: PSN 1130 or permission of the instructor.

RUS 1130 Russian I (5). Provides training in the acquisition and application of basic language skills.

RUS 1131 Russian II (5). Provides training in the acquisition and application of basic language skills.

RUS 2200 Intermediate Russian (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: One year prior study at college level or permission of the instructor.

RUS 2242 Russian Intermediate Conversation (3). Designed to develop different types of oral communication in Russian at the intermediate level. Prerequisites: RUS 1131 or permission of the instructor.

SPN 1000 Elementary Spanish (3). Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

SPN 1030 Elementary Spanish for Medical Personnel (5). Conversational elementary Spanish for medical personnel. Recommended for non-native speakers of Spanish who are in nursing or other health-related professions.

SPN 1130 Spanish I (5). Course designed specifically for beginning university students with no previous language study. Emphasis on oral Spanish and on acquiring basic language skills.

SPN 1131 Spanish II (5). Emphasis on oral Spanish and on acquiring basic language skills.

SPN 1134 Accelerated Basic Spanish (3). Accelerated course designed for students with some prior knowledge of Spanish (equivalent to two years of high school Spanish). Encouraging rapid acquisition and preparation for SPN 2200. Prerequisite: Two years of high school Spanish. Instructor's permission required.

SPN 2200 Intermediate Spanish I (3). Provides intermediate training in the acquisition and application of basic language skills. Prerequisites: SPN 1131 or equivalent.

SPN 2201 Intermediate Spanish II (3) – *GL* . Last course of a four-semester sequence which implements a proficiency-oriented approach. Focuses on the development of listening and reading comprehension skills, and encourages maximum oral interaction and the practice of writing.

SPN 2210 Oral Communications Skills (3). Development of oral skills through skits, debates, and contextualized communication. Prerequisites: SPN 1131 or equivalent.

SPN 2233 Intermediate Readings in Spanish (3). Provides opportunities to develop fluency. Emphasis on selected literary and /or cultural readings; films and group activities intended to stimulate communication and enhance an understanding of Hispanic culture. Prerequisites: SPN 1131 or equivalent. Corequisite: SPN 2200 recommended.

SPN 2240 Intermediate Spanish Conversation (3). This course is designed to help students maintain and increase their ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisites: SPN 1131 or equivalent.

SPN 2270 Foreign Study (6). Intermediate level. One semester full-time credit for foreign residence and study. Individual cases will be evaluated for approval.

SPN 2330 Advanced Readings in Spanish (3). Further develops, at an advanced level, appropriate reading, oral, and writing skills. Emphasis on advanced cultural and literary readings by Spanish and Spanish American authors. Prerequisites: SPN 2233 or permission of instructor.

SPN 2340 Intermediate Spanish for Heritage Speakers – *GL* (3). Improves reading, grammar, and writing skills for heritage speakers educated in the U.S. that can understand and communicate in Spanish. Expands cultural knowledge of Hispanic countries. Prerequisite: Ability to understand Spanish.

SPN 2341 Intermediate Spanish II for Heritage Speakers (3). Develop cultural and linguistic competence through intensive oral, reading, and written work. Emphasis on reading and writing skills. Prerequisite: SPN 2340

SPN 3013 Language Skills for Professional Personnel (3). The course is geared to the special linguistic needs of the community groups (medical, business, technical, etc.).

SPN 3031 Intermediate Spanish for Medical Personnel (3). Provides intermediate training in the acquisition and application of medical language skills. Prerequisites: SPN 1030 or permission of the instructor.

SPN 3301 Advanced Spanish for Non-Heritage Speakers (3). Review and expand basic structures of Spanish, develop formal vocabulary, improve oral and written skills, learn more about history and cultures of Spanish-speaking countries. For non-heritage speakers.

SPN 3343 Advanced Spanish for Heritage Speakers – *GL* (3). Improve literacy skills through grammar review, composition, and selected readings of representative Hispanic writers. For heritage speakers. Prerequisite: SPN 2340 or SPN 2341 or permission of the instructor.

SPN 3401 Advanced Conversation (3). Improvement of oral proficiency and listening comprehension skills, correction of accent, vocabulary building. Use of small group conversation, pronunciation tapes, and varied outside readings.

SPN 3410 Advanced Oral Communication (3). Development of oral skills through a variety of speaking and conversational activities: public speaking, debate, drama, recitation. For native speakers and advanced non-natives. Prerequisite: Oral ability in Spanish.

SPN 3413 Communication Arts (3). Oral interpretation and dramatic reading. Original and non-original texts will be the content of the course. Study of shared modes of experience and their individual linguistic expression in an acquired language.

SPN 3422 Advanced Grammar and Composition I (3). To consolidate the student's command of oral and written Spanish. Advanced readings of authentic materials. Preparation and documentation of written monographs. For natives and advanced non-natives. Prerequisites: SPN 3343 or SPN 3301 or permission of the instructor or equivalent.

SPN 3423 Advanced Grammar and Composition II (3). Focuses on advanced writing and reading skills. Preparation and documentation of written monographs. Prerequisite: SPN 3422.

SPN 3440 Spanish Business Composition/ Correspondence (3). Training in the special writing needs of business: letter-writing, memoranda, brochures, advertising, proposals, declarations, government documents, etc.

SPN 3444 Spanish for Business in Latin America – *GL* (3). A Spanish composition course with content matter in contemporary Latin American business and current events at the advances/intermediate level of Spanish language. Prerequisite: Intermediate level of written and oral composition of Spanish language.

SPN 3702 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern/traditional methods. Prerequisites: LIN 3010 or equivalent. (Conducted in Spanish).

SPN 3733 Introduction to Spanish Linguistics (3). Study the sound system, word structure, phrase formation and the history of the Spanish language. Learn about dialects and sociolects in the Spanish-speaking world. Prerequisite: SPN 3422.

SPN 3780 Phonetics (3). The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity. Prerequisites: SPN 3733 or permission of the instructor.

SPN 3820 Dialectology (3). Definition and analysis. Problem-solving in dialect classification. Prerequisites: SPN 3733 or permission of the instructor.

SPN 3933 Spanish for Legal Personnel (3). To provide an introduction to the use of Spanish legal vocabulary and the differences between the legal systems in Spain, Latin America and the USA. Prerequisites: Immediate knowledge of Spanish or SPN 2201 or SPN 2340.

SPN 4312 Introduction to Spanish Syntax (3). An introduction to Spanish syntax. Topics include an introduction to syntactic analysis and syntactic phenomena of Spanish. Prerequisites: SPN 3733 or permission of the instructor.

SPN 4470 Foreign Study: Advanced Language Literature (12). Full semester credit for foreign residence and study/work. (Approval of the Department required.)

SPN 4500 Spanish Culture – *GL* (3). Examines global manifestations of Spanish culture throughout history to gain insight into contemporary aspects of Spanish identity. Prerequisite: Open to any student who understands the target language.

SPN 4520 Latin American Culture – *GL* (3). Introduction to the major artistic and cultural phenomena in Latin America. Art, music, film, and literature will be discussed in their cultural context. Prerequisite: Ability to understand Spanish at an advanced level.

SPN 4521 Topics on Latin American Culture (3). Study of the evolution of national identity in Latin America, from the 19th Century to the present.

SPN 4523 Glimpses into Spanish American Culture, Literature and Film. (3). Examines Spanish American culture manifestations in the United States and Europe through a series of literary and cultural texts and films. Prerequisites: SPN 3422 or Permission of instructor.

SPN 4704 The Structure of Spanish (3). A diachronic, synchronic, and pedagogical analysis of the different grammatical structures of the Spanish language. Prerequisite: SPN 3733.

SPN 4790 Contrastive Phonology (3). Contrasts in the sound systems of English and Spanish. Prerequisites: SPN 3733 or permission of the instructor.

SPN 4802 Contrastive Syntax (3). Contrasts in the grammatical systems of English and Spanish with emphasis on structures with equivalent meanings. Recommended for students of translation and interpretation. Prerequisites: SPN 3733 or permission of the instructor.

SPN 4822 Hispanic-American Socio-linguistics (3). Language and society in Latin America. Sociolinguistic theory followed by consideration of specific language problems in Spanish and Portuguese speaking areas of the Americas. Prerequisites: SPN 3733 or permission of the instructor.

SPN 4840 History of the Language (3). The internal and external history of language development. Examination of model texts from key periods of evolution. Prerequisites: SPN 3733 or permission of the instructor.

SPN 4905 Independent Study (0-3). Project, field experience, readings, or research.

SPN 4930 Special Topics in Linguistics (3). Provides the opportunity for students and instructor to explore topics not included in the regular course offerings. Content to be determined.

SPN 4936 Senior Seminar (3). Topic and approach to be determined by instructor. Required course for Spanish majors in their senior year. By permission of the instructor only. Prerequisites: Spanish majors in their senior year.

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. Prerequisites: SPN 5060 or the equivalent.

SPN 5515 Cultural Representations of the Spanish Civil War (3). Representations for the Spanish Civil War in literature, film, and the other arts.

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. Prerequisites: 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 5539 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). Diachronic and synchronic study of the structures of the Spanish language (phonetic, morphosyntactic, and lexical). Also considers pedagogical considerations for teaching structures. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent.

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, SPN 3733 or equivalent.

SPN 5736 Spanish as a Heritage Language: Acquisition and Development (3). Examines applied linguistics research and practice concerning acquisition, retention and literacy development of Spanish as a minority or heritage language in the United States. Prerequisites: LIN 3010, LIN 3013, SPN 3733 or equivalent or permission of instructor.

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, SPN 3733 or equivalent.

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, SPN 3733 or equivalent.

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, SPN 3733 or equivalent.

SPN 5908 Independent Study (1-3). Project, field experience, readings, or research.

SPT 3110 Literature in Translation (3). Masterpieces of Hispanic literature in English. Comparative use of the original text. Discussion and interpretation.

SPT 3800 Foundations to Translation Skills (3). Techniques of translation, in Spanish and English, applied to law, business, technology, and literature.

SPT 3812 Foundations of Interpreting (3). Exercises in sight translation, consecutive and simultaneous interpretation in Spanish and English. Theory and practice.

SPT 4400 African Presence in Latin American Literature (3). Studies a selection of relevant Latin American literary works (in translation) dealing with the effects of African culture in Spanish-American and Brazilian literatures.

SPT 4803 Practica in Legal Translation (3). Provides advanced training in translating most commonly used legal documents in both civil and criminal procedures.

SPT 4804 Practice in Legal Interpretation (3). Training in consecutive and simultaneous interpretation of both civil and criminal legal proceedings before Federal and State courts.

SPT 4805 Translation in Communication Media (3). Provide insight into the techniques of translation of advertising, public relations and publicity materials to be used in the mass media such as print and broadcasting.

SPT 4806 Oral Skills for Interpreters (3). Voice production in sight translation, consecutive and simultaneous interpretation. Vocal projection, enunciation and phonetics, theory and practice. Extensive exercises in vocal control. Use of sound equipment.

SPT 4807 Practica in Business Translation (3). Business and language translation and the business world. Principles, techniques, and methods of business translation. Extensive practical exercises in translating routine business documents from English to Spanish and vice versa.

SPT 4808 Practica in Technological Translation (3). Language and technology. The translator in the technological world. Principles, techniques, and methods of technological translation. Extensive practical exercises.

SPT 4809 Practica in Medical Translation (3). Medical language. The translator and the medical world. Principles, techniques and methods of medical translation. Extensive practical exercises in translating routine medical documents from English to Spanish and vice versa.

SPT 4813 The Interpreter and Language (3). The interpreter as a linguistics expert. The stylistic levels of language. Legal jargon and street language in English and Spanish. Dialectal problems. Practical and ethnical problems.

SPT 4814 Conference Interpreting (3). Interpreting for international conferences and for diplomacy. Intensive practice in simultaneous interpretation.

SPT 4820 Computer-Aided Translation (3). The translating machine and computer-aided translation. Machine operation. Selected applications of computer translating texts from various disciplines. Correction of translated texts with computers.

SPT 4830 Interpreting for Business (3). The principles and techniques of interpreting in the context of a bilingual (Spanish/English) business setting. Consecutive, simultaneous interpretation and sight translation of business matters.

SPT 4833 Advanced Practica in Medical Translation (3). Provides advanced training in the practice and theory of medical translation using the Internet as a fundamental tool. The course material is presented completely online and requires the student to become familiar with use of the internet as an essential instrument for investigation. Prerequisite: SPT 4809.

SPT 4940 Judicial Translation-Interpretation Internship (0-3). Students will spend a semester working in state and federal courts under the supervision of a professor, in order to practice in situations in what they have learned. May be repeated. Prerequisites: SPT 4804 and permission of the department required.

SPT 4941 Professional Translation-Interpretation Internship (0-3). Students will spend a semester working in state and federal courts under the supervision of a professor, in order to practice in situations what they have learned. May be repeated. Prerequisites: SPT 4803, SPT 4804 and permission of the department required.

SPT 4942 Medical Interpreting (3). Training medical interpretation, including ethics, professional standards, and roles of the medical interpreter. Extensive practice with authentic materials.

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. Prerequisites: Graduate standing or permission of the instructor.

SPW 3130 Spanish American Literature (3). Close reading and analysis of prose, poetry and drama. Selections from Spanish American Literature. Prerequisites: SPN 3422 or equivalent and oral and written proficiency in Spanish.

SPW 3323 Garcia Lorca's Theatre (3). Readings from representative plays by Spain's finest dramatist of the 20th century, including his three well-known tragedies and a number of short comic plays. Discussion of such themes as social and individual justice and freedom; passion and repression; and the role of poetry in the theatre. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3342 Twentieth Century Spanish Poets (3). Readings from selected poets of the 20th century, such as Antonio Machado, Miguel Hernandez, Damaso Alonso, and Rafael Alberti. Close examination of the poems representative of these poets, and their contribution to the development of Spanish poetry from the Generation of 1898 to the middle of the 20th century. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3371 The Latin American Short Story (3). Readings from the 19th century authors and such 20th century masters as Borges, Cortazar, Cabrera Infante, Garcia Marquez, and Rulfo. Examination of short-story techniques and of such themes as social satire, the nature of reality, reason, and irrationally. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3392 Cuban Culture Through Cinema (3). The evolution of popular culture in Cuba as expressed in films from the 1930s to the present.

SPW 3423 Masterworks of the Golden Age (3). Readings from selected masterpieces of the Spanish Renaissance and Baroque, such as La Celestina, Lazarillo de Tormes, and the short novels of Cervantes. Emphasis on satire and the representation of such human problems as freedom, poverty, and the rebellion of the individual. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3520 Prose and Society (3). The dynamics of participation and alienation between prose writers and their environment. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3604 Don Quijote (3). A careful reading and discussion of Cervantes' Don Quijote, with particular attention to its multiple meanings in human terms, its innovative contributions to the novel in Europe, and the author's use of irony, characterization, and humor. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3720 The Generation of 98 (3). Based on the works of Azorin, Baroja, Ganivet, Machado, Maetzu, Unamuno, and Valle-Inclan. This course will emphasize the individual thrust each author makes to foster artistic revolution and human regeneration, within a society characterized by abulia and existentialist anxiety. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 3810 Literary Analysis (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

SPW 3820 Peninsular Spanish Literature (3). Close reading and analysis of prose, poetry, and drama. Selections from Spanish peninsular literature. Prerequisites: SPN 3422 or equivalent and oral and written proficiency in Spanish.

SPW 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and instructor. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4133 Eastern Thought and Latin American Literature: The Age of Octavio Paz (3). An exploration of Eastern thought's influence on Latin American literature since pre-Columbian times: emphasis on Octavio Paz and his contemporaries, in relation to 20th-century Western thought.

SPW 4263 The Spanish Novel of the Nineteenth Century (3). Within the context of literature and society, representative Spanish novels of the epoch will be studied. Special attention will be given to Galdos and Clarin. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4271 The Spanish Novel of the 20th Century (3). A study of the genre in Spain before and after the Civil War. Emphasis will be on predominant narrative tendencies. Representative authors will be discussed, such as Cela, Laforet, Sender, Matute, Medio, and others. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4280 Spanish American Novel I (3). A view of Spanish American narrative from Colonial times to the turn-of-the-century with focus on the development of literary trends and movements. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4281 Spanish American Novel II (3). Study of Spanish America's outstanding novelists: Güiraldes, Carpentier, Cortázar, Fuentes, Vargas Llosa, Donoso, and García Márques. Considers their works in relation to Spanish American themes. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4300 Modern Spanish Drama (3). Examines the production of major Spanish playwrights from the middle of the 18th century to the present. Analyzes the social functions theatre has fulfilled in different periods, its intended audiences, and the poetics the authors represent. Prerequisites: SPW 3820 or SPW 3130 or permission of the instructor.

SPW 4304 Latin American Theatre (3). A view of Latin American theatre from the 19th century to the present. Representative works of the most renowned dramatists will be examined, with emphasis on the works of Usigili, Triana, Márques Wolff, and Diaz. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4334 Golden Age Poetry (3). Selected readings from the major lyric poets of the 16th and 17th centuries. Special attention to the problems of contemporary readings of classical texts. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4341 19TH- and 20TH- Century Traditions in Spanish Poetry (3). Examines major traditions and styles in 19th- and 20th- century Spanish peninsular poetry. Prerequisites: At least one course in Spanish or Spanish American literature.

SPW 4343 Poetry of Garcia Lorca (3). Chronological examination of the major works of Spain's greatest poet. Special attention to the lyric and dramatic features. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4344 Modern Spanish Poetry: The Avant-Garde (3). Analysis of the significance of the avant-garde as well as vanguard poetry during Spain's Silver Age. Contrast Spanish avant-garde poetry with modernism. Discuss F.G. Lorca and the Generation of 1927. Prerequisites: Advanced knowledge of Spanish language. At least one course in Spanish literature (level 3 or higher).

SPW 4351 Spanish American Poetry I (3). A view of Spanish American poetry from the Pre-Colonial period until 1850. Representative works of the most renown poets will be examined, with emphasis on Ercilla, Sor Juana, Bello, Heredia, and Avellaneda. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4352 Spanish American Poetry II (3). A view of Spanish American poetry from 1850 to the present. Representative works of the important poets will be examined, and special attention will be given to Lezama Lima, Parra, Paz, and Vallejo. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4364 The Spanish American Essay (3). A study of the ideological and intellectual forces that have shaped the Spanish American thought, as expressed in the works of representative authors such as Rodo, Mallea, Martinez Estrada, Paz, Manach, and others. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4380 Violence in Latin America Through Fiction and Film (3). Examines contemporary Latin American representations of violence through works of literature, film, and visual art during the late 20th and 21st centuries. Prerequisite: SPN 3422 or Advanced Proficiency in Spanish

SPW 4384 Spanish-American Literature Before Independence (3). Studies Spanish-American literature prior to Independence providing a general understanding of the development of literature from the Conquest to the Enlightenment. Prerequisites: SPW 3130 & SPW 3820 or permission of the instructor.

SPW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama). Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4391 Contemporary Spanish Cinema (3). Cinematographic modes of representing reality in the Spain of the post-Franco era. Focuses on class, race, gender, culture, aesthetics, and ideology.

SPW 4397 Tradition and Modernity in Latin American Cinema (3) – *GL.* Survey of Latin American Film. Topics include: relations between cinema and the state, ideology, national identity, class, race and ethnicity, gender, and political memory.

SPW 4424 Golden Age Drama (3). Close readings from the finest plays written in Spain's Golden Age by Lope de Vega, Calderon, Tirso, and others, including the Don Juan theme. An examination of theatre as stylized conformity and as protest literature in a highly controlled society. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4440 18th Century Spanish Literature (3). Examines the most relevant poetry and prose produced by 18th century Spanish writers. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4470 Eastern Cultures and Travel Writing in Spanish Literature (3). Studies the formation and influence of Asia in 19th century Spanish and Spanish-American literary discourse.

SPW 4497 New Latin American Narratives (3). Provides a general view of the Latin American literary trends put forth by authors between the late 1990's and the beginning of the twenty-first century. Prerequisite: SPN 3422 or Advanced proficiency in Spanish.

SPW 4580 El Dorado in Hispanic Literature and Film (3). The Age of Discovery and Conquest in Hispanic literature and film. Considers the works of Columbus, Cadeza de Vaca and Lope de Aguirre in contrast with contemporary reconstructions of their lives. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4582 Hispanic Gothic: Horror and the Fantastic in Spain and Latin America (3). The forms and meaning of Gothic literature and film over the last two centuries in the Hispanic tradition. Outlines the major figures that define the genre in Spain and Latin America.

SPW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/ baroque, realism/surrealism. The peculiar/common features of expressive media. Prerequisites: SPW 3130 or SPW 3820 or permission of the instructor.

SPW 4930 Special Topics (3). Independent readings, research, or project.

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 multi-language problem, period, or aesthetic.

SPW 5225 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 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 sarniento, 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 5348 Avant-Garde Spanish Poetry: From Creacionismo to Lorca (3). Analysis of the significance of the avant-garde as well as vanguard poetry during Spain's Silver Age. Contrast Spanish avant-garde poetry with modernism. Discuss F.G. Lorca and the Generation of 1927. Prerequisites: Graduate status. Advanced knowledge of Spanish language. At least one course in Spanish literature (level 4 or higher).

SPW 5349 Modern Spanish Poetry: The 19TH and 20TH Centuries (3). A complete examination of the 19th- and 20th century Spanish peninsular poetry and related critical studies. Prerequisite: Graduate students status.

SPW 5358 Graduate Seminar: Prose and Poetry of Jorge Luis Borges (3). Close readings of short stories and poetry. Emphasis on Borge's linguistic and cultural pluralism and the interplay of philosophy with fabulation.

SPW 5388 Travel Writing and Cultures in Spanish Literatures (3). Studies Spanish and Spanish American travel literature and representation of otherness through different literary critical approaches.

SPW 5396 History of Cuban Cinema (3). Overview of Cuban Cinema, from its origins to the present.

SPW 5398 Africanism in Spanish Literature and Film (3). Studies the literary and artistic production generated by Spanish relationship with African cultures, as well as Afro-Spanish literature.

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 or 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 or permission of the instructor.

SPW 5408 Colonial Latin American Literature (3). The most important and representative literary works of Colonial Latin America from the Cronicas to Lizardi. Prerequisites: Upper level and graduate standing.

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 Gaite. 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 or permission of the instructor.

SPW 5535 Hispanic Romanticism (3). A transatlantic approach to literary production of Hispanic Romanticism. Prerequisite: Graduate standing.

SPW 5546 Hispanic Neoclassicism (3). Study of major Spanish and Spanish-American Neoclassic writers: Cadalso, Moratin, Jovellanos, Carrio de la Vandera, 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 or 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. Prerequisites: 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 5727 Hispanic Noventaiochism (3). Studies in narrative tendencies at turn of the century in Spanish and Spanish American literary production.

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, Maeztu, Unamuno and Valle-Inclan. Prerequisites: 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 or permission of the instructor.

SPW 5776 Black Literature in Latin America (3). An examination of the different genres in Latin American literature focusing on the life of Afro-Hispanics, from the beginning of this literary tradition to the present time. Prerequisite: Graduate standing.

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. Prerequisites: 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's 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.

SWA 1100 Introduction to Swahili Language and Culture (3). An introduction to Swahili language and culture, and development of communication skills for practice in the field during summer abroad program in Zanzibar-Tanzania. Corequisite: Participation in the study abroad program in Zanzibar-Tanzania.

SWA 1130 Swahili I (5). Beginning course in spoken and written language for students with limited or no knowledge of the language and culture.

SWA 1131 Swahili II (5). Second semester of beginning course in spoken and written Swahili language. Prerequisites: SWA 1130 or permission of the instructor.

TUR 1130 Turkish I (5). Course designed for students with no previous language study. Emphasis on oral Turkish and on acquiring basic language skills.

TUR 1131 Turkish II (5). Provides training in the acquisition and application of basic language skills. Prerequisites: TUR 1130 or permission of the instructor.

WOL 1130 Wolof I (5). Introductory course to the Wolof language and culture for students with no prior knowledge of the language.

WOL 1170 Introduction to Wolof Language and Culture (3). An introduction to Wolof language and culture, and development of communication skills for practice in the field during summer abroad program in Senegal and The Gambia. Corequisite: Participation on the study abroad program in Senegal and The Gambia.

YOR 1130 Yoruba I (5). Beginning course in spoken and written Yoruba language for students with limited or no knowledge of the language and culture.

Politics and International Relations

John F. Clark, *Professor and Chair*
Iqbal Akhtar, *Associate Professor*
Astrid Arrarás, *University Lecturer and Associate Director of Undergraduate Studies*
Nima Baghdadi, *Visiting Instructor*
Alexander Barder, *Associate Professor*
Kenneth Boodhoo, *Professor Emeritus*
Thomas A. Breslin, *Professor*
Danielle P. Clealand, *Associate Professor*
Ronald Cox, *Professor*
Kathryn A. DePalo-Gould, *University Instructor and Director, Pre-Law Advising and Training Office (PLATO)*
Shlomi Dinar, *Professor and Associate Dean, Steven J. Green School of International and Public Affairs*
Kevin Evans, *Associate Professor and Graduate Program Director, Political Science*
Clement Fatovic, *Professor*
Eduardo Gamarra, *Professor*
Amaryllis Garcia-Perez, *Visiting Instructor*
Harry D. Gould, *Associate Professor*
Tatiana Kostadinova, *Professor*
Barry Levitt, *Associate Professor*
Eric Lob, *Assistant Professor*
Charles MacDonald, *Professor Emeritus*
Todd Makse, *Associate Professor and Director of Undergraduate Studies*
Félix E. Martín, *Associate Professor*
Kyle Mattes, *Associate Professor and Associate Chair*
Mohiaddin Mesbahi, *Associate Professor and Founding Director of the Mohsin and Fauzia Jaffer Center for Muslim World Studies*
Anjana Mishra, *Visiting Instructor*
Sara Moats, *Senior Instructor*
Francisco O. Mora, *Professor and Director of Kimberly Green Latin American and Caribbean Center*
Dario Moreno, *Associate Professor*
Brian Nelson, *Associate Professor Emeritus*
John Oates, *Assistant Professor*
Nicholas Onuf, *Professor Emeritus*
Richard S. Olson, *Professor and Director of Extreme Events Research*
Joaquin A. Pedroso, *Instructor*
Mark Rosenberg, *Professor and University President*
Naisy Sarduy, *Instructor*
Charles Shields, *Visiting Instructor*
John F. Stack, Jr., *Professor and Founding Dean, Steven J. Green School of International and Public Affairs*
Judith H. Stiehm, *Professor*
Markus Thiel, *Associate Professor and Director of European Studies Program*
Chantalle F. Verna, *Associate Professor*
Marcie Washington, *Senior Instructor*
Jin Zeng, *Associate Professor and Graduate Program Director, International Relations*
Susanne Zwingel, *Associate Professor*

Bachelor of Arts in International Relations

Degree Program Hours: 120

The major in International Relations provides a broad education that will equip students for a wide variety of careers. The program for majors is designed to (1) encourage analysis of international relations theories, institutions, and processes within the broader context of the social sciences; (2) increase appreciation of the inter-disciplinary nature of the discipline; (3) provide the opportunity to acquire a fundamental understanding of international relations as a basis for citizenship, a career in government, or professional study and service; and (4) stimulate interest in graduate studies in various fields and disciplines.

Lower Division Preparation

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
None	None

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

None

Required for the degree:

INR 2001 Introduction to International Relations

Upper Division Program

International Relations majors must complete a minimum 33 semester hours of course work in the department with a grade of 'C' or better. Students should be mindful of the further requirement of the Green School that a minimum of 48 upper division credits (3000 level and above) is necessary for graduation. Students also need to pass 9 hours in upper division courses outside International Relations and must satisfy the Green School Foreign Language Requirement. In addition to INR 2001, students must complete the Core Requirement (3 credits), four Group 1 Courses (12 credits), four Group II Courses (12 credits), and two Group III Courses (6 credits). Students choosing to major in International Relations must officially declare their major by completing applicable forms. Forms can be obtained online through the OneStop Enrollment Services Office, or at the department office.

Core Requirement (3)

Take one of the following courses:

GEA 2000	World Regional Geography – *GL*
CPO 2002	Introduction to Comparative Politics
REL 3308	Studies in World Religion – *GL*
SYP 3456	Societies of the World
ECS 3003	Comparative Economic Systems
WOH 2001	World Civilization – *GL*
EVR 1017	Global Environment & Society – *GL*

Group I Courses (12)

In addition to the Core Requirement, INR majors must take at least one course (3 sem. hrs.) from each of the following four divisions in Group I. Consult "Course Descriptions" to identify which courses fulfill the first three divisions.

A. International Law/International Organizations (IL)
B. Foreign Policy/Security Studies (FP)
C. International Political Economy (IPE)
D. A fourth course from among the following:

1). An Additional INR-prefixed Group I course

2). Comparative Politics courses

CPO 3010	Comparative Politics: Theory and Practice – *GL*
CPO 3055	Authoritarians and Democrats
CPO 3104	Politics of the European Union
CPO 4034	The Politics of Development & Underdevelopment
CPO 4047	Politics of North American Cooperation
CPO 4053	Political Repression & Human Rights
CPO 4057	Political Violence and Revolution – *GL*
CPO 4062	Comparative Judicial Politics
CPO 4072	Comparative Electoral Behavior
CPO 4395	Race and Politics in the Americas
CPO 4725	Comparative Genocide
CPO 4726	Ethnicity and Nationalism
CPO 4735	Democratic Transitions
CPO 4737	Politics of Transition and Human Rights
CPO 4741	Comparative Political Economy
CPO 4930	Topics in Comparative Politics

3). Economics courses

ECS 3021	Women, Culture, and Economic Development – *GL*
ECO 4703	International Trade Theory and Policy
ECO 4733	Multinational Corporation

4). Geography courses

GEO 3001	Geographies of Global Change – *GL*
GEO 3471	Political Geography
GEO 3502	Economic Geography – *GL*
GEO 4354	Geography of the Global Food System – *GL*
GEO 4476	Political Ecology

5). History courses

EUH 3245	European History, 1914 – 1945
EUH 3282	European History, 1945 – Present
LAH 3718	History of US – Latin American Relations

6). Religious Studies course

REL 3194	The Holocaust – *GL*

7). Sociology and Anthropology courses

SYD 4237	Immigration & Refugees
SYP 4441	Sociology of World Development
SYP 4454	Globalization and Society

Group II Courses (12)

INR majors must also take at least four courses (12 sem. hrs.) in Group II, including at least one from each of the divisions in Group II. Consult "Course Descriptions" to identify which courses fulfill the first three divisions.

A. Area Studies (AS)*
B. Issues and Problems in International Relations (IP)*
C. A second Area Studies (AS) or Issues and Problems in International Relations (IP) course
D. One course from among the following:

1). Geography courses

GEA 3320	People, Place, and Environment of the Caribbean
GEA 3400	People, Place, and Environment of Latin America
GEA 3500	People, Place, and Environment of Europe
GEA 3554	People, Place, and Environment of Russia and Central Eurasia
GEA 3600	Population and Geography of Africa – *GL*
GEA 3635	Population and Geography of the Middle East
GEA 3705	Geography of Central Asia and the Caucasus

2). Religious Studies courses

REL 3310	Introduction to Asian Religions
REL 3330	Religions of India – *GL*
REL 3367	Islamic Faith and Society – *GL*
REL 3375	Religions of the Caribbean
REL 4370	African Religions

3). Economics courses

ECS 3200	Economics of Asia
ECS 3401	The Brazilian Economy
ECS 3402	The Political Economy of South America
ECS 3403	Economics of Latin America
ECS 3431	Economics of the Caribbean Basis

4). Anthropology or Sociology courses

ANT 4332	Latin America
ANT 4340	Caribbean Cultures
ANT 4352	African Peoples and Cultures
SYD 3650	Sociology of Gender and Power in Asia
SYD 4451	Japanese Society in Global Perspective
SYD 4630	Latin American and Caribbean Societies

5). Comparative Politics courses

CPO 3103	Politics of Western Europe
CPO 3204	African Politics
CPO 3304	Politics of Latin America
CPO 3403	Politics of the Middle East
CPO 3502	Politics of the Far East
CPO 3643	Russian Politics
CPO 4303	Politics of South America
CPO 4323	Politics of the Caribbean
CPO 4333	Politics of Central America
CPO 4340	Politics of Mexico
CPO 4360	Cuban Politics
CPO 4401	The Arab-Israeli Conflict

CPO 4404	Iraq: Politics and Society
CPO 4461	Politics of Eastern Europe
CPO 4507	Comparative Political Economics of Asia
CPO 4541	Politics of China
CPO 4553	Government and Politics of Japan
CPO 4955	Politics of the Czech Republic: Study Abroad
CPO 4956	Constitutional Politics of the Czech Republic: Study Abroad
CPO 4957	Czech Republic in the Global Arena: Study Abroad

6). Environmental Studies course

EVR 3402	Asian Environmental Issues

Note: INR 4943 Internship in International Affairs may count as the fourth Group II course as long as the student has completed one course from each of the three divisions, above. All internships must be approved at least six weeks before the start of the semester in which a student intends to intern, and are by permission of instructor only.

Group III Courses (6)
Students must take the following two courses. Please note the prerequisites for each course. Students may not take INR 4013 until they have completed INR 2001 and at least nine (9) credits in INR courses. Students must take INR 4013 before they take INR 4603. The following two courses may not be taken concurrently.

INR 4013	Development of International Relations
INR 4603	Theories of International Relations

General Electives

Students are encouraged to double major or pursue a minor in related fields such as political science, economics, geography, modern languages, history, sociology, anthropology, geography or business. We recommend students take introductory courses in economics and gain fluency in at least one foreign language. Students may also consider appropriate academic certificates such as those in Latin American and Caribbean Studies, Asian Studies, African and African Diaspora Studies, and European Studies.

Combined B.A. in International Relations/M.A in International Studies

The combined B.A./M.A. degree program allows highly qualified undergraduate students to pursue an accelerated M.A. degree in International Studies. Students accepted into this program will be able to complete the M.A. degree as much as one year sooner that would otherwise be possible.

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

To be accepted into the combined B.A./M.A. degree program, students must submit an M.A. program application by March 15 in their junior year (to apply, students must already have completed 75 credits in their undergraduate degree program). A complete application requires:

- Current enrollment in the B.A. program in International Relations at FIU
- GRE scores
- Minimum GPA of 3.5
- Two letters of recommendation
- Statement of purpose discussing research interests

All components of the application must be complete by the March 15 application deadline. Students should consult the graduate catalog and the Politics and International Relations Department website for a more comprehensive discussion of admission requirements. Students in the combined B.A./M.A. degree program must apply for their undergraduate degree as soon as possible after having satisfied the degree requirements.

The program gives students the opportunity to take up to 9 credits of graduate coursework in their senior year that will count towards both the B.A. and the M.A. Successful completion of the B.A./M.A. program will therefore require a total of 147 credit hours. Students will take three 5000 level graduate courses in their senior year and follow the regular M.A. curriculum after they earn their B.A. degree. A typical course of study is as follows:

Undergraduate Junior Year: apply to the program (March 15 deadline)

Undergraduate Senior Year
Fall Semester – take 12 credits, including one 5000-level course
Spring Semester – take 12 credits, including two 5000 level courses

Graduate Program
Summer – take 3 graduate credits (5000-level or higher)
Fall – take 9 graduate credits (5000-level or higher)
Spring – take 9 graduate credits (5000-level or higher)
Summer – take 6 graduate credits (thesis or comprehensive examination preparation)
Students in the combined B.A./M.A. program in International Studies must complete all other requirements for the M.A. degree in International Studies (please consult the graduate catalog and the Politics and International Relations Department's online graduate handbook.

Minor in International Relations

A student majoring in another academic discipline earns a Minor in International Relations by successfully completing approved course work of 18 semester hours in the Department of Politics and International Relations with a grade of 'C' or better. Neither internship credit not independent study may be applied towards the minor.

Student may apply for the minor by completing a Change of Major Form and have it signed by their Minor Advisor.

This program must include:

1. INR 2001 Introduction to International Relations (3)
2. One "outside INR major" course to be taken from among (3):

GEA 2000	World Regional Geography – *GL*
CPO 2002	Introduction to Comparative Politics
REL 3308	Studies in World Religion – *GL*
SYP 3456	Societies of the World
ECS 3003	Comparative Economic Systems
WOH 2001	World Civilization – *GL*
EVR 1017	Global Environment & Society – *GL*

3. A second "outside INR major" course to be taken from the same list (3)
4. One Group 1 course with an INR prefix (3)
5. One Group 2 course with an INR prefix (3)
6. Any other course with an INR prefix offered by the Department (3)

Bachelor of Arts in Political Science

Degree Program Hours: 120

The major in Political Science provides a broad education that will equip students for a wide variety of careers. The program for majors is designed to (1) encourage analysis of political theories, institutions, and processes within the broader context of the social sciences; (2) increase appreciation of political science as a discipline; (3) develop a continuing and responsible interest in political participation and public affairs; (4) provide the opportunity to acquire a fundamental understanding of political science as a basis for citizenship, a career in government, or professional study and service; and (5) stimulate interest in graduate studies in various fields and disciplines.

The curriculum is designed to not only expose students to the various areas of Political Science but also to allow reasonable specialization. Students are encouraged to create a blend of courses that fits their interests and they should work with the academic advisor in selecting courses.

Students admitted to the university are admitted directly to their chosen major. Students are expected to make good progress based on critical indicators, such as GPA in specific courses or credits earned. In cases where students are not making good progress, a change of major may be required. Advisors work to redirect students to more appropriate majors when critical indicators are not met.

Curriculum for Political Science Majors

A minimum of 30 credits of upper division work (3000 level and above) is required for a major in Political Science. A maximum of 6 of those credits may be in independent study and internship courses.

In addition, three 2000 level courses are required for a student to meet the department's prerequisite requirements for majors, including two state mandated "Common Prerequisites" (see below). These courses should be taken as early as possible in preparation for upper division work in the major. POS 2041-American Government (or its equivalent) is required of all Political Science majors. This course will also meet one of the two state mandated Common Prerequisites. The second Common Prerequisite may be fulfilled by taking either CPO 2002 Introduction to Comparative Politics, or INR 2001 Introduction to International Relations (or their equivalents). The department additionally requires a third 2000 level course (see below). These requirements can normally be met through course work at the community college level or taken at FIU. Students should be mindful of the further requirement of the Green School that a minimum of 48 upper division credits (3000 level and above) is necessary for graduation. Students also need to pass 9 hours in upper division courses outside Political Science and must satisfy the Green School Foreign Language Requirement.

No specific upper division courses are required. Rather, courses in Political Science must be distributed so that eight courses meet the Breadth Requirement and two other courses meet the Political Science Electives Requirement.

The student must earn a grade of 'C' or better in all Political Science courses to be credited toward the major. Students choosing to major in Political Science must officially declare their major by completing applicable forms. Forms can be obtained online through the Office of the Registrar, or at the department. Students should be mindful of the further requirement of the Green School that a minimum of 48 upper division credits (3000 level and above) is necessary for graduation. Students also need to pass 9 hours in upper division courses outside International Relations and must satisfy the Green School Foreign Language Requirement.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
POS 2041 and CPO 2002 or INR 2001	POSXXXX or INRXXXX or CPOXXXX and POSXXXX or INRXXXX or CPOXXXX

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites and Departmental Requirements

Common Prerequisites are those mandated by the state for Political Science majors. The department requires one additional 2000 level course, beyond the Common Prerequisites. In order to conform with both state and departmental requirements, students must take the following:

POS 2041	American Government (or its equivalent)

and two of the following three courses:

CPO 2002	Introduction to Comparative Politics (or

	its equivalent)
INR 2001	Introduction to International Relations (or its equivalent)
POT 2002	Introduction to Political Theory (or its equivalent)

These courses do not count toward the 30 credits of upper division work required for the major.

Requirements for a Major

I. Breadth Requirement (24 credits)
This is designed to acquaint all majors with the four general fields of Political Science. Two three semester hour courses must be taken in each of the following subfields, for a total of 24 semester hours. These courses may not include independent studies, internships or POS 4784 Analytic Writing in Political Science.

American Politics - Any two 3000 level or above courses with a POS prefix, or PUP 4004, except POS 4784. (6 credits)
Comparative Politics - Any two 3000 level or above courses with a CPO prefix. (6 credits)
International Politics - Any two 3000 level or above courses with an INR prefix. (6 credits)
Political Theory - Any two 3000 level or above courses with a POT prefix. (6 credits)

II. Political Science Electives Requirement (6 credits)
Two upper division courses with POS, CPO, INR, or POT prefixes, for a total of 6 credits. Independent studies, internships and/or POS 4784 can be applied toward the Political Science Electives Requirement.

Bachelor of Arts in Political Science: Social Studies Education Major

This program prepares students interested in Social Studies and social sciences for teaching at the secondary level. The major incorporates current results from education research, effective curriculum materials, use of technology, and a global perspective in collaborative learning. Program requirements include field experiences and an internship. Interested students are encouraged to contact the department for additional details and information on teacher support programs.

To qualify for admission to the program, undergraduate candidates must have met all the lower division requirements including: 60 credit hours of lower-division courses, all general education requirements, lower division GPA of 2.5 or higher, and achieve the competencies of the FTCE General Knowledge Exam (GK).

All students must pass the GK Exam by the time they reach 72 credit hours in their program of study. A student who meets these minimum requirements is not automatically assured admission.

Lower Division (9 credits)

(Common Prerequisites as detailed under the B.A. degree in political science)

POS 2041	American Government – *CL* (or its equivalent)

and two of the following three courses:

CPO 2002	Introduction to Comparative Politics (or its equivalent)
INR 2001	Introduction to International Relations (or its equivalent)
POT 2002	Introduction to Political Theory (or its equivalent)

Additional Lower Division Courses (3 credits)

GEA 2000	World Regional Geography – *GL*	3

Upper Division (30 credits total)

POS 3413	Presidency	3
	or	
POS 3424	Legislative Process	3
CPO 3103	Politics of Western Europe	3
	or	
CPO 3304	Latin American Politics	3
POT 3103	Ancient and Medieval Political Theory	3
INR 3102	American Foreign Policy	3
POS 3xxx/4xxx	Elective	3
	or	
PUP 4004	Public Policy: U.S.	3
CPO 3xxx/4xxx	Elective	3
POT 3xxx/4xxx	Elective	3
INR 3xxx/4xxx	Elective	3
	and	

Two Political Science Electives at 3000 level or higher for 3 credits each.

And (30 credits)

EDP 3004	Educational Psychology	3
SSE 4383	Perspectives in Social Science Education	3
SSE 3346	Social Science Content and Pedagogy	3
SSE 4380	Developing a Global Perspective – *GL*	3
SSE 4384	Special Teaching Lab	3
SSE 4942	Student Teaching	6
SSE 3XXX	Social Science Subject Area Knowledge	3
RED 4325	Subject Area Reading	3
TSL 4324	TESOL Issues and Strategies for Content Area Teachers – *GL*	3

Combined B.A./M.A. in Political Science

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

Admission Requirements

1. Students must have completed 75-90 credit hours.

2. Students must have been admitted to the Green School.
3. A 3.5 GPA overall in college work, and a 3.75 GPA in Political Science courses taken at FIU are required.
4. Three letters of recommendation, at least two of which must be from FIU Political Science faculty, are required.
5. Students must meet admissions requirements for the M.A. in Political Science.
6. Finally, a favorable decision into the 4+1 program by the Political Science graduate committee is required.
7. Students will be awarded the B.A. degree upon completion of the B.A. requirements, prior to completing the requirements for the M.A. degree.

Common Prerequisites and Departmental Requirements (3 courses/9 credits)

The Common Prerequisites are required introductory courses for the undergraduate major and should be among the first Political Science courses taken. The department requires one additional 2000-level course beyond the Common Prerequisites. In order to conform with both state and departmental requirements, students must take the following:

POS 2041	American Government (or its equivalent)
and two of the following three courses:	
CPO 2002	Introduction to Comparative Politics (or its equivalent)
INR 2001	Introduction to International Relations (or its equivalent)
POT 2002	Introduction to Political Theory (or its equivalent)

Some transfer students will have already taken these or equivalent courses at other institutions, and should not repeat them at FIU. Students with questions about course equivalencies should contact the Associate Director of Undergraduate Studies.

Breadth Requirement (8 courses/24 credits)

The Breadth Requirement is intended to expose majors to each of the four major sub-fields of Political Science. Two three-hour courses must be taken in each of the following subfields, for a total of 24 semester hours. These courses may not include independent studies, internships or POS 4784 Analytic Writing in Political Science.

American Politics - Any two 3000-level or above courses with a POS prefix, except POS 4784. PUP 4004 may be used as one of the required two American Politics courses. (6 credits)
Comparative Politics - Any two 3000-level or above courses with a CPO prefix. (6 credits)
International Politics - Any two 3000-level or above courses with an INR prefix. (6 credits)
Political Theory - Any two 3000-level or above courses with a POT prefix. (6 credits)

II. Political Science Electives Requirement (6 credits)
Two upper division courses with POS, CPO, INR, or POT prefixes, for a total of 6 credits. Independent studies, internships and/or POS 4784 can be applied toward the Political Science Electives Requirement.

Political Science Graduate/Undergraduate

Electives Requirement (3 courses/9 credits)

Students in the 4+1 program will take three 3-credit graduate Political Science courses at the 5000-level to satisfy this requirement. Students must be advised by the departmental Graduate Program Director before enrolling in these 5000-level courses.

The 9 hours of graduate credit taken to satisfy the undergraduate Political Science major requirement will also count as 9 credit hours toward the 30 hours of graduate courses required for the M.A. degree.

M.A. Courses

A total of 30 hours of graduate-level courses is required for the successful completion of the M.A. degree. Nine of these 30 hours will have been completed at the undergraduate level by students in the 4+1 program.

Required Core Graduate Courses

POS 5706	Research Methodology
POS 5716	Foundations of Political Science
POS 6976	Research Seminar (to be taken during last term)

Secondary Core Graduate Courses – Choose three of the following:

CPO 5091	Seminar in Comparative Politics
INR 5007	Seminar in International Politics
POS 5045	Seminar in American Politics
POT 5007	Seminar in Political Theory

Electives – Four courses (12 credit hours)
Any 5000- or 6000-level Political Science courses. Two courses (6 credit hours) may be taken from outside the Department, with prior approval from the Graduate Program Director.

Research Project
A final research project must be completed in POS 6976 under the supervision of a Politics and International Relations faculty member. M.A. candidates are required to formally present the results of their research to faculty and peers at the end of the semester. The M.A. project will be evaluated by a three-member faculty panel.

Minor in Political Science (18 credits)

Lower Division Requirement (3 credits)

POS 2041	American Government (or its equivalent)

Upper Division Requirement (15 credits)

Any five upper division (3000 level and above) courses selected from at least two of the following course prefixes: CPO, INR, POS, or POT, **not including independent study courses, internship courses**, or POS 4784 (Analytical Writing in Political Science).

All courses for the minor must be passed with a 'C' or better grade. Students should select specific courses in consultation with their major advisor and minor advisor. Students must apply for a minor by completing a Change of Major Form and have it signed by their Minor Advisor.

Pre-Law Students

The Department of Politics and International Relations recognizes the interests and needs of the undergraduate major who plans to attend law school. The basic skills

important to such students include how to (1) think logically, (2) read critically, and (3) write and present clearly and correctly.

These skills are developed in a number of disciplines. Beyond these basic skills, the department encourages interested majors to acquire a broad background in Political Science or International Relations rather than to select only courses that deal with public law.

Students should register their interest in pre-law by sending an email to **prelaw@fiu.edu**. The Pre-Law Advising and Training Office (P.L.A.T.O), which is located in the Department of Politics and International Relations, holds regular pre-law seminars about the law school admission process and helps students lay a solid foundation for law school and the practice of law.

In selecting electives, Political Science and International Relations majors should remember that the LSAT and the practice of law require the ability to read with comprehension, apply logical analyses, and to express oneself with clarity and precision. Whether or not a given major will benefit from a particular elective is a question best answered by the student in close consultation with an advisor. Courses in History, Philosophy, Economics, Sociology, Psychology, Math, and English will probably all give relevant skills to majors interested in pre-law. Breadth of preparation is important. Whether a particular course in logic, writing or another area is the best choice can only be answered on an individual basis.

Public Affairs Internships

The Department is committed to providing opportunities for practical experiences in governmental and nongovernmental or non-profit agencies. Four categories of internships are open to qualified students:

1. Judicial Internships POS 4944 (Prerequisites: Permission of the instructor; POS 2041 or equivalent; and POS 3283, POS 3603, POS 3604 or POS 4284)
2. Legislative Internships POS 4941 (Prerequisites: Permission of the instructor, POS 2041 or equivalent; and POS 3424, POS 4122, POS 4182 or POS 4188)
3. Executive Internships POS 4945 (Prerequisites: Permission of the instructor; POS 2041 or equivalent; and POS 3152, POS 3413, POS 4182 or POS 4188)
4. Washington Center Internships (administered through the Washington Center, an organization providing opportunities for semester length programs of internship and coursework in Washington, D.C. See **http://www.twc.edu** for further information).

Internships are generally limited to students who are pursuing a major or who have completed a minor in the Department of Politics and International Relations. Enrollment is by permission of the instructor only and students must have a 3.0 GPA in order to enroll in internship credit. A student wishing to enroll as a public affairs intern should consult with the Associate Director of Undergraduate Studies early in the preceding semester and receive written permission to enroll. All placement locations must be approved in advance by the Associate Director of Undergraduate Studies. Any student planning an internship abroad must also meet with the Office of Study Abroad before finalizing their internship.

Students should consult their advisor on the maximum number of credits they may take as an intern. Generally, a political science major may count a maximum of six credit hours in internships toward his/her major; an international relations major may count a maximum of three credit hours in internships toward the major.

All public affairs internships are graded on a Pass/Fail basis.

For further information on internships, contact the Associate Director for Undergraduate Studies.

Upper Division Transfer Credit

Students will generally receive transfer credit for junior and senior level courses in Political Science or International Relations with a grade of 'C' or higher. While a student may transfer up to 30 credits of upper division work, the department will only accept 15 credits towards the Political Science or International Relations curriculum. All decisions to recognize transfer credit rest with the department's Director of Undergraduate Studies or chairperson.

Undergraduate Advising

The Department of Politics and International Relations has full-time advisors available to answer student questions regarding degree requirements, transfer credit, and graduation. All new majors should make an appointment through their Student Dashboard to meet with their assigned advisor in advance of their enrollment in the program. Students who want to pursue a minor in political science or international relations should also meet with an advisor, and can make an appointment by calling the department office (305) 348-2226. Prior to registering for their final semester of courses, graduating seniors should absolutely meet with their advisor for a graduation check to review their records.

Students who are interested in pursuing graduate studies in political science or international relations are encouraged to meet with a member of the faculty as early as their junior year to discuss their academic preparation and the admissions process. In addition, all faculty are willing to meet with students to discuss their academic work and career planning.

Course Descriptions

Definition of Prefixes

CPO-Comparative Politics; INR-International Relations; POS-Political Science; POT-Political Theory; PUP-Public Policy

Courses that meet the Breadth Requirements for the political science major are identified by subfield following the course title: (AP) American Politics; (JP) Judicial Politics; (CP) Comparative Politics; (IP) International Politics; and (PT) Political Theory.

Courses that meet the requirements for the international relations major are identified by subfield following the course title: (IL) International Law/International Organizations; (FP) Foreign Policy/Security Studies; (IPE) International Political Economy; (AS) Area Studies; (IP) Issues and Problems in International Relations.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

Courses that meet the University's Global Learning requirement are identified as *GL*.

CPO 2002 Introduction to Comparative Politics (3). Analysis of major theories of comparative politics including development, state building, institutions, patterns of political interaction and comparative elites. Focus on Latin America and the Third World.

CPO 3010 Comparative Politics: Theory and Practice – *GL* (3). Examines major theories and methods of comparative politics, focusing on divergent political systems (Democracy, Authoritarianism, Totalitarianism). Countries/regions studied vary with instructor.

CPO 3055 Authoritarians and Democrats – *GL* (3). Examines the collapse of democracy, rise of authoritarianism, the breakdown of authoritarian regimes, incipient processes of democracy and its challenges.

CPO 3103 Politics of Western Europe (3). Studies of political systems of the major European countries on a comparative basis. Attention is focused on such factors as political party systems, the cabinet form of government, and EU politics.

CPO 3104 Politics of the European Union (3). Traces the development of the governmental forms and structures in the evolution of the European Union and compares them to governmental structures in other regional and global multinational organizations.

CPO 3204 African Politics (3). Compares the politics of Sub-Saharan Africa, and the Republic of South Africa and addresses questions of economic development, the colonial legacy, and the impact of traditional social patterns.

CPO 3304 Politics of Latin America (3). This course analyzes the multiple structures, processes, and groups which are relevant to an understanding of Latin American political economy. Of special interest are the political impacts of land and wealth inequality and economic dependency. The dynamics of Latin American politics are considered, with an emphasis on the role of the military and the church. Alternate strategies for modernizing the region are considered.

CPO 3403 Politics of the Middle East (3). This course will focus on the social, cultural, and political aspects of the Middle East region. Through an understanding and an interweaving of these complex facets, a student should gain a foundation and background for comprehension of the contemporary conflict which pervades this mercurial region.

CPO 3502 Politics of the Far East (3). An intensive examination of the major political institutions of China, Japan, and Korea. A critical analysis of changing aspects of traditional relationships in Far Eastern political culture and major reform movements in contemporary Far Eastern politics. Allows the student to better understand nations whose political development will be an important factor in global development.

CPO 3643 Russian Politics (3). Examines the political structure and institutions of Russia. Attention is paid to the historical and cultural aspects of the structure and use of power.

CPO 4034 The Politics of Development and Underdevelopment (3). This course is an analysis of the causes of development and underdevelopment in Third and Fourth World countries. It includes an analysis of major theoretical approaches to understanding development problems, as well as an analysis of the roles of major national and non-national actors.

CPO 4047 Politics of North American Cooperation (3). Analyzes US, Canadian and Mexican political processes related to creation of NAFTA. Examines questions of migration, border and human security, and the US politics of securitization after 9/11/2001.

CPO 4053 Political Repression and Human Rights (3). Examination of domestic factors resulting in political repression and violations of human rights. American, European, and South American examples will be used.

CPO 4057 Political Violence and Revolution – *GL* (3). An examination of major historical instances and modern expressions of political violence; discussion of revolution from a comparative perspective. Attention will focus on the social origin and political determinants of such events.

CPO 4062 Comparative Judicial Politics (3). An examination of the various modes of dispute settlement and rule adjudication cross-culturally. Emphasis is on the similarities and differences of judicial behavior, judicial decision-making, judicial recruitment, and judicial powers in cross-national analysis.

CPO 4072 Comparative Electoral Behavior (3). Public opinion, voting choice, and electoral patterns from a comparative and historical perspective. Attention will focus on West Europe and Latin America. Differences from North American trends and patterns will also be detailed.

CPO 4303 Politics of South America (3). A cross-national discussion of the political systems and cultures of the Latin American nations, with special emphasis on the larger countries. Attention is given to the role of the military and to the problem of violence. Designed to give the student an overview of the political life of the nations with whom we share this hemisphere.

CPO 4323 Politics of the Caribbean (3). Studies the political system of the major British, French, Dutch, and Spanish areas in the Caribbean basin. Attention is focused on such factors as political party democracies in a nonindustrial setting. The paradoxes between modernity and tradition throughout the developing Caribbean, and the relationship between politics, economics, and culture are discussed. The student is helped to understand the dynamics of change in an important area of the world and to compare those dynamics with change in his own country.

CPO 4333 Politics of Central America (3). This course analyzes the historical and contemporary political dynamics of the five countries of Central America. Special attention is given to problems of development and modernization within the context of the region's economic dependence on the United States. Special attention is given to the problem of political restraints on the modernization process and to those regional arrangements which have been created to solve the area's problems. The student will develop a better understanding of a region which has close ties to the United States.

CPO 4340 Politics of Mexico (3). This course analyzes the structure and process of the Mexican political system from four perspectives: 1) Mexico's revolutionary heritage; 2) its formal governmental structure; 3) formal political relations; and 4) the structure and process of Mexican political economy.

CPO 4360 Cuban Politics (3). Examines the course of twentieth century Cuban politics. The course is sub-divided into five parts covering the three periods of relatively stable politics and the two major revolutions.

CPO 4394 Race and Politics in the Americas (3). This course is aimed at students with a desire to gain an in-depth understanding of theories and issues regarding politics, race, inequality and identity in the U.S. and Latin America.

CPO 4401 The Arab-Israeli Conflict (3). This course provides the student with an introduction to the political roots of the Middle East conflict, and examines the dilemmas of finding a solution by focusing on the domestic and international constraints imposed upon the major actors.

CPO 4404 Iraq: Politics and Society (3). Surveys the development of politics and society in Iraq over the past century to the present.

CPO 4461 Politics of Eastern Europe (3). An examination of the historical and contemporary political dynamics of the countries of Eastern Europe. Special attention is given to the process of "democratization" and the effort to move towards a liberal-democratic, capitalist order.

CPO 4507 Comparative Political Economics of Asia (3). Introduction to the political economy of East and Southeast Asia. Course is segmented into three parts: overview of Asia Pacific; survey of specific countries; and trends and transformations.

CPO 4541 Politics of China (3). This course introduces students to China's political history from 1840 and analyzes politics in the People's Republic of China with special emphasis on political and economic development, socio-economic and political conflict, ideology, and foreign policy.

CPO 4553 Government and Politics of Japan (3). Introduction to Japanese politics. Special attention is given to the Japanese variant of democracy, the capitalist state, and foreign policy.

CPO 4725 Comparative Genocide (3). A comparative analysis of the pre-conditions and processes associated with major cases of 20th century genocide, including Armenia, Germany, Cambodia, Bosnia, and Rwanda.

CPO 4726 Ethnicity and Nationalism (3). Surveys and systematically compares multi-ethnic and multi-national states, politically, socially, and economically. Investigates integration, assimilation, coexistence, and stratification. (F)

CPO 4735 Democratic Transitions (3). Study of democratic transitions, their pre-conditions and global spread in post-Cold War era from a comparative perspective through the lens of various theories and methodologies.

CPO 4737 Politics of Transition and Human Rights (3). Study of human rights in context of democratic transitions. Focus on democratic theory and role of international community. Case studies will illuminate post-Cold War transitions as models for future.

CPO 4741 Comparative Political Economy (3). Examines the theoretical approaches used to assess the relationship between political institutions and private economic interests in advanced, industrial countries and the less developed world.

CPO 4930 Topics in Comparative Politics (3). An intensive examination of a topic in comparative politics. Subject matter varies according to the instructor. Topic to be announced in advance.

CPO 4955 Politics of the Czech Republic: Study Abroad (3). Examination of Czech political system, its history and current constitutional structure. Course is taught by FIU and Czech faculty with significant study abroad component.

CPO 4956 Constitutional Politics of the Czech Republic: Study Abroad (3). An examination of the development of individual rights in the Czech Republic in a study abroad setting. Particular attention to issues of liberty and equality.

CPO 4957 Czech Republic in the Global Arena: Study Abroad (3). Examination of the global political environment of the Czech Republic. Special attention to external factors, internal demands and the political, economic and social forces that impact foreign policy decisions.

CPO 5036 Politics of Development (3). This course examines divergent explanations for development and underdevelopment. Of central importance are the concepts and theories which emphasize the political dimensions of development, including theory and concept, 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 the 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 5745 Political Economy of Disaster Risk Reduction (3). Examines the political economy of attempts, or lack thereof, to reduce the exposures and vulnerabilities to natural and/or technological hazards of communities across world regions. 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.

INR 2001 Introduction to International Relations (3). Introduction to the interactions among international actors: states, international organizations, and transnational groups. Concepts such as power and national interest will be introduced.

INR 3030 Diplomacy (FP) (3). Covers theory and practice of diplomacy, including negotiation, conflict resolution, ethics and human rights, and economic diplomacy. Examines both diplomatic history and contemporary foreign policy problems.

INR 3043 Population and Society (IP) (3). Introduction to basic demographic concepts: fertility, mortality, migration, urbanization. Discussion of economic development, modernization and population change. Examination of sources of data and background information including censuses and vital statistics, and their utilization.

INR 3045 The Global Challenge of Refugees and Migrants (IP) (3). Examines political and economic challenges stemming from the international movement of refugees and economic migrants. Emphasizes the role of state power, organizations and law in structuring responses.

INR 3061 Conflict, Security and Peace Studies in INR (FP) (3). Introduces students to basic theoretical arguments and empirical cases on security, peace and strategic studies. Examines the evolution of conflict resolution and post-conflict reconstruction.

INR 3081 Contemporary International Problems – *GL* (IP) (3). Examines selected world and regional issues and problems. Topics vary according to the instructor.

INR 3102 American Foreign Policy (FP) (3). An examination of the legal, administrative, and political structure by which American foreign policies are formulated and implemented. Includes a discussion of the objectives and consequences of United States foreign policy in selected regional, social-economic, and ideological areas. Enables the student to understand the procedures by which foreign policy is made and implemented in the United States.

INR 3214 International Relations of Europe (AS) (3). An examination of the international, social, economic, and political life of contemporary Europe. Emphasis given to international organizations and the trend toward economic and political integration.

INR 3223 Japan and the United States (AS, FP) (3). Examines the international relationship between two of the most powerful and economically significant states of this and the next century and the international problems they must face together.

INR 3224 International Relations of East Asia (AS) (3). Examines strategic and economic aspects of international relations among China, Japan, North Korea, and other nations of East Asia.

INR 3226 International Relations of Central Asia and the Caucasus (AS) (3). Analysis of international relations of Central Asia and the Caucasus, domestic and external sources of region's foreign policy and its geopolitical, geoeconomic and geocultural dynamics.

INR 3227 International Relations of South Asia (AS) (3). Examines international relations of Indian subcontinent. Looks at basic patterns of international, political, economic, cultural, and ideological relations of the region.

INR 3243 International Relations of Latin America (AS) (3). An examination of international, social, economic, and political life of Latin America. Emphasis given to the role of international organizations; regionalism; and the trend toward economic integration.

INR 3246 International Relations of the Caribbean (AS) (3). An examination of the international social, economic, and political life of the Caribbean. Includes English, Spanish, and French speaking regions.

INR 3251 African Development (AS, IP) (3). Examines theories of underdevelopment in Africa and explores international efforts to promote national and human development on the continent.

INR 3252 International Relations of North Africa (AS) (3). An examination of the social, political and economic structure of North Africa and the manner in which its historical development has conditioned international relations within and external to the region.

INR 3253 International Relations of Sub-Saharan Africa (AS) (3). An analysis of the international relations of sub-Saharan African nations with one another and with other, non-African nations. Examines the effects of such international relationships on development, politics, and social change in sub-Saharan Africa.

INR 3262 International Relations of Russia and the Former USSR (AS) (3). Analysis of the international relations of countries of the former USSR, covering the Soviet and post-Soviet eras. Emphasis on Russia, Muslim Central Asia, and their impact on the international system.

INR 3274 International Relations of the Middle East (AS) (3). An examination of the international social, economic, and political life of the Middle East. The role of oil in the region will receive special attention.

INR 3303 Foreign Policymaking (FP) (3). Introduces and explores models of foreign policymaking, applied to international strategic, economic, and social problems.

INR 3331 European Foreign and Security Policy (FP) (3). Familiarizes students with European foreign policies and security institutions in the context of European integration. Addresses areas of security and defense, trade and development cooperation.

INR 3403 International Law (IL) (3). Introduction to the legal concepts, framework, and institutions which play a role in international relations theory and practice.

INR 3502 International Organizations (IL) (3). The study of international political, economic, and social organizations and their impact upon the relations between nations. Emphasis on the constitution, voting, membership, security and operation of such organizations, and the settling of international disputes through these bodies.

INR 3703 International Political Economy (IPE) (3). Explores the important concepts, theories, and contending approaches used in the study of international political economy.

INR 4013 Development of International Relations Thought (3). The nature and characteristics of international relations from antiquity to the end of the First World War. Examination of the religio-philosophical, socioeconomic and political ideas and systems associated with them. Study of select historical occurrences and patterns of social change and their interaction with the dynamics of international relations. Prerequisite: INR 2001 and nine (9) additional credits in INR courses.

INR 4031 The Media and International Relations (IP) (3). Explores the impact of print and visual media on the practice of International Relations. Examines how the media and their technologies determine the outcome of International Relations.

INR 4032 Asia and Latin America in World Affairs (AS) (3). Examines the linkages between Asia and Latin America, their roles in world affairs, the domestic sources of foreign policies of states in the two regions, as well as the international issues confronting the two areas.

INR 4054 World Resources and World Order (IP) (3). An examination of the impact of the quantity and distribution of the world's resources upon the relations between nations. The availability of mineral resources and food, in particular, will receive attention; and an assessment will be made of the international economic and political implications deriving there from.

INR 4073 International LGBT Politics and Advocacy (3). Examines transnational issues surrounding LGBT rights in policy and society, and analyzes case-studies to highlight the plurality of approaches globally.

INR 4075 International Protection of Human Rights – *GL* (IL, IP) (3). Development of the concern of the international community with the rights of individuals and groups and the institutional mechanisms which have been set up for their protection.

INR 4076 International Relations of Drug Trafficking (IP) (3). Examines international drug trafficking and its foreign and domestic policy implications. Deals with supply and demand reduction, and international cooperation in suppressing trafficking.

INR 4077 International Relations & Women's Human Rights (IP) (3). Identifies and explains global human rights issues that affect women's lives. Examines existing international legal instruments that allow women to have basic rights recognized. Fulfills SACS oral competency requirement.

INR 4082 Islam in International Relations (IP) (3). Analysis of the role of Islam in shaping the dynamics of contemporary international relations. Emphasis on ideological, cultural and political role, Islamic movements and states and relations with the West.

INR 4084 Ethnicity in World Politics (IP) (3). This course examines the political dimensions of ethnic conflict from a comparative perspective. It evaluates the dynamics of ethnic conflict in Western Europe, Africa, Latin America, and the United States, through a series of case studies.

INR 4085 Women and Men in International Relations (IP) (3). Surveys the differential roles of women and men in international relations, gender based politics at a global scale, and constructions of proper womanhood and manhood in transnational politics.

INR 4091 Ethical Problems in International Relations (IP) (3). Explores several approaches to the international ethical problems posed by intervention, human rights abuses, nuclear threats, global economic privation and other international phenomena. Prerequisite: INR 2001.

INR 4093 Postcolonialism in International Relations (3). Introduces students to the practice and ideology of colonialism, its global repercussions to the present day, as well as postcolonial thinking and political projects.

INR 4204 Comparative Foreign Policy (FP) (3). This course is an analysis of the development of the foreign policy-making process in the United States, Britain, France, West Germany, and Italy. Particular attention is directed to the domestic and international factors which affect the making of foreign policy.

INR 4232 International Relations of China (AS) (3). An examination of the development of China's international relations in the 20th century. Special attention to the development of institutional mechanisms for diplomacy and to problems of integrating domestic and foreign policies.

INR 4273 The International Relations of Iran and the Persian Gulf (AS) (3). Study of the contemporary international relations of Iran and the Persian Gulf since the Islamic Revolution in 1979, relations with the Middle East, Eurasia, the Western World and the United States.

INR 4335 Strategic Studies and National Security (FP) (3). The role of force in international relations is examined. The use and control of force in theory and practice is analyzed. Special attention is paid to contemporary national security issues.

INR 4350 International Environmental Politics (IP) (3). Addresses environmental politics from an international perspective. Ecological problems and issues are becoming international, environmental problems are crossing national borders, and public attitudes.

INR 4408 Topics in International Law (IL, IP) (3). An intensive examination of selected topics in international law and relations among nations. Topics will vary according to the interests of the instructor and the students.

INR 4411 International Humanitarian Law (IL, IP) (3). Provides students with conceptual, legal, and critical understanding of major issues of International Humanitarian Law. Allows students to develop analytical work and research in this field. Prerequisite: INR 3403.

INR 4412 International Law of the Sea (IL, IP) (3). Introduction to the legal and political foundations of the law of the sea. Emphasis on rule of law of the sea treaties, efforts to conserve marine environment, and the resolution of maritime disputes.

INR 4436 International Negotiation (FP, IP) (3). Introduces students to the main components of international negotiations analysis. Surveys the various stages of a negotiation process and examines key. Applies theory to practice by considering and analyzing a set case of studies.

INR 4501 Multinational Organizations (IL) (3). The course examines contemporary international politics through an analysis of inter-governmental and non-governmental actors. It emphasizes the prominent role played by increasing levels of transnational relations, interdependence, and global dominance in world politics.

INR 4521 Politics of Regional Integration (IL, IP) (3). Examines regional economic blocs - European Union, NAFTA and Pacific Rim. Forces influencing regional integration and effects on global trade are studied.

INR 4603 Theories of International Relations (3). Analysis and conceptualization of the forces and conditions which influence relations among nations. Emphasis is on the provision of an analytical basis for the study of international relations. Prerequisite: INR 4013.

INR 4707 The Political Economy of China (AS) (3). An introduction to the key issues in contemporary Chinese political economy and its development in a globalized society.

INR 4905 Independent Study (VAR). Directed independent research. Requires prior approval by instructor.

INR 4926 Model United Nations (3). Students participate in a UN simulation. Attention is given to the workings of the UN, negotiating skills, and critical international issues. Prerequisite: Permission of the instructor.

INR 4927 Advanced Model United Nations (3). The advanced model UN course fosters leadership among returning model UN delegates, facilitates advanced collegiate research, and promotes the development of the model UN program. Prerequisite: INR 4926.

INR 4931 Topics in International Relations (3). Varies according to the instructor.

INR 4933 Topics in International Politics (3). An intensive examination of a topic in international politics. Subject matter varies according to the instructor. Topic to be announced in advance.

INR 4937 Honors Seminar 1: Advanced Writings in International Relations (3). Instruction on the steps in research and writings including formulation of the research question, research design, argumentation and bibliography assembly on a theme in International Relations. Prerequisite: INR 2001. (F)

INR 4943 Internship in International Affairs (IP) (1-6). Opportunity to gain practical experience in international affairs by working at a consulate, governmental agency, non-governmental organization, private voluntary organization or institute. Prerequisites: Permission of the instructor; INR 2001 or equivalent; and a minimum of 9 INR credits at the 3000/4000 level.

INR 4949 Cooperative Education in Social Sciences (3). A student majoring in one of the Social Sciences (Economics, International Relations, Political Science, Sociology, or Psychology) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Cooperative Education Program and major department.

INR 4970 Honors Thesis (3). Under the direction of an appropriate faculty member, students research and write an honors thesis. Prerequisite: INR 4937.

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 5012 Global Issues and Human Rights (IP) (3). Identification, articulation and clarification of global issues that affect Human Rights and the global strategies used to challenge and overcome obstacles. Prerequisite: Graduate standing.

INR 5017 Approaches to Area Studies (AS) (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.

INR 5036 Politics of Globalization (IP) (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 5062 War, Peace and Conflict Resolution in INR (FP) (3). Explores the genesis of interstate conflict, the evolution of crisis, the outbreak of war and peace. Analyzes conflict resolution and post-conflict reconstruction processes in international relations.

INR 5066 Global and Human Security (3). Global and human security is an emerging paradigm intensified by the process of globalization and epitomized by transnational issues affecting the individual, state, region, and global system.

INR 5072 The Media and International Relations (IP) (3). Explores impact of visual and print media on practice and theory of international relations. Encourages students to question how representation of international relations issues are produced by everyday media culture. Prerequisite: Graduate standing.

INR 5086 Islam in International Relations (IP) (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.

INR 5087 Ethnicity and the Politics of Development (IP) (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 5088 Feminism and International Relations (IP) (3). Familiarizes students with major theoretical traditions of feminist thinking and surveys feminist literature in the subfields of security studies, political economy, and global governance. Prerequisites: Graduate standing or permission of the instructor.

INR 5105 American Foreign Policy (FP) (3). Compares different perspectives in foreign policy analysis. Provides a comprehensive understanding of major issues in U.S. policy.

INR 5255 Seminar in African Development (AS) (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. Prerequisite: Graduate standing.

INR 5256 Conflict and Peacemaking in Africa (3). An examination of the root and proximate causes of national and transnational conflict in Africa, and the range of approaches used to attempt to restore peace to such conflicts. Prerequisites: Graduate standing or permission of the instructor.

INR 5275 International Relations of the Middle East (AS) (3). Focuses on IR of the contemporary Middle East, the foreign policy of major regional states, regional conflicts, and the US and other great powers' involvement, and dynamics of social and religious movements and revolutions. Prerequisites: Graduate standing or permission of the instructor.

INR 5276 Graduate Seminar The International Relations of Iran and the Persian Gulf (AS) (3). Study of the contemporary international relations of Iran and the Persian Gulf since the Islamic Revolution in 1979, relations with the Middle East, Eurasia, the Western World and the United States.

INR 5315 Foreign Policy Analysis (FP) (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.

INR 5352 Environment and Security (IP) (3). Examines the relationship between environmental issues and international security. Surveys such topics as resource scarcity, environmental degradation, and deforestation and their implications for national and regional security. Considers such topics as international environmental law, and international environmental regimes.

INR 5409 International Law I (IL) (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.

INR 5507 International Organizations I (IL) (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.

INR 5543 International Political Economy of East Asia (AS) (3). Introduction to the international political economy of East Asia with a focus on different paradigms that explain the rise and fall of the economy of a number of states in East Asia.

INR 5544 The New Asian Century (AS) (3). Critically examines Asian regional identity, Asia's role in the modern world economy, national and regional institution building, new security challenges, and the legacy of the past. Prerequisites: Graduate standing or permission of the instructor.

INR 5607 International Relations and Development (IP) (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.

INR 5609 Contemporary Dynamics of International Relations (IP) (3). Surveys the 20th century's large events and important tendencies decade by decade, as registered by intellectual and policy elites at the time.

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 5616 Qualitative and Interpretive Methods in International Relations (3). Advanced methods course that exposes students to the development and application of qualitative and interpretive methods in international relations and political science.

INR 5906 Independent Study (VAR). Directed independent research. Requires prior approval by instructor.

INR 5934 Topics in International Politics (3). A rigorous examination in international politics. Subject matter varies according to instructor. Topic to be announced.

INR 5935 Topics in International Relations (3). Varies according to the instructor. Prerequisites: Graduate standing or permission of the instructor.

INR 5943 Internship in International Relations (1-6). Opportunity to gain practical experience in analysis and conduct of international relations by working at a consulate, governmental agency, non-governmental organization, or non-profit organization. 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.

POS 2041 American Government – *CL* (3). Power distribution and policy-making in U.S. Topics include political change; role of majorities; minorities; media, elections in U.S. politics; national institutions; and Florida state and local government.

POS 2690 Law, Politics and Society (3). Introduction to the role of law in American life. Topics include law as a tool for social control, dispute settlement and social change; the tension between rights and community; and the rule of law.

POS 3064 Federalism and Intergovernmental Relations (3). An introduction to modern theories of federalism, with an emphasis on how federalism has evolved in the United States. Constitutional structures and intergovernmental relations may also be emphasized.

POS 3152 Urban Politics (3). An examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is placed on how urban problems are identified; and the way proposed solutions are formulated, legitimatized, and administered by urban policy-making processes. Includes a discussion of urban political culture. Enables the student to understand major problems confronting communities in urban areas.

POS 3258 Politics on Film (3). Features popular films to analyze, interpret, conceptualize, and critique crucial aspects, issues, and events in politics.

POS 3283 The Judicial Process (3). An introduction to the study of public law. Examines the relationship between politics and judicial structure and process. Emphasizes the judicial system as a particular kind of policy-making system, and evaluates its strengths and weaknesses from a policy-making perspective.

POS 3413 The Presidency (3). An examination of the various interpretations of the Presidency. Attention is directed to the role of the President in a technocratic society. Enables the student to understand one of the most visible political institutions.

POS 3424 The Legislative Process (3). Examines the context and process of legislative decision-making, including the impact of elections, groups, bureaucracies, and the norms of legislative behavior. Evaluates legislatures in light of various theories of representation and conflict-management.

POS 3443 Political Parties (3). Studies the internal structure, political functions, and behavior of modern political parties. Attention is given to the relationships between political parties and various economic, ethnic, and regional interest. Enables the student to understand the problems of expressing and structuring political demands to facilitate or obstruct governmental decision making.

POS 3603 Constitutional Law: Powers (3). An examination of the basic principles of American government, as defined through constitutional law. Focus will be on the nature of the union, federalism, national government powers, separation of powers, state government powers, and powers of the respective branches of government.

POS 3604 Constitutional Law: Limitations (3). An examination of the limitations on government as defined by the Supreme Court through constitutional law. Focus will be on the limitations of government with respect to the rights of the individual, of groups, and of the states. Particular attention will be paid to civil rights, civil liberties, the rights of the accused, political rights, and economic liberties.

POS 3652 Law and the Legal Profession (3). Survey of U.S. law practice areas, legal education and professional bar, law firm organization, public service lawyering, and professional and ethical obligations of American lawyers.

POS 3703 Methods of Political Analysis (3). An introduction to the principal concepts and techniques of data collection and organization in political science. Includes practical exercise in data collection and organization. Highly recommended for those planning graduate study.

POS 4034 Political Change in America (3). Analysis of theories of political change in America and their application to major political movements from the 1960's to the present.

POS 4035 Environmental Politics (3). Examines the interaction between interest groups, advocacy groups, and political institutions in U.S. environmental politics, and the resulting policies and effects.

POS 4070 Race and Politics in the United States (3). This course is aimed at students with a desire to gain an in-depth understanding of theories and issues regarding politics, race, ethnicity and inequality in the United States.

POS 4071 Corporate Power and American Politics (3). An examination of the formal and informal linkages between the private and public sectors and the sets of relationships which govern each. Particular attention is devoted to the exploration of the political role of business and the close but uneasy relationship between private enterprise and democracy.

POS 4072 Women in Politics (3). Examines the various roles that women play in politics, their actions and effectiveness, and the manner in which politics affects women. Special attention to policies that affect women.

POS 4073 The Military and the Citizen (3). Examines the U.S. military as a basic governmental institution, its relationship to civilians/citizens, and its post World War II history.

POS 4074 Latino Politics (3). Presents an overview of the role of Hispanics in the U.S. political system. It explores the historical and socio-economic dimensions of Latino politics.

POS 4122 State Government and Politics (3). A study of the political processes, structure, and development of state systems. This course attempts to provide the student with an understanding of the basic structure of state government and political processes.

POS 4152 Conflict and Change in American Cities (3). A study of social conflict in American cities. Emphasis is on how urban problems are identified and proposed solutions are formulated, legitimized and administered by policy-making processes.

POS 4154 Topics in Urban Politics and Policy (3). An intensive examination of a topic in urban politics and policy. Subject matter varies according to instructor. Topic will be announced in advance.

POS 4173 Politics in the American South (3). An examination of the politics of the American South with particular attention to the role of political parties, the Civil Rights movement, and the impact of Reconstruction.

POS 4182 Florida Politics (3). Provides analysis of the state and county politics of Florida. Special emphasis is placed on the regionalism inherent to politics in the state.

POS 4188 Miami Politics (3). Examines the politics of Miami-Dade County. Topics include functioning of Metro government, theories of political power, politics of ethnicity and class, growth politics, and political corruption.

POS 4205 American Political Culture (3). Examines American political culture and the forces that share it. Specific focus on competing theories, and the role of political socialization, ideology, the economy, media, and schooling.

POS 4233 Public Opinion (3). Examines the social and psychological factors shaping contemporary American public opinion. Emphasis on the collection and analysis of data from opinion polls.

POS 4284 Judicial Behavior (3). An examination of various approaches, theories, and findings on the behavior of judicial actors, particularly as it relates to judicial decision-making. The focus of the course will be on judges, lawyers, prosecutors, and other relevant actors in the judicial process.

POS 4314 American Ethnic Politics (3). This course examines American ethnic politics from conceptual and substantive perspectives. Special attention is devoted to the theoretical dynamics of ethnicity as well as an intensive investigation of Irish, Italian, Jewish, and Black ethnic politics.

POS 4463 Interest Group Politics (3). An examination of the various types of voluntary associations which seek to influence the political process. Special attention is given to the role of private power in a pluralist system. Enables the student to understand the ambivalent American attitude towards pressure groups and lobbying activities in the legislative and administrative arenas.

POS 4605 Gender Justice (3). The development of gender law in the U.S. and legal strategies by which courts both initiate and respond to demands for social change. Emphasis on various legal definitions of justice and equality.

POS 4606 The U.S. Supreme Court (3). Intensive study of U.S. Supreme Court, its internal processes, decision-making, personalities, and the impact of its decisions. Relationships with other federal branches and participants are also examined.

POS 4622 Race and Law in the U.S. (3). Examines U.S. legal development of racial issues by focusing on political, economic and social rights from founding to contemporary times. Underlying theme asks whether courts are appropriate agents of social change.

POS 4627 Equality and the Constitution (3). An examination of the Supreme Court's interpretations of the Constitution in relation to social and political equality. Questions of equal justice pertaining to race, alienage, gender, sexual orientation, political representation, and economic status are explored.

POS 4684 Politics of Voting Rights (3). Analyzes the development of the right to vote in the United States. Major emphasis is on Supreme Court decisions and federal laws.

POS 4784 Analytic Writing in Political Science (3). Develops and refines skills necessary for effective written communication. Focus on inductive research and analysis process. For professions where analytic and writing skills are expected and valued.

POS 4905 Independent Study (3). Designed for advanced students who wish to pursue specialized topics in political science. Arrangements must be made with instructor during the prior semester.

POS 4930 Topics in Public Law (3). An intensive examination of a topic dealing with public law. Subject matter varies according to instructor. Topic will be announced in advance.

POS 4931 Topics in Politics (3). An intensive examination of a topic in politics. Subject matter varies according to instructor. Topic will be announced in advance.

POS 4935 Honors Seminar (3). A rigorous examination of a political topic designed for advanced political science majors. Subject matter varies according to instructor. Topic to be announced in advance.

POS 4941 Legislative Internship (1-12). Opportunity to gain practical experience by working in the offices of an elected representative in local, state, or national government on legislative activities. Prerequisites: Permission of the instructor, POS 2041 or equivalent; and POS 3424, POS 4122, POS 4182 or POS 4188.

POS 4944 Judicial Internship (1-12). Opportunity to gain practical experience by working with a judge, state attorney, public defender, or public interest organization on legal or judicial activities. Prerequisites: Permission of the instructor; POS 2041 or equivalent; and POS 3283, POS 3603, POS 3604 or POS 4284.

POS 4945 Executive Internship (1-12). Opportunity to gain practical experience by working in the offices of a county manager, mayor, governor or president. Prerequisites: Permission of the instructor; POS 2041 or equivalent; and POS 3152, POS 3413, POS 4182 or POS 4188.

POS 5045 Seminar in American Politics (3). The advanced study of U.S. politics. Students read and discuss 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: Seminar in Political Science Methodology.

POS 5326 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.

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 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 5728 Comparative Racial Politics (3). This course explores the ways race is socially constructed globally. It will discuss how race and racism are framed by states and different racial norms and patterns of mobilization in each country.

POS 5785 Writing Professionally in Political Science (3). Focus on inductive research process. Refines technical skills for effective written communication. Best practice examples for preparing briefing papers, articles, books, and grant applications.

POS 5909 Independent Study (3). 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 (3). 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, legitimatized, and administered by urban policy-making processes, includes a discussion of urban political culture. Enables the student to understand the major problems confronting communities in urban areas.

POT 2002 Introduction to Political Theory (3). Introduction to various ways of thinking about the political. Includes an examination of explanations offered for political phenomena and an analysis of political prescriptions. Special attention given to assumptions underlying political beliefs.

POT 3013 Ancient and Medieval Political Theory (3). A study of the major political philosophers of the ancient and medieval periods. Primary emphasis is given to the Greek experience. The nature of political theory as a tradition of discourse is examined. Meets the state composition requirement.

POT 3054 Modern Political Theory (3). An analysis of the thought of the great political thinkers since Machiavelli, culminating with the nineteenth century theorists. Basic themes and ideas common to all these political theorists will be discussed in detail. The problem of 'modernity' will receive special attention.

POT 3064 Contemporary Political Theory (3). An overview of the major conceptual frameworks used by political theorists to describe, explain, and evaluate political behavior and processes. Stress is placed on political theory, not only as a basis for inquiry, but also as a base for political action. This course enables the student to develop analytical abilities with which to interpret the political events of his or her time.

POT 3204 American Political Thought (3). An examination of American political thought from its 17th century origins to the contemporary period. The continuities and discontinuities in the development of American political ideas since colonial times will receive special attention.

POT 3302 Political Ideologies (3). An analysis of modern political ideologies since the French Revolution, including liberalism, conservatism, and socialism. Particular emphasis will be given to Marxism. The contemporary link between ideology and totalitarianism will be examined.

POT 3304 Feminist Political Theory (3). Provides a fundamental understanding of feminist political theory since 1950 with an emphasis on U.S. thought. Concepts explored include equality, equity, and representation.

POT 4104 Science Fiction and Political Imaginations (3). This course explores the possible futures of modern political institutions, such capitalism, democracy, and the state, through a critical engagement with works of science and speculative fiction.

POT 4309 Sex, Power and Politics (3). Theories are examined that explain differences between women's and men's power in the political arena. Their internal consistency and "fit" with reality are also explored.

POT 4311 Problems of Democracy (3). Examines various theories and critiques of democracy in modern political thought with an emphasis on contemporary problems in democratic theory and practice. Prerequisite: POS 2041.

POT 4344 Class, Race and Sports (3). Examines the political structure of organized sports with a concentration on issues of class and race. Theories explore the relationship between owners, players and fans in modern sports.

POT 4621 Theories of Justice (3). An analysis of major theories of justice from Plato to the present. Emphasis on the implications of theory for U.S. constitutional law, the role of judges, and the nature of the good society.

POT 4930 Topics in Political Theory (3). An intensive examination of a topic in political theory. Subject matter varies according to instructor. Topic will be announced in advance.

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 a focus on the work of U.S. scholars.

POT 5615 Political Theory and Modernity in a Transnational Perspective (3). Explores and critically evaluates late modern (20th and 21st century) social and political theories central to the thought and practice of international politics.

POT 5635 Islamic Political Thought (3). Intensive study of major thinkers and primary texts of Islamic civilization form the development of Islamic political thought in Late Antiquity to the contemporary era.

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.

PUP 4004 Public Policy: U.S. (3). An intensive examination of the theory and practice of formulating, legitimatizing, administering, and evaluating public policy. Includes a discussion of the role of administrators, legislators, courts, interest groups and political parties in their processes. Gives the student an analytical basis for understanding and participating in the making of public policy in a variety of policy areas. Prerequisite: Prior work in American institutions: The Congress, Presidency, or Judicial.

PUP 5934 Topics in Public Policy (3). A rigorous examination of a topic in public policy. Subject matter varies according to instructor. Topic will be announced in advance.

Public Policy and Administration

Howard A. Frank, *Professor and Chairperson*
Susannah Bruns Ali, *Assistant Professor*
Agatha Caraballo, *Instructor and Assistant Chair*
Can Chen, *Assistant Professor*
Shaoming Cheng, *Associate Professor and MPA Director*
Nicki Fraser, *Visiting Instructor*
Nazife Emel Ganapati, *Associate Professor*
Sukumar Ganapati, *Associate Professor*
Jean-Claude Garcia-Zamor, *Professor*
Hai Guo, *Associate Professor*
Alexander Kroll, *Assistant Professor*
Milena I. Neshkova, *Associate Professor and PhD Director*
Meredith A. Newman, *Professor*
Valerie L. Patterson, *Clinical Associate Professor*
Keith D. Revell, *Associate Professor and BPA Director*
Allan Rosenbaum, *Professor*
Travis Whetsell, *Assistant Professor*

Bachelor of Public Administration

Degree Program Hours: 120

The Bachelor of Public Administration (BPA) degree is offered for students interested in a wide range of public service careers and for those who wish to continue in public administration at the graduate level.

Admission Requirements

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CGS 2060 or CGS 2100	CGSX060 or CGSX100
ECO 2013 or ECO 2023	ECOX013 or ECOX023
POS 2041	POSX041

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

1. POS 2041 American Government – *CL*
2. ECO 2013 Principles of Macroeconomics
   or
   ECO 2023 Principles of Microeconomics
3. CGS 2060 Introduction to Microcomputers
   or
   CGS 2100 Intro to Microcomputer Applications for Business

Lower Division Preparation

It is required that students complete a course in American Government, Principles of Economics and Computer Fundamentals for Business.

Upper Division Program

Students must complete 60 credit hours of coursework, of which 48 credit hours must be at the 3000 level or greater.

Students must complete the following requirements:

1. Eight core courses. (24 credits), including a three credit seminar, PAD 4934 (Integrative Seminar in Public Administration).
2. Four courses (12 credits) of concentration electives to be taken from the Steven J. Green School of International and Public Affairs at the 3000 level or greater.
3. Eight courses (24 credits) of general electives from any department at the 3000 level or greater.
4. Students must earn a grade of 'C' or higher in each of the core courses, the concentration electives, and the general electives.

Students are required to enroll in PAD 3003 and PAD 4723 during the first 12 hours of upper-division coursework.

Core Courses: (24)

(Core Courses may be restricted to Degree-seeking students in the Department of Public Policy and Administration. All other students must seek approval of Department.)

PAD 3003	Introduction to Public Administration	3
PAD 3034	Policy Development and Implementation – *GL*	3
PAD 3800	Managing Global Cities – *GL*	3
PAD 4723	Applied Research Methods for Policy and Management	3
PAD 4223	Public Sector Budgeting	3
PAD 4414	Personnel Skills for Administrators	3
PAD 4432	Administrative Leadership and Behavior	3
PAD 4934	Integrative Seminar	3

Concentration Electives: (12)

Students are required to take 12 credits of upper-division coursework from the following departments: Public Policy and Administration; Global and Sociocultural Studies; Criminal Justice; and Politics and International Relations, with no more than six hours from any one of these programs. These courses may constitute part of a minor or a certificate program in another department. Such a minor or certificate program must be pre-approved by the undergraduate advisor and be relevant to the chosen administrative area of concentration.

General Electives: (24)

Students are required to take 24 hours of general electives. Students with no relevant public or nonprofit experience are encouraged to register for an appropriate internship (PAD 4940) for elective credits.

Minor in Public Administration

A five-course minor in Public Administration is available to baccalaureate degree-seeking students who are interested in careers in public service. The courses that comprise this minor will provide students with the opportunity to develop specialized skills in such areas as urban administration, organizational change, personnel management, and budgeting and financial management.

Requirements

Fifteen semester hours in Public Administration. Classes are to be selected from the following course list:

PAD 3003	Introduction to Public Administration	3
PAD 3034	Policy Development and Implementation – *GL*	3
PAD 3431	Exploring Leadership: Yourself, Your Organization and Your Community	3
PAD 3438	Communication Skills for Policy and Management	3
PAD 3800	Managing Global Cities – *GL*	3
PAD 3804	Government and Administration of Metropolitan Areas	3
PAD 4046	Values, Ethics, and Conflict Resolution	3
PAD 4141	Citizen Participation and Community Empowerment	3
PAD 4223	Public Sector Budgeting	3
PAD 4414	Personnel Skills for Administrators	3
PAD 4432	Administrative Leadership and Behavior	3
PAD 4940	Public Administration Internship	3

Students must contact the department from which the student wishes to receive the minor when they apply for graduation. This will ensure that the minor will be posted on the transcript.

Combined BPA/MPA Degree Program

The combined BPA/MPA degree program offered by the Department of Public Policy and Administration allows qualified students to earn both degrees in a shorter amount of time than typically required for earning degrees sequentially. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships.

Admissions Requirements to the Combined Degree Program

1. Overall GPA of 3.2 or better.
2. Letter of recommendation from a faculty member at FIU or from a supervisor.
3. Current resume.
4. Letter-of-intent not to exceed three double-spaced pages explaining how earning the Master's of Public Administration is consistent with long-term career goals. Students may also use this letter to discuss their passion for public issues or policies and to communicate to the admission committee if they feel that their admission file does not properly reflect their potential to succeed in graduate school.
5. Application to the combined program after having completed at least 75 credit hours but no more than 90 credit hours in the BPA program.
6. Completion of at least 12 credits of Public Administration coursework and at least 24 credits of coursework at FIU.
7. Completion of all lower division requirements, including the University Core Curriculum, prior to acceptance to the combined program.
8. Attainment of a grade of 'B' or better on all graduate courses completed while in the BPA program.

Courses Counted Toward both Degree Programs

Students accepted into the combined degree program may count no more than 4 of the master's courses (maximum of 12 credits) listed below toward satisfying ***both*** the BPA and MPA degree requirements:

PAD 6053	Political, Social and Economic Context of Public Administration	3

must be among the four double-counted courses

Students may select 3 of the following courses to be doubled-counted:

PAD 6227	Public Finance and the Budgetary Process	3
PAD 6306	Policy Analysis and Planning	3
PAD 6417	Human Resource Policy and Management	3
PAD 6434	Leadership and Decision-making	3
PAD 6701	Quantitative Methods in Public Administration *(Prerequisite: PAD 4704)*	3
PAD 6726	Applied Research Methods for Accountability in Public and Non-Profit Organizations *(Prerequisite: PAD 6701)*	3

With advisor approval, these graduate courses can be substituted for the equivalent required or any elective bachelor's in public administration courses listed in the program catalog, with the exception of PAD 4934 Integrative Seminar, which must be taken by all BPA majors. Students must maintain a cumulative GPA of 3.0 or better in all upper level and graduate level coursework completed as prior to admission to the MPA program.

Students accepted into the accelerate BPA/MPA degree program must complete all of the requirements of the MPA to receive their graduate degree.

Course Descriptions

Definition of Prefixes

PAD-Public Administration; URP-Urban and Regional Planning; URS-Urban and Regional Studies

Courses that meet the University's Global Learning requirement are identified as GL.

PAD 2011 Public Service and the Making of Modern America (3). An exploration of the role of public service in the development of public-sector institutions and U.S. civil society with an emphasis on the public service values and principles.

PAD 3003 Introduction to Public Administration (3). Provides an overview of the field of public administration by focusing on its development and importance in modern

government operations. Must be taken in first 12 hours of upper-division coursework.

PAD 3034 Policy Development and Implementation – *GL* (3). Examines the formulation, implementation, and evaluation of governmental efforts at federal, state, and local levels.

PAD 3251C Applied Economics for Public Managers (3). This course provides an introduction to the applied economics of the public sector and the microeconomics of public policy making and administration. It also provides an introduction to cost-benefit & cost-effectiveness analyses.

PAD 3430 Personal Growth and Organizational Development (3). The administrator as a person. Development of interpersonal skills. Self evaluation and career planning. Training and education for the public service sector.

PAD 3431 Exploring Leadership: Yourself, Your Organization and Your Community (3). This course is an interactive exploration of personal leadership development through current theories and models of leadership from three perspectives including individual, group, and society.

PAD 3438 Communication Skills for Policy and Management (3). Designed to enable students to develop oral and written skills required to communicate effectively in organizational and public policy settings.

PAD 3800 Managing Global Cities – *GL* (3). Introduction to principles of urban governance in order to manage specific development problems of global cities.

PAD 3802 Introduction to Urban and Regional Studies – *GL* (3). An integrated approach to the problems and prospects of metropolitan areas with emphasis on economic, political, social and administrative facets of the urban setting.

PAD 3804 Government and Administration of Metropolitan Areas (3). An intensive analysis of administrative problems in large complex urban areas encompassing many political entities. Examines overlapping relations among municipalities with special attention given to Miami-Dade County as well as current trends in public management and future directions for change.

PAD 3834 International Comparative Administration (3). This course is an introduction to a wide range of scholarly and practical 'applied' interests. Emphasis is on institution-building and development administration, particularly within the Third World countries.

PAD 4046 Values, Ethics, and Conflict Resolution (3). Theories of value: ethical systems and their influence on administration, behavior and process; the administrator as an ethical actor; value conflict and resolution; the philosophical basis of American thought.

PAD 4103 Politics of Administrative Organization (3). The role of political processes in relationship to public organizations and the types of intra-and inter-organizational politics which are unique to public organizations. Effects of these political processes upon organizational performance and their role in promoting or inhibiting organizational change.

PAD 4140 Introduction to Management of Public and Nonprofit Organizations (3). This course addresses fundamental theories and principles of management in public and nonprofit organizations.

PAD 4141 Citizen Participation and Community Empowerment (3). Seminar is for public management students who want to help citizens learn from one another and strengthen the capacity of citizens to solve problems. Political, public administration, sociological, and organizational perspectives will be covered.

PAD 4201 Fiscal Analysis for Public and Nonprofit Service (3). This course is designed to provide the basics of pricing and financial management applicable to public and nonprofit organizations.

PAD 4223 Public Sector Budgeting (3). The theory and practice of various approaches to budgeting, including line-item, performance, PPBS budgeting. Special emphasis on the role of the budget in shaping the program and performance and policy direction of public organizations.

PAD 4301 Planning Performance and Accountability (3). Provides an introduction to the analysis and evaluation of public policies and programs. The main tools and techniques of policy analysis will be discussed. Students will apply techniques to selected policy problems.

PAD 4414 Personnel Skills for Administrators (3). The general nature of public personnel administration; the development of the civil service system; concepts and issues currently applicable at the federal, state, and local levels of government.

PAD 4432 Administrative Leadership and Behavior (3). Designed to expose students to a systematically related set of concepts for diagnosing human behavior in organizations; and to establish a positive value for the analysis of problems involving people, structure, environment, task technology, and situational climate.

PAD 4442 Public Relations for Public Managers (3). Surveys the government mass communication media relationship and then concentrates on the ways in which public managers handle media relations. Emphasis is placed on questions of information handling unique to public organizations.

PAD 4603 Administrative Law (3). Surveys the principles of law from the perspective of the public administrator; administrative procedure; procedural due process; delegation of legislative power; regulatory administration; conflict-of-interest statutes, etc.

PAD 4704 Applied Statistics for Policy & Management (3). Familiarize students with the basic approaches to social research as applied in public and service settings. Emphasis on techniques for organizing and presenting data for policy and management.

PAD 4712 IT and E-government for Public Managers (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. Interrelationship of the past, present, and future is explored.

PAD 4713 Computer Applications for Urban Services (3). The study of computer applications for administrative analysis of financial and program data with emphasis on design, interface, and data structures.

PAD 4723 Applied Research Methods for Policy & Management (3). Research design, sampling, critical evaluation, basic research ethics, and qualitative and quantitative methods and analysis. Must be taken in first 12 hours of upper-division coursework.

PAD 4905 Independent Study in Public Administration (1-6). (Normally 3 credit hours) Individual conferences, supervised readings; reports on personal investigations; and similar undertakings. Prerequisites: Senior standing and approval of the faculty member supervising the independent study.

PAD 4934 Integrative Seminar in Public Administration (3). Students will integrate coursework and theory into the analysis of a public policy or public management problem and produce a capstone paper. Must be taken in a student's final semester. Prerequisites: Successful completion of required courses and a total of at least 108 credits.

PAD 4940 Public Administration Internship (0-12). (Normally 3 credit hours) Supervised work experience in a public or quasi-public organization. Involves a variety of professional and technical job duties depending on the agency. May be repeated. Prerequisites: Successful completion of required courses in public administration and approval of internship coordinator.

PAD 4949 Cooperative Education (3). Supervised work experience in public or quasi-public organization. Placement is made through the Office of Cooperative Education. Prerequisites: Completion of required courses in public administration and consent of Chair required.

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. Cost-benefit analysis, the ethics of applied practice, and the important skills of communicating with decision makers are included.

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 instrumentality's as they are used to pursue public policy. Analyzes how and why different combinations of instrumentality's 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 5805 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.

PAD 5934 Contemporary Issues in Public Administration (3). An analysis of major conceptual

issues currently facing public administrators. May be repeated for credit.

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 3005 Service Learning: Social Change and Contemporary Social Issues (3). Examines volunteerism in America, provides study and experience of the Urban Community, promotes critical thinking, citizenship and social responsibility.

URS 4931 Current Topics in Urban and Regional Studies (3). In-depth exploration of current, critical topics in the urban arena. Emphasis on multidisciplinary approaches to local issues impacted by increased globalization and competition among cities and regions. May be repeated for credit.

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.

Religious Studies

Erik W. Larson, *Associate Professor and Chairperson*
Iqbal S. Akhtar, *Associate Professor*
Daniel R. Alvarez, *Senior Instructor and Undergraduate Program Director*
Whitney A. Bauman, *Associate Professor*
Ana Maria Bidegain, *Professor*
Carlos W. Grenier, *Assistant Professor*
Steven Heine, *Professor*
Tudor V. Parfitt, *President Yitzhak Navon Professor of Sephardic-Mizrahi Studies*
Oren B. Stier, *Professor*
Steven M. Vose, *Assistant Professor*
Erin Weston, *Instructor*
Albert Kafui Wuaku, *Associate Professor and Graduate Program Director*

Affiliated Faculty
Thomas A. Breslin
Kenton Harris
Mohiaddin Mesbahi
Dennis W. Wiedman

Bachelor of Arts in Religious Studies

Degree Program Hours: 120

Lower Division Preparation

Students are admitted directly to their chosen major at the University. Students are expected to make good progress based on critical indicators that include course completion and GPA requirements. In cases where students are not making successful progress, a change of major may be required. Academic advisors work with students to identify an appropriate major where a student will be successful in completing an undergraduate degree.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
None	None[1]

[1]All Florida College System students are encouraged to take several religion courses with the REL prefix. All are encouraged to complete the Associate in Arts degree.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **https://www.flvc.org**, Search Program Listing by Alphabetic Order.

Common Prerequisites

Recommended Courses: Religion, Philosophy, History and Anthropology.

Upper Division Program: (60)

Required Areas

The Religious Studies major serves as a basis for students who wish to pursue the study of religion or theology as a career, for students preparing for a career in counseling, education, business, law or medicine, or for students who wish to undertake a dual major in a related field of study. The major is designed to allow students to focus either on comparative topics in a critical approach to understanding religious phenomena and their relation to society in a broader cultural context or on the theory and practice of a specific religious tradition in its historical setting.

Required Courses

The major in religious studies requires 36 credit hours with a grade of 'C' or better.

1. Foundation Course (3 credits), a course that introduces students to the world's great religious traditions as well as various multicultural approaches and interdisciplinary approaches in the study of religion:
REL 3308 Studies in World Religions – *GL*

2. Area Courses (12 credits), one course in each of the following areas in order to develop an awareness of the breadth of the field and provide a foundation for more specialized studies:

- Abrahamic Religions [1]
- Asian Religions [2]
- Indigenous and Other Religious Traditions [3]
- Society, Culture and Ethics [4]

(If a course satisfies the distribution requirement, the corresponding number of the area that it satisfies is in brackets after the course description).

3. Focus Courses (18 credits), including at least 12 or more credits in Religious Studies and up to 6 credits in related studies, aimed at building in depth knowledge of a particular area, theme or tradition. Related studies are selected from courses in Art History, English, History, Humanities, International Relations, Philosophy, Psychology, Sociology/Anthropology, or other appropriate departments.

4. Capstone Course (3 credits), a senior or capstone seminar covering advanced methodology in the study of religion:
REL 4030 Methods in the Study of Religion

General Electives: 24

The Green School and the College of Arts and Sciences require for the bachelor's degree that a student take at least nine hours outside the major discipline, of which six hours must be taken outside the major department.
Remarks: Students select their required courses in Religious Studies with the approval of the Undergraduate Program Director. Students are also encouraged to consider a dual major i.e., simultaneously to meet the requirements of two academic majors. The Department serves the community and professional groups by offering courses off campus. For further information concerning these courses consult the department.

Minor in Religious Studies

A student majoring in another academic discipline can earn an academic minor in Religious Studies by taking at least fifteen credits of REL courses. These may be REL

2011 or any upper division courses (3000 or 4000 level). Students are encouraged to take REL 3308, Studies in World Religions – *GL*, as one of these courses.

Honors Track in Religious Studies (B.A)

Requirements:

a. To earn the B.A. with Honors in Religious Studies, a student must maintain a 3.5 GPA in religious studies courses.
b. Candidates for the B.A. with Honors in Religious Studies will complete the same requirements as for the B.A. major with one exception: among the "Focus Courses" 21-semester hours of course work will be taken plus 3 semester hours of "Religious Studies Research," during which a thesis or honors paper will be proposed, researched, written and defended orally.
c. In the semester prior to graduation, the student will enroll in "Religious Studies Research" (REL 4912), in which he/she will expand a term paper into an honors paper/thesis, or will begin a thesis anew, under the direction of an appropriate member of the Religious Studies faculty.
d. When the thesis is approved by the faculty member, the coordinator of REL 4912 will organize and schedule a defense of the honors paper/thesis, at which the student will present his/her research and will respond to questions from faculty and students. This requirement will be deemed to have been met upon a majority positive vote of faculty.
e. The honors paper/baccalaureate thesis normally would be approximately 25-35 pages, must be presented according to FIU regulations (available in the department office), and will be deposited in the FIU Library. The honors paper/thesis must demonstrate that the student has mastered skills in defining a topic, research and expository writing, as well as oral skills required for the presentation and defense of the honors paper/thesis.

Combined BA/MA in Religious Studies

To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75-90 credits in the bachelor's degree program at FIU and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program. A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Only 5000-level or higher courses, and no more than the number of credits specified by the program catalog, may be applied toward both degrees.

Admission Requirements

- Current enrollment in the Bachelor's Degree program in Religious Studies, or any humanities major that allows at least 12 hours of electives.
- Current GPA must be 3.4 or higher.
- Two letters of recommendation.
- Approval of the Graduate Committee.
- Submission of acceptable writing sample, complete with bibliography, to Turnitin.com.

Requirements

Completed BA at FIU including,

REL 4931	Religious Studies Seminar
	or
REL 4030	Methods in the Study of Religion

At least two of the following three core courses:

RLG 5038	Advanced Fieldwork in Religious Studies
RLG 6935	Seminar in Sacred Texts
RLG 6013	Modern Analysis of Religion

Three or six additional hours of graduate credit in Religious Studies (for majors, graduate level enrollment in three or six hours of Focus Courses) must also be taken as Graduate courses. The total number of graduate hours taken concurrently with the BA should be 12 credit hours.

Required for the MA:

The remaining core course (if not already taken).

- A four course track, either in one religious tradition, or one theme across religious traditions, approved by the Graduate Director.
- Six credits of electives selected from the Religious Studies Graduate Course Offerings.
- Six hours of thesis, or six additional hours from the Religious Studies Graduate Course Offerings.

All courses must be completed with a grade of "B" or above.

Course Descriptions

Definition of Prefixes

ASN-Asian Studies; FIL-Film; GRE-Ancient Greek; HBR-Biblical Hebrew; JST-Jewish/Judaic Studies; REL-Religion Undergraduate; RLG-Religion Graduate; SRK-Sanskrit Language

Courses that meet the University's Global Learning requirement are identified as GL.

ASN 3042 Asian Religions and the Arts (3). Examines the richly diverse and complex forms of art and artistic expression in the various Asian religions against the background of their respective cultural settings. [2]

ASN 3403 Zen and the Art of Tea Ceremony (3). An introduction to the cultural traditions and social behavior of Asia that covers the history, theory, and practice of Chado, or Way of Tea, a Zen-Buddhist inspired art. [2]

ASN 5120 Religion and Society in Japan (3). Examines the relation between religion and the state, the growth of new religious movements, the role of religion during times of war and conflict, issues of religious freedom and legality, the impact of religious institutions on gender and ethnicity. [2]

ASN 5130 Zen and the Arts (3). Examines the history, theory, and practice of Chado (Way of Tea), a Zen inspired art that has had, and still exerts, a long-lasting influence on Japanese society. [2]

FIL 3838 Holocaust Cinema (3). An interdisciplinary survey of cinematic representations of the Holocaust from the 1940s to the present, addressing ethical challenges such as Holocaust comedy and the representation of atrocity. [1]

GRE 3050 New Testament Greek I (3). Introduces the Greek language of the New Testament, and other works of the ancient period to enhance the understanding of translated texts. A portion of the Gospel of John is studied. [1]

HBR 3100 Biblical Hebrew I (3). Introduces the language of the Hebrew Scriptures, portions of which are read in class. [1]

HBR 3101 Biblical Hebrew II (3). A continuation of Biblical Hebrew I. Prerequisite: Biblical Hebrew I. [1]

JST 3505 Introduction to Jewish Cultures (3). A global survey of Jewish cultures from biblical origins through the present, focusing on cultural pluralism, tensions between Jewish national and Diaspora cultures, and minority-majority relations. [1]

REL 1200 Introduction to Christian Scripture (3). Examines the origins and themes of the Christian Bible using literary, historical, and archaeological approaches. Explores inter-religious dialogue between Christianity and Judaism on shared scripture. [1]

REL 2011 Introduction to Religion – *GL* (3). Introduces methods of critical reflection on religion and some of their applications to fundamental topics such as knowledge, value, the sacred, the individual and human society. Meets the state composition requirement. [1,2,3,4]

REL 2080 Introduction to Holocaust and Genocide Studies (3). An introduction to the interdisciplinary field of genocide studies, with a focus on the Holocaust as a key case of 20th century attempted genocide and on debates concerning definitions and uniqueness.

REL 2624 From Bible to Talmud (3). An introduction to early Judaism from the end of the biblical period to the completion of Talmud that surveys the history and issues shaping this crucial period of development. [1]

REL 2936, 4936 Special Topics (1-6). In-depth study of topics of special interest in religion. [1,2,3,4]

REL 3020 Meditation and Spiritual Development (3). An examination of the varieties of meditation, meditation and health, meditation in religious traditions. [2]

REL 3022 Ritual in Religion and Culture (3). Examines ritual and its roots, functions, analysis, and meaning, both in religious contexts and as it is assimilated and adapted in the wider culture. [4]

REL 3024 Religions, Life and Vegetarianism (3). Examines views of life and respect for life in religion, and the relationship of vegetarianism to these. [2]

REL 3026 Folk Religions in Asia and the World (3). Movements in folk or popular religions in relation to the official dimension of the major traditions, including the role of ghosts and spirits, visions and dreams, and healing and prophecy. [2]

REL 3027 Meditation and the Mystical Traditions (3). The history, philosophy, and cultural impact of the role of meditation in various mystical traditions, including movements such as Kabbalah, Neo-Platonism, Sufism, Yoga, Tantra, Taoism, and Zen Buddhism. [1,2,3]

REL 3028 Sacred Places, Sacred Travels (3). The role of worship associated with sacred and ritual travels, with emphasis on Asia and Latin America and the syncretism between indigenous rights and the major religious traditions. [1,2,3]

REL 3029 Christian Mysticism (3). Historical and theological analysis of the sources, tradition and contemporary manifestations of Christian Mysticism. [1]

REL 3074 Religious Myth and Ritual (3). Examines the roots, functions, content and meaning of myth and ritual in religion. [4]

REL 3075 Magic and Religions – *GL* (3). Examines the role of magic, ecstatic religious experience, and the supernatural in a variety of religions and cultures. [3]

REL 3076 New Religious Movements – *GL* (3). Explores the human tendency to generate new and synthetic Religious movements and examines a variety of these global sects and cults. [1,2,3]

REL 3077 Sacred Image, Sacred Space in India (3). Survey of sacred images and architecture of South Asian religions--Hindu, Jain, Buddhist, and Muslim. The importance of ritual for understanding historical developments of form is emphasized. [2]

REL 3091 Joseph Campbell and the Power of Myth (3). Examines the nature of myth, particularly from the perspective of mythologist Joseph Campbell, and focuses on his contribution to the study of myth. [3]

REL 3100 Introduction to Religion and Culture (3). This course explores both the ways religion uses culture to express its basic concerns and the ways that culture and lifestyle reflect religious perspectives. Attention will be given to traditional and popular expressions of American culture. [4]

REL 3106 Introduction to Religion in Latin America – *GL* (3). Explores religions in Latin American from the Pre-Columbus indigenous civilizations to the twenty-first century intended to provide students with knowledge of the religions. [1,3]

REL 3111 Religion in Film – *GL* (3). Students examine religious themes, images, symbols and characters in various feature and short films, a specific method of critical analysis, and the religious and societal effects of contemporary films. [1,2,4]

REL 3119 Religion and Television (3). Examines the interaction of religion and television; television as a vehicle for religious programming, news, and values; and religion as a dynamic influence on the medium. [1,2,4]

REL 3120 Religion in America (3). Historical survey of the development and influence of religions in the U.S. with emphasis on the unique role of religion in American culture. [1,2,3]

REL 3123 Asian Religions in the Americas (3). This course examines the arrival, diffusion, and cultural impact of Asian religions, such as Hinduism, Buddhism, and New religions, in North and South America. [2]

REL 3127 Church and State (3). Explores the separation of church and state in the United States, reviewing its historical background and studying contemporary cases involving religious freedom. [1,4]

REL 3132 Witchcraft and Neopaganism (3). Explores contemporary beliefs, practices, and theories about Witchcraft and neo-pagan religions. [3]

REL 3139 African-American Religious Movements (3). Analysis of the history, beliefs and practices of select key African-American religious movements, such as "storefront" churches and the Nation of Islam. [1]

REL 3140 Contemporary Global Spirituality (3). Traditional and secular spiritualities. Applications to professions: entrepreneurship, management, health care, counseling, arts, education, warriorship. [4]

REL 3142 Sacred, Selfhood and Society (3). The interaction between traditional and contemporary religious and psychological approaches to understanding the self and realizing authentic selfhood in relation to society. [4]

REL 3145 Women and Religion (3). Explores the involvement, portrayal, and roles of women in religion, from early goddess religions through the cult of Mary to contemporary feminist theology. [4]

REL 3148 Religion and Violence (3). The role of religion in the inspiration, justification, avoidance, or constraint of various forms of overt or covert violence. Addresses relevant social issues. [4]

REL 3154 Gender, Religion, and Nature (3). Explores the role of gender in religious, philosophical, and scientific discourses and examines the relationship between gender construction and environmental issues. [4]

REL 3160 Science and Religion (3). The methods, assumptions, goals of religion will be compared with those of the natural and human sciences. Specific issues, such as evolution, sociobiology, and the new astronomy will be considered to illustrate similarities and differences between the two approaches. [4]

REL 3161 Spirituality and Sustainability (3). A multicultural exploration of the roots of environmental sustainability in the world's great spiritual traditions: Indigenous, Eastern and Western

REL 3170 Ethics in World Religion (3). Examines the nature of ethics in its relationship to various faith orientations around the world and surveys specific ethical problems in world religions. [4]

REL 3171 Sex and Religion (3). A survey of religious understandings of sexuality, gender and reproduction with special emphasis on contemporary issues. [4]

REL 3172 Reproductive Ethics (3). Surveys U.S. religion on family, surrogacy, artificial insemination and in vitro fertilization, contraception, abortion, and fetal hazards in the workplace. [4]

REL 3179 AIDS, Ethics and Religion (3). Examines ethical issues in AIDS as framed by churches, by persons with AIDS (PWA) networks, and by AIDS workers. [4]

REL 3180 Medical and Bioethics (3). A survey of religious treatment of ethical issues in health care and medical research. [4]

REL 3185 Healers and Mediums – *GL* (3). An investigation of global healing methods and PSI, including shamanism that lies outside of accepted Western practices through religious and cultural practices encountered by humanity. [1,2,3,4]

REL 3194 The Holocaust – *GL* (3). Examines different aspects of the Holocaust as well as issues and events that led to and arose from the World War II Experience. Special attention is given to Jewish-Christian relations, thought and ethics before, during and after the Holocaust. [1]

REL 3197 Topics in Race and Religion (3). Examines the role of religion in specific historical events such as the US civil rights movement, the rise/fall of S. African apartheid, or the subjugation of the Amerindians. [4]

REL 3207 Jesus and the Dead Sea Scrolls (3). Explores the new light shed on the life of Jesus and the early Christian movement by the discovery of the Dead Sea Scrolls. [1]

REL 3209 The Dead Sea Scrolls (3). Surveys scholarship on the Dead Sea Scrolls, including their significance for the study of the Bible and the history of Judaism and Christianity. [1]

REL 3218 Women in the Bible (3). Examines the roles of and rules for women in the Hebrew Scriptures and Christian New Testament, using historical and literary clues in the text to reconstruct the lives of women. [1]

REL 3220 Moses, Priests and Prophets (3). In-depth study of selected portions of the Hebrew scriptures, paying close attention to the history of ancient Israel. Will be taught from a range of Jewish and/or Christian perspectives. [1]

REL 3250 Jesus and the Early Christians (3). Examines the life of Jesus and the New Testament documents; what we know about Jesus, how we know it, and how and why early Christianity spread so rapidly. [1]

REL 3270 Biblical Theology (3). Explores the ideas of God, man, redemption, ethics, and the after-life, tracing each through its development from earliest Hebrew thought to the rise of post-biblical Judaism and Christianity. [1]

REL 3280 Biblical Archaeology (3). Explores the nature, goals and methods of biblical archaeology. A survey of the most important sites and finds that have given us a new understanding of the world of the Bible. [1]

REL 3282 Archaeology of Israel (3). Introduction to the archaeology of the land of Israel as it relates to biblical history. Visits to major excavations will be combined with special lectures on the most significant finds of each site. [1]

REL 3308 Studies in World Religions – *GL* (3). Examines the origins, teachings, and practices of selected world religions. The specific religions selected for examination may vary from semester to semester.

REL 3310 Introduction to Asian Religions (3). The great traditions which originated in India and China – Brahmanism, Hinduism, Buddhism, Jainism, Sikhism, Confucianism, Taoism – are explored in the cultural and social contexts. Special attention is paid to how these religions contribute to the construction of social identities, as well as to the interaction between religions and their artistic expressions in painting, architecture, poetry and drama. [2]

REL 3313 Sources of Modern Asian Society (3). Is the contemporary period a replay of ancient relio-cultural patterns, or does it pose unique challenges? Explores how classical Hinduism, Confucianism, and Buddhism affect modern India, the "Tigers", Sri Lanka and Japan. [2]

REL 3314 Religion on the Silk Road (3). The historical meeting point of religions east and west, on the Silk Road that linked China with Central Asia, the Middle East, and Greco Roman culture. [1,2]

REL 3316 Healing in Asian Religions (3). Survey of varieties of healing techniques utilized in Asian Religions. [2]

REL 3318 Chinese Religion and Culture (3). An in-depth study of the various ways that the religious and cultural traditions of China have influenced the nation's intellectual and cultural history. [2]

REL 3320 Moses, Jesus, Muhammad (3). The lives of Moses, Jesus, Muhammad and the communities they founded. Each religion's teachings are explored to reveal in what ways they are similar and in what ways unique. [1]

REL 3325 Religions of Classical Mythology (3). Examines the beliefs and practices of ancient Egyptian, Semitic, Greek, and Germanic religions, their influences on later civilization and religious thought, and the possible continuing insights offered by each. [3]

REL 3330 Religions of India – *GL* (3). The myriad religions of India, from prehistoric origins to contemporary politicized Hinduism. Schismatic movements (Buddhism, Jainism) and "Indianized" extrinsic religions (Judaism, Christianity, Islam, Zoroastrianism). [2]

REL 3333 Classical Hinduism (3). A study of the development of classical Hinduism from its prehistoric roots, its classical textual and philosophic formulations to the theisms of the early medieval period. [2]

REL 3336 Introduction to Jainism (3). An introduction to Jain history and origins. Special focus will be placed on concepts of reality, the ascetic life, multiple dimensions of truth, non-violence and conflict resolution.

REL 3337 The Goddess in India (3). Images of the Goddess, known as Devi or Shakti, have been traced back to the third millennium BCE. Scrutiny of the evolution of Goddess worship in India is theological in character, philosophical in content, and legendary in tradition. [2]

REL 3340 Survey of Buddhism – *GL* (3). The course will explore the central themes of the main schools of Buddhism developed in India, Tibet, China, Japan, and Korea. The themes will be examined from religious, historical, and philosophical points of view. [2]

REL 3342 Zen and the Tea Ceremony (3). Theory, practice, aesthetics and cultural history of Chado, the tea ceremony of Zen Buddhism. [2]

REL 3343 Indian Buddhism (3). The origin and development of Buddhism in India and South - Southeast Asia. Context, life and teachings of the Buddha, Schools of thought and social institutions. [2]

REL 3344 Tibetan Buddhism (3). Tibetan Buddhism is an amalgam of Indian Mahayana Buddhism, Tantric Buddhism, and indigenous Shamanism. It developed unique symbolism, rituals, spiritual practices and social organization. [2]

REL 3349 Buddhist Literatures (3). Selected non-canonical Buddhist genres, traditional and modern. Readings might include Tibetan tantric hagiographics or songs, Tales of Genji, Nohard Kabuki, pilgrim narrations, women's enlightenment songs, meditation manuals. [2]

REL 3367 Islamic Faith and Society – *GL* (3). A survey of the main facets of Islamic religion and societies from the time of Muhammad to the present. [1]

REL 3375 Religions of the Caribbean (3). Developments, beliefs, rituals, and symbolic system of religious traditions of the Caribbean. Religion and society in Caribbean history. [3]

REL 3380 Native American Religions (3). An introduction to Native American religions, including myths, rituals, shamanic practices, and beliefs. Attention will be given to contemporary issues of tribal cultures of South Florida. [3]

REL 3389 Jews of Latin America (3). Explore Jewish experience in Latin America. Ethnicity, history, immigration, migration, national identity, Zionism, philanthropy, anti-Semitism, and gender will be emphasized to learn about the Jewish experience in the region. [1]

REL 3392 Kabbalah and Jewish Mysticism (3). An overview of the history and philosophy of Kabbalah and an exploration of selected practices and techniques of Jewish mysticism. [1]

REL 3398 Rhythms of the Sacred – *GL* (3). Explores how music has been a powerful and essential part of mystical experience in the world's religious traditions, how it becomes religion and how religion influences music. [1,2,3]

REL 3399 The Art of Yoga and Meditation: Theory and Practicum (3). Through a concentrated study of yoga asanas (postures), mantras (sacred chants), meditation techniques, pranayama (breath control) and philosophical and religious scriptures, students engage in questioning, analysis, and application. Largely a participatory, studio course. [2]

REL 3443 Liberation Theologies (3). A survey of the major themes in and methodological distinctiveness of Latin American, African American and Feminist Liberation Theologies. [1]

REL 3453 Jainism and the Modern World (3). The modes of interaction between Jain tradition and the role of women, business ethics, economic development, conflict resolution, peace studies, environment, animal rights, pluralism, and Diaspora. [2]

REL 3454 Selected Jain Texts (3). Close readings for sacred Jain texts of several genres. The texts contexts and literary issues provide the background for philosophical analysis. [2]

REL 3490 Behind the Da Vinci Code (3). Dan Brown's The Da Vinci Code is the starting point to examine whether there are secrets behind the history of Christianity as it is usually taught. Topics include gnosticism, knights templar, freemasons. [1,4]

REL 3492 Earth Ethics – *GL* (3). This course will explore resources from philosophy and religion that could contribute to a solution of the current environmental crisis. Ethical issues of the environment will especially be examined in the light of these resources. [4]

REL 3505 Introduction to Christianity (3). Introduces the basic beliefs and practices of Christianity in their historical and modern forms, including both common and distinctive elements of Catholicism, Protestantism, and Eastern Orthodoxy. [1]

REL 3511 Early Christianity (3). This course will survey the first development of Christian thought and practice from its beginnings as a primitive church to its establishment as a major faith in the Middle Ages. It will then consider the relevance of this early experience for modern movements of this faith. [1]

REL 3520 Saints, Witches, and Cathedrals (3). Cathedrals and crusades through religious schisms and wars to Third World Christianity and women priests: select survey of major trends in Christianity. [1]

REL 3530 Protestantism (3). Surveys Protestantism from the Reformation to the present, including the formation of Protestant theology, the relationship of Protestantism to culture and contemporary developments. [1]

REL 3532 Reformation (3). The lives and thoughts of the leaders of the Protestant Reformation will be the focus of this course. Significant attention will be given to the personal experiences and theological perspectives that directed the actions of such persons as Luther, Calvin, and Zwingli, as well as the movements they founded. [1]

REL 3551 Mary and Jesus (3). Biblical scholarship and theological traditions regarding Jesus of Nazareth and Mary, his mother. [1]

REL 3583 World Christianity (3). Surveys forms of Christianity and their growth patterns in Latin America, Asia, and Africa. [1]

REL 3593 Women in the Early Christian Church (3). Examines the roles of women in the New Testament, including ministry, missionary work, and local variations on women's roles. [1]

REL 3601 The Ethics of Judaism (3). Examines Jewish approaches to ethical issues. Takes into account both traditional and nontraditional approaches which claim, in some way, to be authentically Jewish. [1]

REL 3603 Elie Wiesel (3). Analyzes Elie Wiesel's published works—novels, memoirs, essays, plays, liturgies, and speeches—as reflections of the modern Jewish experience and of Wiesel's own role as moral witness to humanity. [1]

REL 3607 Judaism (3). An introduction to Judaism, following a brief historical overview. Lectures and discussions will focus on the themes of Text, Time, Space, People, and Memory in classical and contemporary manifestations. [1]

REL 3625 Introduction to Talmud (3). Through close readings (in English translation) of specific Talmudic texts, this course introduces students to the Talmud - the magnum opus of Rabbinic Judaism. [1]

REL 3627 Kabbalah and the Bible (3). Study of the basic categories of Kabbalah as an esoteric doctrine and evaluation its unique interpretation of selected Biblical texts within the historical context of the Sephardic Jewish experience. [1]

REL 3630 American Judaism (3). Orthodox, Conservative, Reform, and other forms of American Judaism, and the impact of the Holocaust, Zionism, and anti-Semitism on American Jewry. [1]

REL 3671 Jews, Sex, and Gender (3). Deals with the central issues and debates surrounding gender, sex, and the body in Jewish thought and practice. Covers the wide range of texts and responses to these issues in Jewish history. [1,4]

REL 3672 Religion and Society in Israel/Palestine (3). Israel/Palestine society examined through role of Judaism, Islam and Christianity in the formation of policies and institutions. [1]

REL 3690 Hasidic Thought (3). Analysis of the popular Jewish mystical pietistic movement that began in 18th century Eastern Europe, revolutionizing Jewish society, culture, and thought up to the present day. [1]

REL 3691 The Lost Tribes of Israel (3). Explores the dispersion of and subsequent myths about the Lost Tribes throughout the world. [1]

REL 3692 Jerusalem: Religious, Historical, Political, and Cultural Significance (3). Explores role of Jerusalem in Judaism, Christianity and Islam and its place in Arab-Israel conflict. [1]

REL 3949 Cooperative Education in Religion (3). A student majoring in Religious Studies may spend one or two semesters fully employed in industry, government, or other appropriate institutional setting in a capacity relating to the major. Permission of Cooperative Education and major department. [1,2,3,4]

REL 4030 Methods in the Study of Religion (3). This course examines a number of the most important methods used in the academic study of religion, together with representative examples of the use of these methods. Prerequisites: Religious Studies major status or permission of the instructor.

REL 4063 Faith in Social Justice (3). Explores concepts of social justice within in faith traditions. Students will have the opportunity to work on a social justice project with a local faith-based organization/house of worship

REL 4064 Latinas and Religion in the Americas (3). Review of the practices, beliefs, social and political activism, and theological and biblical reflections of Latinas in the Americas from a historical perspective to modern day. [1]

REL 4065 Religious Fundamentalism: A Viewpoint for National Security (3). Survey the evolution of Fundamentalism from its inception to our time as it began to encompass a wider umbrella of global organizations with a focus on the three Abrahamic traditions. [1]

REL 4081 Non-Violence and Peace Studies (3). Introduces students to the concepts of non-violence and peace studies of major eastern and western philosophies as well as discusses the peace movements and practices as training in non-violence.

REL 4093 Muslim Ideas of War: A Perspective for National Security (3). This course is intended to acquaint students with the history and development of Islamic laws of war and Muslim concepts of just and unjust war. [1]

REL 4105 Latino/a Immigration and Religion (3). The course will analyze the main ways in which the complex phenomenon of migration overlaps with religion focusing on Latino/a immigration to the United States taking into account a gender perspective. [1]

REL 4146 Feminist Theology and Ethics (3). Surveys major Christian and Jewish feminists on revelation, sexuality and body, liturgy, religious community and other topics. [1,4]

REL 4153 Religion, Politics and Society in Brazil (3). To study the genealogy of the Liberation Theology movement in Brazil as Second Vatican Council's resonance. The changes undertaken may be compared to the Reformation of the 16th century.

REL 4173 Technology and Human Values (3). This course will explore the sources and impact of modern technology from philosophical and religious perspectives. Topics to be discussed include the effects of technology upon the understanding of human nature, and the relationship among technology, the natural environment, and hopes for a livable human future. [4]

REL 4205 Current Methods in Sacred Texts (3). This course introduces sacred texts and the methods and tools of their study, including translations, historical studies, hermeneutics, and the use of secondary resources. Prerequisite: Religious Studies major status or permission of the instructor. [1,2,3]

REL 4224 The Prophets and Israel (3). Examines the setting of the prophets in the history of Israel, their contributions to biblical religion, and their use in later religious and renewal movements. [1]

REL 4251 Jesus and Paul (3). Examines the historical settings, teachings, significance, and later interpretations of Christianity's founder and its foremost interpreter. [1]

REL 4311 Religious Classics of Asia (3). Classical religious texts of Asian traditions. Content may vary. Course may be repeated with change in content. [2]

REL 4312 The Jews of Asia and Africa (3). Surveys the history, culture, and literature of the Jews of Asia, with emphasis on the Cochin Jews, the Bene Israel of Bombay and environs, the 'Baghdadis' of Indian port cities, and the Chinese Jews of Kaifeng. [1,2]

REL 4335 Modern Hinduisms (3). Precursors to modern Hinduisms from ancient and classical sources; Bengali renaissance; Hinduism and politics from Gandhi to Vishwa Hindu Parishad; meditation; utopianism; gender; syncretisms. [2]

REL 4338 Karma and Ethics in Indian Religious Thought (3). Exploration of the evolution of the concept of karma in Indian religious thought and its relationship to "proper conduct" as a means to attain salvation; connection with Western ethical theories.

REL 4345 Zen Buddhism (3). This course explores Zen (Ch`an) Buddhism in its historical, theoretical, and practical dimensions with a specific aim of examining the theme that the Buddha mind can be actualized by awakening to one's own Buddha-nature. [2]

REL 4351 Religion and Japanese Culture (3). The impact of the traditional religions, Shinto and Buddhism, on the intellectual and cultural history of Japan, especially literature and art, from the ancient and classical through the modern periods. [2]

REL 4361 Women in Islam (3). Provides students with an understanding of the position of women in Islam through an examination of traditional and contemporary understandings of key religious texts. [1]

REL 4363 Sufism: Islamic Mysticism and Spirituality – *GL* (3). Explores the depth and breadth of the mystical tradition of Islam (Sufism) through primary and secondary texts which look at the esoteric dimensions of mystical practice in the Islamic World. [1]

REL 4364 Interpreting the Quran: Gender and Jihad – *GL* (3). Introduces students to the history, interpretation and translation of the Quran through a close examination of passages related to issues of gender and jihad. [1]

REL 4369 Voice of the Prophet (3). Familiarizes students with the position and history of prophetic traditions (Hadith) in Islam. [1]

REL 4370 African Religions (3). Critical analysis of the beliefs, myths, symbols, and rituals of traditional African religion, African Christianity, and African Islam, and exploration of their place and function in African societies. [3]

REL 4381 Native Religions of Latin America (3). Focuses on the relationship in Native Religions of L.A. between geography, environment and religious worldview and attitudes. Some attention to contemporary native issues and relations with states and other religions. [3]

REL 4382 Latin American Women and Religions in the Americas (3). Examines Latinas' participation in the history of religions in the Americas in order to explain the impact of women's religious experiences in cultural, social and political realms. [1]

REL 4420 Contemporary Religious Thought (3). A survey of major figures in contemporary theology for the purpose of understanding their thought and its application to current issues in religion and society. [1]

REL 4425 Contemporary Issues in Christian Theology (3). Examines contemporary efforts to reflect on traditional topics in Christian theology, such as God and human nature, and explores the role of theology in addressing selected social and cultural issues. [1]

REL 4434 Religion and Queer Theory (3). This course explores the relevance of Queer Theory and GLBTQ Studies for the study of religion, and how Queer Identities shape and are shaped by contemporary religious communities. [4]

REL 4441 Religion and the Contemporary World (3). An examination of reflection by religious thinkers and others who employ religious perspectives, concerning select conceptual issues of critical importance in the contemporary world. [1]

REL 4461 Topics in the Philosophy of Religion (3). Examines a specific topic in the philosophy of religion, such as faith and reason, religious experience, or an important thinker. It may be repeated with permission of the instructor. [4]

REL 4481 Contemporary Latin American Religious Thought (3). The major trends of religious thought in Latin America and their impact on the society of the area will be investigated. Special reference will be made to Post-Vatican II theology and to very recent theologies of liberation. [1]

REL 4610 Jews of Arab Lands in the Middle Ages (3). An examination of Jewish culture from the rise of Islam in the 7th century to the end of the Middle Ages. [1]

REL 4613 The 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. [1]

REL 4623 Peace, War, and Kabbalah (3). Study the basic categories of Kabbalah as an esoteric doctrine and evaluate its unique approach to war and peace within the historical context of the Sephardic Jewish experience. [1]

REL 4694 Kabbalah and Sexuality (3). Exploration of the theme of sexuality within the context of Kabbalistic texts. Study of the basic categories of Kabbalah as an esoteric doctrine of the Jewish faith. [1]

REL 4697 Sephardic Jewry Colloquium (3). Study with leading scholars of Sephardic and Oriental Jewry. This course will be taught in conjunction with the Sephardic annual lecture series highlighting new research on this Jewry. [1]

REL 4699 Holocaust Memorials (3). Examines the contemporary religious, moral, and cultural impact of the Holocaust through the analysis of selected memorial forms: memoirs, theology, fiction, cinema, monuments, museums, and the arts. [1]

REL 4910 Independent Research (1-6). Topics will be selected to meet the academic needs of the individual student. Prerequisite: Permission of the instructor. [1,2,3,4]

REL 4912 Research Seminar in Religious Studies (3). Working on a variety of individual research projects, students explore research issues and methods. Research projects must be approved in advance. Course may be repeated. Prerequisite: Permission of the instructor. [1,2,3,4]

REL 4931 Religious Studies Seminar (3). This seminar is designed for majors and other qualified students approved by the Department. The specific topic will be selected and announced in advance. The number of participants will be limited. [1,2,3,4]

REL 4937 Special Topics (3). In-depth study of topics of special interest in religious studies. [1,2,3,4]

REL 4941 Internship Seminar (0-3). Students work 5 hours a week in religious institutions; complete individualized group readings; write on individual assignments; discuss group readings in context of group experiences. May be repeated. Prerequisite: Permission of the department required. [1,2,3,4]

REL 4943 Independent Study on Sephardic Jewry (1-6). For advanced students who posses proven significant knowledge of the field of Sephardic and Oriental Jewry, to engage in a guided research on the topic of their choice within the field. Prerequisites: REL 4610, REL 3695, SYD 4606. [1]

REL 4944 Internship in Sephardic Jewish Organization (1-3). Work and study with the leadership of and research one of the Sephardic and Oriental communities in Florida. Serves as a field study in which the classroom learning comes alive. Prerequisites: REL 4610, REL 3695, SYD 4606. [1]

REL 4948 Field Work in Jain Studies (3). Intended for students who (a) will conduct field work among Jain communities in India or in the Jain Diaspora or (b) will participate in a study abroad program on Jain Studies. Prerequisites: REL 3336 and/or permission of the instructor. [1]

REL 4949 Cooperative Education in Religion (3). A student majoring in Religious Studies may spend several semesters fully employed in industry, government, or other appropriate institutional setting in a capacity relating to the major. Permission of Cooperative Education and major department. [1,2,3,4]

RLG 5018 Religion, Literature, and Critical Theory (3). Examines intersections between world religions and contemporary literature in light of modern theories of interpretation. Themes explored include scriptural re-readings and spiritual journeys. Prerequisites: Graduate standing or permission of the instructor.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5038 Advanced Fieldwork in Religious Studies (3). Techniques of ethnography used in Religious Studies beginning with research design and including participant observation, interviews, surveys.

RLG 5065 Latinas and Religion in the Americas (3). This course will review the practices, beliefs, social and political activism, and theological and biblical reflections of Latinas in the Americas from a historical perspective to modern day.

RLG 5106 Religions, Latino/as and Immigration (3). The course will analyze the relationships between the complex phenomenon of Latinos/as immigration and religions. This area of study necessarily demands an interdisciplinary approach including gender.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 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 or permission of the instructor.

RLG 5137 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.

RLG 5138 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.

RLG 5144 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5165 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5182 Religions and Ethics (3). Investigation of methods, resources for ethics in world religions, and some examples of issues. Prerequisites: Graduate standing or permission of the instructor.

RLG 5183 Religion, Nature, and Globalization (3). Through exploring sources for contemporary attitudes and values about "nature", this course examines environmental ethical issues surrounding the process commonly referred to as globalization. Prerequisites: Graduate standing or permission of the instructor.

RLG 5184 Sexuality, Religion and Social Change (3). Traces various religions' accommodation to and rejection of both new scientific research on sexuality and new economic and social trends. Prerequisites: Graduate standing or permission of the instructor.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5193 Brazil: Religion and Liberation (3). To study the genealogy of the Liberation Theology movement in Brazil as Second Vatican Council's resonance. The changes undertaken may be compared to the Reformation of the 16th century.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 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. Prerequisites: RLG 5232 and graduate standing.

RLG 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.

RLG 5244 Bible II: The New Testament (3). History, theology, and interpretation methods of the New Testament. Prerequisites: Graduate standing or permission of the instructor.

RLG 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.

RLG 5263 New Testament Greek Exegesis II (3). Careful reading of selected passages of the New Testament and early Christian literature designed to develop skills in translation and interpretation. Prerequisites: RLG 5262 and graduate standing.

RLG 5284 Studies of the Dead Sea Scrolls (3). Overview of the Dead Sea Scrolls explores the new techniques being used in their study. Prerequisites: Graduate standing or permission of the instructor.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5334 Studies in Diaspora Hinduisms (3). Research methods and theory in the study of Hinduisms in the Diaspora, with a special focus on Hindu institutions in Florida.

RLG 5338 Classical Hinduism (3). A study of the textual and philosophic traditions of classical India, as well as theoretical and methodological issues pertinent to their study. Prerequisites: REL 3330 or REL 3333 or RLG 5331.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5360 Classical Arabic (3). Introduces the grammar and vocabulary of classical Arabic necessary for developing the ability to read classical texts.

RLG 5366 Advanced Interpretation of the Quran: Gender and Jihad (3). History, interpretation and translation of the Quran through a close examination of passages related to issues of gender and jihad.

RLG 5364 Advanced Topics in Islamic Mysticism (Sufism) (3). Explores the depth and breadth of the mystical tradition of Islam (Sufism) through primary and secondary texts which look at the esoteric dimensions of mystical practice in the Islamic World.

RLG 5369 Voice of the Prophet (3). Familiarizes students with the position and history of prophetic traditions (Hadith) in Islam.

RLG 5372 The Globalizing of 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5384 Rasta, Vodou, Santeria (3). Critical, sociological and phenomenological analysis of the history, beliefs, rituals, and social significance of Rastsfarianism, Vodou, and Santeria on the Caribbean and the United States. Prerequisites: Graduate standing or permission of the instructor.

RLG 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.

RLG 5387 Native Religions of Latin America (3). Focuses on major culture areas, history of tribes, changes in religious practice through contact with Christianity.

RLG 5388 Latinas' Religious Experience (3). Focus on the diversity of religious experiences among women born and educated in Latin cultures such as: Brazil, Haiti and Hispanic American, including Hispanic in the U.S.

RLG 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.

RLG 5397 Yoga Theory and Practicum (3). An in-depth graduate seminar addressing theory and practice of the eight limbs of yoga. Includes critical analysis of Patanjali's text, the Yoga Sutras.

RLG 5435 Feminist Theory and Religion (3). Surveys the development of feminist work in religion based in general feminist theory; includes work in major world religions. Prerequisite: Graduate status.

RLG 5455 Seminar on Jain Sacred Sources (3). In depth study of selected primary texts of Jainism, examining diverse scriptures, including prose, verse, philosophical conversations, and narrative stories of different Jain sects. Basic knowledge of Jainism necessary.

RLG 5462 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5495 Inter-religious 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.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5502 Saints, Witches and Missionaries (3). Survey of movements, reforms, divisions, and major ideas within institutional Christianity, 1400 to the present. Prerequisites: Graduate standing or permission of the instructor.

RLG 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.

RLG 5520 Colonialism, Christianity, Globalization (3). It analyzes the European expansion since the 15th to the 20th centuries and the interrelation between religion, economic and politics in western and colonial societies.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5605 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.

RLG 5606 Rabbinic Judaism (3). The theology and ideologies of the 1700-year period in the history of Judaism known as Rabbinic Judaism. Prerequisites: Graduate standing or permission of the instructor.

RLG 5613 Religion, Culture and Politics in Israel (3). Exploration of the history of modern Israel. Discussion of issues, state and religion, ethnic and denominational tensions, democratic characters of the state and the Israeli-Palestinian conflict.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5617 Jews and Muslims in the Middle Ages (3). Study of Jewish culture from the rise of Islam in the 7th century -- usually considered the start of Jewish Medieval Era -- to the end of the Middle Ages.

RLG 5618 Modern 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. Prerequisites: Graduate standing or permission of the instructor.

RLG 5619 Holocaust Representations: Religion and Remembrance (3). Examines the symbolic and cultural representations of the Holocaust through its religious/ theological discourse and its remembrance. Implications for Jewish life and thought are also explored. Prerequisites: Graduate standing or permission of the instructor.

RLG 5620 Kabbalah and Gender (3). Exploration of the theme of Gender within the context of Jewish mysticism. Analysis of central Kabbalistic texts pertaining to the issue of gender and sexuality.

RLG 5628 Jewish Thought and Thinkers (3). The principal of Sephardic and oriental thinkers since the Middle Ages; includes philosophers, rabbinics.

RLG 5629 Kabbalah, Peace and War (3). Study of the basic categories of Kabbalah as an esoteric doctrine and evaluate its unique approach to peace and war within the historical context of the Jewish mystical experience.

RLG 5698 Sephardic and Oriental Jewry Colloquium (3). In depth examination of important issues in the study of Sephardic and Oriental Jewry.

RLG 5907 Independent Study in Sephardic and Oriental Jewry (1-6). For advanced students who possess proven significant knowledge of the field of Sephardic and Oriental Jewry, to engage in a guided research on the topic of their choice within the field. Prerequisites: REL 4610, RLG 5617, REL 3695, SYD 4606.

RLG 5911 Independent Research (1-5). Topics are selected to meet the academic needs of the individual student. Prerequisites: Permission of the instructor is required.

RLG 5934 Graduate Pedagogy (1-3). Advanced work in Religious Studies pedagogy, including classroom teaching, assignment development and grading, and seminar discussion of pedagogical issues.

RLG 5937 Special Topics (3). Topics will be selected to meet the academic needs of groups of students.

RLG 5945 Internship in Sephardic and Oriental Jewry (1-3). Work and study with the leadership of and research one of the Sephardic and Oriental communities in Florida. This serves as field study in which the classroom learning comes alive. Prerequisites: REL 4610, RLG 5617, REL 3695, SYD 4606.

SRK 2100 Sanskrit I – Basic Sanskrit (3). Basic Sanskrit skills including Devanagiri alphabet; fundamentals of oral communication; grammar; use of dictionary; history of Sanskrit languages and literature. [2]

SRK 2101 Sanskrit II – Paninian Sanskrit (3). Basic elementary Sanskrit alphabet and phonetics, grammar and syntax, formation and understanding of simple sentences common Sanskrit terms used in Hindu literature relationship to other languages. Prerequisite: SRK 2100. [2]

SRK 3202 Sanskrit III – Epic Sanskrit (3). Reading and literary analysis of representative Sanskrit epic literature. The Bhagavad Gita will be the focus of attention. Prerequisite: SRK 2101. [2]

SRK 3203 Sanskrit IV – Sanskrit Composition (3). Advanced aspects of poetic structures and literary styles of Sanskrit literature. Foci will be the Panchatantra and the works of Kalidasa. Prerequisite: SRK 3202. [2]

SRK 5001 Sanskrit Exegesis I (3). Application of both modern and traditional interpretations of selected readings from classical Sanskrit texts. Prerequisites: SRK 2101 or permission of the instructor.

SRK 5002 Sanskrit Exegesis II (3). Reading of extended classical Sanskrit text (such as the Bhagavad Gita) with attention to exegetical methods, philology and advanced grammar. Prerequisites: SRK 5001 or permission of the instructor.

SRK 5003 Sanskrit III: Reading Epic Sanskrit (3). Sanskrit grammar, its rules of transliteration and translation. The pronunciation and reading skills will be trained. Prerequisites: SRK 5002 or instructor permission.

SRK 5004 Introduction to the Prakrit Languages (3). Phonology, morphology and grammar of the Prakrit languages with emphasis on building reading competency in Buddhist and Jain literatures. Prerequisites: SRK 3202 or SRK 5202 or permission of the instructor.

SRK 5005 Advanced Prakrit Reading (3). Intensive reading of a text in a selected Prakrit language with emphasis on cultivating advanced reading techniques and the development of a research project. May be repeated with change in content. Prerequisites: SRK 3202 or SRK 5202 and SRK 5004, or permission of the instructor.

SRK 5006 Sanskrit IV: Advanced Sanskrit Reading (3). Introduces techniques to read advanced styles of Sanskrit literature such as court poetry or philosophy. May be repeated with change in emphasis. Prerequisites: SRK 5003 or instructor permission.

Certificate Programs

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

Awarded by an academic unit to a student at the time of awarding a bachelor's degree; or upon completion of the appropriate coursework to a student who already has a bachelor's degree.

An 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. An academic certificate, to the greatest extent possible, is to be interdisciplinary in nature.

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 certificate director or academic department.

Academic Certificates in:

African Studies
Afro-Latin American Studies
Ancient Mediterranean Civilization
Asian Studies
Asian Globalization and Latin America
Chinese Studies
Conflict and Dispute Resolution
Cuban and Cuban-American Studies
European and Eurasian Studies
Food Studies
German Language and Culture
Global Black Studies
Haitian Studies
Human Rights and Political Transitions
Jain Studies
Japanese Studies
Jewish Studies
Labor Studies
Languages and Cultures of North Africa
Latin American and Caribbean Studies
Leadership Studies
Middle East and Muslim World Studies
National Security Studies
North American Studies
Pre-Law Skills and Professional Values
Pre-Modern Cultures
Public Policy Studies
South and Southeast Asia Area Studies
Study of Spirituality
Translation and Interpretation

Professional Certificates in:

Holocaust and Genocide Studies
Italian Language and Culture
Portuguese Language and Brazilian Culture Studies
Spanish Language Professional Certificate Program

African Studies Certificate Program

Faculty:

Iqbal S. Akhtar, *Associate Professor, Religious Studies and Politics and International Relations*
Pascale S. Bécel, *Associate Professor and Chair, Modern Languages*
John F. Clark, *Professor and Chairperson, Politics and International Relations*
Steven R. Blevins, *Assistant Professor, English*
Nandini Dhar, *Associate Professor, English*
Hilary J. Jones, *Associate Professor, History and African and African Diaspora Studies*
Assefa Melesse, *Associate Professor, Earth and Environment*
Roderick P. Neumann, *Professor, Global and Sociocultural Studies*
Okezi T. Otovo, *Associate Professor, History and African and African Diaspora Studies and Graduate Program Director, History*
Tudor V. Parfitt, *SIPA Distinguished Professor and President Yitzhak Navon Professor of Sephardic and Mizrahi Studies, Religious Studies*
Jean M. Rahier, *Professor, Global and Sociocultural Studies*
David Rifkind, *Assistant Professor, Architecture*
Heather Russell, *Associate Professor, English*
Vicky Silvera, *Special Collection, Library*
Chantalle F. Verna, *Associate Professor, History and Politics and International Relations*
Albert Kafui Wuaku, *Professor, Religious Studies*
Samba Camara, *Adjunct Faculty, African and African Diaspora Studies and Modern Languages*
Mariama Jaiteh, *Adjunct Faculty, African and African Diaspora Studies*
Zablon Mgonja, *Adjunct Faculty, African and African Diaspora Studies and Modern Languages*
Noelle Theard, *Adjunct Faculty, African and African Diaspora Studies*

African and African Diaspora Studies (AADS) encompasses the study of and research on the peoples of Sub-Saharan Africa and their experiences, and on communities of the African diaspora both in continental Africa and elsewhere in the Americas, Europe, Asia, and Australia. It also involves the dissemination of knowledge about Sub-Saharan continental African peoples and diasporic Africans internationally.

Housed within the Steven J. Green School of International and Public Affairs, and more specifically in the African & African Diaspora Studies Program (AADS), the African Studies Certificate provides students with an interdisciplinary approach to the study of the global, economic, cultural, and historical experiences of African peoples, communities, and nation-states. The Certificate complements students' work in their major fields of study

at the undergraduate level while fostering greater understanding of traditionally marginalized topics.

Thanks to the diversity of areas of research interests of the core and affiliate AADS faculty, students will be able to choose courses that will allow them to focus more specifically on Sub-Saharan Continental Africa and Africans.

The Certificate places a strong emphasis on African cultural expressions in all their regional, temporal, and socioeconomic diversities. It offers coordinated insights into the ongoing challenges African communities face locally, nationally, and internationally. It also focuses on the ways in which continental African communities and individuals have developed political and creative strategies for survival in the midst of, and resistance to, racism and political, economic, and social oppression. This certificate program is open to degree-seeking students only.

General Requirements (18 or 20)

Students complete 18 or 20 credit hours of study from disciplines as diverse as geography, history, international relations, journalism, sociology, anthropology, literature, music and political science. The core requirements are: 1) AFH 2000 "African Civilizations – *GL*" or AFS 3011 "African Civilization, Religion and Philosophy – *GL*" (This required course should be taken at the start of the Certificate Program); 2) an African language course: either SWA 1130 (Swahili I for 5 credits), or SWA 1131 (Swahili II for 5 credits), or WOL 1130 (Wolof I for 5 credits), or WOL 1131 (Wolof II for 5 credits), or WOL 1170 (Introduction to Wolof Language and Culture for 3 credits), or SWA 1100 (Introduction to Swahili Language and Culture for 3 credits). WOL 1170 and SWA 1100 are offered during study abroad programs to either West or East Africa (Check with the African & African Diaspora Studies Program). If a student elects to take a language course on campus (5 credits), the total of credits he/she will need to accumulate to satisfy the requirements for this certificate will be 20 credits. If instead a student enrolls in either WOL 1170 or SWA 1100 during study abroad program, the total of credits he/she will accumulate to satisfy the requirements for this certificate will be 18 credits. Although only one language course will be counted to meet the language requirement for the Certificate in African Studies, students are encouraged to take the second level of the African language offered: either SWA 1131 (Swahili II) or WOL 1131 (Wolof II). Taking either WOL 1130 and WOL 1131 or SWA 1130 and SWA 1131 will also allow undergraduate students to satisfy a university graduation requirement of at least two semesters of education in foreign languages. The other 15 credits must come from each of two lists, one comprising the Arts and Humanities, and the other the Social Sciences. The program director may approve other courses upon request. Students requesting an exception from these lists must present a syllabus for the course they would like to enroll in. Not all courses are offered every semester.

Required Core Courses: (6-8 credits)

AFH 2000	African Civilizations – *GL*	3
	or	
AFS 3011	African Civilization, Religion and Philosophy – *GL*	3
	and	
SWA 1130	Swahili I	5
SWA 1131	Swahili II	5
	or	
WOL 1130	Wolof I	5
	or	
WOL 1xxx	Wolof II	5
	or	
SWA 1100	Introduction to Swahili Language and Culture	3
	or	
WOL 1170	Introduction to Wolof Language and Culture	3

Arts and Humanities Courses: (6-9 credits)

AFS 3332	Gender and Sexualities in Sub-Saharan African Contexts – *GL*
AFA 4930	African and African Diaspora Studies Theory
AFA 4931	Special Topics in African Diaspora Studies
AFS 4210	African Visual Arts – *GL*
AFA 4200	African Drum I
AFA 4201	African Drum II
AFA 4340	Health in African World
AFA 4905	African and African Diaspora Studies Independent Study
AFH 4100	History of Africa I – *GL*
AFH 4200	History of Africa II
AFH 4342	History of West Africa
AFH 4405	History of East Africa
AFH 4450	History of South Africa – *GL*
ARH 3511	Introduction to the Visual Arts of the African World
ARH 4520	African Arts – *GL*
DAA 3347	West African Dance
FRW 4750	Francophone Literature of Africa
LIT 4351	Major African Writers
REL 4370	African Religions
WOH 4230	The African Diaspora and the Atlantic Slave Trade

Social Sciences Courses: (6-9 Credits)

AFS 3331	Women and Human Rights in Sub-Saharan Africa – *GL*
AFS 4265	Latin America and the Caribbean in Africa: South-South Interactions – G*L*
ANT 4352	African Peoples and Cultures
ANT 4396	Representations of Africa and Africans in Films
CPO 3204	African Politics
GEA 3600	Population and Geography of Africa – *GL*
INR 3252	International Relations of North Africa
INR 3253	International Relations of Sub-Saharan Africa

Afro-Latin American Studies Certificate Program

Coordinating Committee

Danielle Clealand, *Associate Professor, Politics & International Relations*

Ulrich Oslender, *Associate Professor, Global & Sociocultural Studies*

Okezi Otovo, *Associate Professor, History and African &*

African Diaspora Studies
Mark Padilla, *Professor, Global & Sociocultural Studies*
Juan Torres Pou, *Associate Professor, Modern Languages*
Andrea Queeley, *Associate Professor, Global & Sociocultural Studies and African & African Diaspora Studies*
Jean M. Rahier, *Professor, Global & Sociocultural Studies*
Vicky Silvera, *Special Collections, Library*
Noelle Theard, *Adjunct Professor, African & African Diaspora Studies*

African and African Diaspora Studies (AADS) encompasses the study of, and research on, the peoples of Sub-Saharan Africa and their experiences, and on communities of the African diaspora both in continental Africa and elsewhere in the Americas, Europe, Asia, and Australia. It also involves the dissemination of knowledge about Sub-Saharan continental African peoples and diasporic Africans internationally. Housed within the Steven J. Green School of International and Public Affairs, and more specifically in the African & African Diaspora Studies Program (AADS), the Afro-Latin American Studies Undergraduate Certificate provides students with an interdisciplinary approach to the study of the global, economic, cultural, and historical experiences of all peoples of African descent in the Latin American region. We understand these communities of the African diaspora in Latin America have encompassing both those communities issued from the Transatlantic slave trade and their descendants, and from more recent migration movements. The Certificate complements students' work in their major fields of study at the undergraduate level while fostering greater understanding of traditionally marginalized topics. Thanks to the diversity of areas of research interests of the core and affiliate AADS faculty, students will be able to choose courses that focus more specifically on Afro-Latin Americans living in both the region and in other geographic areas where Afro-Latin Americans have migrated to and/or written their national governments have been engaged on behalf of national industries.

The Certificate places a strong emphasis on Afro-Latin American cultural expressions in all their national, sub-regional, temporal, and socioeconomic diversities. It offers coordinated insights into the ongoing challenges Afrodescendant communities face locally, nationally, and internationally. It also focuses on the ways in which Afro-Latin American communities and individuals have developed political and creative strategies for survival in the midst of, and resistance to, racism and political, economic, and social oppression. The Certificate will provide numerous opportunities for enrolled students to explore Afro-Latin American populations in economic processes of various kinds, underlining the specific challenges they might face. The Certificate is based on a number of courses that can be combined as described below, and that come from both the social science and humanities. This certificate program is open to degree-seeking students only.

Certificate Requirements (18 credits)

General Requirements
Students complete 18 credit hours of study from disciplines as diverse as geography, history, international relations, journalism, sociology, anthropology, literature, music, and political science. These two required courses should be taken at the start of the Certificate Program. The other 9 credits must come from the elective courses, comprising both Arts and Humanities courses, and Social Sciences courses. The program director may approve other courses upon request. Students requesting an exception from these lists must present a syllabus for the course they would like to enroll in, prior to enrollment. The courses considered for such an exception should have at least a 35% Afro-Latin American content. Not all courses are offered every semester.

Required Core Courses: (6 credits)

AFA 4930	African and African Diaspora Studies Theory
	and
AFA 4241	The African Diaspora in Latin America

Electives (Arts and Humanities, Social Sciences) Courses: (12 credits)

AFA 2004	Black Popular Cultures: Global Dimensions – *GL*
AFA 4931	Special Topics in African Diaspora Studies (with relevant course focus)
AFA 4905	Independent Study (with relevant course focus)
AFA 4351	Hip Hop Culture, Social Consciousness and Social Entrepreneurship
AFA 4370	Global Hip Hop – *GL*
AFA 4372	Race, Gender and Sexuality in Hip Hop – *GL*
AFA 4941	African and African Diaspora Studies Internship (with relevant course focus)
AFS 4265	Latin America and the Caribbean in Africa: South-South Interactions – *GL*
ANT 4396	Africa and Africans in Film
ARH 3511	Introduction to the Visual Arts of the African World
CPO 4394	Race and Politics in the Americas
LAH 2020	Latin American Civilization – *GL*
LAH 3132	The Formation of Latin America – *GL*
LAH 3200	Latin America: The National Period – *GL*
LAH 4482	Cuba: 18th-20th Centuries
LAH 4600	History of Brazil – *GL*
LAH 4737	Music, Modernity and Identity in Latin American History – *GL*
LAH 4634	Politics of Race and Nation in Brazil – *GL*
WOH 4230	The African Diaspora and the Atlantic Slave Trade

Prior to enrolling in the last course for this "Stand Alone Certificate", all students should approach the AADS office and indicate that they are about to complete the curricular requirements. Students should be advised that the term paper they turn in in their last Certificate course will be used to assess Certificate Student Learning Outcomes. Students will have to make an oral presentation of that paper at an event AADS will routinely organize at the end of the fall and spring semesters, every year.

Ancient Mediterranean Civilization Certificate Program

Coordinating Committee
Gwyn Davies, *History*
Erik Larson, *Religious Studies*
Darden Pyron, *History*
Paul Warren, *Philosophy*

The Ancient Mediterranean Civilization Certificate Program is an eighteen credit-hour course of study intended to enable students to gain an interdisciplinary concentration in various aspects of the Ancient Mediterranean. It is designed to enhance undergraduates' understanding of the ancient Mediterranean region, primarily (but not exclusively), the cultures of Rome, Greece, and Judaea, and to complement the student's major course of study, especially in Anthropology, English, History, Humanities, Philosophy, Religious Studies, and Visual Arts.

Courses are to be chosen from the following list in consultation with the approval of an advisor. A grade of C or better is required for all courses. This listing should be understood as a partial list. Students should consult with an advisor of the certificate program about current course offerings. This certificate program is open to degree-seeking students only.

Requirements

1. All students are required to demonstrate ability in at least one Classical Language (Classical or New Testament Greek, Latin, Biblical Hebrew or other ancient language with Director's approval.

Classical Greek

GRE 1130	Classical Greek I	5
GRE 1131	Classical Greek II	5

New Testament Greek

GRE 3041	New Testament Greek II	3
GRE 3050	New Testament Greek I	3

Biblical Hebrew

HBR 3100	Biblical Hebrew I	3
HBR 3101	Biblical Hebrew II	3

Latin

LAT 1130	Latin I	5
LAT 1131	Latin II	5

2. At least 18 semester hours from the following certificate program course listing, or others approved by the certificate program advisor. Students must take one Foundation course, one course from each of three fields (Culture, History, and Religion) and two courses from any field. A maximum of 5 credits may be applied towards the certificate from language classes (see section below).

Foundation Classes

HUM 3214	Ancient Classical Culture & Civilization
	or
EUH 2011	Western Civilization: Early European Civilization – *GL*

Culture

HUM 3432	The Roman World
HUM 4431	The Greek World
PHH 3100	Ancient Philosophy
POT 3013	Ancient and Medieval Political Thought
ARH 3210	Early Christian and Byzantine Art
ARH 4131	Greek Art
ARH 4151	Roman Art

History

EUH 3400	Greek History
EUH 3411	Ancient Rome
EUH 4300	Byzantine History
EUH 4401	History of Fifth Century Greece
EUH 4408	Age of Alexander the Great

Religion

REL 3209	The Dead Sea Scrolls
REL 3220	Moses, Priests and Prophets
REL 3250	Jesus and the Early Christians
REL 3270	Biblical Theology
REL 3280	Biblical Archaeology
REL 3320	Moses, Jesus, Muhammed
REL 3325	Religions of Classical Mythology
REL 3511	Early Christianity
REL 3551	Mary and Jesus
REL 3625	Introduction to Talmud
REL 4224	The Prophets and Israel
REL 4251	Jesus and Paul
RLG 5614	Ancient Judaism

Language

GRE 1130	Classical Greek I
GRE 1131	Classical Greek II
GRE 2200	Intermediate Classical Greek
GRE 3041	New Testament Greek II
GRE 3050	New Testament Greek I
HBR 3100	Biblical Hebrew I
HBR 3101	Biblical Hebrew II
LAT 1130	Latin I
LAT 1131	Latin II
LAT 2200	Intermediate Latin

Applied Geographic Information Systems

Program Director:
Derrick Scott, *Global and Sociocultural Studies*

Coordinating Committee:
Katherine Lineberger, *Global and Sociocultural Studies*
Karina Livingston, *Global and Sociocultural Studies*
Ebru Ozer, *Landscape Architecture, Environmental and Urban Design*
Shimon Wdowinski, *Earth and Environment*
Sparkle Malone, *Biology*
Stephen Pires, *Criminology and Criminal Justice*
Jennifer Fu, *Global and Sociocultural Studies*

The certificate in Applied Geographic Information Systems prepares students to perform a wide array of GIS skills, data collection, and data analysis methods. The certificate program focuses on practical applications of qualitative and quantitative research methods. These prepare students (1) to continue their education into graduate/professional school and/or (2) for students seeking solid skills for jobs that require knowledge and use of statistical, survey, GIS, and other research methods.

Students entering the certificate program are required to complete any two(2) (6 credits) from the following courses:

GIS 2000	Mapping in Geography
GIS 2040	Introduction to Applied Skills in GIS
GIS 3043	Introduction to Geographical Information Systems

Core Requirements:
Two (2) course from category 1 and one (1) course from category 2 for a total of nine (9) credits:
Category 1: Intermediate/Advanced: GIS (Select 2 courses from this list)

CCJ 4072	GIS and Crime Mapping
GIS 3048	Applications of Geographic Information Systems
SYA 4352	GIS and Social Research

Methods: (Select one 3-credit course from this list)

CCJ 4700	Research Methods in Criminal Justice
CCJ 4701	Measurement and Analysis in Criminal Justice
GEO 3110	Research Methods
SYA 3300	Research Methods
SYA 4450	Advanced Research Methods
PAD 4732	Applied Research Methods
PAD 4712	IT and E-Government

Electives:
One (1) course from those listed below or any additional class from the above category's 1 or 2 for a total of three (3) credit hours.

CGN 4321	GIS Applications in Civil and Environmental Engineering
GLY 3759	Visualizing Our World with GIS
SYA 3400	Introduction to Quantitative Social Research
PCB 4932	Topic in Ecology: Introduction to Landscape Ecology with GIS

Or

Additional course under Category 1 or 2 of the required courses.

Or

Other GIS-related courses approved by the Program Director in consultation with the Coordinating Committee

18 Credit Hours

Asian Studies Certificate Program

Steven Heine, *Director, Asian Studies*

Coordinating Committee
Naoko Komura, *Modern Languages*
Li Ma, *Modern Languages*
Matthew Marr, *Global and Sociocultural Studies*
Asuka Mashav, *Modern Languages*
Eric Messersmith, *Asian Studies*
Shenggao Wang, *Modern Languages*

The certificate in Asian studies provides students with a rich learning experience about a fascinating and increasingly important region of the world, and is intended to enhance the student's competitiveness upon graduation. The program provides a multidisciplinary approach covering the philosophy, religion, art history, language and literature of Asia as well as issues in history, politics, geography, sociology/anthropology, and international relations.

Asian Studies offers courses in humanities/fine arts and social sciences/professions that cover the regions of East, South, and Central Asia, as well as pan-regional or comparative studies. This certificate program is open to degree-seeking students only.

Requirements

The Asian Studies certificate requires a total of eighteen (18) credits and includes the following:

a) Two semesters or equivalent of an Asian language (e.g. Chinese or Japanese); six (6) credits of language courses may be applied to the certificate.
b) 18 credits from the coursework listed below to be chosen with the approval of the Director with a "C" or better, with at least 3 credits in Humanities/Fine Arts or Social Sciences/Professions; in addition to the courses listed here, relevant special topics, area studies, or comparative studies courses may also be applied. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.**

Humanities/Fine Arts (at least 3 credits)

AMH 4544	The United States and the Vietnam War
AML 4930	American Writers and the Orient
ARH 4552	Arts of China and Japan
ASN 4510	Dynamics of Asia
COM 3410	Culture Communication Patterns of Asia
PHH 3810	Philosophy of Buddhism
PHH 3840	Indian Philosophy
PHI 3762	Eastern Philosophy and Religious Thought
PHP 3840	Chinese & Japanese Philosophy
REL 3027	Meditations and Mystical Traditions
REL 3313	Sources of Modern Asian Society
REL 3314	Religion on the Silk Road
REL 3330	Religions of India – *GL*
REL 3028	Sacred Places, Sacred Travels
REL 4311	Religious Classics of Asia
REL 4312	The Jews of Asia and Africa
REL 3340	Survey of Buddhism – *GL*
REL 4345	Zen Buddhism
REL 4351	Religion and Japanese Culture
SPW 4133	Eastern Thought and Latin America Literature

Language Courses (at least 3 credits)

CHI 1130	Chinese I
CHI 1131	Chinese II
CHI 2200	Intermediate Chinese
CHI 3440	Business Chinese
JPN 1130	Japanese I
JPN 1131	Japanese II
JPN 2200	Intermediate Japanese I
JPN 4930	Special Topics: Intermediate Japanese Conversation
JPN 3140	Japanese for Business
JPN 4930	Special Topics in Japanese
JPN 3500	Japanese Culture and Society – *GL*

Social Sciences/Professions (at least 3 credits)

ARC 4754	Asian and African Architecture
CPO 3502	Politics of the Far East
CPO 4541	Politics of China

CPO 4553	Government and Politics of Japan
ECS 3003	Comparative Economic Systems
ECS 3200	Economics of Asia
EDF 4954	Arts Education Abroad in China – *GL*
EVR 3402	Asian Environmental Issues
FIN 3652	Asian Financial Markets & Institutions
GEA 3554	People, Place, and Environment of Russia and Central Eurasia
INR 3223	Japan and the United States
INR 3224	International Relations of East Asia
INR 3226	International Relations of Central Asia and The Caucasus
INR 4232	International Relations of China
INR 4032	Asia and Latin America In World Affairs
INR 4082	Islam in International Relations

Study Abroad

Students are encouraged to earn credits through a study abroad (summer travel) or student exchange (one or two semesters travel) program with a university in Asia. Several programs are offered. Students may earn three to six credits for study abroad and up to fifteen credits for student exchange. Please inquire with the Director or with the Office of Education Abroad about international programs.

For more information, contact the Asian Studies office, SIPA 505. Email: **asian@fiu.edu**; phone: (305) 348-1914; website: **http://asian.fiu.edu**.

Asian Globalization and Latin America Certificate

Steven Heine, *Director, Asian Studies*

Coordinating Committee
Melissa Baralt, *Modern Languages*
Ana Maria Bidegain, *Religious Studies*
Matthew Marr, *Global and Sociocultural Studies*
Asuka Mashav, *Modern Languages*
Richard Tardanico, *Global and Sociocultural Studies*
Juan Torres-Pou, *Modern Languages*
Maida Watson, *Modern Languages*

The Asian Globalization and Latin America Certificate is an eighteen (18) credit course of study designed for degree seeking students specializing in various disciplines with regards to the Globalization of Asia and Latin America.

The certificate focuses on the language and culture of both Asia and Latin America (specifically Chinese, Japanese, Portuguese and Spanish), while allowing the student to specialize in such fields as Anthropology, Business, Dance, Fine Arts, History, International Relations, Music, Philosophy, and Religion as related to the regions. Students may apply towards the certificate up to six (6) credits of language instruction from language courses taken at FIU or from study abroad (see advisors).

The certificate represents a way to gain specialized knowledge of integrative, transregional issues in relation to Asia and Latin America and will serve as a complement to the student's major area of study. Students can use the certificate as a demonstration of their understanding of the regions and their global phenomena through language, culture and other areas.

Prescribed Courses and Other Requirements

Students are required to take 18 credits. Courses are to be chosen from the following list in consultation with and approval of the advisor. A grade of 'C' or better is required for all courses. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.**

1. Language (6 credits)
All students are required to demonstrate proficiency (two semesters) in one language group and familiarity (one semester) in the other. Students already demonstrating proficiency in an Asian or Latin American language may be exempt from this requirement. This requirement may be satisfied through examination (see advisors), course work, or by completing one of the following sequences:

Group A: Chinese & Japanese:

CHI 1130	Chinese I
CHI 1131	Chinese II
CHI 2200	Intermediate Chinese I
JPN 1130	Japanese I
JPN 1131	Japanese II
JPN 2200	Intermediate Japanese

Group B: Portuguese & Spanish:

POR 1130	Portuguese I
POR 1131	Portuguese II
POR 2200	Intermediate Portuguese
	or
POR 3202	Accelerated Portuguese I
POR 3233	Accelerated Portuguese II
SPN 1130	Spanish I
SPN 1131	Spanish II
SPN 2200	Intermediate Spanish

2. Area Studies (12 credits)
Courses are to be chosen from the following certificate program course listing, or others approved by the certificate program advisor. Students must take courses distributed across three regional areas: A) Asian Studies; B) Latin America Studies; and C) Global Studies.

Area A: Asian Studies Courses (6 credits)
A minimum of six (6) credit-hours must be taken from this list. The following core courses fulfill certificate requirements. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.** A maximum of two tutorial or Independent Study courses may be taken only with professors whose area of research is Asian Studies, and only with approval from the advisor.

AMH 4544	The United States and the Vietnam War
ANT 4477	Area Studies: Asia or Southeastern Asia and China
ARH 4552	Arts of China and Japan
ASH 3440	History of Japan
COM 3410	Cultural Communication Patterns in Asia
CPO 3502	Politics of the Far East
CPO 4541	Politics of China
CPO 4553	Government and Politics of Japan
ECS 3200	Economics of Asia
EVR 3402	Asian Environmental Issues

INR 4032	Asia & Latin America in World Affairs
INR 3223	Japan & the United States
INR 3224	International Relations of East Asia
INR 4232	International Relations of China
JPN 3500	Japanese Culture and Society – *GL*
PHH 3810	Philosophy of Buddhism
PHH 3840	Indian Philosophy
PHI 3762	Eastern Philosophical and Religious Thought
PHP 3840	Chinese and Japanese Philosophy
REL 3330	Religions of India – *GL*
REL 4311	Religious Classics of Asia
REL 3340	Survey of Buddhism – *GL*
REL 4345	Zen Buddhism
SYD 4610	Topics In Sociology

Area B: Latin American Studies Courses (3 credits)
A minimum of three (3) credits must be taken from this list. The following core courses fulfill certificate requirements. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.** Independent Study courses may be taken only with professors whose area of research is Asian Studies, and only with approval from the advisor.

ANT 4332	Latin America
ANT 4334	Contemporary Latin American Women
ANT 4340	Caribbean Cultures
ANT 4343	Cuban Culture and Society
ARH 4670	20th Century Latin American Art
CPO 3304	Politics of Latin America
CPO 4340	Politics of Mexico
CPO 4323	Politics of the Caribbean
CPO 4303	Politics of South America
DAA 3395	Cultural Dance Forms (Afro-Brazilian Dance)
ECS 3401	The Brazilian Economy
ECS 3402	The Political Economy of South America
ECS 3403	Economics of Latin America
ECS 3404	Economic Integration: Latin America
ECS 3430	Economic Development of Cuba
ECS 3431	Economics of the Caribbean Basin
ECS 3432	Economic Integration: Caribbean
EVR 5065	Ecology of Costa Rican Rainforest
EVR 5066	Ecology of the Amazon Flooded Forest
GEA 3400	People, Place, and Environment of Latin America
GEA 3320	People, Place, and Environment of the Caribbean
INR 3425	International Relations of Latin America
INR 3246	International Relations of the Caribbean
LAH 2020	Latin American Civilization – *GL*
LAH 3132	The Formation of Latin America – *GL*
LAH 3200	Latin America: The National Period – *GL*
LAH 3450	Central America
LAH 3740	Comparative History of Latin American Rebellions
LAH 4433	Modern Mexico
LAH 4482	Cuba: 18th-20th Centuries
LAH 4600	History of Brazil – *GL*
LAH 4720	Family & Land in Latin America
LAH 4721	History of Women in Latin America – *GL*
LAH 4750	Law & Society in Latin America
MUH 3061	Music of Mexico and Central America
MUH 3062	Music of the Caribbean
MUH 3541	Music of Latin America: Folklore & Beyond
PHH 3042	Latin American Philosophy
POR 3500	Luso-Brazilian Culture – *GL*
POW 4930	Special Topics: Brazilian Literature
POW 4390	Brazilian Cinema
REL 4481	Contemporary Latin American Religious Thought
SPN 4520	Latin American Culture – *GL*
SPW 3371	Latin American Short Story
SPW 3520	Prose & Society
SPW 4364	Spanish American Essay
SYD 4630	Latin American and Caribbean Social Structure

Area C: Comparative & Global Studies Courses (3 credits)
A minimum of three (3) credits must be taken from this list. The following core courses fulfill certificate requirements. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.** A maximum of two tutorial or Independent Study courses may be taken only with professors whose area of research is Asian Studies, and only with approval from the advisor.

ACG 4251	International Accounting
ANT 3403	Cultural Ecology
CPO 3403	Politics of the Middle East
CPO 4053	Political Repression & Human Rights
DAN 4396	Dance Ethnology
ECS 3704	International Economics
ECO 4703	International Trade Theory & Policy
ECO 4713	International Macroeconomics – *GL*
ECO 4733	Multinational Corporations
ECO 4701	World Economy
ECS 3003	Comparative Economic Systems
ECS 3013	Introduction to Economic Development
FIN 4604	International Financial Management – *GL*
FIN 4634	International Banking – *GL*
INR 3081	Contemporary International Problems – *GL*
CPO 4726	Ethnicity and Nationalism
INR 4044	World Population Problems
INR 4054	World Resources & World Order
LIN 4931	Bilingualism: Heritage Languages in North America
LBS 4653	Labor Movements in Developing Countries
MAN 4602	International Business
MAN 4600	International Management
MAN 4610	International Human Resources
MAR 4144	Export Marketing
MAR 4156	International Marketing
MUH 3514	Music of the World – *GL*
REL 3027	Meditation and Mystical Traditions
REL 3028	Sacred Places, Sacred Travels
REL 3123	Asian Religions in the Americas
REL 3314	Religion on the Silk Road
REL 3170	Ethics in World Religion
REL 3308	Studies in World Religions – *GL*
SPW 3130	Spanish American Literature
SPW 4470	Eastern Cultures and Travel Writing in

	Spanish Literature
SSE 4380	Developing a Global Perspective – *GL*
SYD 4610	Topics In Sociology
SYD 4700	Racial and Ethnic Relations
SYP 4454	Globalization and Society

The Certificate in Asian Globalization and Latin America requires study in three different regional areas. These fields represent courses in Language & Literature, Philosophy & Religion, Sociology & Anthropology and Environmental Studies, History, Political Science and International Relations & Geography, Economics & Finance, and Fine Arts. All courses acceptable towards the certificate deal with some aspect of Asia, Latin America, and/or transregional issues. The combination of courses allows for the student to gain broad-based, multidisciplinary expertise within a specialization on Asian globalization and Latin America.

For more information, contact the Asian Studies office, SIPA 505. Email: **asian@fiu.edu**; phone: (305) 348-1914; website: **http://asian.fiu.edu**.

Chinese Studies Certificate Program

Steven Heine, *Director, Asian Studies*

Coordinating Committee
Thomas Breslin, *Politics and International Relations*
Li Ma, *Assistant Director, Chinese Cultural Programs*
Shenggao Wang, *Modern Languages*
Lidu Yi, *Chinese Art and Art History*
Julie Zeng, *Politics and International Relations*

This certificate program offers an 18-credit sequence of courses and is intended to provide students with a rich learning experience about a fascinating and increasingly important region of the world, and is intended to enhance the student's competitiveness upon graduation. The program focuses on language studies requiring two years of Chinese and provides a multidisciplinary approach covering the philosophy, religion, art history, and literature of China as well as issues in history, politics, geography, sociology/anthropology, and international relations. This certificate program is open to degree-seeking students only.

Requirements

Language Requirement: (up to 12 credits)

Students are required to obtain two years or equivalent of Chinese language.

Elective Courses: (6 credits)

All students are to choose from the courses listed below with the approval of the Director with a "C" or better. Students may select ASN 4911 for 1-6 credits of Independent Study. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.**

Humanities/Fine Arts

AML 4930	American Writers and the Orient
ARH 4552	Arts of China and Japan
ASN 4510	Dynamics of Asia
EDF 4954	Arts Education Abroad in China – *GL*
ASH 4300	East Asia Civilization
ASH 4384	History of Women in Asia
ASH 4404	History of China
LIT 3930	Asian Film and Literature
PET 3403	Introduction to Martial Arts
PHI 3762	Eastern Philosophical and Religious Thought
PHP 3840	Chinese and Japanese Philosophy
REL 3340	Survey of Buddhism – *GL*
REL 4345	Zen Buddhism
ASN 3042	Asian Religions and Arts
ASN 3403	Zen and the Art of Tea Ceremony

Social Sciences/Professions

ARC 4754	Asian and African Architecture
CHI 3440	Chinese for Business
CPO 3502	Politics of the Far East
CPO 4541	Politics of China
ECS 3003	Comparative Economic Systems
ECS 3200	Economics of Asia
EVR 3402	Asian Environmental Issues
FIN 3652	Asian Financial Markets and Institutions
HFT 4955	Study Abroad: Hospitality and Tourism
INR 3224	International Relations of East Asia
INR 4232	International Relations of China
MAN 4600	International Management
SYD 4610	Topics In Sociology

In addition to the courses listed here, relevant special topics, study abroad credits, area studies or comparative studies courses may also be applied. Students are encouraged to earn credits through study abroad in China or through internships.

For more information, contact the Asian Studies office, SIPA 505. Email: **asian@fiu.edu**; phone: (305) 348-1914; website: **http://asian.fiu.edu**.

Conflict and Dispute Resolution Certificate Program

Judith Bernier, *Director, Center for Labor Research and Studies*

Faculty:
Danay Barata, *Labor Studies*
Nora Femenia, *Labor Studies*
George Gonos, *Labor Studies*
Ira Horowitz, *Labor Studies*
Abdolrahim Javadzadeh, *Labor Studies*
Gleema Nambiar, *Labor Studies*

The Certificate in Conflict and Dispute Resolution offers students 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 and dispute resolution. Learning to apply effective conflict and dispute resolution skills in a variety of contexts (individual, organizational, and global) is a necessity in modern society. The certificate enhances interdisciplinary connections among Business, Criminology, Education, Human Resources Management, International Relations, Labor Studies, Law, Political Science, Psychology, Public Policy and Administration, Sociology, Women's and Gender Studies, and complements studies in other areas. This certificate

program is open to both degree- and non-degree seeking students.

Minimum of 18 credit hours. Courses are to be selected in consultation with an advisor. A grade of "C" or better is required for all courses.

Requirements

Students are required to take 18 credit hours (6 courses) of course work outlined below.

Three Required Core Courses: (9 credits)

LBS 3468	Introduction to Mediation – *GL*
LBS 3480	Introduction to Conflict Resolution – *GL*
LBS 4484	Applying Conflict Resolution Techniques – *GL*

Three Conflict Resolution Courses: (9 credits)

LBS 3482	Methods of Conflict Resolution
LBS 3943	Internship in Labor Studies
LBS 4154	Workers and Diversity – *GL*
LBS 4210	Women And Work – *GL*
LBS 4401	Labor Contract Negotiations
LBS 4461	Labor Dispute Resolution
LBS 4483	Organizational Conflict
LBS 4487	Conflict Theories
LBS 4654	Comparative and International Labor Studies – *GL*

For more information request an appointment with the Academic Program Coordinator at the Labor Center.

Cuban and Cuban-American Studies Certificate Program

Jorge Duany, *Director, Cuban Research Institute*

The Cuban Research Institute offers an Undergraduate Certificate in Cuban and Cuban-American Studies. The certificate provides an opportunity for students to integrate scholarship from various disciplines into a comprehensive program of study. Students gain a broad knowledge of Cuban and Cuban-American history, economics, politics, and culture.

The Undergraduate Certificate in Cuban and Cuban-American Studies is designed to complement a student's major field of study. Interdisciplinary in nature, the program consists of more than 70 courses from numerous departments, including African and African Diaspora Studies, Art and Art History, Economics, English, Global and Sociocultural Studies, History, Linguistics, Music, Politics and International Relations, and Religious Studies. All degree-seeking students enrolled at FIU qualify for the certificate, which will be awarded upon graduation. Courses at the five-thousand and six-thousand level qualify for the program. However, undergraduates should consult with the professor prior to taking such courses. One independent study course may be submitted to count towards the certificate provided that the final paper is of thematic relevance. A working knowledge of Spanish is recommended.

Requirements

Students are required to take LAH 4482 Cuba: 18th-20th Centuries as well as five other courses from four different departments for a total of 18 credits. Courses applicable for the certificate are listed every semester in the University's course schedule. To inquire if a specific course meets the certificate requirements please contact an advisor at the Cuban Research Institute.

Students interested in the certificate program should contact the Cuban Research Institute at (305) 348-1991, or e-mail **cri@fiu.edu**.

The following courses fulfill certificate requirements. These courses represent a partial list; students should consult with the certificate program advisor about current course offerings.

African and African Diaspora Studies

AFA 2004	Black Popular Cultures: Global Dimensions – *GL*
AFA 4933	Special Topics in Black Transnationalism

Anthropology

ANT 3241	Myth, Ritual, and Mysticism – *GL*
ANT 3451	Anthropology of Race and Ethnicity
ANT 4211	Area Studies: Afro-Cuban Religions
ANT 4340	Caribbean Cultures
ANT 4343	Cuban Culture and Society

Art and Art History

ARH 4450	Modern Art
ARH 4470	Contemporary Art – *GL*
ARH 4672	History of Cuban Art

Biological Sciences

BSC 4363	Biodiversity in the Caribbean Basin

Communication

COM 3461	Intercultural/Interracial Communication – *GL*

Economics

ECS 3430	The Economic Development of Cuba/Past and Present
ECS 3431	Economics of the Caribbean Basin
ECS 3432	Economic Integration / Caribbean

Education

SSE 4380	Developing a Global Perspective – *GL*

English

LIT 4356	Literature of the Cuban Diaspora

Global and Sociocultural Studies

GEA 3320	People, Place, and Environment of the Caribbean

History

AMH 4421	Florida Under Five Flags: Florida History from Pre-contact to 1877
AMH 4914	South Florida History: Research
HIS 5930	Special Topics: Music and Resistance in the Caribbean
LAH 3740	Comparative History of Latin American Rebellions and Revolutions
LAH 4471	Colonial Caribbean in Comparative Perspective
LAH 4482	Cuba: 18th –20th Centuries
LAH 4734	Latin American History Through Film – *GL*
LAH 4737	Music, Modernity and Identity in Latin American History – *GL*
LAH 4932	Topics in Latin American History

LAH 5905	Readings in Latin American History: Cuba 1898-1960
LAH 5935	Topics in Latin American History: Colonial Caribbean in Comparative Perspectives Cuba 18th- 20th Centuries Slave Trade/African Diaspora
LAH 6932	Research Seminar in Latin American History I
WOH 4230	The African Diaspora and the Atlantic Slave Trade

International Relations

INR 3045	The Global Challenge of Refugees and Migrants
INR 3243	International Relations of Latin America
INR 3246	International Relations of the Caribbean
INR 4931	Topics in International Relations: Cuba in the World
INR 5935	Topics in International Relations: Cuba in the World

Communication and Journalism

JOU 3188	Reporting in a Multi-Ethnic Community

Modern Languages

FOL 4930	Special Topics: Hispanic Culture in the U.S.
LIN 5604	Spanish in the United States

Music

MUH 3060	Latino Music in the United States
MUH 3062	Music of the Caribbean
MUH 3541	Music of Latin America: Folklore and Beyond
MUH 3813	History of Afro-Cuban Jazz
MUH 5067	Music of the Caribbean
MUH 5546	Music of the Americas

Politics

CPO 4034	The Politics of Development and Underdevelopment
CPO 4057	Political Violence and Revolution – *GL*
CPO 4323	Politics of the Caribbean
CPO 4360	Cuban Politics
CPO 5325	Politics of the Caribbean
POS 4074	Latino Politics
POS 4182	Florida Politics
POS 4188	Miami Politics
POS 4314	American Ethnic Politics

Religious Studies

REL 3375	Religions of the Caribbean

Sociology

SYD 3620	Miami: A Sociological Perspective
SYD 4621	Cubans in the U.S.
SYD 6901	Special Topics in Sociology: Transnational Cuba

Spanish

SPN 4520	Latin American Culture – *GL*
SPN 4521	Topics on Latin American Culture
SPN 5536	Afro-Cuban Culture
SPN 5539	Special Topics in Afro-Hispanic Culture
SPN 6535	Hispanic Culture in the U.S.
SPW 3130	Spanish American Literature
SPW 3392	Cuban Culture Through Cinema
SPW 5396	History of Cuban Cinema
SPW 5735	Hispanic Literature of the United States
SPW 5934	Special Topics in Language/Literature: Novela Cubana 1900-1950
SPW 6367	Prose and Poetry of Jose Martí
SPW 6389	Cuban Novel and Short Story
SPW 6775	Literature of the Spanish Caribbean

European and Eurasian Studies Certificate

David Kramer, *Director*

Coordinating Committee
Pascale Bécel, *Modern Languages*
Rebecca Friedman, *History*
Tatiana Kostadinova, *Politics and International Relations*
Jonathan Mogul, *The Wolfsonian-FIU Museum*
David Rifkind, *Architecture*
Renée Silverman, *Modern Languages*
Oren Stier, *Religious Studies*

The aim of the European and Eurasian Studies Certificate is to enable students to obtain an interdisciplinary concentration in various aspects of Europe. It is designed to enhance a student's understanding of European politics, society, and culture, drawing on a broad range of courses in the arts and sciences and thereby to complement the student's major course of study. The certificate is also available to non-degree seeking students. Students interested in the program should contact the Director.

Certificate Requirements:

The program requires 15 credit hours (5 courses) from at least three departments, distributed as follows:

Language requirement: (3 credits)

One course in a European language at the intermediate level or above (2000 or higher)

Breadth requirement: (9 credits)

Three courses, at 3000 level or above, at least one of which must be in the social sciences and one in the humanities, from an approved list published in the term schedule and available from the Certificate Director. These include courses from the Departments of Economics, English, Environmental Studies, History, Honors College, Humanities, International Relations, Modern Languages, Philosophy, Political Science, Religion, School of Nursing, and Art and Art History. Courses not on the list but containing substantial European content may be accepted at the discretion of the Director.

Exit Requirement: (3 credits)

Interdisciplinary colloquium (EUS 4920) to be taken during the student's senior year, that will focus on a broad European topic. In it, each student will be expected to complete a major research project.

French Language and Culture Professional Certificate

Peter Machonis, *Director, Professor of French*

Coordinating Committee
Pascale Becel, *Chair of Department of Modern Languages*
Maria Antonieta Garcia, *University Instructor of French*

The Professional Certificate in French Language and Culture provides students with a broad knowledge and cultural foundation necessary for understanding the culture and society of France. One cannot really understand the culture without being exposed to the language that is shaping it, and one cannot understand the political and economic dynamics of a society without knowing its cultural foundations. The cornerstone of the Certificate is an expertise in French Language and Culture.
The program is available to degree-seeking students and independently to non-degree seeking students who already have a Bachelor's degree. The Certificate in French Language and Culture is awarded by the Department of Modern Languages at FIU.

Prerequisites: Students must complete the following courses or demonstrate equivalent language proficiency through examination:

FRE 1130	Elementary French I	5
FRE 1131	Elementary French II	5

Required Credits: The Professional Certificate in French Language and Culture requires 19 credits.

Core Course from the following (1 credit):

FRE 2270	Foreign Study	1
FRE 3781	Intermediate French Phonetics	1

Required Language Courses from the following (9 credits):

FRE 2200	Intermediate French	3
FRE 2241	Intermediate French Conversation	3
FRE 3420	Review Grammar and Writing I	3
FRE 3441	Advanced Business French	3
FRE 3410	Advanced French Conversation	3

Elective Culture Courses from the following (9 credits):

FRE 3421	Review/Grammar Writing II	3
FRE 3413	Communication Arts	3
FRE 3504	French Language and Culture	3
FRE 3780	French Phonetics	3
FRE 4390	French Cinema	3
FRE 4501	Contemporary French Society	3
FRE 4503	La Francophonie	3
FRW 3101	Introduction to Francophone Literature and Cultural Studies	3

Additional FRE and FRW courses may be eligible with permission of Director of French and Francophone Studies.

Food Studies Certificate Program

Certificate Committee

Gail Hollander, *Global and Sociocultural Studies*
Doug Kincaid, *Global and Sociocultural Studies*
Ken Lipartito, *History*
Mahadev Bhat, *Earth and Environment*

The Food Studies Certificate provides an interdisciplinary and trans-disciplinary approach to the study of food scholarship. The certificate is designed to introduce students to the study of food from multiple perspectives, including the social sciences, humanities, environmental studies, philosophy, ethics, nutrition sciences and hospitality studies. The Food Studies Certificate requires a total of 18 credits of coursework.

Requirements

Social Science and History Requirement (6 credits)
Take any two of the following:

AMH 3341	United States Food History – *GL*	3
ANT 3467	Food and Culture	3
GEO 4354	Geography of the Global Food System	3

Electives (12 credits)
Take four additional courses from the list below:

AMH 3341	United States Food History – *GL*	3
ANT 3462	Medical Anthropology	3
ANT 3467	Food and Culture	3
ENC 4930	Special Topics in Composition	3
ENL 3504	Texts and Contexts: British Literature to 1660	3
EVR 4274	Sustainable Agriculture – *GL*	3
FSS 3285	Art in the Culinary Arts	3
GEO 4354	Geography of the Global Food System	3
HFT 3894	Global Food and Culture	3
HUN 3191	World Nutrition	3
IDS 3189	International Nutrition, Public Health and Economic Development	3
REL 3024	Religion, Life and Vegetarianism	3
REL 3342	Zen and the Tea Ceremony	3
SYA 4011	Social Theory	3
WOH 2001	World Civilization – *GL*	3
WOH 4223	History of the Global Economy	3

Of these, one can be a directed study:

ANT 4905	Directed Individual Study	3
GEO 4905	Independent Study	3

And one can be an internship:

GEO 4940	Internship in Geography	3
SYA 3949	Internship	0-3

German Language and Culture Certificate Program

Maria Krol, *Director, German and Russian*

Coordinating Committee
Pascale Bécel, *Modern Languages*
Rebecca Friedman, *History*
Markus Thiel, *Politics and International Relations*

The Certificate in German Language and Culture provides students with a broad knowledge and cultural foundation necessary for understanding the cultures and societies of the German speaking countries (Germany, Austria, Switzerland, Luxemburg and Liechtenstein). One cannot really understand the culture without being exposed to the languages that are shaping it, and one cannot understand the political and economic dynamics of a society without knowing its cultural foundations. The cornerstone of the Certificate is an expertise in German language and

culture. The Certificate is designed with an interdisciplinary perspective exposing students to the world of German speaking countries through history, political science, philosophy, religion, music, cinema, arts and architecture.

The program is available to degree-seeking students only. The Certificate in German Language and Culture is awarded by the Department of Modern Languages at FIU.

Required Credits

The Certificate in German Language and Culture requires a total of 23 credits (for students with no prior knowledge of the selected language) or a minimum of 18 credits (for students with no prior knowledge of the selected language) and includes the following:

a) Four semesters of German; fourteen credits of language courses will be applied to the certificate
b) Two core courses
c) One additional elective course

Required Courses and Other Requirements

a) Core Language Requirement: Four semesters of language (14 credits maximum may count toward the Certificate). If students test out of some portion of this requirement then they must complete additional credits as approved by the Certificate Director.

GER 1130	German I	5
GER 1131	German II	5

Any two courses out of the following three:

GER 2200	Intermediate German	3
GER 2240	German Intermediate Conversation	3
GER 2243	German Oral Communication Skills	3

b) Two additional core courses, chosen from among the following departmental offerings: (6 credits)

GET 4560	Berlin Then and Now	3
GER 3420	Review Grammar/Writing I	3

or

Any other advanced German language or culture course offered by the Department of Modern Languages

c) One additional elective course, offered by any of the following departments: (3 credits)

Art and Art History
International Relations
History
Philosophy
Political Science
Religious Studies
Architecture
Music

The course must contain content strongly pertaining to German language and culture and be approved by the Certificate Director.

Global Black Studies Certificate Program

Faculty:

Pascale Bécel, *Associate Professor and Chair, Modern Languages*
Steven R. Blevins, *Assistant Professor, English*
Jean-Robert Cadély, *Associate Professor, Modern Languages and African and African Diaspora Studies*
Phillip Carter, *Assistant Professor, English*
Danielle Clealand, *Associate Professor, Politics and International Relations*
Alexandra Cornelius, *Senior Instructor, History and African and African Diaspora Studies*
Jenna Gibbs, *Assistant Professor, History*
Percy C. Hintzen, *Professor, Global and Sociocultural Studies*
Tometro Hopkins, *Associate Professor, English*
Jasminder Kaur, *Adjunct Faculty, African and African Diaspora Studies*
Aurora Morcillo, *Professor, History*
Roderick Paul Neumann, *Professor, Global and Sociocultural Studies*
Ulrich Oslender, *Associate Professor, Global and Sociocultural Studies*
Okezi Otovo, *Associate Professor, History and African and African Diaspora Studies*
Vrushali Patil, *Associate Professor, Global and Sociocultural Studies and Women's and Gender Studies*
Valerie Patterson, *Clinical Associate Professor, Public Policy and Administration*
Andrea Queeley, *Associate Professor, African and African Diaspora Studies and Global and Sociocultural Studies*
Jean Muteba Rahier, *Professor, Global and Sociocultural Studies*
Heather Russell, *Associate Professor, English*
Vicky Silvera, *Special Collection, Library*
Linda Spears-Bunton, *Associate Professor, College of Arts, Sciences and Education*
Alex Stepick III, *Professor Emeritus, Global and Sociocultural Studies*
Juan Torres-Pou, *Associate Professor, Modern Languages*
Chantalle Verna, *Associate Professor, History and Politics and International Relations*
Donna Weir-Soley, *Associate Professor, English*
Kirsten Wood, *Associate Professor, History*
Albert Wuaku, *Associate Professor, Religious Studies*
Mariama Jaiteh, *Adjunct Faculty, African and African Diaspora Studies*
Noelle Theard, *Adjunct Faculty, African and African Diaspora Studies*

African and African Diaspora Studies (AADS) encompasses the study of, and research on the peoples of Sub-Saharan Africa and their experiences, and on communities of the African diaspora both in continental Africa and elsewhere in the Americas, Europe, Asia, and Australia. It also involves the dissemination of knowledge about continental African peoples and diasporic Africans internationally.

Housed within the Steven J. Green School of International and Public Affairs, and more specifically in the African & African Diaspora Studies Program (AADS), the Global Black Studies Certificate provides students with an interdisciplinary approach to the study of the global, economic, cultural, and historical experiences of people of African descent. The Certificate complements students' work in their major fields of study at the undergraduate

level while fostering greater understanding of traditionally marginalized topics.

Thanks to the diversity of areas of research interests of the core and affiliate AADS faculty, students may choose courses that will allow them to focus more specifically on either U.S. born African Americans or communities of the African diaspora internationally. Students might also choose courses that will bring them to learn about both of these areas.

The Certificate places a strong emphasis on African diasporic cultural expressions in all their regional, temporal, and socioeconomic diversities. It offers coordinated insights into the ongoing challenges black communities face locally and internationally. It also focuses on the ways in which African diasporic communities and individuals have developed political and creative strategies for survival in the midst of, and resistance to, racism and political, economic, and social oppression. This certificate program is open to degree-seeking students only.

General Requirements (15)

Students complete 15 credit hours of study from disciplines as diverse as geography, history, international relations, journalism, sociology, anthropology, literature, music and political science. The core requirement is AFA 2004 “Black Popular Cultures, Global Dimensions”. This required course should be taken at the start of the Certificate Program. The other 12 credits must come from each of two lists, one comprising the 1) Arts and Humanities, and the other the 2) Social Sciences. The program director may approve other courses upon request. Students requesting an exception from these lists must present a syllabus for the course they would like to enroll in. Not all courses are offered every semester.

Required Core Course: (3)

AFA 2004	Black Popular Cultures, Global Dimensions – *GL*	3

Arts and Humanities Courses: (3-9 credits)

AFA 4104	Teaching the African American Experience
AFA 4241	The African Diaspora in Latin America
AFA 4930	African and African Diaspora Studies Theory
AFA 4931	Special Topics in African Diaspora Studies
AFA 4933	Special Topics in Black Experience
AFA 4372	Race, Gender and Sexuality in Hip Hop – *GL*
AFA 4351	Hip Hop Entrepreneurship
AFA 4370	Global Hip Hop – *GL*
AFA 4905	African and African Diaspora Studies Independent Study
AFH 2000	African Civilizations – *GL*
AFS 4265	Latin America and the Caribbean in Africa – *GL*
AMH 4570	African American History
AMH 4571	African American History from the 17th to the late 19th Centuries
AMH 4573	African-American History from the late 19th Century to the Present – *GL*
AML 2602	African American Literature
AML 4606	Studies in 19th Century African-American Literature
AML 4607	Studies in 20th Century African-American Literature
AML 4612	Literature of the Harlem Renaissance Period
AML 4624	African American Women Writers
AML 4621	Major African American Writers
DAA 3345	Caribbean Dance
DAA 3346	Haitian Dance
DAN 4396	Dance Ethnology
FRW 4751	Francophone Literature in the Caribbean
HAI 3500	Haiti: Language and Culture
HAI 3213	Accelerated Haitian Creole
HAI 3214	Accelerated Intermediate Haitian Creole
HAI 3370	Haiti: Study Abroad
HIS 4454	The History of Racial Theory in Europe and the United States
LIN 2612	Black English
LIN 4612	Black English
LIT 4192	Major Caribbean Authors
LIT 4536	Multi-cultural Working Class Women's Literature
REL 3139	African American Religious Movements
REL 3375	Caribbean Religions
SPT 4400	African Presence in Latin American Literature
WOH 4230	The African Diaspora and the Atlantic Slave Trade
WOH 4301	The Modern African Diaspora

Social Sciences Courses: (3-9 Credits)

ANT 3451	Ant of Race & Ethnicity
ANT 4396	Representations of Africa and Africans in Films
SYD 4700	Racial and Ethnic Relations
SYD 4704	Seminar in Racial & Ethnic Relations

Global Cybersecurity Policy Certificate Program

Brian Fonseca, *Director, Jack D. Gordon Institute for Public Policy*

Coordinating Committee

Hector Cadavid, *Deputy Director*
Felix Martin, *Politics and International Relations*
Agatha Caraballo, *Public Policy and Administration*
Kemal Akkaya, *Engineering*
Hanibal Tarvis, *Law*
Brian Latell, *Senior Research Associate*
Eduardo Gamarra, *Professor and Director, Latino Public Opinion Forum*

Offered by the Jack D. Gordon Institute for Public Policy, this certificate may be awarded to both degree and non-degree students who complete the requirements. For students pursuing a degree, this certificate is a complement to a student's discipline or major area of studies. For non-degree seeking students, this certificate provides a means for understanding more about global cybersecurity policy in the 21st century.

Certificate Requirements

A total of 18 credit hours of undergraduate course work with a grade of C or higher. Courses must come from the approved UCGCP course listing or be approved by the certificate advisor. Courses may include those in the student's departmental major, but must be selected from at least two disciplines outside the student's departmental major. With the approval of the Director, courses other than those listed herein may be substituted on a case-by-case basis.

Global Cybersecurity Policy: (3 credit hours)

ISS 3653	Fundamentals of Global Cybersecurity Policy

Core Requirement: (6 credit hours)

Select two of the following courses:

ISS 3652	Cybersecurity and Globalization
ISS 3613	Issues in Global Cybersecurity Policy
ISS 4669	Global Cybersecurity Strategies
ISS 4614	International Cybersecurity Law and Ethics
ISS 4651	Topics in Global Cybersecurity Policy

Electives: (9 credit hours)

Select three of the following courses:

Business, Finance and Management

FIN 4443	Policies for Financial Management
FIN 4486	Financial Risk Management-Financial Engineering
FIN 4502	Securities Analysis
FIN 4556	Behavioral Finance
FIN 4744	Financial Crime
MAN 4064	Crisis Management
MAN 4613	International Risk Assessment

Computer Science and Information Security

CGS 3092	Professional Ethics and Social Issues in Computing
CGS 3095	Technology in the Global Arena
CIS 4365	Enterprise Cybersecurity Policies and Practices
CNT 4165	Network Protocols for Internet of Things
CNT 4182	Mobile and IoT Cybersecurity Policies and Practices
CNT 4185	Internet of Things Privacy
CNT 4188	Internet of Things Forensics
CNT 4403	Computing and Network Security
CNT 4406	Network Security and Cryptography
CNT 4504	Advanced Network Management
CNT 4513	Data Communications
CNT 4603	Windows System Administration
CNT 4713	Net-centric Computing
EEL 4802	Introduction to Digital Forensics Engineering
EEL 4804	Introduction to Malware Reverse Engineering
EEL 4806	Ethical Hacking and Countermeasures
EEL XXXX	Introduction to Hardware Security and Trust

Criminal Justice

CCJ 3934	Contemporary Issues in Criminal Justice
CCJ 4497	Criminal Justice and Public Policy
CCJ 4641	Organized Crime
CJE 4694	Cyber Crime
DSC 4012	Terrorism and Homeland Security

Forensics

CHS 3501	Survey of Forensic Science
CHS 3511C	Forensic Evidence

History

AMH 4375	Technology and American Society
WOH 4223	History of the Global Economy

Interdisciplinary Social Sciences

ISS 3130	Fundamentals of National Security
ISS 3214	Fundamentals of Globalization
ISS 3222	Issues in American Foreign Policy
ISS 4930	Topics in Globalization

Politics and International Relations

INR 3061	Conflict, Security and Peace Studies in INR
INR 3081	Contemporary International Problems
INR 3102	American Foreign Policy
INR 3106	International Relations of the United States
INR 3303	Foreign Policymaking
INR 4335	Strategic Studies & Security Studies
POS 4154	Topics in Urban Politics and Policy
POS 3703	Methods of Political Analysis
PUP 4004	Public Policy: US

Public Policy and Administration

PAD 3003	Introduction to Public Administration
PAD 3034	Policy Development and Implementation
PAD 3804	Government and Administration of Metropolitan Areas
PAD 4103	Politics of Administrative Organizations
PAD 4223	Public Sector Budgeting
PAD 4432	Administrative Leadership and Behavior

Haitian Studies Certificate Program

Chantalle Verna, *Director, History*

Coordinating Committee

Nicolas André, *Modern Languages*
Pascale Becel, *Modern Languages*
Jean Robert Cadély, *Modern Languages & African and African Diaspora Studies*
Barry Levitt, *LACC & Politics and International Relations*
Frank Mora, *LACC & Politics and International Relations*
Andrea Queeley, *Global and Sociocultural Studies & African and African Diaspora Studies*

The Kimberly Green Latin American and Caribbean Center (LACC) Undergraduate Certificate in Haitian Studies is an eighteen credit course of study designed to offer degree-seeking undergraduate students and non-degree seeking students interdisciplinary and specialized training in Haitian Studies. The certificate places a strong emphasis on Haiti's language and culture, but as a complement to student work in major fields of study, also fosters a greater depth of knowledge related to Haiti through additional course offerings in Economics, History, International Relations, Latin American Studies, Political Science, Sociology, Anthropology, Music and Art History. Students may also enhance their training in Haitian studies and fulfill certificate requirements by participating in the FIU summer study abroad to Haiti, which is held annually as part of LACC's Haitian Summer Institute.

Successful completion of at least 18 hours, with a minimum of 6 credits from the Core Course list and up to 12 credits from the Elective Course list.

Requirements

Courses are to be chosen from the LACC Haitian Studies approved course list in consultation with and approval of advisor. A grade of "C" or better is required for all courses.

All students are required to demonstrate proficiency in Haitian Creole language at the Intermediate Level or above. This may be, but is not required to be, achieved by completing the following sequence:

HAI 3213	Accelerated Haitian Creole	3
HAI 3214	Accelerated Intermediate Haitian Creole	3

All students are required to present a final project to Haitian Studies in Haitian Creole as part of the LACC FLAC (Foreign Languages across Curriculum) Student Seminar. The Seminar will be held each Fall, Spring and Summer and will serve as a forum for students to demonstrate depth of knowledge and serve as a tool for LACC and those members of the committee with Haitian Creole language skills to assess student performance.

Core Courses

The following core courses fulfill certificate requirements. As part of the 18 credit hours required for completion of the certificate, students must complete a minimum of 6 credit hours in Haitian Creole language training. A maximum of 3 credit hours in Haitian Creole language Independent Study may be taken and may count towards the 6 credits language course requirement, but the independent study may only be taken with professors whose area of research is Haiti and only with approval from the advisor. The following courses count towards this requirement:

HAI 1072	Haitian Creole for Medical and Legal Professionals	3
HAI 1130	Haitian Creole I	5
HAI 3213	Accelerated Haitian Creole	3
HAI 3214	Accelerated Intermediate Haitian Creole	3
HAI 3370	Haiti: Study Abroad	3
HAI 3500	Haiti: Language and Culture	3

Elective Courses

Up to 12 additional credits may be selected from the following elective courses with an advisor's approval (contingent upon course content/relating to Haiti). These courses should be understood as a partial list; all have 25% more Haiti-related content, students should consult with advisor of the certificate program about current course offerings.

LAS 3002	Introduction to Latin American and Caribbean Studies – *GL*	3
ECS 3431	Economics of the Caribbean Basin	3
ECS 3432	Economic Integration/Caribbean	3
LAH 3740	Comparative History of Latin American Rebellions and Revolutions	3
LAH 4460	Peoples, Cultures and Politics of Haiti	3
LAH 4471	Colonial Caribbean in Comparative Perspective	3
GEA 3320	People, Place, and Environment of the Caribbean	3
INR 3045	The Global Challenge of Refugees and Migrants	3
INR 3246	International Relations of the Caribbean	3
CPO 4034	The Politics of Development and Underdevelopment	3
CPO 4323	Politics of the Caribbean	3
FRE 4503	La Francophonie – *GL*	3
FRW 4751	Francophone Literature in the Caribbean	3
AFA 4370	Global Hip Hop – *GL*	3
AFS 4265	Latin America and the Caribbean in Africa: South-South Interactions – *GL*	3
ANT 3241	Myth, Ritual, and Mysticism – *GL*	3
ANT 4340	Caribbean Cultures	3
SYD 4237	Immigration and Refugees	3
SYD 4630	Latin American and Caribbean Societies	3
SYD 4700	Racial and Ethnic Relations	3
ARH 3676	Caribbean Art: Myth and Reality	3
ARH 4512	African Diaspora Arts	3

Holocaust and Genocide Studies Certificate

Oren Baruch Stier, *Director, Religious Studies*

Coordinating Committee:
Rebecca C. Christ, *Teaching and Learning*
Jacek Kolasinski, *Art and Art History*
Richard Olson, *Politics and International Relations*
Terrence Peterson, *History*
Hannibal Travis, *College of Law*

The Holocaust, Nazi Germany's attempt to annihilate the Jews of Europe and others considered undesirable, led to the United Nations Genocide Convention, and yet, genocide not only continues worldwide but indeed preceded Hitler's war on the Jews. The Certificate in Holocaust and Genocide Studies provides a multi-disciplinary platform for understanding and analyzing the global phenomenon of genocide, using the Holocaust—through the extensive record of its study and representation—as the paradigm. The certificate is available to degree-seeking students and independently to non-degree-seeking students, including undergraduates wishing to augment their majors in fields such as Religious Studies, History, International Relations, Criminology and Criminal Justice, English, Education, and Art; and secondary school teachers wishing to obtain an additional credential. The certificate is supported by extensive print and online resources available through the Green Library, including access to databases of first-person testimonies on the Holocaust and other genocides

Certificate Requirements:

The Certificate requires at least fifteen (15) credits of coursework, drawn from the list of courses below or as approved by the director. Students must earn a grade of "C" or better in all qualifying courses. Note: additional online, hybrid, and face-to-face courses will be added as the certificate is further developed; students should consult with the Certificate advisor about all current courses accepted for the certificate.

CP04725	Comparative Genocide	3
EUH 4033	Nazism and the Holocaust	3

FIL 3838	Holocaust Cinema	3
HIS 3308	War and Society	3
LIT 3175	Literature of the Holocaust	3
REL 2080	Introduction to Holocaust and Genocide Studies	3
REL 3194	The Holocaust – *GL*	3
REL 3603	Elie Wiesel	3
REL 4699	Holocaust Memorials	3

Human Rights and Political Transitions

Susanne Zwingel, *Politics and International Relations*

Coordinating Committee
Shlomi Dinar, *Politics and International Relations*
Juliet Erazo, *Global and Sociocultural Studies*
Tatiana Kostadinova, *Politics and International Relations*
Aurora Morcillo, *History*
Milena Neshkova, *Public Policy and Administration*
Martin Palous, *School of International and Public Affairs*

The Certificate in Human Rights and Political Transitions introduces degree-seeking students to human rights as a concept of justice in a globalized, increasingly complex world. Students will learn about manifold forms of human rights violations, including crimes against humanity, legal and diplomatic developments of human rights protection, and political transitions as challenging processes of democratic institution building. The certificate is designed as an interdisciplinary learning experience and draws on courses taught in Criminology and Criminal Justice, Political Science, International Relations, History, Sociology, Anthropology, Philosophy, Literature, Women and Gender Studies, Religious Studies, Economics, and African and African Diaspora Studies. It also envisions that students partake in a hands-on learning experience related to human rights promotion and/or political transitions.

Certificate Requirements

The program requires 18 credit hours. Students take core courses (6 credits) and three elective courses (9 credits). The electives are selected from three of four themes (Law and Diplomacy, Discrimination and Inequalities, Crimes against Humanity/Large Scale Human Rights Violations, and Political Transitions). Students may not take more than 9 credits of core and elective classes from one department in order to ensure the interdisciplinary character of the certificate. Students will undertake a human rights or political transitions related internship OR engage in a similar activity in the context of a study abroad program (3 credits).

Core Courses (6 credits)

CPO 4737	Politics of Transition and Human Rights	3

And one of the following four:

EUH 4382	Waves of Democratization: From the Mediterranean of the World	3
CPO 4735	Democratic Transitions	3
INR 4075	International Protection of Human Rights – *GL*	3
CPO 4053	Political Repression and Human Rights	3

Electives (9 credits)

Take three courses from three of the four themes (Law and Diplomacy, Discrimination and Inequalities, Crimes against Humanity/Large Scale Human Rights Violations, and Political Transitions). A core course cannot be double counted as an elective course. Additional courses may qualify as electives if approved by the Certificate Director.

Law and Diplomacy

CCJ 4361	Death Penalty	3
CCJ 4662	Race, Crime, and Justice	3
CCJ 4663	Women, Crime and the Criminal Justice System	3
CJE 4174	Comparative Criminal Justice Systems – *GL*	3
INR 3030	Diplomacy	3
INR 3403	International Law	3
INR 3502	International Organizations	3
INR 4075	International Protection of Human Rights – *GL*	3
INR 4436	International Negotiation	3
PHM 3400	Philosophy of Law	3
PHM 4362	Global Justice – *GL*	3
POS 4684	Politics of Voting Rights	3

Discrimination and Inequality

AFS 3331	Women and Human Rights in Sub-Saharan Africa – *GL*	3
AMH 4571	African American History from the 17th to the late 19th Centuries	3
AMH 4573	African American History from the Late 19th Century to the Present – *GL*	3
AMH 4671	Race, Gender, Science in the Atlantic World – *GL*	3
ANT 3304	Voices of Third World Women	3
CPO 4034	The Politics of Development and Underdevelopment	3
CPO 4053	Political Repression and Human Rights	3
CPO 4726	Ethnicity and Nationalism	3
ECP 3254	Women, Men, and Work in the USA	3
LIT 4536	Multi-cultural Working Class Women's Literature	3
SYD 3804	Sociology of Gender	3
SYO 4530	Social Inequalities	3
SYD 4700	Racial and Ethnic Relations	3
WST 3105	Gender Issues Across the Globe – *GL*	3
WST 3641	LGBT and Beyond: Non-Normative Sexualities in Global Perspective – *GL*	3
WST 4252	Race, Gender, Sexuality: Entanglements Across Time and Space	3

Crimes against Humanity/Large Scale Human Rights Violations

CCJ 4694	Human Trafficking – *GL*	3
CPO 4725	Comparative Genocide	3
EUH 4033	Nazism and the Holocaust	3
INR 3045	The Global Challenge of Refugees and Migrants	3
REL 3194	The Holocaust – *GL*	3
WHO 4230	The African Diaspora and the Atlantic Slave Trade	3

Political Transitions

AMH 4130	The American Revolution	3
CPO 4057	Political Violence and Revolution – *GL*	3
CPO 4461	Politics of Eastern Europe	3
CPO 4735	Democratic Transitions	3

EUH 3245	European History, 1914-1945	3
EUH 3576	The Russian Revolution and the Soviet Union	3
EUH 4382	Waves of Democratization: From the Mediterranean of the World	3
LIT 4364	Post-Totalitarian Literature – *GL*	3
LIT 4382	Women in Post-Communist Eastern Europe	3

Internship or Study Abroad Component (3 credits)

Students will undertake a human rights or political transitions related internship OR engage in a similar activity in the context of a study abroad program. The internship or activity will be supervised by the student's home department's internship advisor or one Certificate committee member. Students should consult with the Certificate director in advance of pursuing this requirement. Assignments for this requirement may vary but essentially students will be required to draft periodic reflections of their semester experience. Should a student not have the resources to complete the internship credits, they can request to take another elective course instead.

Professional Certificate in Italian Language and Culture

Magda Novelli Pearson, *Certificate Director, University Instructor of Italian*

Certificate Committee:

Pascale Bécel, *Professor and Chair of Modern Languages Department*

Maria Asuncion Gomez, *Professor of Spanish*

The Professional Certificate in Italian Language and Culture provides students with a broad knowledge and cultural foundation necessary for understanding the culture and society of Italy. One cannot really understand the culture without being exposed to the language that is shaping it, and one cannot understand the political and economic dynamics of a society without knowing its cultural foundations. The cornerstone of the Certificate is an expertise in Italian Language and Culture.

The program is available to degree-seeking students and independently to non-degree seeking students who already have a B.A. The Certificate in Italian Language and Culture is awarded by the Department of Modern Language at FIU.

Required Credits:

The Professional Certificate in Italian Language and Culture requires a total of 18 credits.

Before entering the certificate program, the student must have completed the following courses or demonstrated equivalent language proficiency through examination:

ITA1130	5 credits
ITA1131	5 credits

Required Courses:

12 semester hours of courses from the following certificate program course listing:

ITA2200	Italian Intermediate	3
ITA 2240	Italian Intermediate Conversation	3
ITA 3420	Review Grammar and Writing I	3
ITA 3410	Italian Advance Conversation	3

Elective Courses: 6 credits must be taken from the following list:

ITA2241	Italian for Business	3
ITA3392	Italian Cinema	3
ITA 3500	Italian Culture and Society -- GL	3

or

One additional elective course, offered by any of the following Departments: (3 credits)

Politics and International Relations

History

Religious Studies

Other relevant courses can be taken as electives with the approval of the certificate program director. The course must include content strongly pertaining to Italian Language and Culture and be approved by the Certificate Director.

Jain Studies Certificate Program

Steven Vose, *Director and Bhagwan Mahavir Assistant Professor of Jain Studies, Religious Studies*

Associated Faculty

Whitney Bauman, *Associate Professor, Religious Studies*

Manuel Gomez, *Associate Dean for International And Graduate Studies and Associate Professor, College of Law*

Steven Heine, *Professor, Religious Studies and History, Director, Asian Studies Program*

Dipak C. Jain, *Courtesy Professor of Jain Studies*

Jaiendra Navlakha, *Professor, School of Computing and Information Sciences*

Samani Rohini Pragya, *Visiting Instructor of Jain Studies, Religious Studies*

Samani Satya Pragya, *Adjunct Instructor of Jain Studies, Religious Studies*

Neptune Srimal, *Senior Lecturer, Earth and Environment*

The Undergraduate Certificate in Jain Studies will require 15 credit hours, including the required foundation course and four elective courses. The certificate is open to both degree and non-degree seeking students. Any FIU course that has at least one-third (1/3) Jainism content may also count toward the certificate. Up to six (6) credit hours of coursework in a relevant Indic language may be applied as electives toward the certificate.

Study Abroad

Students are encouraged to earn credits through study abroad programs with institutes in India. Several programs are offered in summer terms. Students may earn three (3) to six (6) credits for study abroad. Please inquire with the Director or with the Office of Study Abroad about international programs.

Requirements: (15 credits)

Foundation Course

REL 3310	Introduction to Asian Religions	3

Electives

REL 3020	Meditation and Spiritual Development	3
REL 3024	Religion, Life and Vegetarianism	3

REL 3077	Sacred Image, Sacred Space in India	3
REL 3123	Asian Religions in the Americas	3
REL 3316	Healing in Asian Religions	3
REL 3330	Religions of India – *GL*	3
REL 3336	Introduction to Jainism	3
REL 3453	Jainism and the Modern World	3
REL 3454	Selected Jain Texts	3
REL 4311	Religious Classics of Asia	3
REL 4948	Field Work in Jain Studies	3

(Note: This course may be repeated twice with change in focus)

ASN 3015	South Asian Cultures	3
ASN 4510	Dynamics of Asia	3
PHH 3840	Indian Philosophy	3

Languages

SRK 2100	Sanskrit I - Basic Sanskrit	3
SRK 2101	Sanskrit II - Paninian Sanskrit	3
SRK 3202	Sanskrit III - Epic Sanskrit	3
SRK 3203	Sanskrit IV - Sanskrit Composition	3

For more information, contact the Director, DM 302. Email: **jain@fiu.edu**; phone: (305) 348-6728; website: **http://jainstudies.fiu.edu**.

Japanese Studies Certificate Program

Steven Heine, *Director, Asian Studies*
Asuka Mashav, *Assistant Director, Asian Studies*

Coordinating Committee
Naoko Komura, *Modern Languages*
Matthew Marr, *Global and Sociocultural Studies*
Eric Messersmith, *Asian Studies*

The certificate in Japanese Studies is an 18-credit program that provides students with intensive studies of Japanese language in relation to the culture and society of Japan and East Asia. This program is available to degree-seeking students who are enrolled in the Asian Studies major or certificate programs, as well as students who wish to develop a more specialized focus on Japan.

As with other Asian Studies programs students are encouraged to earn credits through study abroad or student exchange programs for travel and study in Japan in addition to internship opportunities with Japan related organizations in South Florida.

Requirements

Language Requirements: (4 semesters)

Students must complete two full years (four semesters) or equivalent of Japanese language. If students test out of some portion of this requirement then they must complete additional credits in studies of Japanese and/or East Asia society and culture.

JPN 1130	Japanese I
JPN 1131	Japanese II
JPN 2200	Intermediate Japanese I
JPN 2201	Intermediate Japanese II
JPN 3140	Japanese for Business (equivalent to Intermediate Japanese II)
JPW 4130	Reading Japanese Literature
JPW 4131	Reading Japanese Non-Fiction

Electives: (6 credits)

Two courses in Japanese or East Asian area studies (history, religion, economics, international relations, etc.) must be completed. For a list of electives please consult the list provided with the Asian Studies major in this catalog. However, some courses in that list may not be applicable for this certificate. Therefore, students should consult with an advisor for the certificate program to get approval for specific courses.

For more information, contact the Asian Studies office, SIPA 505. Email: **asian@fiu.edu**; phone: (305) 348-1914; website: **http://asian.fiu.edu**.

Jewish Studies Certificate Program

Oren Baruch Stier, *Director, Religious Studies*

Coordinating Committee:
Shlomi Dinar, *Politics and International Relations*
Erik Larson, *Religious Studies*
Tudor Parfitt, *Religious Studies*

The Certificate in Jewish Studies is an eighteen credit interdisciplinary program, rooted in the humanities, fine arts and social sciences. The program is available to degree-seeking students and independently to non-degree-seeking students who already have a B.A. The Jewish Studies Program at FIU awards the Certificate. Courses are offered at the Jewish Museum of Florida-FIU, online, and at FIU's Modesto A. Maidique and Biscayne Bay campuses. The Certificate in Jewish Studies provides students with a multidisciplinary approach to the religion, arts, languages and literatures of Judaism as well as issues in history, politics, international relations, and sociology/anthropology and includes courses reflecting Sephardi, Mizrahi, and Ashkenazi experiences as well as those of black Jews and Judaizing groups throughout the world.

Requirements

Students must complete **at least one** of the following:

a) HBR 1130 (through course work or demonstrated equivalent; another relevant language such as Arabic may be substituted)
b) HBR 3100
c) JST 3505 Introduction to Jewish Cultures

Up to ten (10) credit hours of Hebrew language courses may be applied toward the Certificate.

The balance of the 18 credit certificate will be drawn from courses listed below.

In addition to the courses listed below, relevant special topics, area studies or comparative studies courses may also be applied. All courses must be approved by the director, and all must be passed with "C" or better.

Students are encouraged to attend lectures and workshops sponsored by the Jewish Studies Program.

Courses:
Language Courses

HBR 1130	Hebrew 1	5
HBR 1131	Hebrew 2	5
HBR 2200	Intermediate Hebrew	5
HBR 3100	Biblical Hebrew 1	3
HBR 3101	Biblical Hebrew 2	3

Electives

ENL 4412	Anglo-Jewish Literature: 19th Century to the Present	3
EUH 3245	European History, 1914-1945	3
EUH 4033	Nazism and the Holocaust	3
INR 3045	The Global Challenge of Refugees and Migrants	3
INR 3274	International Relations of Middle East	3
JST 3505	Introduction to Jewish Cultures	3
LIT 3170	Topics in Literature and Jewish Culture	3
LIT 3674	Literature of the Jewish Immigration Experience	3
REL 3194	The Holocaust – *GL*	3
REL 3209	Dead Sea Scrolls	3
REL 3220	Moses and Company	3
REL 3280	Biblical Archeology	3
REL 3320	Moses, Jesus, and Muhammad	3
REL 3392	Kabbalah and Jewish Mysticism	3
REL 3607	Judaism	3
REL 3625	Introduction to Talmud	3
REL 3627	Kabbalah and the Bible	3
REL 3630	American Judaism	3
REL 3671	Jews, Sex, and Gender	3
REL 3672	Religion and Society in Israel/Palestine	3
REL 3690	Hasidic Thought	3
REL 3695	The Golden Age of Sephardic Jewry	3
REL 4699	Holocaust Memorials	3
REL 4312	The Jews of Asia and Africa	3
REL 4613	Modernization of Judaism	3
WOH 3281	Jewish History to 1750	3
WOH 3282	Modern Jewish History	3

These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.

For more information contact the Jewish Studies Program at (305) 348-6729 or **JewishStudies@fiu.edu**, or visit the website:
http://jewishstudies.fiu.edu/certificate-program/

Labor Studies Certificate Program

Judith Bernier, *Director, Center for Labor Research and Studies*

Faculty:
Danay Barata, *Labor Studies*
Nora Femenia, *Labor Studies*
George Gonos, *Labor Studies*
Ira Horowitz, *Labor Studies*
Abdolrahim Javadzadeh, *Labor Studies*
Gleema Nambiar, *Labor Studies*

Labor Studies is the examination of issues that people confront in their pursuit for a rewarding employment. The focus of inquiry is on workers as individuals, as members and/or leaders in their unions or associations, and as citizens of their communities. The Certificate in Labor Studies is an 18 credit course of study designed to offer degree-seeking students from a wide range of backgrounds an understanding of the major issues in the field. The certificate enhances interdisciplinary connections among Business, Criminology, Education, Human Resources Management, International Relations, Labor Studies, Law, Political Science, Psychology, Public Policy and Administration, Sociology, Women's and Gender Studies, and complements studies in other areas.

Courses must be taken from at least two disciplines in addition to Labor Studies. Minimum of 18 credit hours for certificate. Courses are to be selected in consultation with advisor. A grade of 'C' or better is required for all courses.

Certificate Requirements

Students are required to take 18 credits hours (6 courses) of course work outlined below. Four of the six courses must be within the LBS designation.

Two Required Core Course: (6 credits)

LBS 3001	Labor and Globalization – *GL*
LBS 4654	Comparative and International Labor Studies – *GL*

Two Labor Studies Courses: (6 credits)

LBS 3943	Internship in Labor Studies
LBS 4101	Theories of the Labor Movement
LBS 4154	Workers and Diversity – *GL*
LBS 4210	Women And Work – *GL*
LBS 4501	Labor Law
LBS 4900	Directed Study in Labor Studies

Two Electives: (6 hours)

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. Other related courses may be accepted as electives pending approval from the Labor Center Academic Program Director.

AMH 3270	Contemporary U.S. History
AMH 4500	United States Labor History
ECO 2013	Principles of Macroeconomics
ECO 2023	Principles of Microeconomics
ECO 3101	Intermediate Microeconomics
ECO 4622	Economic Development of U.S.
ECO 4701	World Economy
ECP 3123	Economics of Poverty
ECP 3203	Introduction to Labor Economics
ECP 4204	Theory of Labor Economics
INP 3004	Introductory Industrial/ Organizational Psychology
INR 3004	Patterns of International Relations
LBS 3468	Introduction to Mediation – *GL*
LBS 3480	Introduction to Conflict Resolution – *GL*
LBS 3482	Methods of Conflict Resolution
LBS 4101	Theories of the Labor Movement
LBS 4150	Contemporary Labor Issues
LBS 4154	Workers and Diversity – *GL*
LBS 4210	Women And Work – *GL*
LBS 4260	Union Leadership and Administration
LBS 4401	Labor Contract Negotiations
LBS 4461	Labor Dispute Resolution
LBS 4483	Organizational Conflict
LBS 4484	Applying Conflict Resolution Techniques – *GL*
LBS 4487	Conflict Theories
LBS 4501	Labor Law
LBS 4905	Topics in Labor Studies
SYO 4370	Work & Society
POT 3204	American Political Thought

PUP 4004	Public Policy: U.S.

Languages and Cultures of North Africa Certificate Program

Pascale Bécel, *Modern Languages*

The Certificate in Languages and Cultures of North Africa provides students with a broad knowledge, giving them cultural keys for a better understanding of the Arab World in its global interactions. One cannot really understand a culture without being exposed to the languages that are shaping it and one cannot really understand the political dynamics of Arab societies without knowing their cultural foundations. An expertise in Arabic language and/or French is the cornerstone of the certificate. It is designed with an interdisciplinary and transnational perspective, taking into account the complex dynamics between North Africa and the Arab diaspora in Europe and in the US. With particular emphasis on languages and culture, the certificate exposes students to North Africa through history, political science, gender studies, diaspora studies, literature and cinema. The certificate program is only available to degree-seeking students.

Requirements

The Certificate in Languages and Cultures of North Africa requires a total of 21 credits (for students with no prior knowledge of the selected language) or a minimum of 18 credits (for students with prior knowledge of the selected language) and includes the following:

Core Language Requirement:

Four semester sequence of language: (12 credits maximum to count toward the certificate). If students test out of some portion of this requirement then they must complete additional credits as approved by the certificate director.

ARA 1130	Arabic I	5
ARA 1131	Arabic II	5
ARA 2200	Intermediate Arabic	3
ARA 2240	Intermediate Arabic Conversation	3
	or	
FRE 1130	French I	5
FRE 1131	French II	5
FRE 2200	Intermediate French	3
FRE 2241	Intermediate French Conversation	3

Additional Core Requirements: (6 credits)

ABT 3502	Arab Literatures and Cultures in Global Perspective – *GL*	3
ABT 3503	Arabic Language and Culture	3
FOW 3540	Bicultural Writings	3

Elective Courses: (3 credits)

WST 4504	Feminist Theory	3
INR 4082	Islam in International Relations	3

Latin American and Caribbean Studies Certificate Program

Frank O. Mora, *LACC, Director*
Liesl Picard, *Associate Director*
Joseph Holbrook, *Academic Programs Director*
José Miguel Cruz, *Research Director*

LACC Faculty Advisory Board

Alejandro Alvarado, *Associate Professor, Journalism and Media, College of Communication, Architecture and the Arts*
Lidia Collado-Vides, *Senior Lecturer, Department of Biological Sciences, College of Arts, Sciences and Education*
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Leonardo Ferreira, *Professor and Worlds Ahead Scholar, Journalism and Media, College of Communication, Architecture and the Arts*
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Okezi Otovo *Associate Professor, Department of History, Steven J. Green School of International and Public Affairs*
Mark B. Padilla, *Professor, Global and Sociocultural Studies*
Augusta Maria S. Vono, *University Instructor, Department of Modern Languages, Steven J. Green School of International and Public Affairs*
Gayle Williams, *Librarian, Information & Research Service, Library Operations, Latin America & Caribbean Information Services Librarian*
Jose Miguel Cruz, *Director of Research, Kimberly Green Latin American and Caribbean Center*
Joseph Holbrook, *Director of Academic Programs, Kimberly Green Latin American and Caribbean Center*
Ronaldo Parente, *Associate Professor, College of Business*

Offered through the Kimberly Green Latin American and Caribbean Center (LACC), this certificate provides an interdisciplinary approach to the study of Latin America and the Caribbean. The certificate will be awarded to degree seeking students who complete the requirements. For students pursuing a degree, the certificate is a complement to the their discipline or major area of studies.

Certificate Requirements

1. Students must earn a total of 18 credit hours of undergraduate course work with a grade of 'C' or higher. Our core course, LAS 3002 Introduction to Latin American and Caribbean Studies is required for all certificate students. Students should take LAS 3002 at the start of the Certificate Program. Other courses must come from the approved Latin American and Caribbean Studies course listing or be approved by the Director of Academic Programs. Students may choose approved courses in their departmental major but must also select at least two courses in disciplines outside the major.
2. Students are required to take a two-course language sequence at FIU in Spanish, Portuguese, Haitian Creole, or French at the student's tested level. Tests are administered through a proficiency examination in

FIU's Department of Modern Languages or in LACC. Up to six language credits may be counted towards the fulfillment of the 18 credit hours.

3. A student may elect to focus on a country, region, or topic for the undergraduate certificate or pursue a broader selection of courses in a variety of disciplines. A country, regional, or topical area of concentration (such as Cuban studies, migration, political science, international business, etc.) may be declared for the undergraduate certificate. At least three courses with significant (100% content on the approved course listing) Latin America or Caribbean content must be completed to obtain a concentration. Students may also petition to create their own concentration, provided there are sufficient courses.

Courses approved for the Latin American and Caribbean Studies Certificate are posted each semester on the FIU Class Schedule at **http://lacc.fiu.edu/catalog/**. (Under "Special Programs and Certificate Programs" select "Latin American and Caribbean Studies"). All courses listed from 2000 through 4000 series may be applied to the certificate. Approved courses are also posted each semester outside LACC (DM 353) or are available from the Director of Academic Programs.

Students interested in pursuing a Latin American and Caribbean Studies Certificate should contact the certificate advisor at (305) 348-2894 for an appointment or email **lacccert@fiu.edu**.

For more information, contact:
Academic Programs
Kimberly Green Latin American and Caribbean Center
Florida International University
Modesto A. Maidique Campus, DM 353
Miami, Florida 33199
Phone: (305) 348-2894
Fax: (305) 348-3593
E-mail: **lacc@fiu.edu**

Required Core Course (3 credits)

LAS 3002	Introduction to Latin American and Caribbean Studies – *GL*

Select List of LACC Approved Courses (15 credits)

ANT 3034	Anthropological Theories
ANT 3451	Anthropology of Race and Ethnicity
ATN 4340	Cultures of the Caribbean
CCJ 3651	Drugs and Crime
CPO 3304	Politics of Latin America
CPO 4034	The Politics of Development and Underdevelopment
ECO 4703	International Trade Theory and Policy
ECS 3003	Comparative Economic Systems
ECS 3013	Introduction to Economic Development
ECS 3021	Women, Culture, and Economic Development – *GL*
ECS 3402	The Political Economy of South America
EVR 4411	Human Organizations and Ecosystem Management
FIN 4604	International Financial Management – *GL*
FIN 4634	International Banking – *GL*
GEA 3400	People, Place, and Environment of Latin America
GEO 3502	Economic Geography – *GL*
GLY 3034	Natural Disasters
GLY 3039	Environmental Geology
HFT 3735	Destination and Cultures
INR 3243	International Relations of Latin America
INR 3246	International Relations of the Caribbean
INR 3403	International Law
INR 3703	International Political Economy
INR 4931	Topics in International Relations
LAH 2020	Latin American Civilization – *GL*
LAH 3200	Latin America: The National Period – *GL*
LAH 3718	History of U.S.-Latin American Relations
LBS 4930	Topics in Labor Studies
MAN 4600	International Management
MAN 4602	International Business
MAR 4156	International Marketing
REL 4382	Latin American Women and Religions in the Americas
SPN 4500	Spanish Culture – *GL*
SPW 3130	Spanish American Literature
SPW 4304	Latin American Theatre
SYP 3456	Societies in the World
SYP 4454	Globalization and Society
WST 4930	Special Topics

Leadership Studies Certificate Program

Agatha S. Caraballo, *Instructor and Assistant Chair, Public Policy and Administration*
Daniella Long, *Senior Program Coordinator, Public Policy and Administration*

The Certificate in Leadership Studies prepares students the evolving nature of leadership through coursework and practice that emphasizes relationship building, change management, global dynamics, intercultural understanding and collaboration.

The goal of this certificate program is to foster leadership in the FIU student body by encouraging a consideration of leadership from multiple perspectives and contexts. Through involvement with the campus and greater community, students will become engaged in their own professional leadership education and development. This certificate program is open to degree-seeking students only.

Requirements

The Certificate Program requires completion of 18 credit hours of coursework. Students must earn a "C" or better in courses for the Certificate.

All students are required to take 3 core courses (9 credits) which include an introductory course (PAD 3431), values and ethics course (PAD 4046), and a global perspectives course (PAD 3800). Students fulfill the remaining 9 credits by taking 3 electives consistent with their academic and career objectives, one of which must be in Public Policy and Administration and one from another area in the Steven J. Green School of International and Public Affairs. Enrollment in an undergraduate degree program is required.

Required Courses: (9 credits)

PAD 3431	Exploring Leadership: Yourself, Your Organization and Your Community

PAD 4046	Values, Ethics and Conflict Resolution	3
PAD 3800	Managing Global Cities – *GL*	3

Electives: (a total of 9 credits)

GREEN SCHOOL OF INTERNATIONAL AND PUBLIC AFFAIRS – must include at least one course from Public Policy and Administration and one course from another Green School area.

Public Policy and Administration

PAD 3003	Introduction to Public Administration	3
PAD 3034	Policy Development and Implementation	3
PAD 3438	Communication Skills for Policy and Management	3
PAD 3804	Government and Administration of Metropolitan Areas	3
PAD 4141	Citizen Participation and Community Empowerment	3
PAD 4414	Personnel Skills for Administrators	3
PAD 4432	Administrative Leadership and Behavior	3

Global and Sociocultural Studies

ANT 3212	World Ethnographies – *GL*	3
GEO 3001	Geographies of Global Change – *GL*	3
SSE 4380	Developing a Global Perspective – *GL*	3
SYP 3456	Societies in the World	3

Criminal Justice

CCJ 3450	Criminal Justice Administration	3

Politics and International Relations

POS 3413	The Presidency	3
POS 3424	The Legislative Process	3
INR 3081	Contemporary International Problems – *GL*	3
INR 3303	Foreign Policymaking	3

Other Electives: (3 credits)

COLLEGE OF ARTS, SCIENCES AND EDUCATION

WST 4931	Women in Leadership	3
INP 4313	Organizational Psychology	3
MSL 4301	Leadership and Management	3
MSL 4302	Officership	3

COLLEGE OF COMMUNICATION, ARCHITECTURE + THE ARTS

Communication

SPC 4445	Communication for Effective Leadership	3
SPC 3425	Small Group Communication	3
SPC 3540	Persuasion	3

ROBERT STEMPEL COLLEGE OF PUBLIC HEALTH AND SOCIAL WORK

Social Work

SOW 4932	Current Topics in Social Work: Service Learning – Social Change and Social Issues	3

COLLEGE OF BUSINESS

MAN 4711	Business-Community Leadership	3

CHAPLIN SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

HFT 4545	Managing High-Functioning Teams	3
HFT 4295	Leadership in the Hospitality Industry	3

COLLEGE OF NURSING AND HEALTH SCIENCES

Health Services Administration

HSA 3180	Leadership and Management for Health Professionals	3
HSA 4110	Healthcare Organizational Behavior and Resource Management	3

For more information contact the Department of Public Policy and Administration, PCA 257, phone: (305) 348-5890, Email: **acarabal@fiu.edu or dlong@fiu.edu;** website: **http://pa.fiu.edu**.

Middle East and Muslim World Studies Certificate Program

Mohiaddin Mesbahi, *Director, Jaffer Center for Muslim World Studies*

Coordinating Committee

Iqbal Akhtar, *Religious Studies/Politics and International Relations*
Daniel Alvarez, *Religious Studies*
Shlomi Dinar, *Politics and International Relations*
Eric Lob, *Politics and International Relations*
Terrence Peterson, *History*
Benjamin Smith, *Global and Sociocultural Studies*

The Middle East is the most significant and consequential region shaping contemporary world politics and dynamics. Strong knowledge of the Middle East is a major asset to graduates seeking employment in governmental institutions and the private sector, or going on to graduate school and into academia. The Middle East and Muslim World Certificate, which is offered through the Mohsin and Fauzia Jaffer Center for Muslim World Studies at Florida International University, provides students with the opportunity for a rich multidisciplinary learning experience, with a choice of courses in the fields of international relations, geography, history, political science, religious studies, sociology/anthropology, and modern languages, among others. The program defines the "Middle East" broadly, encompassing the study of adjacent regions including Central Asia and the larger Muslim world. Two semesters of Arabic or another regional language are required. This certificate program is open to degree seeking students only.

Certificate Requirements

A total of 18 credit hours of undergraduate course work from three categories of courses listed below with a grade of "C" or higher.

1) Core Requirements at FIU: (6 credits)

One of the following courses (3 credits):

INR 3274	International Relations of the Middle East
GEA 3635	People, Place, and Environment of the Middle East
CPO 3403	Politics of the Middle East
ASH 3223	History of the Middle East 1800-Present

One of the following courses (3 credits):

INR 4082	Islam in International Relations
REL 3367	Islamic Faith and Society – *GL*
REL 3320	Moses, Jesus, Muhammad
REL 4369	Voice of the Prophet
REL 4364	Interpreting the Quran: Gender & Jihad – *GL*

Note: In addition to the two core courses selected from each category above, students may choose to take additional courses from this list as "Electives". These courses are thus listed below as part of the "Electives".

2) Language Requirement at FIU: (up to 6 credits)
Students are required to obtain two semesters or the equivalent of a Middle Eastern language. Exemption from this requirement may be obtained through a proficiency examination administered by the FIU Department of Modern Languages or Middle East Studies (MES). Note: Students exempted from the language requirement, however, should take 6 credits from other fields to fulfill the 18 credits required to receive the Certificate.

3) Elective Courses at FIU: (6 credits)
All students are to choose two courses (6 credits) from the courses listed below:

ANT 4930	Topics: People of the Middle East
ABT 3503	Arabic Language and Culture
CPO 3403	Politics of the Middle East
CPO 4930	Topics: Iraq-Politics and Society
CPO 4401	The Arab-Israeli Conflict
EUH 4123	Medieval Holy War
EVR 3402	Asian Environmental Issues
GEA 3554	People, Place, and Environment of Russia and Central Eurasia
GEA 3635	People, Place, and Environment of the Middle East
ASH 3222	History of the Middle East up to 1800
ASH 3223	History of the Middle East 1800 – Present
HIS 3314	Women and Gender in Medieval Eurasia
HIS 4930	Topics: History of Modern Middle East
INR 3226	International Relations of Central Asia and the Caucasus
INR 3252	International Relations of North Africa
INR 3262	International Relations of Russia and the Former USSR
INR 3274	International Relations of the Middle East
INR 4082	Islam in International Relations
REL 3220	Moses, Priests and Prophets
REL 3314	Religion on the Silk Road
REL 3320	Moses, Jesus, Muhammad
REL 3367	Islamic Faith and Society – *GL*
REL 3672	Religion and Society in Israel/Palestine
REL 4361	Women in Islam
REL 4312	The Jews of Asia and Africa
REL 4610	Jews of Arab Lands in the Middle Ages
REL 4369	Voice of the Prophet
REL 4937	Special Topics: Muslim Ideas of War
REL 4364	Interpreting the Quran: Gender & Jihad – *GL*

In addition to the courses listed above, new courses (as they become available), relevant special topics, independent study, study abroad credits, and area studies or comparative studies courses may also be applied with the prior approval of the certificate program director. Students must consult the list of eligible courses announced at the beginning of the academic year or semester through the MES.

Dual Certificate Agreement with the American University in Dubai (AUD)

Students in FIU's Certificate program can take the opportunity of obtaining a Dual Certificate offered by FIU and the American University in Dubai (AUD). To obtain the Dual Certificate, students will need to spend one full term at AUD.

For more information contact Middle East Studies (MES) at the School of International and Public Affairs, SIPA 528. Email: **mesc@fiu.edu**; phone (305) 348-1792.

National Security Studies Certificate Program

Brian Fonseca, *Director, Jack D. Gordon Institute for Public Policy and Citizenship Studies*

Coordinating Committee
John Boyd, *Economics*
Edward Glab, *College of Business & SIPA Energy Forum*
Steven Heine, *Asian Studies*
Mohiaddin Mesbahi, *Politics and International Relations*
Richard Olson, *Politics and International Relations*
Luis Salas, *Criminology and Criminal Justice*
Richard Tardanico, *Global and Sociocultural Studies*
Victor Uribe, *History*

Offered through the Jack D. Gordon Institute for Public Policy, the certificate may be awarded to both degree and non-degree seeking students who complete the requirements. For students pursuing a degree, the certificate is a complement to a student's discipline or major area of studies. For non-degree seeking students, the certificate provides a means for understanding more about national security in the 21st century.

Certificate Requirements

1. A total of 18 credit hours of undergraduate course work with a grade of C or higher. Courses must come from the approved UCNSS course listing or be approved by the certificate advisor. Courses may include those in the student's departmental major, but must also be selected from at least two disciplines outside the student's departmental major. With the approval of the Director, courses other than those listed herein may be substituted on a case by case basis.
2. A two-course introductory language sequence at FIU with a grade of C or higher. Exemption from this requirement may be obtained through a proficiency examination administered by the FIU Department of Modern Languages. Language courses may not be counted toward the fulfillment of requirement #1 above.

Note*:* Intermediate-high on the ACTFL exam (1-plus on the US government scale) can normally be attained by students with two undergraduate semesters of basic language instruction and at least one undergraduate semester of intermediate (3000/4000) instruction. Attainment of the required language proficiency is the responsibility of the student, and extra courses to achieve the required proficiency level must be taken outside the UCNSS curriculum.

For more information, contact the Gordon Institute, LC 220. Email: **jgi@fiu.edu**; phone: (305) 348-2977; website: **http://gordoninstitute.fiu.edu**

Skill Requirement: (3 credit hours)

POS 4784	Analytic Writing
ISS 4385	Effective Governmental Communication

Core Requirement: (6 credit hours)

*Select **one** of the following courses:*

ISS 4364	Introduction to Structured Analytic Methods
GIS 3048	Applications of Geographic Information Systems
SYA 3300	Research Methods

*Select **one** of the following courses:*

INR 3061	Conflict, Security and Peace Studies in IR
INR 3081	Contemporary International Problems – *GL*
INR 3102	American Foreign Policy
INR 3303	Foreign Policymaking
INR 4335	Strategic Studies & Security Studies
ISS 3222	Issues in American Foreign Policy

National Security Studies: (3 credit hours)

ISS 3130	Fundamentals of National Security

Electives: (6 credit hours)

*Select **two** of the following courses:*

Criminal Justice

CJE 3110	Policing in Society
CCJ 4641	Organized Crime
DSC 4012	Terrorism and Homeland Security – *GL*
CJE 4174	Comparative Criminal Justice Systems – *GL*
CJL 4064	Criminal Justice and the Constitution

Economics

ECO 4701	World Economy
ECP 3123	Economics of Poverty
ECS 3200	Economics of Asia
ECS 3402	Political Economy of South America
ECS 3403	Economics of Latin America
ECS 3013	Introduction to Economic Development
ECS 4011	Development Economics I
ECS 4014	Development Economics II
ECO 3203	Intermediate Macroeconomics
ECS 3704	International Economics
ECO 4321	Radical Political Economy
ECO 4400	Economics of Strategy and Information
ECO 4703	International Trade Theory and Policy

Business, Finance and Management

FIN 3652	Asian Financial Markets and Institutions
FIN 4651	Latin American Financial Markets and Institutions
MAN 4660	Business in Latin America
MAN 4930	Special Topics
FIN 4461	Financial Risk Management – Financial Engineering
MAN 4613	International Risk Assessment
MAN 4702	Emergency and Disaster Management
MAN 4930	Special Topics
TRA 4721	Global Logistics

Geography

GEO 3001	Geographies of Global Change – *GL*
GIS 3048	Applications of Geographic Information Systems
GEO 3421	Cultural Geography
GEO 3471	Political Geography
GEO 3502	Economic Geography – *GL*
GEA 3212	People, Place, and Environment of North America
GEA 3320	People, Place, and Environment of the Caribbean
GEA 3400	People, Place, and Environment of Latin America
GEA 3500	People, Place, and Environment of Europe
GEA 3554	People, Place, and Environment of Russia and Central Eurasia
GEA 3600	Population and Geography of Africa – *GL*
GEA 3635	People, Place, and Environment of the Middle East
GEA 4202	People, Places, and Environments of Borderlands

History

AFH 4100	History of Africa I – *GL*
AFH 4200	History of Africa II
AFH 4342	History of West Africa
AFH 4405	History of East Africa
AFH 4450	History of South Africa – *GL*
AMH 4170	Civil War and Reconstruction
AMH 4540	US Military History from the Colonial Era to the Present
ASH 3440	History of Japan
ASH 4300	East Asian Civilization and Culture
ASH 4384	History of Women in Asia
ASH 4404	History of China
EUH 2030	Western Civilization: Europe in the Modern Era – *GL*
EUH 3282	European History, 1945 to Present
EUH 3570	Russian History
EUH 3576	Russian Revolution and the Soviet Union
EUH 4033	Nazism and the Holocaust
EUH 4286	Topics in European History
EUH 4462	History of Modern Germany
LAH 3132	The Formation of Latin America – *GL*
LAH 3200	Latin America: The National Period – *GL*
LAH 3450	Central America
LAH 3718	History of U.S.-Latin American Relations
LAH 3740	Comparative History of Latin American Rebellions and Revolutions
LAH 4932	Topics in Latin American History
WOH 3281	Jewish History to 1750
WOH 3282	Modern Jewish History
AMH 3270	Contemporary US History
AMH 4375	Technology and American Society
AMH 4540	US Military History from the Colonial Era to the Present
AMH 4544	The United States and the Vietnam War
AMH 4930	Topics in US History: US-Inter American Relations
HIS 3308	War and Society– *GL*

Interdisciplinary Social Sciences

ISS 3280	Canadian Government, Politics and

	Policy

Politics and International Relations

CPO 3204	African Politics
CPO 3304	Politics of Latin America
CPO 3403	Politics of Middle East
CPO 3502	Politics of Far East
CPO 3643	Russian Politics
CPO 4034	The Politics of Development and Underdevelopment
CPO 4053	Political Repression and Human Rights
CPO 4057	Political Violence and Revolution – *GL*
CPO 4303	Politics of South America
CPO 4323	Politics of the Caribbean
CPO 4333	Politics of Central America
CPO 4340	Politics of Mexico
CPO 4360	Cuban Politics
CPO 4401	The Arab-Israeli Conflict
CPO 4461	Politics of Eastern Europe
CPO 4541	Politics of China
INR 4084	Ethnicity in World Politics
INR 3214	International Relations of Europe
INR 3223	Japan and the United States
INR 3224	International Relations of East Asia
INR 3226	International Relations of Central Asia and the Caucasus
INR 4232	International Relations of China
INR 3243	International Relations of Latin America
INR 3246	International Relations of the Caribbean
INR 3252	International Relations of North Africa
INR 3253	International Relations of Sub-Saharan Africa
INR 3262	International Relations of Russia and the Former USSR
INR 3274	International Relations of the Middle East
INR 3331	European Foreign and Security Policy
INR 4082	Islam in International Relations
INR 4085	Women and Men in International Relations
INR 4084	Ethnicity in World Politics
CPO 4726	Ethnicity and Nationalism
INR 4091	Ethical Problems in International Relations
CPO 3055	Authoritarians and Democrats
CPO 4725	Comparative Genocide
INR 4204	Comparative Foreign Policy
INR 3403	International Law
INR 3502	International Organizations
INR 4077	International Relations & Women's Human Rights
INR 4075	International Protection of Human Rights – *GL*
INR 4411	International Humanitarian Law

Religious Studies

ASN 4510	Dynamics of Asia
ASN 5315	Topics in Modern Asia
REL 3148	Religion and Violence
REL 3170	Ethics in World Religion
REL 3308	Studies in World Religions – *GL*
REL 3310	Introduction to Asian Religions
REL 3313	Sources of Modern Asian Society
REL 3367	Islamic Faith and Society – *GL*
REL 3443	Liberation Theology
REL 3672	Religion and Society in Israel/Palestine
REL 4351	Religion and Japanese Culture
REL 4370	African Religions
REL 4441	Religion and the Contemporary World

Global and Sociocultural Studies

ANT 3212	World Ethnographies – *GL*
ANT 3451	Anthropology of Race and Ethnicity
ANT 4211/4327	Area Studies
ANT 4332	Latin America
ANT 4340	Caribbean Cultures
ANT 4343	Cuban Culture and Society
ANT 4352	African Peoples and Culture
SYD 4237	Immigration and Refugees
SYD 4630	Latin American and Caribbean Societies
SYD 4704	Seminar in Racial & Ethnic Relations
SYO 4300	Political Sociology
SYO 4530	Social Inequalities
SYP 3300	Social Movements and Collective Action
SYP 3456	Societies in the World
SYP 3520	Crime & Society
SYP 4460	Sociology of Disasters

Forensics

CHS 3501	Survey of Forensic Science
CHS 4503C	Forensic Science History

North American Studies Certificate Program

Brian Fonseca, *Director, Jack D. Gordon Institute for Public Policy*

Coordinating Committee
Barry Levitt, *Politics & International Relations*
Maria del Mar Logrono Narbona, *History*

Canada and Mexico are two of the most important allies of the United States of America. We share long borders and enjoy strong economic ties. It is important to understand the commonalities and close ties the U.S. has with these two neighbors. Accordingly, the Jack D. Gordon Institute for Public Policy, a component of the Steven J. Green School of International and Public Affairs, offers the student a program in North American Studies, in recognition of the importance of relations with Canada and Mexico and in conjunction with the importance of international studies in today's world.

The Certificate in North American Studies is available for any degree-seeking Florida International University student and is awarded with a bachelor's degree. A student may acquire the Certificate in North American Studies by fulfilling the following requirements:

General Requirements: A minimum of six courses (18 credit hours) with a grade of 'C' or higher in each course.

The Program Director must approve the student's overall plan of study and any Topics or Area Studies courses. With the approval of the Director, courses other than those listed herein may be substituted on a case by case basis.

The Program is especially eager to encourage programs of study abroad. Credit for such programs will be awarded on an individual basis after evaluation by the Director, but in no case will it consist of more than two courses towards the Certificate.

For more information, contact the Gordon Institute, LC 220. Email: **jgi@fiu.edu**; phone: (305) 348-2977; website: **http://gordoninstitute.fiu.edu**

Specific Requirements

I. Core Courses

CPO 4047	Politics of North American Cooperation	3
	or	
ISS 4284	North American Integration	3

An upper division course in the history of the United States, Canada or Mexico (Approval of the Program Director is required) 3

GEA 3212	People, Place, and Environment of North America	3

II. Specialized Courses

Three courses (9 hours) from the following lists. Courses must be selected from at least two different disciplines.

Note: This is not an exhaustive list; students should consult with the director of the program on current offerings.

History

LAH 3132	The Formation of Latin America – *GL*	3
LAH 4433	Modern Mexico	3
LAH 4750	Law and Society in Latin American History	3

An upper division course in the history of the United States, Canada or Mexico. May not be the same course as that selected for a Core History course. (Approval of the Program Director is required) 3

Interdisciplinary Social Science

ISS 3280	Canadian Government, Politics and Policy	3

Modern Languages

French (3000 level or higher)		3
Spanish (3000 level or higher)		3

Politics and International Relations

CPO 4340	Politics of Mexico	3
INR 3102	American Foreign Policy	3
INR 3303	Foreign Policymaking	3
INR 4521	Politics of Regional Integration	3
POS 3064	Federalism and Intergovernmental Relations	3
POT 3204	American Political Thought	3

Religious Studies

REL 3120	Religion in America	3
REL 3197	Topics in Race and Religion (of North America)	3
REL 3380	Native American Religions	3

Portuguese Language and Brazilian Culture Studies Certificate Program

Augusta Vono, *Director, Modern Languages*
Nicola Gavioli, *Modern Languages*

This certificate which is only open to degree-seeking students, is offered as an alternative to the regular Portuguese language major in the Department.

We hope to be able to equip students who have majors, minors in other departments with highly satisfactory competence in Portuguese and a very positive understanding of the culture of Brazil, in order to aid them in whatever endeavors they should pursue.

Our program offers some special features for majors, minors, and certificate students: A regular summer-time study abroad in Belo Horizonte, Brazil; the opportunity to obtain a proficiency certificate administered by the Brazilian Ministry of Education and Culture--FIU is one of only four authorized examination centers in the United States; an active Brazilian Club; and a nascent Resource Center offering an excellent collection of books and other learning materials.

Required Credits

Minimum of 18 credits. Students who come into the program without previous Portuguese study may take up to 25 required credits, depending on the language track they choose and any exemptions they receive for prior knowledge. See below for details. All courses must have a grade of "B-" or higher to qualify.

Required Courses

I. Basic Language: (9 or 10 credits)

POR 1130	Portuguese I	5
POR 1131	Portuguese II	5
	or	
POR 3202	Accelerated Portuguese I	5
POR 3233	Accelerated Portuguese II	5
	or	
POR 2340	Portuguese for Heritage Speakers I	3
POR 2341	Portuguese for Heritage Speakers II	3
POR 3343	Advanced Portuguese for Heritage Speakers	3

(Course numbers are provisional as suggested in current new course proposals)

2. Three additional core courses, as follows: (9 credits)

POR 2200	Intermediate Portuguese	3
POR 3400	Advanced Oral Communication	3
POR 3420	Review Grammar and Writing I	3
	or	
POR 3421	Review Grammar and Writing II	3
POW 3284	Brazilian Short Story	3

3. One additional elective course, chosen from among the following departmental offerings: (3 credits)

POR 3440	Business Portuguese	3
POR 3500	Luso-Brazilian Culture – *GL*	3
POR 4480	Twentieth Century Brazilian Novel	3
POW 4701	Masterworks of Brazilian Literature	3

4. One additional elective course, chosen from among the following out-of-department offerings: (3 credits)

LAH 2020	Latin American Civilization – *GL*	3
LAH 4600	History of Brazil – *GL*	3
ECS 3401	The Brazilian Economy (two prerequisites required)	3
LIN 3013	General Linguistics	3

Note: Students who come into the program fluent in Portuguese may be exempted from all or a part of the Basic Language sequence by interview and examination. Any student so exempted will not be required to make up all of the credits in other courses, except that the minimum

number of credits taken for the Certificate must be 18 hours. Students who take the Heritage sequence, rather than the regular beginning or accelerated courses, will have only 9 credits of language required, subject to further reduction by exemption.

Substitutions for the above courses will be considered only under special circumstances, such as a course not being available. Such substitutions must be authorized in writing by a memorandum in the student's file signed by the program director or advisor.

Pre-Law Skills and Professional Values Certificate Program

Kathryn A. DePalo-Gould, *Politics and International Relations*

Coordinating Committee
JoAnn Brown, *Communication*
Kenton Harris, *Philosophy*
Kimberly Harrison, *English*
Michelle Mason, *Law*
Carleen Vincent-Robinson, *Criminology and Criminal Justice*

The Certificate in Pre-Law Skills and Professional Values is designed to provide undergraduate students with foundational knowledge about the legal profession and its core values, and to develop the academic skills and work ethic students need to be competitive in both law school and as a member of the legal profession. By focusing on both their professional development and academic skills, students will be more confident they have chosen the right career path, be well prepared for the academic rigors of a legal education, and understand the values and ethics demanded by the legal profession. This certificate program is open to degree-seeking students only.

Requirements

Recommended Prerequisites
Students are encouraged to complete the following two courses prior to enrolling in certificate courses.

POS 2041	American Government – *CL*
SPC 2608	Public Speaking

Required Credits (21 credits):
Students are required to take two core courses (6 credits) and five skills courses (15 credits): two in Writing Skills and one each in Analytical, Legal, and Verbal Skills. Requests to apply transfer credit must be made in writing and approved by the Certificate Director. Course substitution requests should be rare and must be approved in writing by the Certificate Director in advance. All Certificate courses must be completed with a grade of "C" or better.

Core Courses (6 credits):
All students must take POS 3652 and one of the following two courses listed below.

POS 3652	Law and the Legal Profession
	and
CJL 3512	The Courts
	or
POS 3283	The Judicial Process

Skills Courses (15 credits):
Take two courses in Writing Skills (6 credits) and one course in Analytical Skills (3 credits), one course in Legal Skills (3 credits), and one course in Verbal Skills (3 credits) from the listing below.

Analytical Skills (3 credits)

PHI 2100	Introduction to Logic
PHI 2103	Critical Thinking
PHI 4130	Symbolic Logic

Legal Skills (3 credits)*

CJL 4064	Criminal Justice and the Constitution*
POS 3603	Constitutional Law: Powers*
POS 3604	Constitutional Law: Limitations*

**Note: Legal Skills courses may not be completed online and must be taken in a traditional classroom environment.*

Verbal Skills (3 credits)

COM 4462	Conflict Management
SPC 3230	Rhetorical Communication: A Theory of Civil Discourse
SPC 3513	Argumentation and Debate
SPC 3602	Advanced Public Speaking
SPC 3540	Persuasion

Writing Skills (6 credits)

ENC 3311	Advanced Writing and Research
ENC 3354	Writing as Social Action
ENC 3371	Rhetorical Theory and Practice
ENC 4331	Writing, Rhetoric, and Community
ENC 4930	Special Topics in Composition: Legal Writing
POS 4784	Analytic Writing in Political Science

Pre-Modern Cultures Certificate Program

Gwyn Davies, *Director, History*

Steering Committee
N. David Cook, *History*
Carol Damian, *Art and Art History*
Steven Heine, *Religious Studies*

The Pre-Modern Cultures Certificate Program is an eighteen credit course of study intended to enable students to gain an interdisciplinary concentration in various aspects of pre-modern culture (before 1700 CE). This certificate program is open to degree-seeking students only. It is designed to enhance an undergraduate's understanding of the pre-modern cultures of the globe, and particularly to complement that student's major courses of study in fields such as Anthropology, English, History, Humanities, Modern Languages, Philosophy, Religious Studies and Visual Arts by familiarizing them with additional disciplinary approaches. The Certificate permits the in-depth exploration of one cultural area during Pre-Modernity, while developing a familiarity with analogous eras in other parts of the world, thus providing the student with both trans-temporal and cross-cultural comparative perspectives.

Courses are to be chosen from the following list in consultation with and approval of a member of the Steering Committee or other faculty advisor. A grade of "C" or better is required for all courses. This listing should be understood as a partial list. Students should consult

with an advisor for the certificate program about current course offerings.

At least 18 semester hours from the following certificate program course listing, or others approved by the certificate program advisor. Students must take one Introductory Core class. The five remaining courses are to be drawn from the disciplinary Concentration Areas. Of the total six courses counted towards the certificate, four must be from a base region and two from the comparative region. The regions are defined as Africa, Asia, Europe, Latin America and North America. Up to two courses which deal with the entire World may be counted toward fulfillment of either the base or comparative region requirement. For example, one course of study might include pre-modern courses distributed as two World, two Asia, and two Latin America, while another might include pre-modern courses distributed as four Europe and two World. The steering committee will occasionally offer special comparative courses, some team-taught, which will substitute for any Core or Concentration Area course. Students may substitute a maximum of two independent studies for Concentration Area classes with the written approval of the Program Director. Special topics and other relevant courses (for example Study Abroad Programs or participation in archaeological digs) may be substituted with the written approval of the Program Director. Students are strongly encouraged to study relevant languages.

Requirements

Introductory Core Courses: (18)

LIT 2110	World Literature
AMH 2041	Origins of American Civilization – *GL*
EUH 2011	Western Civilization: Early European Civilization – *GL*
EUH 2021	Western Civilization: Medieval to Modern Europe – *GL*
LAH 2020	Latin American Civilization – *GL*
WOH 2001	World Civilization – *GL*
ARH 2050	Art History Survey
ENL 2011	Survey of British Literature
ARC 2701	History of Design from Antiquity to Middle Ages
GLY 2072	Earth's Climate and Global Change
ANT 4352	African Peoples and Cultures
LAA 3712	Image of the Garden: Nature and Culture
MUH 3211	Music History Survey I
REL 3308	Studies in World Religions – *GL*
WOH 3281	Jewish History to 1750

Concentration Areas History: (19)

AFH 4100	History of Africa I – *GL*
AMH 3012	American History, 1600-1763
EUH 3411	Ancient Rome
EUH 4501	England to 1688
EUH 3121	Europe in the Earlier Middle Ages
EUH 3181	Medieval Culture
EUH 4300	Byzantine History
EUH 4312	History of Spain
EUH 4025	Saints, Relics, and Miracles in Medieval Europe
EUH 4123	Medieval Holy War
EUH 4187	Topics in Medieval European History
EUH 4613	Social History of Early Modern Europe
LAH 3132	The Formation of Latin America – *GL*
LAH 4471	Colonial Caribbean in Comparative Perspectives

Civilization and Culture: (20)

HUM 3214	Ancient Classical Culture and Civilization
ARH 4151	Roman Art
ARH 3350	Baroque Art
ARH 4310	Early Italian Renaissance
ARH 4311	The Art of Venice
ARH 4312	Later Italian Renaissance
ARH 4652	Pre-Columbian Art of the Andes
ARH 4653	Mesoamerican Art
ARH 4650	Pre-Columbian Art
ANT 4312	American Indian Ethnology
ANT 4332	Latin America

Languages and Literature: (27)

AML 4213	Studies in Colonial and Early American Literature
AML 4210	Colonial Literature
LIN 4122	Historical Linguistics
ENL 4210	Studies in Medieval Literature
ENL 4212	Medieval Women Writers
ENL 4311	Chaucer
ENL 4161	Renaissance Drama
ENL 4225	Spenser
ENL 4220	Renaissance: Prose and Poetry
ENL 4320	Shakespeare: Histories
ENL 4321	Shakespeare: Comedies
ENL 4322	Shakespeare: Tragedies
ENL 4341	Milton
LIT 3132	Arthurian Literature
LIT 4041	17th Century Drama
FRE 4840	History of Language I
FRE 4841	History of Language II
FRW 3200	French Literature I
FRW 4410	French Medieval Literature
FRW 4212	French Classical Prose
FRW 4310	17th Century French Drama
FRW 4420	16th Century French Literature
SPW 3423	Masterworks of the Golden Age
SPW 3604	Don Quijote
SPW 4334	Golden Age Poetry
SPW 4424	Golden Age Drama

Thought and Belief: (22)

PHH 3100	Ancient Philosophy
PHH 3200	Medieval Philosophy
PHH 3401	16th & 17th Century Philosophy
PHI 3762	Eastern Philosophy and Religious Thought
POT 3054	Modern Political Theory
POT 3013	Ancient to Medieval Political Thought
REL 3209	The Dead Sea Scrolls
REL 3250	Jesus and the Early Christians
REL 3270	Biblical Theology
REL 3280	Biblical Archeology
REL 3320	Moses, Jesus, Muhammed
REL 3325	Religions of Classical Mythology
REL 3330	Religions of India – *GL*
REL 3511	Early Christianity
REL 3551	Mary and Jesus
REL 3625	Introduction to Talmud
REL 4251	Jesus and Paul

REL 3520	Saints, Witches, and Cathedrals
REL 3530	Protestantism
REL 3532	Reformation
REL 3340	Survey of Buddhism – *GL*
REL 4345	Zen Buddhism
REL 4351	Religion and Japanese Culture
REL 3314	Religion on the Silk Road
REL 4311	Religions Classics of Asia

Public Policy Studies Certificate Program

Brian Fonseca, *Director, Jack D. Gordon Institute for Public Policy*

Coordinating Committee:
Howard Frank, *Public Policy and Administration and Metropolitan Center*
Joel Carton, *Economics*
Kevin Evans, *Politics and International Relations*

The academic Certificate Program in Public Policy Studies is an interdisciplinary certificate program. It provides degree-seeking Florida International University students with a critical understanding of how public policy is created, how it is implemented, and how it transforms daily life.

Besides providing the students with a wide range of interdisciplinary perspectives on public policy, the certificate program also provides students with practical experience by assisting them obtain internships with public, private non-profit and political organizations in South Florida, Tallahassee, and Washington, D.C. For those students looking for careers in public policy, this experience could well be crucial.

For more information, contact the Gordon Institute, LC 220. Email: **jgi@fiu.edu**; phone: (305) 348-2977; website: **http://gordoninstitute.fiu.edu**

Requirements

The certificate program requires completion of 18 semester hours of college credit. POS 2041 American Government is recommended as a prerequisite course. All students must then complete a common core of coursework by selecting one course from each of the following three core course categories for a total of nine hours. Then, the student must fulfill the requirements of one of the four internship tracks: Federal Policy, (9 hours), State Policy (9 hours), or Local Policy or Non-Profit Policy (9 hours).

Core Courses: (9)

1) Select one of the following three hour courses:

ECO 2023	Principles of Microeconomics	3
ECO 2013	Principles of Macroeconomics	3

2) Select one of the following three hour courses:

POS 3424	The Legislative Process	3
PAD 3033	Administrators and the Legislative Process	3
PAD 4223	Public Sector Budgeting	3

3) Select one of the following three (3) semester hour Certificate Courses listed below. Students are encouraged to take a public policy issues course in their major, if it is offered, to satisfy this requirement.

Certificate Courses

The following courses fulfill certificate requirements for core courses and those exercising the Local Policy or Non-Profit track. This is a partial list. The student should consult with the Jack D. Gordon Institute for Public Policy and Citizenship Studies (IPPCS) about current course offerings. Other courses may be substituted upon approval of the IPPCS. Transfer students may only transfer up to two courses from institutions previously attended. The program is intended to expand student options, and complement other certificate programs.

Biology

BSC 5825	Wildlife Biology
OCB 5635	Coral Reef Ecology, with lab
PCB 3063	Genetics
PCB 3241	Biology of Aging
PCB 4452	Introduction to Wetland Ecology and Management
PCB 4467C	Marine Protected Areas – *GL*
PCB 4553	General Population Genetics – *GL*
PCB 5358	Everglades Research and Resource Management
PCB 5686	Population Biology

Business Administration

MAN 4711	Business-Community Leadership
TRA 4411	Airport Management

Civil and Environmental Engineering

ENV 5007	Environmental Planning
ENV 5062	Environmental Health
ENV 5659	Regional Planning Engineering
ENV 5666	Water Quality Management

Construction Management

BCN 3753	Financial Management of Construction Organizations
BCN 5755	Construction Accounting and Finance

Criminal Justice

CJL 3512	The Courts
CJC 2000	Corrections
CJJ 2001	Juvenile Justice

Economics

ECO 3041	Consumer Economics
ECO 3101	Intermediate Microeconomics
ECO 3203	Intermediate Macroeconomics
ECO 3223	Money and Banking
ECO 4504	Introduction to Public Finance
ECO 4622	Economic Development of the United States
ECO 4701	World Economy
ECO 4703	International Trade Theory and Policy
ECO 4713	International Macroeconomics – *GL*
ECP 3302	Introduction to Environmental Economics
ECP 3203	Introduction to Labor Economics
ECP 4314	Natural Resource Economics
ECP 4403	Principles of Industrial Organization
ECS 3003	Comparative Economic Systems
ECS 3013	Introduction to Economic Development

Education

EDF 6852	Educational Developmental Issues in Context: A Multidisciplinary Perspective
EEC 4301	Trends in Early Childhood Education
EEX 5771	Personal Foundations and Transitional Services for Individuals with Disabilities
HME 5255	Independent Living for the Handicapped
LEI 3437	Program Development in Parks and Recreation
LEI 5510	Program Administration in Parks and Recreation

Earth and Environment

EVR 3011	Environmental Resources and Pollution
EVR 3013	Ecology of South Florida
EVR 4112	Climate Change Policy
EVR 4211	Water Resources
EVR 4231	Air Resources
EVR 4310	Energy Resources
EVR 4351	U.S. Energy Policy
EVR 4352	U.S. Environmental Policy

Health Services Administration

HSA 3111	Introduction to Health Services Systems
HSA 4110	Healthcare Organizational Behavior and Resource Management
HSA 4113	Global Issues and Trends in Healthcare – *GL*
HSA 4140	Program Planning and Evaluation
HSA 4150	Global Healthcare Systems and Policy – *GL*
HSA 4421	Legal Aspects of Healthcare

Interdisciplinary Social Studies

ISS 4385	Effective Government Communication
ISS 4364	Intro to Structured Analytic Techniques

History

AMH 4130	The American Revolution
AMH 4140	The Age of Jefferson
AMH 4160	The Age of Jackson
AMH 4251	The Great Depression
AMH 3560	History of Women in the United States

Communication and Journalism

ADV 4300	Media Planning
JOU 4101	In-Depth Reporting
MMC 4609	Integrated Communication Research Strategy
PUR 4100	Writing for Public Relations
PUR 4101	Digital Editing and Design
PUR 4106	Advanced Public Relations Writing for Multimedia Platforms
PUR 6607	Global Strategic Communication Management
PUR 6806	Global Account Planning

Labor Studies

LBS 4401	Labor Negotiations
LBS 3001	Labor and Globalization – *GL*
LBS 4101	Theories of the Labor Movement
LBS 4150	Contemporary Labor Issues
LBS 4210	Women And Work – *GL*
LBS 4461	Labor Dispute Resolution
LBS 4501	Labor Law
LBS 4654	Comparative and International Labor Studies – *GL*

Music

MUM 4301	Business of Music
MUM 4302	Business of Music II

Politics and International Relations

INR 3043	Population and Society
POS 4071	Corporate Power and American Politics
POS 3152	Urban Politics
POS 3413	The Presidency
POS 3424	The Legislative Process
POS 3443	Political Parties
POS 3603	Constitutional Law: Powers
POS 3604	Constitutional Law: Limitations
POS 4122	State Government and Politics
POS 4154	Topics in Urban Politics and Policy
POS 4182	Florida Politics
POS 4188	Miami Politics
POS 4463	Interest Group Politics
POS 4605	Gender Justice
POS 4930	Topics in Public Law
PUP 4004	Public Policy: U.S.
POS 4035	Environmental Politics
POS 4072	Women in Politics
PUP 5934	Topics in Public Policy

Psychology

CLP 5185	Current Issues in Mental Health
CYP 3003	Introduction to Community Psychology

Public Policy and Administration

PAD 3003	Introduction to Public Administration
PAD 3034	Policy Development and Implementation – *GL*
PAD 3804	Government and Administration of Metropolitan Areas
PAD 4103	Politics of Administrative Organizations
PAD 4223	Public Sector Budgeting
PAD 4432	Administrative Leadership and Behavior

Social Work

SOW 3232	Social Welfare Policy and Services I
SOW 3233	Social Welfare Policy and Services II – *GL*
SOW 3203	Introduction to Social Work
SOW 4654	Child Welfare: Policy and Practice
SOW 5109	Crisis in the Lives of Women
SOW 5235	Social Welfare Policy and Services
SOW 5641	Understanding the Process of Aging
SOW 5710	Current Issues in Addiction Practices

Global and Sociocultural Studies

ANT 3442	Urban Anthropology
SYD 4410	Urban Sociology
SYD 4700	Racial and Ethnic Relations
SYD 3804	Sociology of Gender
SYP 3520	Crime & Society
SYP 3530	Youth, Crime, and Society
SYP 4730	Aging in Society
GEO 3602	Urban Geography
GEO 5415	Topics in Social Geography

Hospitality and Tourism Management

HFT 3701	Sustainable Tourism Practices – *GL*
HFT 3713	International Travel and Tourism – *GL*
HFT 3735	Destination and Cultures
HFT 4509	Tourism Destination Marketing

Public Policy Tracks

Federal Policy (9 hours)

This internship involves the student taking an internship with a governmental, nongovernmental, or political organization in the nation's capital. The specifics of the internship are agreed upon by the student and the IPPCS advisor and the student receives up to six semester hours of credit. Students are responsible for their own room and board, although the Institute assists as much as possible in arranging housing and financial aid. The student also takes one (if the internship is worth a full 6 credit hours) or two of the following courses:

PUP 4004	Public Policy: U.S.	3
PAD 3034	Public Policy and its Administration – *GL*	3
Internship in Washington, D.C. up to		6

Students should register for the internship, field study or independent study course in their department (e.g., PAD 4940, POS 4944, POS 4941, POS 4945, ISS XXXX)

State Policy (9 hours)

Students obtain nonpaying internships in State of Florida government agencies in Tallahassee or in South Florida. Advisors from the IPPCS work with students to determine which agency is most suitable, depending upon the student's interests. Although the students are responsible for their own room and board, the Institute helps to arrange housing in Tallahassee and assists in the application for financial aid. The State Policy Internship option is worth a total of 9 semester hours.

PUP 4004	Public Policy: U.S.	3
PAD 3034	Public Policy and its Administration – *GL*	3
POS 4122	State Government and Politics	3
POS 4182	Florida Politics	3
State Policy Internship up to		6

Students should register for the internship, field study or independent study course in their department (e.g., PAD 4940, POS 4944, POS 4941, ISS XXXX)

Local Policy (9 hours)

This option may be the most viable for those who want to earn the certificate, but who are unable to leave South Florida for an internship. This option is designed to be as flexible as possible. The nature of this option is worked out between the student and the IPPCS advisor. The student receives three credit hours for whichever courses are completed, including a local internship. Courses must be taken in at least two different disciplines, at least one being outside the student's departmental major. Core courses may not count toward the fulfillment of these requirements.

PUP 4004	Public Policy: U.S.	3
PAD 3034	Public Policy and its Administration – *GL*	3
SYD 4410	Urban Sociology	3
POS 3152	Urban Politics	3
POS 4188	Miami Politics	3

The internship is worth up to 6 academic credit hours, depending on the number of internship hours worked. Students should register for the internship, field study or independent study course in their department (e.g., PAD 4940, POS 4944, POS 4941, ISS XXXX).

Non-Profit Policy (9 hours)

Students obtain internship placement in a local private non-profit organization. IPPCS advisors will work with the student to select a work assignment related to policy issues. The student may earn up to 6 academic credit hours for the internship, depending on the number of internship hours worked. The student should register for the internship, field study or independent study course in their department (e.g., PAD 4940, POS 4944, POS 4941, ISS XXXX).

The student will also take one or two courses related to urban issues, non-profit organizations, special interest groups, social policies or similar issues, as determined appropriate by IPPCS advisors.

South and Southeast Asia Area Studies Certificate Program

Steven Heine, *Director, Asian Studies*

Coordinating Committee
Mahadev Bhat, *Earth and Environment*
Krishnan Dandapani, *Finance, COB*
Vrushali Patil, *Women's and Gender Studies and Global and Sociocultural Studies*

This certificate program offers an 18-credit sequence of courses and is intended to provide students with a rich learning experience about an increasingly important region of the world, and is intended to enhance the student's competitiveness upon graduation. The program provides a multidisciplinary approach covering issues in geography, history, politics, religion, sociology/anthropology, and international relations. This certificate program is open to degree-seeking students only.

Prescribed Courses and Other Requirements

All students are to choose from the courses listed below with the approval of the Director with a grade of C or better. **These courses represent a partial list; students should consult with an advisor for the certificate program about current course offerings and a full list of courses accepted for the certificate.**

ASH 4384	History of Women in Asia
EUH 4520	England in the 18th Century
ECS 3021	Women, Culture, and Economic Development – *GL*
ECS 3200	Economics of Asia
EVR 3402	Asian Environmental Issues
FIN 3652	Asian Financial Markets and Institutions
INR 3081	Contemporary International Problems – *GL*
INR 4082	Islam in International Relations
LIT 4197	Global Asian Literature
PHH 3810	Philosophy of Buddhism
PHH 3840	Indian Philosophy
REL 3026	Folk Religions in Asia and the World
REL 3310	Introduction to Asian Religions

REL 3330	Religions of India – *GL*	
REL 4312	The Jews of Asia and Africa	
REL 3340	Survey of Buddhism – *GL*	
SYA 3810	Gender and Power in Asia	

In addition to the courses listed above, relevant special topics, independent study, study abroad credits, and area studies or comparative studies courses may also be applied.

Language: There is no specific language requirement to be met, although it is recommended.

For more information, contact the Asian Studies office, SIPA 505. Email: **asian@fiu.edu**; phone: (305) 348-1914; website: **http://asian.fiu.edu**.

Spanish Language Professional Certificate Program

Maida Watson, *Director, Modern Languages*

The Professional Certificate in Spanish Language provides degree seeking and non-degree seeking students the necessary language skills for designated professional purposes such as business, healthcare, hospitality, and translation, increasing their intercultural competencies to be prepared for success in a global economy.

Requirements

I. Required Courses: The following sequences are required except for students who demonstrate an equivalent language proficiency through examination.

For non-heritage speakers, the following sequence is advised:

SPN 2201	Intermediate Spanish II – *GL* (Non-native speakers)	3
	and	
SPN 3301	Advanced Spanish for Non-Heritage Speakers	3

For heritage speakers, the following sequence is advised:

SPN 2340	Intermediate Spanish for Heritage Speakers – *GL*	3
	and	
SPN 2341	Intermediate Spanish II for Heritage Speakers	3
SPN 3343	Advanced Spanish for Native Speakers – *GL*	3

II. Elective Courses: With program advisor's approval, 12 credits may be taken from the following list. This is a partial list. Students should consult the certificate advisor regarding additional courses that may be submitted.

SPN 3013	Language Skills for Professional Personnel	3
SPN 3031	Intermediate Spanish for Medical Personnel	3
SPN 3401	Advanced Conversation	3
SPN 3410	Advanced Oral Communication	3
SPN 3413	Communication Arts	3
SPN 3422	Advanced Grammar and Composition I	3
SPN 3440	Spanish Business Composition/ Correspondence	3
SPN 3444	Spanish for Business in Latin America	3
SPN 4520	Latin American Culture – *GL*	3
SPN 4500	Spanish Culture – *GL*	3
SPN 4521	Topics on Latin American Culture	3
SPT 4803	Practica in Legal Translation	3
SPT 4804	Practice in Legal Interpretation	3
SPT 4805	Translation in Communication Media	3
SPT 4807	Practica in Business Translation	3
SPT 4809	Practica in Medical Translation	3
SPT 4830	Interpreting for Business	3

Study of Spirituality Certificate Program

Erin Weston, *Program Director*

Certificate Committee
Whitney Bauman, *Religious Studies*
Sarah J. Hammill, *FIU Libraries*
Steven Vose, *Religious Studies*

The School of International and Public Affairs Undergraduate Certificate Program in the Study of Spirituality is designed for health science and nursing students, pre-med, pre-law, psychology, nursing, fine and performing arts, education majors, and students in other relevant disciplines, for whom such a credential would be of professional or personal value. This certificate program is open to both degree- and non-degree seeking students.

In its traditional contexts in the world's religious traditions, spirituality involves those philosophies and practices leading to experiences of transcendence described as 'union with a Higher Reality or with Nature', 'discipleship', 'enlightenment', closeness to God, or 'egolessness'. In recent times, these principles of spirituality – the intimate connections between mind and body, the relativity of discursive knowledge, techniques and conceptions about a non-material order of reality – have been applied to various professions and such human endeavors as the health sciences, education, psychotherapy, the performing, visual and literary arts, entrepreneurship, and so on.

The Undergraduate Certificate Program in the Study of Spirituality grounds students in these traditional forms of spirituality through a foundation course, **REL 3027 Meditation and Mystical Traditions**. This course serves as a grounding in the methods pertinent for the study of spirituality, as well as literacy in the world's traditions of spirituality.

The certificate includes four additional courses (12 credits) in both traditional and "applied" spirituality, selected according to a student's professional goals or personal interests, in consultation with a Program Director. Any FIU course with at least one third (1/3) "spirituality-related" content may be substituted with the Director's approval.

College of Communication, Architecture + The Arts

Art and Art History

ARH 3210	Early Christian and Byzantine Art
ARH 4503	Art and Shamanism
ARH 4504	Primitive Art
ARH 4534	Buddhist Art of Asia
ARH 4552	Arts of China and Japan

Steven J. Green School of International and Public Affairs

Asian Studies

ASN 3403/ REL 3342	Zen and the Art of Tea Ceremony
ASN 4404	Zen and the Art of Tea Ceremony II

Global and Sociocultural Studies

ANT 3241	Myth, Ritual & Mysticism – *GL*
GEO 5557	Globalization

History

EUH 4025	Saints, Relics and Miracles in Medieval Europe

Politics and International Relations

INR 3061	Conflict, Security and Peace Studies in INR
INR 3227	International Relations of South Asia
INR 4013	Development of International Relations Thought
INR 4077	International Relations & Women's Human Rights
INR 4082	Islam in International Relations

Religious Studies

REL 3020	Meditation and Spiritual Development
REL 3027	Meditation and Mystical Traditions
REL 3028	Sacred Places, Sacred Travels
REL 3029	Christian Mysticism
REL 3075	Magic and Religions – *GL*
REL 3076	New Religious Movements – *GL*
REL 3077	Sacred Image, Sacred Space in India
REL 3091	Joseph Campbell and the Power of Myth
REL 3111	Religion in Film – *GL*
REL 3132	Witchcraft and Neopaganism
REL 3140	Contemporary Global Spirituality
REL 3145/5145	Women and Religion
REL 3185	Healers and Mediums – *GL*
REL 3171	Sex and Religion
REL 3308	Studies in World Religions – *GL*
REL 3330	Religions of India – *GL*
REL 3340	Survey of Buddhism – *GL*
REL 3344	Tibetan Buddhism
REL 3367	Islamic Faith & Society – *GL*
REL 3375	Religions of the Caribbean
REL 3380	Native American Religions
REL 3392	Kabbalah and Jewish Mysticism
REL 3398	Rhythms of the Sacred – *GL*
REL 3399	The Art of Yoga and Meditation: Theory and Practicum
REL 3492	Earth Ethics – *GL*
REL 3520	Saints, Witches and Cathedrals
REL 3607	Judaism
REL 4146	Feminist Theology and Ethics
REL 4345	Zen Buddhism
REL 4351	Religion and Japanese Culture
REL 4370	African Religions
RLG 5183	Religion, Nature, and Globalization
RLG 5502	Saints, Witches and Missionaries

College of Arts, Sciences and Education

English

LIT 3170	Topics in Literature and Jewish Culture
LIT 3175	Literature of the Holocaust
LIT 3673	Migrant Stories: Literature of the Immigration Experience
LIT 3674	Literature of the Jewish Immigration Experience
LIT 4403	Literature Among the Arts and Sciences

Earth and Environment

EVR 3402	Asian Environmental Issues
EVR 4415	Population and Environment Issues
IDS 4920	Liberal Studies Colloquia: Deep Ecology

Humanities

HUM 4555	Symbols and Myths

Philosophy

PHH 3810	Philosophy of Buddhism
PHH 3840	Indian Philosophy
PHI 3601	Ethics
PHI 3762	Eastern Philosophical and Religious Thought
PHM 4050	Philosophy of Death

Psychology

CLP 4314	Psychology of Health and Illness – *GL*
PPE 4514	Psychology of Dreams and Dreaming

College of Business

MAN 4054	Managing Innovation
MAN 4065	Business Ethics
MAN 4294	Creativity and Innovation
MAN 4701	Business in Society
MAN 4864	Family Business

School of Education and Human Development

EDF 2085	Teaching Diverse Populations
EDF 3521	Education in History
EDF 6608	Social, Philosophical and Historical Foundations of Education
EDF 6689	Contemporary Issues in Urban Education

Nicole Wertheim College of Nursing and Health Sciences

HSC 2100	Healthy Lifestyles through Wellness
HSA 4431	Values, Ethics, and Conflict Resolution in Health and Urban Affairs

Robert Stempel College of Public Health and Social Work

Public Health

PHC 3101	Introduction to Public Health
PHC 4024	Principles of Applied Epidemiology

Social Work

SOW 3620	Social Work and Human Diversity – *GL*
SOW 3801	Self-Awareness and Self-Modification for Practice
SOW 5109	Crises in the Lives of Women

Honors College

IDH 1001	Honors Seminar I
IDH 1002	Honors Seminar II: The Origin of Ideas and the Idea of Origins

For more information, contact the Program in the Study of Spirituality office, DM 302. Email: **spirituality@fiu.edu**; phone: (305) 348-7918; website: **http://spirituality.fiu.edu**.

Translation and Interpretation Certificate Program

Maria Asuncion Gómez, *Program Director*

This academic certificate program is designed to provide the theoretical basis, skills, techniques, and practical experience to prepare students for the field of Translation and Interpreting (English < > Spanish). The Core Courses cover business practices, work opportunities, and ways of entering the profession, as well as the ethics, standards of practice, techniques, and methods of career development in the field. All courses provide extensive practice in all modes of translation and interpretation. This certificate program is open to degree-seeking students only.

Students must be fully bilingual in English and Spanish to start the program. There is no entrance or placement exam. Bilingual and advanced language students are encouraged to register directly in the Core Courses, and then decide if they wish to apply for the certificate program. Depending on the student's performance in the Core Courses, the instructor may advise students to take one or more prerequisites, in order to strengthen their weaker language, before taking more advanced courses in Translation and Interpretation.

This certificate program consists of 18 semester credit hours. These same 18 credits may also count as electives for the Spanish major for students pursuing a B.A. in Spanish. In addition, regardless what the student's major may be, 12 of those credits also fulfill the requirements for the Minor in Translation Studies.

Requirements

Prerequisites

ENC 3200	Business Letters and Reports	3
SPN 3302	Review Grammar and Writing	3
	or	
SPN 3343	Advanced Spanish for Heritage Speakers – *GL*	3

Others by approval. No credits allowed.

Core Courses: (6)

SPT 3800	Foundations of Translation	3
SPT 3812	Foundations of Interpreting	3

Required Courses (Select 4): (12)

SPT 4803	Practica in Legal Translation	3
SPT 4804	Practice in Legal Interpretation	3
SPT 4805	Translation in Communication Media	3
SPT 4806	Oral Skills for Interpreters	3
SPT 4807	Practica in Business Translation	3
SPT 4808	Practica in Technological Translation	3
SPT 4809	Practica in Medical Translation	3
SPT 4813	The Interpreter and Language	3
SPT 4814	Conference Interpreting	3
SPT 4820	Computer Aided Translation	3
SPT 4940	Judicial Translation-Interpretation Internship	0-3
SPT 4941	Professional T/I Internship	0-3
SPT 4942	Medical Interpreting	3

Steven J. Green School of International and Public Affairs

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Associate Dean, Graduate Studies and Innovation **Shlomi Dinar**
Associate Dean, Planning, Administration and Student Success **Jeffery Gonzalez**
Senior Director, Strategic Initiatives **Pedro D. Botta**
Diplomat in Residence **Rebecca Kimbrell**

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Asian Studies **Steven Heine**
Criminology and Criminal Justice **Lisa Stolzenberg**
Economics **Ali Cem Karayalcin**
Global and Sociocultural Studies **Guillermo J. Grenier**
History **Victor M. Uribe**
Kimberly Green Latin American and Caribbean Center **Frank O. Mora**
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The Honors College

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Rachelle Metcalfe, *Assistant Director of Enrollment Services*
Rosa Barredo, *Manager of Administrative Services*
Juan Lopez, *IT Manager*
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Umer Rahman, *Senior Coordinator of Housing & Student Programs*
Brenda Luna, *Academic Advisor III*
Patric Hambleton, *Academic Advisor III*
Grisel d'Elena, *Academic Advisor I*
Isabel Green, *Coordinator of Career Services*
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Luli Szeinblum, *Coordinator of Study Abroad & Arts Programs*
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Faculty
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Gorelick, Adam, M.A. *(Florida International University), Religious Studies*
Rodriguez, José, Ph.D. *(Florida International University), Industrial-Organizational Psychology*
Scharnagl, Gretchen, M.F.A. *(Florida International University), Art and Art History*

General Information

The Honors College is a vibrant, expanding, enthusiastic and engaged community of young scholars from every field, mentored to be tomorrow's leaders. A dynamic laboratory of cutting-edge teaching and learning, the College provides a transformative undergraduate education.

Privileges and Benefits

Honors College student enjoy certain privileges, including:
- Priority registration
- The notation "Graduated through the Honors College" on the transcript
- Honors housing in Honors College Hall
- Graduate-student library privileges
- Honors-only competitive scholarships
- Support to present work at national research conferences
- Unique internships and job opportunities
- Facilities and resources for innovative projects
- Special recognition at commencement

Location

The Honors College offices are located in DM 233 at the Modesto A. Maidique Campus.

Admissions Criteria

Admission to the Honors College is selective. Students are admitted only in the fall term.

Freshmen: Students with a 3.5 weighted high school GPA and commensurate scores on the SAT or ACT are eligible for admission to the College.

Transfer and Continuing FIU Students: Students who have maintained a 3.3 GPA in all college-level work are eligible for admission to the College. To be considered for admission, students must be able to complete at least 12 credits of Honors before graduating.

Fully Online Students: Students pursuing a fully online degree through FIU 2.0 may be admitted to the Honors College on a case-by-case basis in their junior year.

Academic Standing Policy

Students are required to maintain a cumulative 3.3 GPA for satisfactory standing in the Honors College.

Graduation Policy

Students will graduate through the Honors College if they have met the following criteria:
- completed all major and degree requirements for graduation from the University;
- remained continuously enrolled in Honors courses until the semester of graduation or the completion of the Honors College curriculum (whichever comes first);
- completed a minimum of six credits of Honors courses per year of enrollment in the College; maintained an overall minimum FIU GPA of 3.3

Honors Opportunities

The Honors College has a wealth of co-curricular opportunities for its students. These include, among others:
- The Advanced Research and Creativity in Honors (ARCH) undergraduate research program, which matches student and faculty researchers, showcases student research at the annual Conference for Undergraduate Research at FIU (CURFIU); subsidizes student participation in national and international conferences; and regularly hosts statewide and regional conferences.
- Study Abroad, which offers a kaleidoscope of options, currently comprising Cambodia-Vietnam, France, Italy, Japan, Costa Rica, South Africa, United Kingdom, and Spain. These thematic programs include preparatory coursework and often include a service-research component.
- Honors Education in the Arts (HEARTS), a program that injects the arts throughout the curriculum and provides students with discounted quality cultural opportunities at the area's top venues. The program also sponsors student-led clubs, including an a cappella group, a poetry club, a book club, a film club, and a student magazine, *Palate*. HEARTS also offers a one-week cultural trip to New York City.
- A Community Engagement Partnership with the contiguous under-served small City of Sweetwater. This cutting-edge program includes student internships, service opportunities, jobs, and research components

Honor Policy

In the Honors College, the term "honor" refers to both academic achievement and character. Students in the College should therefore adhere to and will be held to the highest standards of personal accountability. Students whose behavior brings discredit upon themselves and/or the College or who commit acts of academic misconduct will be dismissed from the College.

An important part of being a member of the Honors College is demonstrating leadership by serving the extended community. All Honors College students must complete at least **20** volunteer service hours per academic year (fall/spring). Qualifying community service activities include tutoring and other opportunities in Sweetwater, Honors service projects, university-wide projects, some kinds of religious service, and work with non-profit organizations.

Curriculum

Honors students pursue any major in the university while simultaneously completing an independent Honors College curriculum of 6 credits annually. The first year addresses epistemology and ontology while stressing multi-disciplinary approaches to solving intellectual and practical problems. Students in the second year explore self and other in team-taught classes. In the upper division, students have several options:

- Participating in an Honors Study Abroad program. These require a 3-credit preparatory seminar and a 3-credit multi-week international experience that goes well beyond cultural tourism to explore serious themes in depth.
- Completing a 6-credit Honors seminar.
- Completing an Honors thesis or thesis-quality research project through the ARCH program, culminating in a presentation at the Conference for Undergraduate Research at FIU (CURFIU).

Year One

IDH 1001, IDH 1002 The Origin of Ideas and the Idea of Origins (6). The course is designed to encourage students to become self-conscious learners, exploring not only the what, but also the how and why of knowing. The course focuses on the nature of truth and reality and our role in the world each of us has constructed.

IDH 1931 Honors Introduction (1). The purpose of this course is to introduce students to the essentials needed for success at FIU and Honors. This year-long course will focus on writing, research, First-year, and leadership essentials.

Year Two

IDH 2003, IDH 2004 Inhabiting Other Lives (6). This seminar exposes students to issues of human commonality and diversity, and invites them to investigate and to understand the interconnectedness of various cultures, times and life experiences.

Year Three

IDH 3034, IDH 3035 Aesthetics, Values, and Authority (6). These seminars build on the work of the first two years and allow students to work in depth on a problem or subject of personal interest or professional relevance.

(See website for this year's offerings: (**http://honors.fiu.edu/current-students/course-descriptions/course-selection/**)

Year Four

Option 1

IDH 4007, IDH 4008 Aesthetics, Values, and Authority (6). Students may opt to take another upper-division seminar course to complete their Honors requirements.

Option 2

Departmental Honors Thesis—Department honors courses, honors thesis, and/or capstone courses can satisfy the fourth-year requirement, with the proviso that students register their project with ARCH (see below) and present their work at the CURFIU conference in spring.

Option 3

ARCH Research—The Advanced Research and Creativity in Honors (ARCH) program pairs students and faculty for cutting-edge research. Students must present their research at the annual Conference for Undergraduate Research at FIU (CURFIU) in the spring.

Option 4

Honors College Study Abroad
Students may choose to complete the fourth year of the honors curriculum through one of the College's study abroad programs. Students take a three-credit preparatory course before traveling abroad. The student will earn the remaining three credits of Honors during the trip. See **http://honors.fiu.edu/studyabroad/** for a list of current programs.

Honors Living-Learning Community

Living-learning in Honors comprises a welcoming community of students, faculty, and staff centered in Honors College Hall. All Honors students who apply by the deadline will be housed in the Hall, the university's newest and most popular residence hall. This comprehensive community offers unique programming and academic opportunities, a convenient location and the most sought-after amenities on campus. For more information on how to be a part of Honors College Hall, visit **http://honors.fiu.edu/about-honors/honors-residential-life/**

The Edge Lab

The Honors Edge Lab is located in the Owa Ehan (OE) building at the Modesto A. Maidique Campus. This space allows students to do research and design projects using advanced computing, 3D printing, CNC machining, and other cutting-edge technologies.

Student Information Technology Centers

The student information technology center is located in the Honors College offices. Honors students may use the computers and printers or study in the lounge area. Honors also maintains a study room in the Green Library and a makerspace/video lab in the Owa Eha (OE) building at the Modesto A. Maidique Campus

Honors College Career Center

Internship and job opportunities are available in our highly successful Career Center. Among other services, the Center arranges internship placements customized to student goals. It also provides resume and interviewing advice and preparation, as well as follow-up assistance.

Student Organizations

One of the strengths of the Honors College is the selection of student-led organizations, ranging from pre-professional groups to honor societies to learning communities, which bring students with common ambitions together to learn, network, and develop as leaders. For more information on our student organizations, visit **http://honors.fiu.edu/current-students/organizations/**.

Graduate and Professional Pipeline Programs

The Honors College has pipeline programs with multiple professional and graduate schools, providing students an opportunity to know by the end of the sophomore year whether they will be accepted into the program of their choice (pending continued good academic performance and the outcome of pre-professional exams). These programs include:

- The Herbert Wertheim College of Medicine (FIU) Early Assurance Program
- The FIU College of Law Early Assurance Program
- The FIU College of Engineering and Computing Biomedical Engineering Ph.D.
- The Lake Erie College of Medicine Early Acceptance Programs in Dentistry, Pharmacy, or Osteopathy

3+3 Law School Program

This program with the College of Law allows eligible students to begin law school in lieu of their fourth year of undergraduate study, provided the student has completed all required courses for the undergraduate degree by the end of the junior year. The first year of law school qualifies as the final year of the bachelor's degree.

Course Descriptions

Definition of Prefixes

IDH – Interdisciplinary Honors

Courses that meet the University's Global Learning requirement are identified as GL.

IDH 1001 Honors Seminar I (3). Focuses on origins and the various interpretations by the different disciplines, including the roles of technology, science, humanities, and social science. Prerequisite: Admission to the Honors College.

IDH 1002 Honors Seminar II: The Origin of Ideas and the Idea of Origins (3). The course is designed to explore not only the what, but also the how and why of knowing. Focuses on the nature of truth and reality and our role in the world each of us has constructed. Prerequisites: Admission to the Honors College and IDH 1001.

IDH 1931 Honors Introduction (1). The purpose of this course is to introduce students to the essentials needed for success at FIU and Honors. This year-long course will focus on writing, research, First-year, and leadership essentials. Prerequisite: Admission to Honors College.

IDH 2003 Honors Seminar III: Inhabiting Other Lives – *GL* (3). This seminar exposes students to issues of human commonality and diversity, and invites them to investigate and to understand the interconnectedness of various cultures, times and life experiences. Prerequisite: Admission to the Honors College.

IDH 2004 Honors Seminar IV (3). A continuation of Seminar III, this course is an interdisciplinary examination of other cultures and multicultural societies. Includes directed individual research projects. Prerequisite: Admission to the Honors College.

IDH 2910L Research/Lab Experience (1). Laboratory research experience in conjunction with the Honors College FIU/USF Medical Education Program.

IDH 3034 Honors Seminar V: Aesthetics, Values, and Authority – *GL* (3). Examines the aesthetic underpinnings of culture and foundations of what commonly are held to be "Western values". Discussion focuses not only on these paradigms but on the authority and power relation. Prerequisite: Admission to the Honors College.

IDH 3035 Honors Seminar VI (3). A continuation of Honors Seminar V, this course examines the interplay of various sources of authority in society and our system of values and aesthetics. Includes directed individual research projects. Prerequisite: Admission to the Honors College.

IDH 3125 Amazon Seminar: Environment, People and Opportunity on the Last Frontier (1). Introduction to the geological, ecological and human history of the Amazon; survey of its biodiversity, and review of current challenges facing the environment and its people.

IDH 3639 Introduction to Service-Research (0). Students explore the philosophical underpinnings of service-research and issues relating to community partnerships, research strategies, and the use of local knowledge for empowering social change.

IDH 3940 Honors College Internship (1-6). Structured practical training and work experience in programs to which students have access as Honors College students. Prerequisite: Admission to the Honors College.

IDH 3955 Research Techniques: Applying Interdisciplinary Research in the Amazon (2). Interdisciplinary research of the Amazon with faculty guided development of student research proposal. Projects will be implemented in a study abroad course on the Peruvian Amazon during the summer. Prerequisite: IDH 3125.

IDH 3999 HONORS Internship (0).

IDH 4007 Honors Seminar VII (3). The first of a two semester sequence, this course is an interdisciplinary examination of expectations for the 21st Century. Prerequisite: Admission to the Honors College.

IDH 4008 Honors Seminar VIII (3). The second of a two semester sequence, this course is an interdisciplinary examination of expectations for the 21st Century. Prerequisite: Admission to the Honors College.

IDH 4905 Honors Independent Study (0-6). Directed independent study from an interdisciplinary perspective. Prerequisite: Admission to the Honors College.

Honors Service-Research Certificate

The Service-Research Certificate (SRC) provides an opportunity for Honors College students to integrate academic research, community partnerships, and service learning into a coherent program of study. This innovative, integrative, and transformational educational approach builds on the principles of community-based research (CRB), customizing it to undergraduate students from different fields of study in order to maximize students' research skills, knowledge, leadership growth, and civic engagement. It includes courses central to an understanding of community engagement in a social and historical context. The certificate also offers students the opportunity to participate in research that positively impacts the communities in which they live, work, and study. Significantly, the certificate allows students to conduct applied research in their majors by drawing on courses offered both by the Honors College and by participating departments and/or colleges.

Requirements

To obtain this certificate, Honors College students will need to complete 18 credits, including:

Core I Prerequisite: (0 credit; one class meeting per week)

IDH 3639	Introduction to Service-Research	0

Core II Requirement: Honors-based service research course (6 credits)

Students may choose any one of the following year-long offerings (all numbered IDH 3034/4007, with varying section numbers), or new ones that may be added in the future as the service-research concept is developed further:

- Sweetwater Service-Research
- News Literacy: Making Sense of Community & World
- Aesthetic & Values: Art as Social Language
- The Everglades: Beginning to End
- Walk, Don't Run

Core III Requirement: Study Abroad Course (6 credits)

IDH 4007/4008	Peruvian Amazon: Environment, People, and Opportunity on a Rainforest Frontier	6
IDH 4007/4008	Cambodia & Vietnam: Their Place in American History	6

Electives (6 credits)

These credits can be earned either through taking another of the Honors seminars listed above, or through service-research courses offered by another unit. The list of such courses will change annually, based on the offerings of other units. The Honors College will determine which proposed courses from other units can be applied to the certificate.

For more information on the certificate, please visit our website **http://honors.fiu.edu/service-research**.

Honors College Faculty Fellows

Acevedo, Matthew, M.A. (*University of Central Florida), Instructional Design and Technology*

Alendy, Maikel, M.B.A. *(Florida International University), Business*

Alvarez, Daniel, M.A. *(Harvard University), Philosophy, Religious Studies*

Alvarez-Romero, Michelle, J.D. *(University of Miami), Law*

Bailey, Regina, M.F.A. *(Pratt Institute), Art*

Baker, Jill, Ph.D. *(Brown University), Archaeology*

Beers, Mayra, Ph.D. *(Florida International University), Latin American and Caribbean Studies*

Bell, Jason, M.B.A. *(University of Florida), Business*

Blanco, Richard, M.A. (*Florida International University), Creative Writing*

Calloway, Jason, M.A. *(The Julliard School), Cello*

Castellano Sanchez, Amilcar, M.D. *(Universidad Catolica Madre Ey Maestre), Pathology*

Christie, Michael, Ph.D. *(Rutgers University), Materials, Science and Engineering*

Cornely, Helen, Ed.D. *(Florida International University), Adult Education*

Corpion, Kristen, J.D. *(University of California at Berkely), Law*

Dottin, Cynthia, M.A. *(University of South Florida), Ancient and Medieval History*

Fingerhut, H. Scott, J.D. *(Emory University), Law*

Fonseca, Brian, M.A. *(Florida International University), International Business*

Gerstman, Bernard, S., Ph.D. *(Princeton University), Physics*

Hacker, Robert, M.B.A. *(Columbia University), Finance*

Hanly, Elizabeth, M.A. *(Columbia University), Communication and Journalism*

Houghton, Kate, M.A. *(George Mason University), Public Policy*

Lichter, Joseph, Ph.D. *(Emory University), Chemistry*

Maidique, Modesto, Ph.D. *(Massachusetts Institute of Technology), Electrical Engineering*

Markowitz, Pete, E. C., Ph.D. *(College of William and Mary), Physics*

Marquez, Niurca, M.F.A. *(Jacksonville University), Choreography*

Marty, Aileen, M.D. *(University of Miami), Infectious Diseases*

Mason, Michelle, J.D. (*Rutgers University), Law*

McDaniel, Janet, M.A. *(University of Michigan), Near Eastern Studies*

McGoron, Anthony, Ph.D. *(Louisiana Tech University), Biomedical Engineering*

Padilla, Mark, Ph.D. *(Emory University), Anthropology*

Pedrero, Armando, J.D. *(Georgetown University), Law*

Pestana, Randy, M.A. *(Florida International University), Latin American and Caribbean Studies*

Puentes-Leon, Angela, J.D. *(University of Miami), Law*

Ramaswamy, Sharan, Ph.D. *(University of Iowa), Biomedical Engineering*

Riera Diaz, Jorge, Ph.D. *(University of Havana, Cuba), Physics*

Rionda, Anthony, M.P.A. *(Florida International University), Public Administration*

Rojas, Patria, Ph.D. *(Florida International University), Social Welfare*

Roller, Barbra, Ph.D. *(University of Pennsylvania), Biology*

Roque, Gustavo, M.S. *(Florida International University), Curriculum and Instruction*

Rosado, Ralph, Ph.D. *(University of Pennsylvania), Community and Regional Planning*
Rosales, Camilo, M.Arch. *(Harvard University), Building Design*
Sackman, Kate, M.A. *(University of Chicago), Finance and Marketing*
Sampedro, Hortensia, M.B.A. *(New York University), Finance*
Schulze, Rebekah, Ed.D. *(Boston University), Educational Leadership and Development*
Sutton, James, Ph.D. *(Yale University), Renaissance Studies*
Tsalikis, John, Ph.D. *(University of Mississippi), Marketing*
Ward-Peterson, Melissa, Ph.D. *(Florida International University), Epidemiology*
Winter, Pioneer, M.Ph. *(Florida International University), Public Health*
Yawney, Michael, M.F.A. *(Columbia University), Theater*

Aerospace Studies

AFROTC is a nationwide program that allows students to pursue commissions (become officers) in the United States Air Force (USAF) while simultaneously attending college. AFROTC classes are held on college campuses throughout the United States and Puerto Rico; students can register through normal course registration processes. AFROTC consists of four years of Aerospace Studies classes (Foundations of the USAF, Evolution of USAF and Space Power, Air Force Leadership Studies, and National Security Affairs/Preparation for Active Duty), and a corresponding Leadership Laboratory for each year (where students apply leadership skills, demonstrate command and effective communication, develop physical fitness, and practice military customs and courtesies). College students enrolled in the AFROTC program (known as "cadets") who successfully complete both AFROTC training and college degree requirements will graduate and simultaneously commission as Second Lieutenants in the Active Duty Air Force.

The AFROTC program is currently offered at the University of Miami, but they have a crosstown agreement that allows our students to enroll in AFROTC and become full-fledged cadet participants. For more information on AFROTC course descriptions, please review **http://miami.edu/**. For more information on the AFROTC program, please review **http://www.as.miami.edu/afrotc/**.

Enrollment

There is no military obligation to enroll in AFROTC. To enroll students must meet the following criteria:

- Be a U.S. citizens or resident alien, or be able to become a U.S. citizen prior to attending Field Training the summer following sophomore year;
- Be full-time college students, enrolled in 12 credits per semester;
- Be able to participate in a demanding physical fitness program;
- Be able to pass a Department of Defense Medical Examination;
- Have solid moral character; and
- Maintain AFROTC minimum required grade point average.

Scholarships

More than 60% of Air Force ROTC scholarships are awarded to undergraduate students in engineering or other scientific and technical disciplines. However, students in every degree program enjoy scholarship opportunities, as the Air Force seeks to engage students who excel both academically and militarily. Scholarships are awarded in increments of two, three, and four years. Air Force ROTC offers several types of scholarships. Type 1 covers full tuition and most required fees. Type 2 covers tuition and fees, but is capped at $18,000 annually. Type 7 scholarships are designated for in-state tuition-level institutions. All types of awards provide an allowance for books and a monthly non-taxable stipend. All scholarship cadets are required to meet academic, military, and physical fitness standards to earn and maintain scholarship benefits.

Additionally, University of Miami undergraduates enrolled in the Air Force ROTC program are assured annual 25% subsidy of the University's tuition for up to four years. Students must maintain continuous enrollment in the AFROTC program and full time enrollment in one of the University's undergraduate degree program. No application required. Awards are made automatically based on information provided by the University's AFROTC detachment.

Benefits

All AFROTC cadets receive uniforms, books and equipment for ROTC classes at no cost. Upon being commissioned a Second Lieutenant in the Air Force, you will receive a starting salary and allowances worth more than $$58,000 annually*. Free medical and dental care, 30 days paid annual vacation and educational benefits are also part of the compensation package.

Based on 2013 Pay Chart and Miami FL Housing Allowance for an O-1

Educational Objectives

Minor in Aerospace Studies

The Aerospace Studies minor consists of eight courses totaling 16 credit hours.

Required Courses

AFR 1101C	The Foundations for the United States Air Force I	1
AFR 1121C	The Foundations for the United States Air Force II	1
AFR 2130C	The Evolution of USAF Air and Space Power I	1
AFR 2131C	The Evolution of USAF Air and Space Power II	1
AFR 3220*	Air Force Leadership Studies I	3
AFR 3230*	Air Force Leadership Studies II	3
AFR 4201*	USAF Security Affairs and Preparation for Active Duty I	3
AFR 4210*	USAF Security Affairs and Preparation for Active Duty II	3

*Denotes writing course

Course Descriptions

Definitions of Prefixes

AFR-Aerospace Studies

AFR 1101C The Foundations for the United States Air Force I (1). Survey course designed to introduce students to the United States Air Force and encourage participation in Air Force Reserve Officer Training Corps (AFROTC). Featured topics include: overview of AFROTC, special programs offered through AFROTC, mission and organization of the Air Force, brief history of the Air Force, introduction to leadership, Air Force officer career opportunities, and an introduction to communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences. Prerequisite: Must be taken with PT Lab.

AFR 1121C The Foundations for the United States Air Force II (1). A survey and follow-on course to AFR 1101C designed to introduce students to the United States Air Force and encourage participation in Air Force Reserve Officer Training Corps (AFROTC). Featured topics

include: introduction to leadership, Air Force Core Values, introduction to interpersonal communication and team building, and a continuation of communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

AFR 2130C The Evolution of USAF Air and Space Power I (1). Course designed to examine general aspects of air and space power through a historical perspective. Covers time period from first balloons and dirigibles to space-age global positioning systems of the Afghan/Iraqi Wars. Examines several fundamental truths associated with war in the third dimension: e.g. Principles of War and Tenets of Air and Space Power. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

AFR 2131C The Evolution of USAF Air and Space Power II (1). Continuation of AFR 2130C which provides students with knowledge level understanding for general element and employment of air and space power. Discusses the importance of Air Force Core Values with use of operational examples and historical Air Force leaders. Continues to develop communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

AFR 3220 Air Force Leadership Studies I (3). Study of leadership, management fundamentals, professional knowledge, and communication skills required of Air Force junior officers. Case studies are used to examine Air Force leadership and management situations. Mandatory Leadership Laboratory complements this course by providing advanced leadership experiences in officer-type activities.

AFR 3230 Air Force Leadership Studies II (3). Continuation of AFR 3220 and is a study of Air Force personnel and evaluation systems, leadership ethics, and communication skills required of Air Force junior officers. Case studies are used to examine Air Force leadership and management situations. Mandatory Leadership Laboratory complements this course by providing advanced leadership experiences in officer-type activities.

AFR 4201 USAF Security Affairs and Preparation for Active Duty I (3). Examines national security process, regional studies, and Air Force doctrine. Special topics of interest focus on civilian control of military and current issues affecting military professionalism. Continued emphasis is given to refining communication skills. Mandatory Leadership Laboratory complements this course by providing students advanced leadership experiences.

AFR 4210 USAF Security Affairs and Preparation for Active Duty II (3). Continuation of AFR 4201 which examines regional studies and advanced leadership ethics. Special topics of interest focus on the military as a profession, officership, military justice, preparation for active duty, and current issues affecting military professionalism. Continued emphasis is given to refining communication skills. Mandatory Leadership Laboratory complements this course by providing students advanced leadership experiences.

Leadership Laboratory (LLAB)
0 credits Fall & Spring Semester
Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force 2nd lieutenants and complement the AFROTC academic program. It is a student planned, organized, and executed practicum conducted under the supervision of the detachment commander and commandant of cadets.

Military Science

Lieutenant Colonel Heath Papkov, *Professor and Chairperson, Military Science*

The Army Reserve Officer Training Corps is a college elective that enables students to succeed in their desired career, whether civilian or military. Students who complete all ROTC requirements may be commissioned Second Lieutenants and serve in the Active Duty Army, Army National Guard or Army Reserve. ROTC electives may also be used by students in pursuit of the Certificate of Professional Leadership Studies.

Enrollment

Enrollment is open to full-time students attending Florida International University and Florida Atlantic University. The Army ROTC program has crosstown agreements that allow students from other universities and colleges (University of Miami, Florida Memorial University, Palm Beach Atlantic University, Broward College, Miami-Dade College, Barry University) to enroll in Army ROTC and become full-fledged cadet participants. Any students may enroll in MSL 1000 and 2000 level courses in a participation status. Any student enrolling in the MSL 3201/2 and MSL 4301/2 must have the approval of the Department Chairperson.

Instructions and Training

The freshmen and sophomore students will take Basic Military Science and Leadership Courses. There is no military obligation associated with the first two years of the program. These courses introduce students to leadership skills and concepts. The curriculum involves understanding how to communicate, set goals, how and when to make decisions, enhance physical fitness, how to build and operate in a team, and engage in creative problem solving, planning and organization. The curriculum focuses on building character, providing opportunities to apply, practice and experience leadership principles. Courses consist of outdoor/indoor instruction and practical ‘hands-on’ training on university intramural fields and at various South Florida military training sites. Qualified juniors, seniors, or graduate students may take the Advanced Military Science Courses upon approval from the department chair. The Advanced Course provides intense training for students in simulated leadership positions. Students are taught the fundamentals of serving as an Army Officer. They will have numerous opportunities to lead small teams in a variety of challenging leadership situations. The seniors manage the ROTC Corps of Cadets, mentor junior cadets, plan and conduct training, management, and fundraising activities.

Scholarships

Army ROTC offers a number of scholarships that will pay either full tuition and fees or room and board, up to $10,000 per Academic Year, along with a $600 book allowance per semester and a monthly stipend of $400.

Organizations

Ranger Challenge Team - A voluntary organization that is a physically demanding leader development program designed to prepare cadets for state and regional competition against other ROTC units. Cadets train weekly to perfect skills in weapons handling and assembly, marksmanship, orienteering, hand grenade throwing, physical fitness, combat patrolling and combat load road marching.

Color Guard - An elite organization of cadets skilled in drill and ceremony. Members post the colors at university basketball games, baseball games, football games, civic/veteran events and campus functions.

Association of the U.S. Army - A fraternal organization chartered by the national association to perpetuate the ideals of the U.S. Army.

Special Programs

Students who are unable to participate in ROTC during their freshman and sophomore years may qualify for admission to advanced ROTC (junior and senior years) by attending a four-week course at Ft. Knox, KY. Attendees receive pay, travel costs, lodging and food.

Students with prior military service must have a valid DD 214 and honorable discharge to qualify for the advanced course program.

Students who want to pursue an advanced degree in certain fields after receiving a baccalaureate may qualify for delayed entry on active duty.

Students interested in pursuing civilian careers after graduation may apply for duty with the Army National Guard or Army Reserve.

Students may enter the Simultaneous Membership Program (SMP) in the Army National Guard or Army Reserve while in college. This allows students to earn valuable experience by serving in the Army National Guard or Army Reserves while enrolled in ROTC. Students continue their regular school curriculum and receive additional financial support from the Army National Guard or Army Reserve as an incentive to serve as officers upon graduation and commissioning.

Special Training

Outstanding Cadets may qualify to attend special Army schools such as Mountain Warfare Training, Northern Warfare School, Air Assault School or Airborne School. Selection is on a competitive basis.

Outstanding Cadets are honored during regular award ceremonies. Scholarship Cadets can fly space-available aboard military aircraft. Once commissioned, Second Lieutenant's earn a starting salary of over $34,000 plus additional housing allowances and special pays that can total more than $58,000 annually*. Free medical and dental care, 30 days paid annual vacation and educational benefits are also part of the compensation package. 2LTs earn about $3,500 per year in the Army National Guard or Army Reserve in a part-time status.

Based on 2013 Pay Chart and Miami FL Housing Allowance for an O-1

Minor in Military Science

Army Officer Professional Studies (Education Core)

MSL 3201	Leadership and Problem Solving	3
MSL 3202	Leadership and Ethics	3
MSL 4301	Leadership and Management	3
MSL 4302	Officership and Leadership	3
MSL 4400	United States Military History	3

Course Descriptions

Definition of Prefixes

MSL-Military Science

MSL 1001 Foundations of Officership and Leadership (2). MSL 1001L Foundations of Officership Laboratory (0). Examines the unique duties and responsibilities of officers, organization and role of the Army, review skills pertaining to fitness and communication, analyze Army values and expected ethical behavior. Leadership laboratory is mandatory for ROTC Cadets and complements this course with hands-on experiences.

MSL 1002 Basic Leadership (2). MSL 1002L Basic Leadership Laboratory (0). Presents fundamental leadership concepts and doctrine, practice basic skills that underlie effective problem solving, examine the officer experience. Leadership laboratory is mandatory for ROTC Cadets and complements this course with hands-on experiences.

MSL 2101 Individual Leadership Studies (2). MSL 2101L Individual Leadership Laboratory (0). Develops knowledge of self, self-confidence, and individual leadership skills, develop problem-solving and critical thinking skills, apply communication, feedback, and conflict resolution skills. Leadership laboratory is mandatory for ROTC Cadets and complements this course with hands-on experiences.

MSL 2102 Leadership and Teamwork (2). MSL 2102L Leadership and Teamwork Laboratory (0). Focuses on self-development guided by knowledge of self and group processes, challenges current beliefs, knowledge, and skills. Leadership laboratory is mandatory for ROTC Cadets and complements this course with hands-on experiences.

MSL 3201 Leadership and Problem Solving (3). MSL 3201L Leadership and Problem Solving Laboratory (0). Examines skills that underlie effective problem solving, analyze military missions and plan military operations, execute squad battle drills. Leadership laboratory is mandatory for ROTC Cadets and complements this course with hands-on experiences.

MSL 3202 Leadership and Ethics (3). MSL 3202L Leadership and Ethics Laboratory (0). Probes leader responsibilities that foster an ethical command climate, develop Cadet leadership competencies, apply principles and techniques of effective written and oral communication. Leadership laboratory is mandatory for ROTC Cadets and complements this course with hands-on experiences.

MSL 4301 Leadership and Management (3). MSL 4301L Leadership and Management Laboratory (0). Discuss staff organization, functions, and processes, analyze counseling responsibilities and methods, and apply leadership and problem-solving principles to a complex case study/simulation. Leadership laboratory is mandatory for ROTC Cadets and complements this course with hands-on experiences.

MSL 4302 Officership and Leadership (3). MSL 4302L Officer Leadership Laboratory (0). Capstone course to explore topics relevant to Second Lieutenants entering the Army, describe legal aspects of decision making and leadership, analyze Army organization from tactical to strategic level. Leadership laboratory is mandatory for ROTC Cadets and complements this course with hands-on experiences.

MSL 4400 United States Military History (3). Examines the Military Heritage of the United States from colonial wars to the present; focuses on the tactical, operational, and strategic levels of warfare.

MSL 4900 Supervised and/or Independent Study (3). Supervised reading and independent study in United States Military History, writing requirements. Prerequisite: Permission of the instructor is required.