USF UNIVERSITY OF SOUTH FLORIDA

USF TAMPA GRADUATE CATALOG 2012-2013

Published by
USF Graduate School
4202 East Fowler Avenue, ADM216
Tampa, FL 33620-5816

813-974-2846
http://www.grad.usf.edu

DRAFT

2012-2013 USF TAMPA GRADUATE CATALOG

The following represents the 2012-2013 USF Tampa Graduate Catalog, with track changes noting the changes as approved by the Graduate Council (2010-2011) and/or Graduate School.

Please note that the final publication will reflect format changes and other non-substantive updates (e.g. inclusion of updated letter from the President, Provost, and Dean if not already included; may include updates to general information, and may include course number updates from the State if permanent numbers have been assigned)

Questions about the information noted herein

should be addressed to cdh@usf.edu

The Summary of Changes is a separate document, available on the Graduate Council website or by request at cdh@usf.edu

Thank you.

2012-2013 USF Tampa Graduate Catalog Updates

Items are approved by the USF Tampa Graduate Council on the date noted or as Graduate School (GS) approved.

POLICY UPDATES	**Description (Date Approved)**
Academic Dismissal	Notation added regarding violation of Professional Ethics (1/24/11, 3/21/11)
Change of Program	Clarification of policy (5/18/11)
Dual Degree Program	Clarification of policy (4/16/11)
Graduate Certificates Admission Criteria	Revision to application policy, and notation regarding requirements that apply to all graduate students, including certificate students (10/18/10), (11/15/10)
"M" Grade	Removal of "MF" Option (4/18/11, 5/16/11)
Minimum Hours, Doctoral	Addresses application of undergraduate hours toward degree (9/20/10)
Minimum Hours, Masters	Addresses application of undergraduate hours toward degree (9/20/10)
Transfer of Credit Policy	Revision of policy to reflect USF System and majority credits (10/18/10, 1/24/11, 4/18/11)

CURRICULUM

University Admission Deadlines	Elimination of University Admission Deadline; programs may set different deadlines, with College and Graduate Council approval (6/23/11)

New Programs

Autism Spectrum Disorders and Severe Intellectual Disabilities (M.A.)	10/18/10

New Accelerated Programs

Management Information Systems (B.S./M.S.)	5/16/11

Program Changes

Refer to the front of each College's Section for information on Program Changes

Program Terminations

Art Teacher Education (masters)	2/24/11
College Teaching (M.A.) (Higher Education/Higher Education Administration)	2/24/11
Dramatic Writing (M.A.)	2/24/11

Questions about these updates may be directed to the Graduate School at cdh@usf.edu

Graduate School

USF Tampa
GRADUATE CATALOG
2012~~1~~-2013~~2~~

The policies and procedures herein have been approved, as appropriate,
by the USF Tampa Graduate Council Policy Committee and by the full USF Tampa Graduate Council,
a Standing Committee of the Faculty Senate.

The policies, procedures, and requirements herein are applicable to students admitted to
a graduate degree program or graduate certificate, and/or non-degree seeking students taking graduate coursework.
Undergraduate students should refer to the Undergraduate Catalog, even if taking graduate coursework.
It is the student level that dictates which publication governs, not the level of coursework.

USF Graduate School, 4202 E. Fowler Avenue, ADM 216
Tampa, FL 33620-5816 ~ *www.grad.usf.edu*

Graduate School Mission Statement

The University of South Florida Graduate School serves as the University hub of leadership for graduate education producing present day and future global leaders, one ~~student~~ scholar at a time.

Graduate School Diversity Statement

The Graduate School at the University of South Florida is committed to the full engagement, empowerment and encouragement of *all* of the members and constituents we serve; these include students, faculty, staff, academic departments, aspirants, and affiliates.

In recognizing that a university serves a diverse population, we strive not only to serve, but to lead the future in which we "stimulate, encourage and support graduate education efforts that build national distinction..." We understand that in order to realize this future, we must remain steadfast to the policies and practices that emphasize achievement, equal opportunity, trust, respect, and collaboration. Hence, equity and excellence are not merely espoused, but rather are the "lived" values that we strive for and advocate for members of the community of universities and a global workforce.

USF's Graduate School Administration Policy Statement

For information on the University's Policy on the Graduate School Administration,
Refer to USF Policy 11.001, at *http://generalcounsel.usf.edu/policies-and-procedures/index.asp*

© 2011, University of South Florida –Tampa - Graduate School

This catalog is effective for the 2012-2013 academic year. This catalog includes all policies, procedures, and program and course descriptions in effect at the time of publication. USF reserves the right to repeal, change, or modify the policies, procedures, programs, and course descriptions at any time.

The University of South Florida is committed to the principles of equal education, equal access, and equal employment opportunities without regard to race, color, marital status, sex, religion, national origin, disability, age, or Vietnam or disabled veteran status as provided by law and in accordance with the University's respect for personal dignity. These principles are applied in the conduct of University programs and activities and the provision of facilities and services.

Archives online: http://www.grad.usf.edu/newsite/catalog/archives.asp
Archived copies are available online for Catalogs published from 1999 through 2011. Paper copies prior to 1998 are archived at the USF Library and may also be archived in the USF-Tampa Graduate School.

Table of Contents [c1]

Section 1

Welcome to Graduate School!

A MESSAGE FROM THE PRESIDENT

Thank you for your interest in graduate education at the University of South Florida. USF is a top-tier, metropolitan research university that last year was named by the *Chronicle of Higher Education* as the fastest growing research university in the nation in federal funding. We are distinguished by our excellent research and graduate education and our location in a major urban region that is among the nation[1]s most diverse. USF programs recognized as for being among the nation's best include Marine Science, Psychology, Accounting, Applied Anthropology, Public Health and Biochemistry.

Strong interdisciplinary programs put USF on the leading edge of research and graduate education in a number of areas. For example, collaboration among researchers throughout the university has made USF a leader in the neuroscience of aging and USF's interdisciplinary doctoral program in Aging Studies was the first in the country. The doctoral program in Cancer Biology joins USF research capacity with the strengths of the nationally recognized H. Lee Moffitt Cancer Center and Research Institute.

In addition to doctoral programs, USF offers many opportunities for postgraduate study through our many Master's and Certificate programs, many of which are designed to prepare graduates to make immediate contributions to the economic, cultural and social vitality of communities. USF also has launched the nation's first School of Global Sustainability, an interdisciplinary program that will draw from the best researchers and scholars on campus to develop new solutions to the challenges of managing and protecting the world's limited resources.

Our commitment to diversity, discovery and the application of knowledge relevant to urban communities has earned USF frequent citations as a model of an "engaged university." The opportunities for graduate education at USF are vast, and we have worked hard to build an environment that supports and encourages innovation. In many areas, USF offers programs that are unsurpassed in their capacity to prepare you to make your best contribution to a challenging world. I invite you to inquire further about USF programs of interest to you.

Sincerely yours,

Judy Genshaft
President
Office of the President

http://system.usf.edu/president/about-president-genshaft.asp

A MESSAGE FROM THE PROVOST AND EXECUTIVE VICE PRESIDENT [c2]

Embarking on graduate studies represents a serious commitment, and we appreciate your thoughtful consideration of the University of South Florida as your academic home for this journey.

The valued contributions, success and accomplishments of our graduate students are of the upmost importance to USF's faculty and staff. As a leading research university, our mission is to engage in meaningful initiatives that support the educational, health, and socio-economic growth of the local, national, and global communities we serve. Our academic programs and research initiatives embrace interdisciplinary inquiry and discovery that are central to the graduate student experience at USF.

The university's commitment to real-world research with a global impact is evident in its new *School of Global Sustainability*. Launched in early 2010, this innovative school is geared to preparing students for a new generation of "green collar" careers and finding solutions for a world challenged with the need to protect its fragile environment and limited resources. The school offers a Master of Arts degree in Global Sustainability which integrates various disciplines such as natural and social sciences, engineering, public health, economics, governance and policy, and issues of diversity, with the majority of the courses offered online. The school and degree program are exciting developments, shaped by USF faculty and researchers who are eager to mentor a new generation of global leaders facing challenges never before imagined.

At USF, our professors are leading scholars in their discipline who readily engage new graduate students in their laboratories and research projects. Among them, they hold 55 endowed chairs, 45 endowed professorships, and have won numerous prestigious national and international honors and awards. USF is home to a growing number of Fulbright Scholars, Guggenheim Fellows, NEH and NSF fellows, Getty Fellows, and those holding other esteemed academic positions recognized around the world.

Together with the accomplishments of our students, it is the talent that the faculty brings to USF that has built our reputation as the nation's most rapidly growing research university over the past decade as noted by the *Chronicle of Higher Education*. Our university is attracting many of the world's best and brightest students because they will have the academic mentoring of well regarded faculty to support their academic and scholarly endeavors through research and innovation.

For graduate students, their academic department usually represents the hub for their graduate school experience. However, at USF we value interdisciplinary collaborations and encourage students and faculty to forge relationships across disciplines. We believe that interdisciplinary partnerships with students, faculty, and researchers across campus, in the local community, and around the world strengthen both the university and the graduate student experience at USF. This "collaboration for competition" leads to the creation of new knowledge and exciting, innovative solutions to pervasive and emerging problems. From cross-disciplinary curricula to shared core research facilities, when graduate students engage in enhanced collaboration that provides students with the opportunity to optimize their fullest potential.

Delivering top quality graduate programs is a leading priority for our university as it strengthens its position as a premier research university with state, national, and global impact. The University of South Florida is a place where you can challenge yourself and focus on how you are able to contribute to your discipline, your university, your community, and your world in a meaningful and sustainable way. Whether your career aspirations are to remain in academe or to pursue professional positions in the public sector, business or industry, I am confident that your experience as a graduate student at USF will present you with wonderful and exciting new opportunities.

Ralph C. Wilcox
Provost & Executive Vice President
www.acad.usf.edu

A MESSAGE FROM THE DEAN OF THE GRADUATE SCHOOL AND ASSOCIATE VICE PRESIDENT FOR RESEARCH AND INNOVATION

It gives me great pleasure to write this introduction for the University of South Florida (USF) Graduate School Catalogue. As you will see from the information within, we are truly an unstoppable University creating exemplary student success. We have nearly 170 masters and doctoral programs, several dual degree programs, and over 105 graduate certificates. We also have many opportunities for non-degree seeking students. On our several campuses, USF serves more than 47,000 students, of which nearly 10,000 are graduate students. USF has student success, research and innovation, community engagement, global literacy and impact, and integrated, interdisciplinary inquiry as its strategic priorities. Our tuition, among the lowest in the country, provides affordability and we also offer a number of financial aid options. We recognize that graduate students have very different responsibilities and needs, so many of our programs offer flexible day, evening, and weekend classes in addition to online course and degree program offerings.

The mission of the Graduate School is to serve as the university hub of leadership for graduate education producing present-day and future global leaders---one scholar at a time. As a graduate student at the University of South Florida you can be proud that USF is one of the nation's top public research universities and one of only 41 public research universities nationwide that holds both very high research and community engaged designations by the Carnegie Foundation for the Advancement of Teaching. USF was awarded nearly $400 million dollars in research contracts and grants last year. The Graduate School works closely with the Office of Research and Innovation offering student research opportunities including participation in research events and interdisciplinary research grants. Graduate students at USF can also apply for research, teaching, and graduate assistantships enhancing their educational experiences by putting knowledge to action. We are very excited about the new research directions of the Graduate School and our first class of Doctoral Student Leadership Fellows who will participate in new two-year Leadership Institute. We also now are proud university members of the Center for Integration of Research, Teaching, and Learning (CIRTL) that focuses on teaching as research, developing learning communities, and learning through diversity.

I personally invite each of you to learn more about graduate education and the USF System with locations in Tampa, St. Petersburg, Sarasota/Manatee, and Lakeland. We invite you to become the leader you are destined to be. Welcome to our community of scholars and family of learners!

Karen Liller, Ph.D.

Dean of the Graduate School and Associate Vice President for Research and Innovation
www.grad.usf.edu

Section 2
USF: Florida's Leading Metropolitan Research University

The University of South Florida is a high-impact, global research university dedicated to student success. USF is classified by the Carnegie Foundation for the Advancement of Teaching in the top tier of research univerisities, a distinction attained by only 2.2 percent of all universities. It is ranked 44th in total research expenditure and 34th in federal research expenditures for public universities by the National Science Foundation. The USF System has an annual budget of $1.5 billion, an annual economic impact of $3.7 billion, and serves 47,000 students in Tampa, St. Petersburg, Sarasota-Manatee, and Lakeland.

USF Vision, Mission, Goals, Values, and, Accreditation

USF Strategic Plan: http://it.usf.edu/strategicplan ~~http://www.ie.usf.edu/StrategicPlan/strategies.asp~~

Vision

We aspire to be a trusted, globally recognized, technology partner that enables quality education, research and community partnership by providing a customer-centered, consistent experience through technology services and solutions delivered with creativity and excellence.~~The University of South Florida envisions itself as a pre-eminent research university with state, national and global impact, and positioned for membership in the Association of American Universities (AAU).~~

Mission

We will enable the missions and strategic goals of the USF System and its member institutions by providing leadership and expertise in the support, development and maintenance of technology solutions.

We maintain an organizational culture that collaborates with our customers to create effective solutions that are timely, flexible, secure, stable, innovative, and fiscally sound and responsible.

~~As Florida's leading metropolitan research university, USF is dedicated to excellence in:~~

- ~~Student access and success in an engaged, and interdisciplinary, learner-centered environment,~~
- ~~Research and scientific discovery, including the generation, dissemination, and translation of new knowledge across disciplines; to strengthen the economy; to promote civic culture and the arts; and to design and build sustainable, healthy communities, and~~
- ~~Embracing innovation, and supporting scholarly and artistic engagement to build a community of learners together with significant and sustainable university-community partnerships and collaborations.~~

Goals and Strategies

Strategic Goals
The following are the strategic goals that IT will focus on from 2010 to 2015 to support the USF System and its member institutions in achieving their missions and strategic goals.

Goal 1: Student Success
Enhance student success by providing "anywhere, anytime" access to 21st century learning tools and resources our students and faculty require to succeed.

Goal 2: Customer Service
Establish service management and communication processes that are responsive to our customers and drive increased satisfaction.

Goal 3: Research
Provide the research community with the technologies, resources, and administrative solutions for recognition as a major 21st century research university.

Goal 4: Administrative Effectiveness
Improve administrative efficiency and decision making by providing integrated administrative systems and information that enable streamlined processes and effective management.

Goal 5: Communication Strategy
Develop and deliver a consistent, branded, system-wide information technology communication plan that promotes awareness and use of IT services and encompasses the informational needs of various stakeholder groups.

Goal 6: IT Infrastructure
Establish a sustainable, secure, compliant, robust and reliable IT infrastructure that enables a consistent technology experience for all users.

Goal 7: Governance and Funding
Refine the governance structure and establish a funding strategy to effectively align and maximize IT resources to achieve the priorities of the USF System and its member institutions.

Goal 8: Employee Recruiting, Retention & Development
Become a nationally recognized IT workplace through the attraction, development and retention of world-class personnel.

~~**Goal 1**~~
~~**Expanding world-class interdisciplinary research, creative, and scholarly endeavors.**~~

- ~~Promote nationally and internationally distinctive and prominent research and graduate programs,~~

- ~~Strengthen the University's research support infrastructure to enhance contracts and grants workflow and output – through critically examining the applicability of alternative models of F&A indirect cost distribution, and other innovative mechanisms,~~
- ~~Focus on increasing the amount and proportional share of competitive federal research awards,~~
- ~~Enhance and expand the talent pool of world-class, competitively-funded faculty members, postdoctoral fellows, and graduate students,~~
- ~~Establish a salary enhancement program that rewards highly productive faculty in the areas of teaching and learning; scholarship, research and creative endeavors; and service and engagement, and~~
- ~~Strengthen and support integrated and synergistic interdisciplinary research across disciplinary, departmental, college and campus boundaries.~~

~~**Goal II**~~

~~**Promoting globally competitive undergraduate, graduate and professional programs that support interdisciplinary inquiry, intellectual development, knowledge and skill acquisition, and student success through a diverse, fully- engaged, learner-centered campus environment.**~~

- ~~Create and support globally competitive, relevant and distinctive academic programs that address the changing needs of the region, state and nation through innovative approaches to curriculum development and delivery,~~
- ~~Provide increased access to excellence in higher education for students who demonstrate the aptitude to succeed,~~
- ~~Enhance and expand the talent pool by shaping the enrollment profile of USF's undergraduate and graduate student body to reflect that found at a pre- eminent research university,~~
- ~~Improve year-to-year retention and time-to-graduation; demonstrated acquisition of knowledge, communication and critical thinking skills; and competency to synthesize and apply new knowledge; together with providing an optimal college experience for all students,~~
- ~~Build a sustainable campus environment at USF that meets the criteria for Carnegie classification as a "primarily residential" campus, and~~
- ~~Improve and promote cultural and global literacy, foreign language proficiency, and the international competitiveness of USF graduates through significant growth in study abroad participation, an increase in fee-paying international students, and cross-cultural curriculum development.~~

~~**Goal III**~~

~~**Expanding local and global engagement initiatives to strengthen and sustain healthy communities and to improve the quality of life.**~~

- ~~Establish a unified institutional structure to facilitate and promote community engagement, social enterprise, and global collaborations in education, research and service learning, including mechanisms for managing fiscal and human resources for student exchange, study abroad and international field placement programs, and faculty research, teaching, outreach and professional development opportunities,~~
- ~~Develop an up-to-date clearinghouse of information about all the engagement currently occurring at USF and develop institutional systems to measure community engagement,~~
- ~~Encourage and reward faculty effort in community engagement – require an annual faculty impact statement and explicitly introduce community engagement into USF's promotion and tenure guidelines, and~~
- ~~Encourage and reward student engagement in the community and explore the feasibility of acknowledging community engagement and other co-curricular activities on the official transcript.~~

~~**Goal IV**~~

~~**Enhancing all sources of revenue, and maximizing effectiveness in business practices and financial management to establish a strong and sustainable economic base in support of USF's growth.**~~

- ~~Refine business practices to ensure a strong and sustainable economic foundation at USF,~~

- ~~Promote and sustain a positive working environment, significantly improve service quality, and improve staff support through providing competitive salary structures, expanding professional development opportunities, and building cross-functional teams,~~
- ~~Build USF's fundraising enterprise and endowment to a level commensurate with that found at a pre-eminent research university by completing a comprehensive campaign to support capital projects, endowed professorships and scholarships, and to supplement operating needs,~~
- ~~Expand USF's national identity through developing and implementing a comprehensive, cutting-edge branding campaign grounded in the discovery and dissemination of new knowledge; interdisciplinary collaboration; commercialization and economic development; and global engagement,~~
- ~~Expand the commercialization of emerging technologies to enhance regional and state economic development, and~~
- ~~Build a sustainable environment to support an expanded and improved teaching and research mission, a more engaged residential community, and a university-based global village.~~

Values

~~**The University of South Florida values:**~~

- The following values will guide IT in the way we operate, prioritize, and make decisions on a daily basis to fulfill the mission and goals of the USF System and its member institutions.

- **Information Assurance**
- Stewardship of all technology resources ensuring confidentiality, integrity, availability, and compliance.
- **Diversity and Creativity**
- Promote an environment of ethnic, cultural, and individual diversity that encourages creativity and innovation in technology services and solutions.
- **Teamwork**
- Efficient, respectful, and open interaction with our colleagues across the USF system.
- **Customer focus**
- Partner with our customers to provide technology services and solutions that enable a seamless and consistent user experience across the USF System.
- **Shared Governance**
- Inclusive, fiscally responsible decision making aligned with the goals of the USF System and its member institutions.
- **Excellence**
- Recruit and develop talented staff and implement quality systems that meet the high standards expected by the 21st century workforce, academia, research, and community partnerships.
- **Transparency**
- Communicate and operate in an open manner providing insight and visibility into decisions and results.
- **Responsibility**
- Maintain ethical behavior, pride, ownership and accountability for our work and actions.
- ~~Excellence in teaching and learning; scholarship and research (both basic and applied/translational); together with community engagement and public service based on the highest standards of discovery, creativity and intellectual attainment,~~
- ~~Outstanding research and scientific discovery, including the application of new knowledge to solve state, national and global problems,~~
- ~~Recruitment and retention of world-class faculty and high potential undergraduate and graduate students,~~
- ~~Access to a world-class, globally relevant and affordable education, including utilization of alternative modes of delivery,~~
- ~~Student competitiveness, success and academic achievement through knowledge, communication and critical thinking skill acquisition,~~

- ~~Cultural and ethnic diversity and inclusion along with an enhanced global experience, understanding, and appreciation,~~
- ~~Integrated, interdisciplinary inquiry and collaboration across departmental, college and campus boundaries,~~
- ~~Facilitating the optimal development of personal and professional potential of students, faculty, and staff, and enriching the quality of an engaged campus community,~~
- ~~Shared governance structures that empower all USF stakeholders, campuses and entities to reach their full potential,~~
- ~~The creation and support of a premier university system that adds value to the region, state and nation while ensuring necessary levels of autonomy and preserving the distinctive regional and strategic identities of all member campuses and entities,~~
- ~~An environment of collegiality based on the principles of academic freedom, respect, integrity, civility, the freedom to engage in debate, the exchange of ideas and intellectual discovery, and professional responsibility,~~
- ~~Mutually beneficial partnerships and community engagement that increase the understanding of, and present solutions to, local and global challenges, with a mind to strengthening the economy and building sustainable healthy communities,~~
- ~~An entrepreneurial spirit and innovation with a focus on defining, informing and generating "next best practices",~~
- ~~The utility of proven and emerging technologies to enhance instruction, learning, research and engagement, and to improve service quality and efficiencies in institutional business practices,~~
- ~~Focus and discipline in aligning the budget and fiscal resources with institutional priorities and action, and~~
- ~~Transparent accountability along with timely and effective communication.~~

Accreditation

The University of South Florida is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award degrees at the baccalaureate, masters, specialist, and doctoral levels, including the Doctor of Medicine. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of the University of South Florida.

The institution was initially accredited in 1965 and was last reviewed and reaffirmed in 2005. The institution is scheduled to receive its next reaffirmation of accreditation review in 2015.

Inquiries to the Commission should relate only to the accreditation status of the institution, and not to general admission information.

University Administration

The University of South Florida is a member of the State University System (SUS) of Florida and is governed by the Florida Board of Governors and the University Board of Trustees.

Florida Board of Governors
For a current list of the Board of Governors (BOG), please refer to their website: http://www.flbog.org/.

University Board of Trustees
The USF Board of Trustees was established by the Legislature in 2001. The 13 trustees include distinguished figures in the law, commerce, medicine, education, philanthropy and public policy leadership. Six trustees are appointed by the governor and five trustees are appointed by the Board of Governors. The Faculty Senate President and Student Body President also serve as trustees. The President of the University serves as Corporate Secretary. Information about each Trustee is available online at:
http://system.usf.edu/board-of-trustees/index.asp

~~Lee E. Arnold, Jr.~~
Elizabeth Bird
~~Laurence G. Branch~~
~~Margarita R. Cancio, M.D.~~Mathew A, Diaz
Gene Engle
~~Sonja W. Garcia~~
Stephanie E. Gofoth
Brian D. Lamb
Hal W. Mullis, Esq., Vice Chair
Rhea F. Law, ~~Chair~~Esq.
~~Kiran C. Patel, M.D.~~
Stephen J. Mitchell, Esq.
John B. Ramil. Chair
Louis S. Saco, M.D.
Debbie N.~~ye~~ Sembler
~~Robert L. Soran~~ Byron E. Shinn
~~Juan Soltero~~ Jordan B. Zimmerman
~~Sherrill Tomasino~~

President: Judy Genshaft, Ph.D.

Provost and Executive Vice President: Ralph Wilcox, Ph.D.

Graduate School Administration:
Dean of the Graduate School and
Associate Vice President for Research and Innovation: Karen Liller, Ph.D.
Interim Associate Dean, Graduate School: Peter Harries~~Richard Pollenz~~, Ph.D.
Director of Operations Elizabeth O'Connell, Ph.D.

USF System Graduate Liaisons~~Executive Coordinating Committee~~:

Graduate School	Karen Liller, Ph.D.
Graduate School	~~Richard Pollenz~~Peter Harries, Ph.D.
USF Tampa	Graham Tobin, Ph.D.
USF St. Petersburg	Norene Noonan, Ph.D.
USF Polytechnic	~~Judith Ponticell~~James Payne, Ph.D.
USF Sarasota-Manatee	Bonnie Jones, Ph.D.
USF Health	Donna Petersen, Ph.D.

College Deans

College of Arts and Sciences	Eric Eisenberg, Ph.D.
College of Behavioral and Community Sciences	~~Junius Gonzales~~Catherine Batsche Ph.D., Interim
College of Business	Robert Forsythe, Ph.D.
College of Education	Colleen S. Kennedy, Ph.D.
College of Engineering	John Wiencek, Ph.D.
College of Graduate Studies	Karen Liller, Ph.D.
College of Marine Science~~William Hogarth~~	Jacqueline Dixon, Ph.D.
College of Medicine	Stephen K. Klasko, Ph.D.
College of Nursing	Dianne Morrison-Beedy, Ph.D.
College of Public Health	Donna Petersen, Ph.D.
College of The Arts ~~Ron L. Jones Jr~~	Barton Lee~~., Ph.D.~~, Interim
Honors College	Stuart Silverman, Ph.D.
University College	Judy Ashcroft, Ph.D..
International Affairs	Maria Crummett, Ph.D.
Library	William Garrison, Ph.D.
Undergraduate Studies	Robert Sullins, Ph.D.

College Graduate Associate Deans ~~and Representatives (GADR)~~ (EGAD)

Website: http://www.grad.usf.edu/graduate-coordinators.asp

College	**Assoc. Dean~~/Grad Coordinator~~**	**~~Alternate~~**
College of Arts and Sciences	Bob Potter	~~Lisa Avari-Cooper~~
College of Behavioral and Community Sciences ~~Catherine Batsche~~	Gail Donaldson, Interim	~~Wanda MacLean~~
College of Business	Charles Kroncke	~~Wendy Baker~~
College of Education	Harold Keller	~~Diane Briscoe~~
College of Engineering	Rafael Perez	~~Marsha Brett~~
College of Graduate Studies	Peter Harries, Interim	
College of Marine Science	Ted Van Vleet	~~Dawna Ishler~~
College of Medicine	Michael Barber	~~Kathy Zahn~~
College of Nursing	~~Mary Evans~~Rita D'Aoust	~~Barbara Redding~~
College of Public Health	Deanna Wathington	~~Kay Perrin, Ph.D.~~
College of The Arts	Victor Fung~~Barton Lee~~	~~Carol Kerrigan~~
~~USF Sarasota-Manatee Liaison~~	~~Richard King~~	
~~USF St. Petersburg Liaison~~	~~Donna Knudsen~~	
USF Polytechnic Liaison	James Payne ~~TBA~~	

USF Tampa Graduate Council:

For the most current list of Graduate Council members, please refer to the website: http://www.grad.usf.edu/graduate-council.asp

Locations

University of South Florida Tampa
4202 E. Fowler Avenue
Tampa, Fl 33620
(813) 974-2011
Website: www.usf.edu

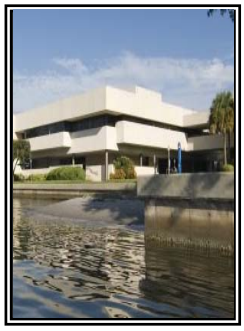
USF's main campus, including USF Health, is located in Northeast Tampa, one of the fastest growing areas in Tampa Bay. More than 39,000 students attend classes on the Tampa campus, which sits on more than 1,700 acres and includes extensive health and medical (www.health.usf.edu) learning facilities, residence halls (www.housing.usf.edu) , research facilities (www.research.usf.edu), and more. ~~Located in the Tampa Port Authority Building in downtown Tampa, the USF Downtown Center is a symbol of the partnership between USF and the bay area business community. The facility offers graduate degree programs, non-credit training for business, government, and nonprofit organizations, and meeting, workshop and seminar space.~~ USF Health is a partnership of the Colleges of Medicine, Nursing and Public Health. Its research, education and healthcare missions are accomplished with creative educational models, focused on emerging fields of research, and breaking the boundaries of traditional healthcare delivery models to meet the changing needs of a growing community.

University of South Florida Sarasota-Manatee
5700 N. Tamiami Trail
Sarasota, FL 34243-2197
(941) 359-4200
Website: www.sarasota.usf.edu

USF Sarasota-Manatee is located on the border of Sarasota and Manatee counties, a vibrant area featuring educational and cultural institutions such as the John & Mable Ringling Museum of Art. The campus offers 44 bachelor's degree, master's degree, and certificate programs to those who have at least an associate's degree.

University of South Florida Polytechnic
3433 Winter Lake Road
Lakeland, FL 33803
(863) 667-7000
Website: http://www.poly.usf.edu/

USF Polytechnic is the state's only polytechnic campus. USFP emphasizes applied learning and research and serves students in Polk, Highlands, Hardee and eastern Hillsborough counties with over 20 undergraduate, graduate and certificate programs. The campus is located in Lakeland, at the heart of Florida's High Tech Corridor.



University of South Florida St. Petersburg
140 Seventh Avenue S.
St. Petersburg, FL 33701
(727) 553-1142
Website: www.stpt.usf.edu

USF's St. Petersburg is located on the beautiful waterfront in downtown St. Petersburg, an area featuring parks, shops, restaurants, art galleries, museums and performing arts and sports venues. USF St. Petersburg serves more than 3,700 undergraduate and graduate students.

Graduate School Staff Directory [c3]

4202 E. Fowler Ave., ~~BEH 304~~ADM 216, Tampa, FL 33620 813-974-2846 www.grad.usf.edu

	Phone Number
Receptionists	
Jessica Sonnenschein	(813) 974-2846
Barbara Bermudez	(813) 974-2846
Dean's Office	
Karen Liller, Ph.D. Dean of the Graduate School and Associate Vice President for Research and Innovation	(813) 974-7359
Debbie Williams, Executive Administrative Specialist	(813) 974-7359
Helen Terry, Team Assistant	(813) 974-1976
~~TBA~~Peter Harries, Interim Associate Dean	(813) 974-1902
~~Lisa Piazza~~TBA, Administrative Specialist	(813) 974-1902
Elizabeth O'Connell, Ph.D., Director of Operations	(813) 974-6363
Trista Moenning, Administrative Specialist	(813) 974-3396
Kokita Wilson, Office Manager	(813) 974-3810
Academics	
Carol Hines-Cobb, Assistant Director, Academics	(813) 974-4239
Joseph Butts, Assistant Director, Academics	(813) 974-3586
Ryan Durrant, Academic Services Administrator	(813) 974-7727
~~Nick Hage, Webmaster~~	~~(813) 974-2626~~
Cynthia Pumphrey, Administrative Specialist	(813) 974-2847
Rod Hale, ~~Admissions Recruiter Advisor~~Assistant Director, Student Success	(813) 974-3412
~~Janet Giles, Academic Program Specialist (Theses and Dissertations)~~	~~(813) 974-5220~~
Kathy Whitley, Team Assistant	(813) 974-3159
Admissions	
Francisco Vera, Assistant Director	(813) 974-8800
Mark Freeman, Lead Admissions Officer	(813) 974-8800
Deise Cedeno, Admissions Officer	(813) 974-8800
Tanya Delgado, International Admissions Officer	(813) 974-8800
Lada Harland, Admissions Officer	(813) 974-8800
Keri Uravich, Admissions Officer	(813) 974-8800
TBA , Admissions Officer	(813) 974-8800
John Ruff, Office Manager	(813) 974-8800
Janet Giles, Academic Program Specialist	(813) 974-5220
Business Operations	
Mildred Howard, Associate Director	(813) 974-8356
Kimberly Carter, Fiscal and Business Analyst	(813) 974-3915
Javier Rodriguez, Fiscal and Business Specialist	(813) 974-9328
Theresa Freeman, Fiscal and Business Specialist	(813) 396-9010

Graduate and Professional Student Council	(813) 974-6939
Alexis McLaughlin – President	
Christy Foust – Vice President	
Zheni Stefanova – Treasurer	
Marketing and Recruiting	
Malcolm Randolph, ~~Admissions Recruiter Advisor~~Assistant Director	(813) 974-7207
Office of Postdoctoral Affairs (OPA)	
Eric Hoyle, Ph.D., Assistant Director	(813) 974-7359
Monica Giraldo Hernandez, Administrative Specialist	
Patel School of Global Sustainability (www.sgs.usf.edu)	
Kalanithy Vairavamoorthy, Ph.D., Director	(813) 974-9694
Susan MacDonald, Admin Asst.	(813) 974-4398
Global Sustainability (M.A.) Program	
Randall Pape, Academic Advisor	(813) 974-0185
Matthew Gaboury, webmaster	
Student Success	
TBA, Assistant Director	
USF System Graduate Offices	
USF Polytechnic: James Payne, Ph.D.	(863) 667-7721
USF Sarasota-Manatee: Bonnie Jones, Ph.D. – Associate Vice President and Dean	(941) 359-4504
USF St. Petersburg: Norene Noonan, Ph.D. – Regional Associate Vice Chancellor	(727) 553-4450
OTHER CONTACTS	
Registrar's Office	(813) 974-2000
Financial Aid	(813) 974-4700
Information Technology	(813) 974-1222
Student Health Services	(813) 974-2331
Parking and Transportation Services	(813) 974-3990
University Police	(813) 974-2628

Academic Calendar

Academic Calendar http://www.registrar.usf.edu/enroll/regist/calendt.php#1112
Registrar's Calendar http://www.registrar.usf.edu/forms/1113Cal2011-10-11_9_12_15.pdf
Thesis/Dissertation Deadlines http://www.grad.usf.edu/ETD-deadlines.asp
Cultural/Diversity Calendar http://usfweb2.usf.edu/eoa/deo_calendar/default.asp
Attendance Policy for the Observance of Religious Days http://generalcounsel.usf.edu/policies-and-procedures/pdfs/policy-10-045.pdf

August 2012 - July 2013

TOP

August 3	Summer B, last day of classes
August 3 - 4	Summer Commencement, Tampa
August 5 - 26	Optional Flexible Scheduling Block - Excluding Holidays
August 27	Fall, first day of classes
September 3	Labor Day
November 12	Veteran's Day
November 22 & 23	Thanksgiving Holiday
December 7	Fall, last day of classes
December 8 - 14	Final Exam Week
December 9	Final Exams (Distance Ed)
December 15	Fall, Tampa Commencement
December 16	Fall, St. Petersburg Commencement
December 16	Fall, Sarasota-Manatee Commencement
December 15	Fall, Polytechnic Commencement
December 16 - January 6	Optional Flexible Scheduling Block - Excluding Holidays
December 25	Christmas Holiday
2013	
January 1	New Year's Holiday
January 7	Spring, first day of classes
January 21	Martin Luther King, Jr.
March 11 - 16	USF Spring Break
April 26	Spring, last day of classes
April 27 - May 3	Spring Final Exams
April 28	Spring Final Exams (Distance Learning)
May 3 - 4	Spring Commencement, Tampa
May 5	Spring Commencement, St. Petersburg
May 5	Spring Commencement, Sarasota-Manatee
May 7	Spring Commencement, Polytechnic
May 13	Summer A & C, first day of classes
May 27	Memorial Day
June 21	Summer A, last day of classes
July 1	Summer B, first day of classes
July 4	Independence Day Holiday
July 19	Summer C, last day of classes

Section 3

Graduate Faculty and Research Interests

Graduate Faculty Definition

The University of South Florida recognizes Graduate Faculty and Affiliate Graduate Faculty.

Graduate Faculty is defined to consist of all tenure-track or tenured faculty appointed at the Assistant, Associate, or Professor rank, who holds a terminal degree or equivalent in their discipline. Graduate Faculty members are eligible to teach graduate courses and may direct and serve on master's, specialist, and doctoral level committees. To chair a doctoral level committee, a Graduate Faculty member must engage in current and sustained scholarly, creative, or research activities, such as publications, performances, exhibitions, patents, inventions and research grants.

Affiliate Graduate Faculty membership may be granted by the Graduate School Dean to individuals whose skills or expertise meet criteria established by the College. Affiliate Graduate Faculty membership is in effect for a specified period of time and specific purposes. Affiliate members may be eligible to teach graduate courses, to serve on master's, specialist, and doctoral level committees, to direct master's and specialist's level committees, and to co-direct doctoral level committees, at the discretion of the College. Emeritus Professors and retired or recently resigned professors may also be appointed as Affiliate Graduate Faculty with the approval of the College and Graduate School Dean.

For a current list of Graduate Faculty and Affiliate Graduate Faculty in any program contact the program director or coordinator.

Graduate Faculty Approval – Graduate faculty is defined as noted above; Colleges and Departments may have additional requirements. The Graduate School will maintain a list of Graduate Faculty along with approval guidelines from the Colleges and Departments.

Searchable Faculty Database
On the Graduate School website is a searchable database that provides information on graduate faculty and research interests. http://www.grad.usf.edu/programs/faculty.asp

Section 4

Graduate Admissions

Office of Graduate Admissions

University of South Florida
Office of Graduate Admissions
4202 East Fowler Avenue, ~~BEH304~~ ADM 216
Tampa, Fl 33620-8470

Website:	http://www.grad.usf.edu/graduate-admissions.asp
E-mail:	admissions@grad.usf.edu
Phone:	813-974-8800
U.S. Toll-Free:	1-866-974-8800
Fax:	813-974-7343

Director of Operations:	Elizabeth O'Connell, Ph.D.
Assistant Director for Graduate Admissions:	Francisco Vera
Lead Admissions Officer:	Mark Freeman

Admissions Staff:
~~Mark Freeman,~~ Deise Cedeño, Tanya Delgado, Janet Giles, Lada Harland, ~~Zuzana Moore~~, John Ruff, ~~Leticia Christie~~
Tom Storrison, Keri Uravich

University Admissions Criteria and Policies

USF Regulation USF3-008:
http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf3.008.pdf

Statement of Principles
In graduate admission decisions, multiple sources of information should be used to ensure fairness, promote diversity and balance the limitations of any single measure of knowledge, skills, or abilities. The sources may include: undergraduate grade point average, letters of recommendation, personal statements, samples of academic work, portfolios, auditions, professional experience related to proposed graduate study, as well as nationally known, standardized test scores. It is the responsibility of each graduate program to select admissions criteria that best predict success in their specific field and to determine the weight given to each measure.

None of the sources of information, particularly standardized test scores, should be used in isolation nor should such scores be used in combination or separately to establish minimum or "cut off" scores. Program specific guidelines for the use of standardized test scores should be developed based on the experience of a given department with its pool of applicants.[1]

[1] *Adapted from the GRE "Guide to the Use of Scores" 2003-2003*

Admission Requirements

Each applicant to a graduate program at the University of South Florida is required to meet the following minimum requirements:

1. An applicant must have **one** of the following:

   a. A bachelor's degree from a regionally accredited institution and satisfying at least one of the following criteria:

      i. "B" average or better in all work attempted while registered as an undergraduate student working for a degree, **or**

      ii. "B" average or better ~~average~~ in all work attempted while registered as an upper division undergraduate student working for a baccalaureate degree.

   b. A bachelor's degree with a "B" average or better from a regionally accredited institution and a previous graduate degree with a "B" average or better from a regionally accredited institution.

   c. The equivalent bachelors and/or graduate degrees from a foreign institution.

2. Submission of standardized test scores ~~is at the discretion of~~ if required by the graduate program.

3. Applicants from countries where English is not the official language must also demonstrate proficiency in English in one of the following ways:

   A. By ~~by~~ providing ~~acceptable~~ a score~~s~~ of 79 or higher on the Test of English as a Foreign Language (TOEFLiBT)

   b. By providing a score of 6.5 or higher on~~or~~ the International English Lang Testing System (IELTS).

   c. By Earning a score of 500 (or equivalent) on the GRE-Verbal exam

   d. By earning a baccalaureate or higher degree at a regionally accredited institution in the US

   ~~2.~~e. By earning a degree at a foreign institution where English is the language of instruction (must be documented on the transcript).

~~3.~~4. All specific and additional requirements of the graduate program to which admission is sought (including requirements to submit standardized test scores) consistent with the above Statement of Principles.

The Program Chair and College Dean must approve any exceptions to these requirements with information copies to the Graduate School.

Application Process *(How it works)*

Graduate applicants are urged to submit accurate and complete information as early as possible. Applications and supporting documents received after the application deadline will be held for up to one year. At the request of the applicant or graduate program, they will be processed for the next available term.

The Graduate Admissions Office and the Graduate Program review your application for admission to the Graduate School. Once the graduate program determines your eligibility for its graduate program they will forward their decision to the Graduate Admissions Office which in turn will issue the official decision.

Please note if the graduate program is a Direct Receipt Program (http://www.grad.usf.edu/graduate-admissions-direct-receipt.asp). For Direct Receipt Programs application materials should be sent directly to the program (NOT to the Office of Graduate Admissions.) All inquiries regarding application status should also be directed to the program.

If you are a foreign graduate applicant, the International Services Office (http://global.usf.edu/isss/prospect.html) will evaluate your financial statement after you are admitted to determine your eligibility for a student visa. Each of these offices may request additional documents from you to make a decision.

For a complete list of graduate programs and deadline dates please visit the Graduate School website at http://www.grad.usf.edu/programs/programs.asp

Admission Application Deadlines

~~The University deadlines for admission follow below. **Colleges and programs may have earlier deadlines or may continue to process applications after the deadline if space exists within the program.** Admission applications and supporting materials must be received by the program and university deadlines as posted in the Graduate Catalog and online at: http://www.grad.usf.edu/programs/programs.asp *Note: Professional programs may have deadlines later than the University deadline if approved by Graduate Council.*~~

Each graduate program sets its own deadline for applying for admission to the program. In addition, some programs may have a priority application deadline for applicants who want to be considered for a department assistantship or other types of financial support; and applicants are encouraged to apply as early as possible. In some cases, programs are willing to accept applications beyond their published deadline if space is available.

Applicants who want to be considered for Graduate School fellowships must have all application documents on file at USF prior to the program's application deadline OR February 15, whichever comes first.

Deadlines for Domestic Applicants and International Students Applying from Within the United States

Admission applications and supporting materials must be received by the application deadlines as posted online at: http://www.grad.usf.edu/programs/programs.asp

~~**Domestic Application Deadlines**~~

~~Spring Admission~~	~~October 15~~
~~Summer Admission~~	~~February 15~~
~~Fall Admission~~	~~February 15~~
~~Fall Admission to Professional Programs~~	~~June 1~~

In addition to meeting the application deadline for the program of interest (see above), all application and immigration documents must be on file at USF no later than the following deadlines:

International Applicants Applying from Within the US:

Fall Semester admission – ~~May~~June 1

Spring Semester admission – ~~September~~ October 15
Summer sessions admission – ~~January~~February 15

International Applicants Applying from Outside the US:

Fall Semester admission – May 1
Spring Semester admission – September 15
Summer sessions admission – January 15

~~**International Application Deadlines**~~

~~**Living inside the United States**~~

~~Spring Admission~~	~~refer to Domestic Deadlines~~
~~Summer Admission~~	~~refer to Domestic Deadlines~~
~~Fall Admission~~	~~refer to Domestic Deadlines~~

~~**Living outside the United States**~~

~~Spring Admission~~	~~June 1~~
~~Summer Admission~~	~~January 2~~
~~Fall Admission~~	~~January 2~~

Foreign applicants who are outside the US are required to apply for a visa. Depending on the country of origin, this may take a few months. So the deadlines for these international applicants may be earlier than the program deadline;~~are early~~ and these applicants must apply prior to both deadlines. They are strongly encouraged to apply as early as possible.. Foreign applicants who are in the U.S. are currently on a visa and may use the domestic application deadline dates.

Application Checklist (To-Do-List)
To assist you in the admissions process the following is your *To-Do-List*.

1. Graduate Application
2. Application Fee
3. Transcripts (including translations and evaluations for international transcripts)
4. Test Scores
5. Conduct Clearance Policy (Legal Disclosure Statement)
6. Residency Policy

☐ **1. Graduate Application:**
All graduate applications to USF must be submitted online through FACTS.org (http://facts23.facts.org/admissions/user.do?ficeCode=00015370000&application=R)

☐ **2. Application Fee:**
All applicants are required to submit an application fee of **$30.00** for **EACH** graduate program to which they seek admission (USF Regulation USF4-0107: Special Fees, Fines and Penalties http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf4.0107.pdf) If they attended USF as a former degree seeking student or non-degree seeking student they will still be required to submit the application fee. Applicants have the option to pay their application fee by credit card (Discover, Master Card, Visa) or by E-Check (personal checking/savings account) through FACTS.org Graduate Online Application. **ALL APPLICATION FEES SUBMITTED ARE NON-REFUNDABLE.**

☐ **3. Transcripts:**
One (1) official transcript from all institutions of higher learning ~~where the applicant has earned a degree~~ is required. Former USF students should not submit their USF transcript; it is already on file. Applicants may provide unofficial copies of transcripts to expedite the processing of their applications. Any offer of admissions based on unofficial transcripts **will not** be finalized until official transcripts are received in a sealed envelope from the Office of the Registrar where they attended. All transcripts must be in English; it is the applicant's responsibility to have transcripts translated and evaluated* before submitting them as part of the graduate application packet. If they are applying while still completing an undergraduate degree, they must submit transcripts of at least six (6) semesters of completed undergraduate work. Final transcripts showing the award of a bachelor's degree will be required if an applicant is admitted and enrolls.

*All foreign transcripts that are not in English must be accompanied by a certified English translation. Documents signed by a notary or other public official with no educational affiliation will **not** be accepted. Some graduate programs require a course-by-course evaluation. In the event that the university receives documentation that is questionable, or suspicious in any way, the university will require a **course-by-course** evaluation from a foreign transcript evaluation service. Refer to the Graduate Admissions' website for a list of evaluation services (http://www.grad.usf.edu/graduate-admissions.asp).

☐ **4. Test Scores**
GRE (Graduate Record Examination)*: http://www.gre.org
~~All applicants to~~Applicants to graduate programs requiring the GRE* must submit GRE test scores earned within five (5) years of the desired term of entry. Official scores must be submitted to USF directly from the Educational Testing Service, but applicants may provide unofficial copies of their test scores to expedite the processing of their applications. Any offer of admission based on unofficial scores will not be finalized until official scores from ETS are received. The institution code for USF is 5828 and applies to all tests administered by ETS.

* The GRE requirement ~~may be waived at the discretion of~~ is determined by the individual graduate programs. Please contact your program of interest directly for additional information.

GMAT (Graduate Management Aptitude Test): http://www.gmac.com
Applicants to programs in the College of Business should submit GMAT** scores earned within five (5) years of the desired term of entry. Official scores must be submitted to USF directly from the Pearson VUE Testing Service, but applicants may provide unofficial copies of their test scores to expedite the processing of their applications. Any offer of admission based on unofficial scores will not be finalized until official scores from Pearson VUE are received. The following are the Pearson VUE institution codes for USF programs.

VP9-M4-23	Ph.D. in Business Administration
VP9-M4-04	Executive M.B.A.
VP9-M4-41	Hospitality Management, USF Sarasota-Manatee[fv4]
VP9-M4-97	M.B.A., Full Time
VP9-M4-80	M.B.A., Part Time
VP9-M4-21	M.B.A., USF Polytechnic Lakeland
VP9-M4-01	M.B.A., USF Sarasota-Manatee
VP9-M4-25	M.B.A., USF St. Petersburg
VP9-M4-18	Masters in Accountancy
VP9-M4-67	M.A. in Economics
VP9-M4-86	M.S. in Finance
VP9-M4-17	M.S. in Management
VP9-M4-66	M.S. in Management Information Systems
VP9-M4-40	MSM in Marketing
VP9-M4-48	M.S. in Entrepreneur in Applied Technology
VP9-4J-76	Health Administration, College of Public Health

**Applicants may not have to submit a GMAT if they have taken the GRE. Please contact your program of interest directly for additional information.

TOEFL (Test of English as a Foreign Language): http://www.toefl.org
Applicants whose native language is not English or who have not earned a degree in the United States must demonstrate proficiency in English by submitting TOEFL scores earned within two (2) years of the desired term of entry. A minimum total score of 79 on the internet-based test, 213 on the computer-based test, or 550 on the paper-based test is required for admission to a graduate program. Applications submitted with TOEFL scores that do not meet the minimum requirements will be denied. The TOEFL requirement may be waived for admission if the applicant meets one of the following conditions:

- The applicant's native language is English, or
- Has scored the equivalent of 500 or higher on the GRE Verbal Test, or
- Has earned a college degree at a regionally accredited U.S. institution of higher learning, or
- Has earned a college degree from an institution whose language of instruction is English (must be noted on the transcript), or
- Has scored 6.5 on International English Language Testing System (IELTS) http://www.ielts.org/

PLEASE NOTE: International students whose native language is not English and who want to be considered for a teaching assistantship must show proficiency in spoken English even if their TOEFL has been waived for admission to a graduate program. They will need to score at least a 26 on the spoken portion of the Internet-based TOEFL (iBT) or a 50 on the SPEAK test administered through INTO-USF.

5. Conduct Clearance Policy (Legal Disclosure Statement):
All graduate applicants are required to answer the Conduct Clearance questions of the graduate application. The applicant will not be notified of the admission decision until answers to the two questions have been received and cleared by the Vice President of Student Affairs or his/her designee ~~(Associate Dean of Students)~~, if warranted.

6. **Residency Policy:**
EDITOR's Note: There are State Laws are in effect that impact Residency. Read more at: http://www.grad.usf.edu/graduate-admissions-residency.asp. Applicants desiring classification as Florida residents for tuition paying purposes must sign and complete the Florida Residents section of the Florida Residency Classification page of the Graduate Application. **Incomplete or unsigned forms will be classified as non-Florida residents.** The Office of Graduate Admissions will classify applicants as Florida residents if they have provided documentation that verifies they began living in Florida at least twelve months prior to the first day of classes of their admitted term of entry. Additional documentation other than what is required may be requested in some cases. All documentation is subject to verification. Applicants are responsible for checking their residency classification when admitted to the University of South Florida. The residency classification is noted on the official acceptance letter. If applicants feel that their initial classification is in error, they have until the last day of the term to contact the appropriate admissions office and request a re-evaluation. After students have completed their first semester of study they may seek to have their residency reconsidered. They may submit a Request for Reclassification Form with the Office of the Registrar. This must be filed by the 5th day of classes for the term being requested.

Independent Student:
A student who meets any one of the following criteria shall be classified as an independent student for the determination of residency for tuition purposes:

1. The student is 24 years of age or older by the first day of classes of the term for which residency status is sought at a Florida institution;
2. The student is married;
3. The student has children who receive more than half of their support from the student;
4. The student has other dependents who live with and receive more than half of their support from the student;
5. 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;
6. Both of the student's parents are deceased or the student is or was (until age 18) a ward/dependent of the court;
7. The student is working on a master's or doctoral degree during the term for which residency status is sought at a Florida institution; or
8. The student is classified as an independent by the financial aid office at the institution.

Evidence that the student meets one of these criteria will be requested by the higher education institution.

Florida residency statutes require at least two documents, dated 12 months prior to the first day of class for the entry term sought, to validate a claim for Florida residency for tuition purposes. Documents are classified in two tiers – at least one of the required documents must be from the First Tier.

FIRST TIER DOCUMENTATION (at least one of the two documents submitted must be from this list)

1. Florida Driver's License (driver's licenses from others states must be relinquished) **or** a State of Florida ID card (if there is no evidence of ties to another state)
2. Florida Voter's Registration card

3. Florida Vehicle Registration (proof of previous registration can be obtained from the local tag office)
4. Declaration of Domicile in Florida (12 months from the date the document was sworn and subscribed as noted by the Clerk of the Circuit Court)
5. Proof of purchase of a permanent home in Florida that is occupied as a primary residence of the claimant
6. Proof of permanent full-time employment in Florida (one or more jobs for at least 30 hours per week for a 12-month period – letter from employer on official letterhead required)
7. Benefit histories from Florida agencies or public assistance programs

SECOND TIER DOCUMENTATION (may be used in conjunction with one document from First Tier)

1. Florida professional or occupational license
2. Florida incorporation
3. Proof of membership in Florida-based charitable or professional organizations
4. Utility bills and proof of 12 consecutive months of payments
5. Lease agreement and proof of 12 consecutive months of payments
6. State or court documents evidencing legal ties to Florida

Application Documents Access/Forward/Return Policy
No application, test scores, transcripts, letters of recommendations, or other documents submitted with the application packet will be returned to the applicant or forwarded to another institution/third party. The Office of Graduate Admissions applicant file is not to be released to the applicant or other third parties. Requests, subpoenas, or court orders are to be forwarded to the Office of the General Counsel after review by the Assistant Director of Graduate Admissions. Applicants once admitted and enrolled during the term of admission may request access to their student file at the Office of the Registrar. Letters of Recommendation that the applicant has waived the right to view (indicated on Request for Recommendation Form) are not to be given, copied or viewed by the applicant or third parties. Requests for degree/enrollment verification information should be referred to the Office of the Registrar.

The Office of Graduate Admissions graduate application files may be copied and released to USF staff conducting legitimate University business.

Additional Requirements of Programs (If applicable)
Many programs require additional application materials such as resumes, writing samples, or letters of recommendation. These items may be sent as part of the overall graduate application packet or directly to the appropriate department/program. These materials will be forwarded to the appropriate program if sent with the application packet, but they DO NOT become part of the applicant's permanent file. Therefore, the Office of Graduate Admissions does not track them.

Final Admission Criteria
Applicants accepted for admissions whose official documents (transcripts and/or test scores) have been received by the Office of Graduate Admissions are admitted as "Final." The admission file is complete.

Provisional Admission Criteria
Applicants accepted for admission whose official documents (transcripts and/or test scores) have not been received by the Office of Graduate Admissions are admitted provisionally pending receipt of these missing items. The required transcripts and/or test scores must be received before a second semester registration is permitted. During the first semester, the Office of Graduate Admissions will place a registration hold on the student's file. When the missing documents are provided to the Office of Graduate Admissions the registration hold will be removed and the student's admission status will become final.

Exception Admission Criteria
The University may admit up to 10% of new enrollees as exceptions to the Board of Trustees minimum requirements. To be considered for an exception, applicants should present evidence that might account for the previous academic record and demonstrate potential for academic success. Examples of this evidence include excellent letters of recommendation from trusted academicians, performance in graduate courses taken as a post-bachelor's student, professional experience in the discipline for a period of time, etc. Each request for a 10% exception must include a statement describing the special circumstances of the applicant. It is the discretion of the program and college to accept exception application requests.

Conditional Admission Criteria
A program and/or college may admit applicants conditionally pending satisfaction of remedial or program requirements. These conditions may include receipt of specific satisfactory scores on standardized tests, attendance in and satisfactory grade in specific core or remedial courses, etc. It is the responsibility of the College/Graduate Program to track the student's satisfactory completion of the conditions and to notify the Graduate Admissions Office when conditions are met. Failure to satisfy those conditions by the deadline established by the program will result in academic dismissal from the program. The College/Graduate Program will submit a Dismissal Form (http://www.grad.usf.edu/student-forms.asp) to the Graduate School.

Deferment of Admission Request
An applicant's acceptance is granted for the semester and the particular program specified in the official acceptance notification. The applicant must validate that acceptance by enrolling for that semester. Applicants who fail to validate their admission may contact the Graduate Program Director and request a Deferment of Admission. This request must be made in writing within 12 months of the initial requested entry date. If a request for Deferment of Admission is not activated within the 12 months~~received in the specified time~~, a new application and fee must be submitted. Deferment requests must also be received no later than the program or University application deadline for the semester desired, whichever is earlier. Applicants who were admitted provisionally upon receipt of official test scores and/or transcripts must supply those missing items prior to having their deferment decision processed by the Office of Graduate Admissions. International applicants must also provide a new financial statement dated no earlier than 6 months before the requested date of entry.

Update of Admission Request
If admission has not been granted because of a late application or missing credentials and the applicant wants to be considered for a future semester, the applicant must request that the Office of Graduate Admissions update the application ~~for a future semester~~ and specify the new enrollment date. This request must be made in writing within 12 months of the initial requested entry date and must be received no later than the program or University application deadline for the semester desired, whichever is earlier. Applications are held for only 12 months. If a request for change in entry date is not received in the specified time, a new application and fee must be submitted. The Office of Graduate Admissions will not process any update requests without first receiving all official test scores and/or transcripts.

Denial of Admission / Appeal for Reconsideration Criteria
Applicants denied admission will be given timely notice by email or in writing. Denied applicants who meet the minimum standards may write the Graduate Program Director of the program to which they applied within 30 days of the date of denial to request reconsideration. The request should present additional evidence of potential for academic success at USF and contain reasons why reconsideration is warranted. Applicants denied admission to a degree program are eligible to enroll as special (non-degree seeking) students. Non-degree seeking applications must be submitted to the Office of the Registrar.

Readmission Policy

A graduate student who is not registered and enrolled for a minimum of six (6) credits in a 12 month period is automatically placed in inactive status. Students must be readmitted to the degree program to continue their studies. Readmission is at the discretion of the program and is not guaranteed.

Eligibility for readmission:

- Students who have been Academically Dismissed from the University for Academic Dishonesty may not apply to *any* graduate program at USF.
- Deadlines: The readmission application and all supporting materials must be submitted by the application deadline.

Additional Requirements:

- **Graduate Application:** In order to be considered for readmission, students must submit a new graduate application, application fee, and any required supporting materials.
- **Test Scores:** The Department may require new Test scores (GRE/GMAT/TOEFL) and transcripts.
- **Catalog Year:** Students who are readmitted must meet the admission standards and degree requirements and policies in the Graduate Catalog in effect at the time of readmission.
- **Prior Coursework taken at USF:** Coursework taken at USF prior to readmission may be accepted toward the degree requirements at the discretion of the Department. However, all coursework taken when previously enrolled as a graduate student is included in the overall GPA. Refer to the Time Limit Policy for time limits on coursework applied toward the degree. Students who completed required coursework and were previously in doctoral candidacy do not have to retake courses that are out of compliance with the time limit requirement ~~older than eight years~~ unless determined necessary by the program. Students may be required to take new coursework at the program's discretion. The decision to accept courses previously transferred to USF and applied toward the degree is at the discretion of the program. There is no time limitation for waived hours from a completed master's degree used toward a doctoral degree.
- **Enrollment:** Students must enroll for the semester in which their readmission is effective.
- **Doctoral Candidacy:** Students who are readmitted to a doctoral program who were previously admitted to doctoral candidacy may retain their candidacy status at the discretion of the Department, College, and Graduate School. Students must file an approved request for Readmission to Doctoral Candidacy Form through Graduate School procedures. Once approved, the Candidacy date is effective as of the semester of readmission.
- **Dissertation Hours:** Students must enroll for two hours of dissertation per the enrollment policy, plus an additional three dissertation hours for a total of five dissertation hours in their first semester. Programs may require additional hours.

The Readmission policy does NOT apply to inactive students wishing to enroll in a program other than the original admitting program. These students must submit an application for the new program of interest. Transcripts of any work completed while not attending USF may be required.

Change of Graduate Program ~~Request~~

A change of graduate program allows a student to withdraw from his/her current graduate program and enter into a different graduate program. A change of graduate program:

- will NOT be considered for graduate students in their first semester of study
- is permissible only for a continuing graduate student enrolled for study in a particular program who wishes to change to another program at the same or lower level
- requires a student to be in good academic standing
- is up to the discretion of the student's new program (note: some programs may require another admission application to be submitted)
- may affect the student's financial aid status
- requires the submission of a Change of Graduate Program Application

Students not in good academic standing must consult with the Graduate School prior to initiating a Change of Graduate Program Application. Students may view the procedures and obtain the Change of Graduate Program Application~~form~~ at http://www.grad.usf.edu/inc/linked-files/GRADUATE_SCHOOL_Chg_of_Program_Application.pdf~~. This form must be signed both by the current program and the new program, after which it must be submitted to the Graduate School for approval. If approved by the Graduate School, the change of program form is then sent to the Registrar for processing~~. ~~**NOTE:** Some programs may require another application to be submitted because the Change of Program Request Form does not contain sufficient information for them to make a decision. You~~ Students must~~should~~ consult~~check~~ with the new program and Graduate School before completing any paperwork.~~.~~

Students with Disabilities Policy

Applicants with disabilities apply for admission under the same guidelines as other applicants. Applicants believing that a disability has had an impact on grades, course choice, or standardized admission test scores, should request consideration of this during the admissions process. Applicants requesting substitution of departmental guidelines will need to contact the appropriate department chairperson. Please submit supporting documentation when requesting a disability exception. Applicants bear the responsibility for providing documentation of their disabilities.

The University reviews documentation and determines if students are eligible for services and accommodations because of disabilities. The Office of Student Disability Services is charged with the task of determining eligibility. Accommodations and services are not provided on a retroactive basis. Approval must be given prior to receiving services or accommodations. The process begins when students provide documentation of disability and meet with a coordinator in the Office of Student Disability Services to request in writing services and accommodations. Any faculty members or students who have questions about this process are encouraged to contact the Office of Student Disability Services at (813) 974-4309 or visit the website at http://www.sds.usf.edu/.

Section 5

~~Registration and~~

General Information and Registration Requirements

Parking Information and Campus Maps

For information on USF Parking Services, policies, and regulations, refer to:

USF Parking and Transportation Services website: http://usfweb2.usf.edu/parking_services/default.asp
Campus maps are available online at: http://usfweb2.usf.edu/parking_services/maps.asp

USF Regulations:
4.00210 through 4-00219
4-0023 through 4-0029, FAC, available at: http://generalcounsel.usf.edu/regulations/current-regulations.asp

Office of the Registrar

Website: http://www.registrar.usf.edu/
E-mail: regquest@admin.usf.edu
Phone: 813-974-2000
TTY: 813-974-4488

The Office of the Registrar maintains the official academic records for all students and course registrations for currently enrolled students. Students are encouraged to contact the Office of the Registrar about general questions concerning academic policies and procedures of their current registration or academic record. Note: Each student must be aware of the University's academic policies and procedures insofar as they affect him/her.

OASIS

Students use a self-selected personal identification number (PIN) in the University's **Online Access Student Information System** (OASIS) to:

- view registration appointment information
- view registration hold information
- view the Schedule of Classes
- register and drop/add courses
- view their grades
- request address changes
- request privacy
- request transcripts

Registration Information

USF Regulation USF4-0101, http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf4.0101.pdf

Register for Classes
To register for classes students must login to the OASIS system. Current course offerings and registration requirements are listed in the Schedule of Classes. Note that some courses may require permits from the department for registration.

OASIS: http://usfonline.admin.usf.edu/
Schedule: http://www.registrar.usf.edu/ssearch/search.php

Late Registration
Degree-seeking students who do not register prior to the first day of classes may late-register the first week of classes. A late registration fee is charged during this week. To avoid cancellation of registration, fees and tuition are due and payable for all registered courses of record on the fifth day of classes (end of drop/add period). Students are responsible for verifying the accuracy of their course registration by the end of the drop/add period (i.e. by the fifth day of classes). In the event there are courses incorrectly listed or missing on the record, students should go into OASIS and make the necessary corrections. Course registration not corrected by the end of the fifth day of classes will result in liability of tuition and fees. If courses need to be added or dropped after the fifth day of classes, refer to the Add / Drop sections of the Catalog.

Medical Requirements for Registration
University Immunization Policy: http://generalcounsel.usf.edu/policies-and-procedures/pdfs/policy-33-002.pdf

Student Health Services is charged with the responsibility of evaluating and maintaining medical requirements for registration for all University of South Florida students. Florida law (Section1006.69 Florida statute) requires that all admitted Florida university students be aware of MENINGOCOCCAL MENINGITIS and HEPATITIS B, two diseases that may be prevented by vaccination. The vaccines for each of these diseases are available at the University of South Florida Student Health Services. Please refer to http://www.shs.usf.edu/immunization/medical-requirements-for-registration.aspx for further information. In addition, students residing in on-campus housing must present (a) proof of vaccination against MENINGOCOCCAL MENINGITIS, and (b) proof of vaccination against HEPATITIS B or sign a declination of HEPATITIS B proof.

Please refer to http://www.shs.usf.edu/immunization/immunization-forms.aspx to access the forms.

According to Florida Administrative Code Rule 6C-6.001(5) "Each student accepted for admissions shall, prior to registration, submit on a form, provided by the institution, a medical history signed by the student." As a prerequisite to matriculation or registration, the State University System of Florida requires all students born after 1956 to present documented proof of immunity to MEASLES (Rubeola) and RUBELLA (German Measles).

New admits will be provided ~~a Medical History /~~ an Immunization Health History Form with their admissions letter. Upon request, Student Health Services will mail or fax a Medical History/Immunization Form to you, or you may download a form from the Student Health Services Forms webpage and print ~~it on a **laser or inkjet** printer~~for submission. In order to register, this form must be completed, signed, and returned to:

Student Health Services
University of South Florida
4202 East Fowler Avenue, SHS 100
Tampa, FL 33620-6750

Fax: (813) 974-5888
Telephone: (813) 974-4056

For Frequently Asked Questions on the Immunization requirements go to:
http://www.shs.usf.edu/immunization/immunization-faqs.aspx

Administrative Holds
A student may be placed on administrative hold by failure to meet obligations to the University. When a student is on administrative hold, he/she may not be allowed to register, receive a diploma, or receive a transcript. Settlement of financial accounts must be made at the University Cashier's Office. Each student placed on administrative hold should determine from the Office of the Registrar which office placed him/her in this status and clear the obligation with that respective office.

Cancellation of Registration for Non-Payment
USF Regulation USF4-010, http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf4.010.pdf

Equal Opportunity Policy

Diversity and Equal Opportunity: Discrimination and Harassment Policy:
http://generalcounsel.usf.edu/policies-and-procedures/pdfs/policy-0-007.pdf

DEO website: http://usfweb2.usf.edu/eoa/
Phone: 813-974-4373

The University of South Florida system (USF system) is a diverse community that values and expects respect and fair treatment of all people. The USF system strives to provide a work and study environment for faculty, staff and students that is free from discrimination and harassment on the basis of race, color, marital status, sex, religion, national origin, disability or age, as provided by law. The USF system protects its faculty, staff, and students from discrimination and harassment based on sexual orientation. The USF system is also committed to the employment and advancement of qualified veterans with disabilities and veterans of the Vietnam era. Discrimination, harassment and retaliation are prohibited at the University, and complaints of such conduct must be filed with the Diversity and Equal Opportunity Office ("DEO"). DEO will review such complaints and provide appropriate response including counseling, mediation, and/or referral for disciplinary action, up to and including termination from employment and/or expulsion from the University. A student or employee who believes that he or she has not been treated in accordance with the University's Equal Educational and Employment Opportunity Policy or its Policy on Sexual Harassment may file an Equal Opportunity Complaint. Additional information about these procedures may be obtained from the Diversity and Equal Opportunity Office, ADM 172, or by calling 974-4373 or 813-974-1510 (TDD). It is prohibited for any administrator, supervisor, or other employee of USF to take any retaliatory action against an individual who, in good faith, has made a charge, testified, assisted, or participated in any manner in an investigation, proceeding, or hearing under provisions of applicable law.

Academic Term and Student Information

Semester System
USF operates on a semester system. Semesters begin in August and January with Summer Sessions beginning in May and June. See *Academic Calendar* for appropriate dates.

Academic Load
See Enrollment Requirements in the Academic Policies Section

Academic Standing

Class Standing - A student's class standing is determined by the number of credits he/she has earned without relation to his/her GPA.

6M - Graduate student admitted to Master's Degree Program
6A - Graduate student admitted to Specialist Degree Program
6D - Graduate student admitted to a Doctoral Degree Program (not eligible to register for dissertation hours)
6C - Graduate student admitted to Doctoral Candidacy (eligible to register for dissertation hours)
7A-7D 1st-4th year professional program (M.D.) or post-doctoral status

Also see "In good standing" in the Academic Policies Section

Student Definitions

Degree Seeking Students:
Students who have been accepted into a degree program

Graduate Certificate Seeking Students:
Students who have been accepted into a Graduate Certificate program. Students who are non-degree seeking, but who are admitted to a Graduate Certificate may register during the same registration period as Degree-Seeking Students. ~~Up to 12 hours of the coursework taken as a Graduate Certificate Seeking Student may be applied to a degree program.~~ For more information about Graduate Certificates and specific requirements, refer to Section 11 Graduate Certificates or go to the Graduate Certificate website at http://www.outreach.usf.edu/gradcerts/.

Non-Degree-Seeking Students:
Students who have not been accepted into a degree or Graduate Certificate Program. Non-Degree-Seeking students may enroll and enter classes on a space available basis by obtaining appropriate approval from the degree-granting college or academic unit in which the courses are offered. Non-Degree-Seeking students must meet all prerequisites for courses in which they wish to enroll. Certain classes are available only to degree-seeking students and may not be available for Non-Degree-Seeking students.

Should a student be accepted into a graduate degree program, no more than 12 hours of USF credit earned as a Non-Degree Seeking student may be applied to satisfy graduate degree requirements. All coursework transferred into the graduate program must have a grade of B or better. Any application of such credit must be approved by the degree-granting college and must be appropriate to the program. *For more information, refer to the Transfer of Credit policy in the Academic Policies Section*. Prior to completing twelve (12) hours in a specific degree program it is strongly recommended that a Non-Degree-Seeking Student apply for admission and be accepted to the degree program to continue taking courses in

the program. Programs may have additional requirements, so check with the program of interest for more information.

Transient Students:
USF 10.001 Transient Student Policy:
http://generalcounsel.usf.edu/policies-and-procedures/pdfs/policy-10-001.pdf

The SUS Transient Student program enables a graduate student to take advantage of resources available on other SUS campuses. A Transient Student, by mutual agreement of the appropriate academic authorities in both the sponsoring and hosting institutions, receives a waiver of admission requirements and application fee at the host institution and a guarantee of acceptance of earned credits by the sponsoring institution. A graduate advisor, who will initiate a visiting arrangement with the appropriate faculty of the host institution, must recommend a Transient Student. USF degree-seeking students who wish to enroll at another regionally accredited institution MUST HAVE PRIOR WRITTEN APPROVAL from their college academic advisor to receive credit for courses taken. For more information, contact the Registrar's Office at (813) 974-2000.
Transient Student Form: http://www.registrar.usf.edu/forms/TSF2008-04-07_16_17_06.pdf

Graduate Assistantships (GA), Research Assistantships (RA), and Teaching Assistantships (TA):
Graduate Assistantships are intended to recruit quality students to graduate study at USF and to enhance the graduate learning experience. Graduate assistantships exist within academic departments or other university offices on campus. Graduate assistants may teach, conduct research, or perform other tasks that contribute to the student's professional development. Graduate students may be classified as Graduate Assistants (GAs), Graduate Teaching Assistants/Associates (GTAs), Graduate Instructional Assistants (GIAs), and/or Graduate Research Assistants/Associates (GRAs). All graduate assistants at USF work under a contract negotiated by the Graduate Assistants United (GAU) and the USF Board of Trustees. The GAU is the labor union certified as the exclusive bargaining agent for graduate assistants at USF. To receive an assistantship, the graduate student must meet the following eligibility requirements:

- Accepted in a graduate degree program;
- Maintain an overall minimum grade point average (GPA) **and** degree program GPA of 3.00;
- Enrolled full-time during the semester(s) appointed as a graduate assistant;
- For teaching assistantships, demonstrate proficiency in spoken English (if student is not from an English speaking country).

Full-time enrollment is considered nine (9) graduate credit hours in the fall semester, nine (9) graduate credit hours in the spring semester, and six (6) graduate credit hours in the summer semester. If a graduate assistant is enrolled in the last semester of his/her program of study, the number of registered semester hours may be less than the full-time requirement. Graduate assistants must comply with all Graduate School enrollment requirements to retain their assistantship as stated in the Graduate School Catalog. ~~at http://www.grad.usf.edu/catalog.asp.~~

For specifics regarding Graduate Assistantship requirements, guidelines, and policies, refer to the Graduate Assistantships Resource Center online at http://www.grad.usf.edu/assistantships.asp, the Graduate Catalog Academic Policies Section, and also the Graduate Assistants Policies and Guidelines Handbook. ~~2008-2011, available online at: http://www.grad.usf.edu/inc/linked-files/GA_Policies_Guidelines_Handbook_2008_2011.pdf~~

Student Identification Card (USFCard and ID Badge) Policy
Reference: USF 5.108 - http://generalcounsel.usf.edu/policies-and-procedures/pdfs/policy-0-517.pdf

University policy requires all students obtain and carry the **USFCard** while on campus. The USFCard is primarily used for identification, for verification of USF status, and for using University services, such as the Library, the

purchase of parking decals, obtaining passes for University sporting and theatrical events, and other related events/services. USFCards may be obtained at the USFCard Center on each campus. Legal Identification (passport, driver's license, or State/ Government Photo Identification card) must be presented to obtain a USFCard. For the issuance of a family card, the student (with their USFCard) must accompany the family member(s) who must also provide legal identification. All privileges extended to the family(s) are discontinued when the Sponsor is no longer a student. Use of the USFCard by anyone other than the person to whom it was issued is strictly prohibited. The cardholder is responsible for any and all losses associated with their card. Fees for issuance of the first and replacement cards are in accordance with USF 5.018. Refer to the fee schedule for costs of each additional family member card. Financial services, long distance telephone services, and other features are options available at the user's discretion. USFCards are the property of the University of South Florida and must be returned on request.

Student Records Policy
Reference: USF2.0021 - http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf2.0021.pdf

Pursuant to the provisions of the Family Educational Rights and Privacy Act ("FERPA"; 20 USC Par. 1232g), 34 CFR Par. 99.1 et seq, Florida Statutes Sub. Par. 228.093 and 240.237 and USF Rule 6C4-2.0021, Florida Administrative Code, students have the right to:

1. Inspect and review their education records;
2. Privacy in their education records;
3. Challenge the accuracy of their education records; and
4. Report violations of FERPA to the FERPA Office, Department of Education, 400 Madison Avenue, SW, Washington, D.C. 20202 and/or bring actions in Florida Circuit Court for violations of USF 4-2.001, Florida Administrative Code.

Copies of the University's student records policy, USF 2.0021, may be obtained from the Office of the Registrar or the General Counsel.

Academic Record
The student's academic record shall not be changed after the student has graduated. Except in cases of administrative error, the student's academic record shall not be changed once the semester has rolled.

Release of Student Information
Pursuant to requirements of the Family Educational Rights and Privacy Act (FERPA), the following types of information, designated by law as "directory information," may be released via official media of USF (according to USF policy): *Student name, local and permanent addresses, telephone listing, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, full- and part-time status, and the most recent previous educational agency or institution attended, and other similar information.* The University Directory, published annually by the University, contains only the following information, however: *student name, local and permanent address, telephone listing, classification, and major field of study.* The Directory and other listings of "directory information" are circulated in the course of University business and, therefore, are accessible to the public, as well as to students, faculty, and staff. Students must inform the USF Office of the Registrar in writing (forms available for that purpose), if they wish directory information to be withheld. Such requests must be received within the first two (2) weeks of the semester and will remain in effect until the student has not been enrolled at USF for three (3) consecutive terms. Notification to the University of refusal to permit release of "directory information" via the University Directory must be received no later than the end of the first week of classes in the Fall Semester.

Exclusions
Members or former members of the faculty who hold or have held the rank of Assistant, Associate, or Full Professor are not eligible to be granted degrees from USF, except upon prior authorization of the Graduate School and the Provost. In cases where a member of the immediate family of a faculty member is enrolled in a graduate degree program, the faculty member may not serve on any advisory or examination committee or be involved in any determination of academic or financial status of that individual.

Course Information

Availability of Courses
USF does not commit itself to offer all the courses, programs, and majors listed in this catalog unless there is sufficient demand to justify them. Some courses may be offered only in alternate semesters or years, or even less frequently if there is little demand.

Course Attendance at First Class Meeting – Policy for Graduate Students
For structured courses, 6000 and above, the College/Campus Dean will set the first-day class attendance requirement. Check with the College for specific information. This policy is not applicable to courses in the following categories: Educational Outreach, Open University (TV), FEEDS Program, Community Experiential Learning (CEL), Cooperative Education Training, and courses that do not have regularly scheduled meeting days/times (such as, directed reading/research or study, individual research, thesis, dissertation, internship, practica, etc.). **Students are responsible for dropping undesired courses in these categories by the 5th day of classes to avoid fee liability and academic penalty.** (See USF Regulation – Registration - 4.0101, http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf4.0101.pdf)

Attendance Policy for the Observance of Religious Days by Students
In accordance with Sections 1006.53 and 1001.74(10) (g) Florida Statutes and Board of Governors Regulation 6C-6.0115, the University of South Florida (University/USF) has established the following policy regarding religious observances: http://generalcounsel.usf.edu/policies-and-procedures/pdfs/policy-10-045.pdf.

Cross-listing 4000/6000 Courses
It is expected that the 4000 and 6000 courses will have distinct syllabi demonstrating different depth and breadth of the subject matter as reflected in the course requirements. The courses presuppose different audiences, and the intention is to offer them at distinct levels.

Course Descriptions
For a listing of the most current, approved course descriptions refer to the Search-a-Bull Database available online at http://www.ugs.usf.edu/sab/sabs.cfm or in the course description listing in the Graduate Catalog.

Adds
After a student has completed his/her registration on the date assigned, he/she may add a course(s) during the drop/add week (i.e. through the fifth day of classes) through the OASIS system. Courses may be added with instructor approval and verification up to the last day to withdraw without academic penalty. See Academic Calendar for deadlines. Courses may not be added after the deadline to withdraw without academic penalty or retroactively except in cases of University Administrative error.

Drops
A student may drop a course(s) during the following times:

1. **During regular registration and the drop/add periods (first five days of classes).** No entry of the course(s) will appear on any permanent academic records and full refund of fees is due for course(s) dropped within those periods.

2. **Between the second and tenth week of the semester (except for summer sessions - see the Summer Schedule of Classes for dates).** Registration fees and tuition must be paid for the course(s) and the academic record will reflect a "W" grade for the dropped course(s).

3. **Following the tenth week deadline *if* the request meets one of the following exceptions:**

    a) Illness of the student of such severity or duration to preclude completion of the course(s) as confirmed in writing by a physician (M.D.).

    b) Death of the student or death in the immediate family (parent, spouse, child or sibling) as confirmed by documentation (death certificate, obituary) indicating the student's relationship to the deceased.

    c) Involuntary call to active military duty as confirmed by military orders.

    d) A situation in which the University is in error as confirmed by an appropriate University official.

    e) Other documented exceptional circumstances beyond the control of the student which precluded completion of the course(s) accompanied by explanatory letter and supporting documentation.

Courses may not be dropped after the last day of classes except in cases of University Administrative error.

Fee Adjustment Options
Students who receive approval to drop a course during the second through tenth week of classes are liable for tuition and fees. However, the student may apply for a Fee Adjustment through the Registrar's Office if the student has any of the exceptional circumstances noted above in item 3. The Fee Adjustment form may be submitted after the petition to drop is approved and processed. The Registrar will determine if a fee/tuition refund is applicable.

Deletes
A "delete" completely removes the course from the record with no history that it was ever part of the record. Courses will not be deleted from a student's record except in cases of University Administrative error. Requests for course deletions must be submitted only during the semester in which the error has occurred and only with written explanation from college faculty verifying the error. Such requests must be submitted by the last day of classes and approved by the College Dean or designee and the Graduate School Dean or designee. Retroactive requests for course deletions will not be approved. Faculty and students are encouraged to review course enrollment to verify accuracy of registration. In the event of extenuating circumstances such as documented medical emergencies, military leave or University error, students may request special consideration for deletions or retroactive deletions in writing to the Dean of the Graduate School.

Retroactive Actions
Requests for retroactive actions will no longer be considered / approved. *Also see Academic Record.*

Auditing Privileges and Fees
A student who wishes to sit in on a class to review the course material may do so; however, the student is not allowed to take exams, earn grades, or receive credit. The student's status for that class is an audit and his/her presence in the classroom is as a listener. Audit status must be obtained only during the first five days of the term by filing an Audit Form and a date-stamped permit from the college/department on the campus where the course is being offered, with the Registrar's Office. IN-STATE fees are assessed for all audit courses. Procedure and forms for requesting to audit are available on the Registrar's website.

Cancellation of Registration before First Class Meeting
Students may cancel their registration by notifying the Office of the Registrar in writing prior to the first day of classes. If fees have already been paid, the student may request a full refund of fees and tuition from the Office of Purchasing and Financial Services.

Withdrawal (from course registration)
A student may withdraw from the University without academic penalty during the first nine weeks of any term (except for Summer Sessions). He/she must submit a completed Withdrawal Form to the Office of the Registrar. No entry is made on the academic record for withdrawals submitted during the first week of the term. All subsequent withdrawals (through the ninth week of classes in the fall and spring semesters; see the Academic Calendar for summer deadlines) are posted to the academic record with "W" grades assigned to the courses. Withdrawal deadlines for the summer sessions are listed in the **Academic Calendar** (http://www.registrar.usf.edu/enroll/regist/calendt.php#1213) and are published in the *Schedule of Classes* for the Summer Term. Students who withdraw may not continue to attend classes. Students who withdraw during the drop/add period as stated in the Academic Calendar may receive a full refund of fees and tuition. All refunds must be requested in writing from the Office of Purchasing and Financial Services. No refund is allowed after this period except for specified reasons.

Voluntary Withdrawal (from the program)
A student may voluntarily withdraw from their graduate degree program. A Voluntary Withdrawal cannot be retroactive. The effective date of the withdrawal will be entered into the student's record by the Office of the Registrar as the first business day after the end of the semester. Students who wish to withdraw must submit a *Voluntary Withdrawal Form*, available from the Graduate School (www.grad.usf.edu). Once processed, the student's status will be changed from Graduate Degree Seeking to Non-Degree Seeking. A change to Non-Degree Seeking status could adversely impact financial aid. Questions regarding this should be directed to the Financial Aid Department at (813) 974-4700. The student will remain financially and academically responsible for any course(s) they have registered for. The student may request to drop or delete courses they are registered for by submitting a *Graduate School Petition.*

Academic Dismissal

Students may be academically dismissed from their graduate degree program for a variety of reasons. Once processed, the student's status will be changed from Graduate Degree Seeking to Non-Degree Seeking. A change to Non-Degree Seeking status could adversely impact financial aid. Dismissal cannot be retroactive. The effective date will be entered into the student's record by the Office of the Registrar as the First Business Day after the end of the Semester, except in cases of academic dismissal due to academic dishonesty or disruption of academic process. Some of the reasons for academic dismissal include*:

- Failure to successfully satisfy requirements to meet Conditional Admission by the deadline established by the program.
- Receiving an "FF" grade
- Failure to maintain "good standing"
- Failure to make satisfactory progress

*students may be dismissed for other reasons, such as violations of student conduct. Refer to the USF Policy – 6.0021 (http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf6.0021.pdf) for more information.

To be readmitted, the student will need to reapply for admission, meeting the admission criteria in place at the time. Graduate students who are assigned an "FF" grade will be academically dismissed from the University and will not be eligible to apply to any graduate program at USF.

Section 6

Tuition, Fees, and Financial Information

Tuition Information

Tuition and Fees Regulation:
http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf4.0102.pdf

For tuition information refer to the link: http://usfweb2.usf.edu/finaid/09-10/0910_budget.htm . All tuition and fees are subject to change, without prior notice. For information on Residency for tuition purposes, refer to the Florida Residency Policy.

All registration fees and all courses added during the drop/add period must be paid in full by the payment deadline date specified in the current *Schedule of Classes*. Registration fee payment may be made in person or mailed to the Cashier's office. Students not on an authorized deferred payment plan and who have not paid their registration fees in full by the published deadline will have their registrations canceled. A student will not receive credit for any courses taken during that semester. Students who are allowed to register in error may have their registration canceled. Any fees paid will be refunded or credited against any charges due the University.

~~**Tuition Waivers, Non-Resident**~~
~~USF Regulation USF4-3.024, at http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf3.024.pdf~~

Student Financial Services
Houses the Cashier's office, student accounting, accounts receivable, and the Student Account Information desk. It is located in SVC 1038, with the mailing address: Student Financial Services, 4202 E. Fowler Ave., ADM 0147, Tampa, FL 33620.

Veteran Deferment Benefits

Students receiving VA benefits who apply in writing no later than the specified date for the 60-day deferment of fees from the Office of Veteran's Services must pay registration fees in full by the date posted online. For more information contact USF Veteran's Services: at (813) 974-2291 or http://usfweb2.usf.edu/vetserve/

Financial Aid

Financial assistance is available through the Office of Financial Aid. Students requiring such assistance should contact http://www.usf.edu/finaid for information. Students eligible for tuition waivers (through assistantships, or employee benefits, etc.) should contact the department and/or college providing the waiver for information. Also see USF Regulation USF 6-0121 and USF 6-012.

Office of Financial Aid Policy on Refunds and Repayments
USF Policy 30-013 at http://generalcounsel.usf.edu/policies-and-procedures/pdfs/policy-10-013.pdf
~~http://generalcounsel.usf.edu/policies-and-procedures/pdfs/policy-30-013.pdf~~

Special Fees, Fines, and Penalties

USF Regulation USF4-017, at http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf4.0107.pdf

Section 7

Academic Policies and Regulations

Academic Policy Information

For USF Regulations refer to http://generalcounsel.usf.edu/regulations/current-regulations.asp
~~http://generalcounsel.usf.edu/regulations/current-regulations2.asp~~
For USF Policies refer to http://generalcounsel.usf.edu/policies-and-procedures/policy-procedures.asp

Student Responsibilities

The University, the Colleges, and the degree programs have established certain academic requirements that must be met before a degree is granted. While advisors, directors, department chairpersons, and deans are available to assist the student meet these requirements, it is ultimately the responsibility of the student to be acquainted with all policies and regulations, and be responsible for completing requirements. If requirements for graduation have not been satisfied, the degree will not be granted. The information presented here represents the University Academic Policies. Colleges and departments may have additional requirements. Check with your College Graduate Coordinator or your Department Program Director for more information. Courses, programs, and requirements described in the Catalog may be suspended, deleted, restricted, supplemented, or changed at any time at the sole discretion of the University and the Board of Trustees. For a list of current course descriptions, refer to the Search-A-Bull database online at http://www.ugs.usf.edu/sab/sabs.cfm.

Student Conduct

Members of the University community support high standards of individual conduct and human relations. Responsibility for one's own conduct and respect for the rights of others are essential conditions for academic and personal freedom within the University. USF reserves the right to deny admission or refuse enrollment to students whose actions are contrary to the purposes of the University or impair the welfare or freedom of other members of the University community. Disciplinary procedures are followed when a student fails to exercise responsibility in an acceptable manner or commits an offense as outlined in the Student Conduct Code. Refer to the USF 6.0021, Student Code of Conduct at http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf6.0021.pdf~~http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf6.0021.pdf~~

Academic Integrity of Students

Reference USF Regulation 3.027 - The following is the portion of the Regulation pertaining to graduate students. To read the entire Regulation, including the sections pertaining to undergraduate students, go to: http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf3.027.pdf

(1) Fundamental principles:

Academic integrity is the foundation of the University of South Florida's (University/USF) commitment to the academic honesty and personal integrity of its University Community. Academic integrity is grounded in certain fundamental values, which include honesty, respect and fairness. Broadly defined, academic honesty is the completion of all academic endeavors and claims of scholarly knowledge as representative of one's own efforts. Knowledge and maintenance of the academic standards of honesty and integrity as set forth by the University are the responsibility of the entire academic community, including the instructional faculty, staff and students.

(2) General Policies:

The following policies and procedures apply to all students, instructional faculty, and staff who participate in administration of academic classes, programs and research at the University of South Florida. This regulation asserts fairness in that it requires notice to any student accused of a violation of academic integrity and provides a directive for discussion between the instructor and student to seek a fair and equitable resolution. If a fair resolution is not accomplished in this discussion, this regulation allows the student continued rights of due process under the academic grievance procedures based upon the preponderance of the evidence. The policies described below are the only policies and procedures that govern violations of academic integrity at the University and supersede any previous policies or regulations.

(3) Violations of Academic Integrity: Undergraduate and Graduate

Behaviors that violate academic integrity are listed below, and are not intended to be all inclusive.

(a) Cheating

Definition: *Cheating* is using or attempting to use materials, information, notes, study aids, or other assistance in any type of examination or evaluation which have not been authorized by the instructor.

Clarification:

1. Students completing any type of examination or evaluation are prohibited from looking at or transmitting materials to another student (including electronic reproductions and transmissions) and from using external aids of any sort (e.g., books, notes, calculators, photographic images or conversation with others) unless the instructor has indicated specifically in advance that this will be allowed.

2. Students may not take examinations or evaluations in the place of other persons. Students may not allow other persons to take examinations or evaluations in their places.

3. Students may not acquire unauthorized information about an examination or evaluation and may not use any such information improperly acquired by others.

4. Instructors, programs and departments may establish, with the approval of the colleges, additional rules for exam environments and behavior. Such rules must be announced in advance in a course syllabus or other advance written notice to students.

(b) Plagiarism

Definition: *Plagiarism* is intentionally or carelessly presenting the work of another as one's own. It includes submitting an assignment purporting to be the student's original work which has wholly or in part been created by another person. It also includes the presentation of the work, ideas, representations, or words of another person without customary and proper acknowledgement of sources. Students must consult with their instructors for clarification in any situation in which the need for

documentation is an issue, and will have plagiarized in any situation in which their work is not properly documented.

Clarification:

1. Every direct quotation must be identified by quotation marks or appropriate indentation and must be properly acknowledged by parenthetical citation in the text or in a footnote or endnote.

2. When material from another source is paraphrased or summarized in whole or in part in one's own words, that source must be acknowledged in a footnote or endnote, or by parenthetical citation in the text.

3. Information gained in reading or research that is not common professional knowledge must be acknowledged in a parenthetical citation in the text or in a footnote or endnote.

4. This prohibition includes, but is not limited to, the use of papers, reports, projects, and other such materials prepared by someone else.

(c) Fabrication, Forgery and Obstruction

Definitions:

Fabrication is the use of invented, counterfeited, altered or forged information in assignments of any type including those activities done in conjunction with academic courses that require students to be involved in out-of-classroom experiences.

Forgery is the imitating or counterfeiting of images, documents, signatures, and the like.

Obstruction is any behavior that limits the academic opportunities of other students by improperly impeding their work or their access to educational resources.

Clarification:

1. Fabricated or forged information may not be used in any laboratory experiment, report of research, or academic exercise. Invention for artistic purposes is legitimate under circumstances explicitly authorized by an instructor.

2. Students may not furnish to instructors fabricated or forged explanations of absences or of other aspects of their performance and behavior.

3. Students may not furnish, or attempt to furnish, fabricated, forged or misleading information to university officials on university records, or on records of agencies in which students are fulfilling academic assignments.

4. Students may not steal, change, or destroy another student's work. Students may not impede the work of others by the theft, defacement, mutilation or obstruction of resources so as to deprive others of their use.

5. Obstruction does not include the content of statements or arguments that are germane to a class or other educational activity.

(d) Multiple Submissions

Definition: *Multiple submissions* are the submissions of the same or substantially the same work for credit in two or more courses. Multiple submissions shall include the use of any prior academic effort previously submitted for academic credit at this or a different institution. Multiple submissions shall not

include those situations where the prior written approval by the instructor in the current course is given to the student to use a prior academic work or endeavor.

Clarification:

1. Students may not normally submit any academic assignment, work, or endeavor in more than one course for academic credit of any sort. This will apply to submissions of the same or substantially the same work in the same semester or in different semesters.

2. Students may not normally submit the same or substantially the same work in two different classes for academic credit even if the work is being graded on different bases in the separate courses (e.g., graded for research effort and content versus grammar and spelling).

3. Students may resubmit a prior academic endeavor if there is substantial new work, research, or other appropriate additional effort. The student shall disclose the use of the prior work to the instructor and receive the instructor's permission to use it PRIOR to the submission of the current endeavor.

4. Students may submit the same or substantially the same work in two or more courses with the prior written permission of all faculty involved. Instructors will specify the expected academic effort applicable to their courses and the overall endeavor shall reflect the same or additional academic effort as if separate assignments were submitted in each course. Failure by the student to obtain the written permission of each instructor shall be considered a multiple submission.

(e) Complicity

Definition: *Complicity* is assisting or attempting to assist another person in any act of academic dishonesty.

Clarification:

1. Students may not allow other students to copy from their papers during any type of examination.

2. Students may not assist other students in acts of academic dishonesty by providing material of any kind that one may have reason to believe will be misrepresented to an instructor or other university official.

3. Students may not provide substantive information about test questions or the material to be tested before a scheduled examination unless they have been specifically authorized to do so by the course instructor. This does not apply to examinations that have been administered and returned to students in previous semesters.

(f) Misconduct in Research and Creative Endeavors

Definition: *Misconduct in research* is serious deviation from the accepted professional practices within a discipline or from the policies of the university in carrying out, reporting, or exhibiting the results of research or in publishing, exhibiting, or performing creative endeavors. It includes the fabrication or falsification of data, plagiarism, and scientific or creative misrepresentation. It does not include honest error or honest disagreement about the interpretation of data.

Clarification:

1. Students may not invent or counterfeit information.

2. Students may not report results dishonestly, whether by altering data, by improperly revising data, by selective reporting or analysis of data, or by being grossly negligent in the collecting or analysis of data.

3. Students may not represent another person's ideas, writing or data as their own.

4. Students may not appropriate or release the ideas or data of others when such data have been shared in the expectation of confidentiality.

5. Students may not publish, exhibit, or perform work in circumstances that will mislead others. They may not misrepresent the nature of the material or its originality, and they may not add or delete the names of authors without permission.

6. Students must adhere to all federal, state, municipal, and university regulations or policies for the protection of human and other animal subjects.

7. Students may not conceal or otherwise fail to report any misconduct involving research, professional conduct, or artistic performance of which they have knowledge.

8. Students must abide by the university's policies on Misconduct in Research where applicable, which can be found in the University's Policies and Procedures Manual at the General Counsel's website.

(g) Computer Misuse

Definition: *Misuse of computers* includes unethical or illegal use of the computers of any person, institution or agency in which students are performing part of their academic program.

Clarification:

1. Students may not use the university computer system in support of any act of plagiarism.

2. Students may not monitor or tamper with another person's electronic communications.

(h) Misuse of Intellectual Property

Definition: *Misuse of intellectual property* is the illegal use of copyright materials, trademarks, trade secrets or intellectual properties.

Clarification:
Students may not violate state or federal laws concerning the fair use of copies.

Sections (4) and (5): Violations and Sanctions for Undergraduate Students - are NOT LISTED HERE; (REFER TO REGULATION ONLINE TO READ)

(6) Violations and Sanctions for Graduate Students[2]

The Graduate School holds academic integrity in the highest regard. Graduate students are responsible for being aware of and complying with University Regulations and Policies and must conduct themselves accordingly. Sanctions for Academic Dishonesty will depend on the seriousness of the offense and may range from the receipt of:

- An "F" or "Zero" grade on the subject paper, lab report, etc.

[2] These policies apply to Graduate Students (students admitted to a graduate degree program or graduate certificate, and/or non-degree seeking students taking graduate coursework). Undergraduate students should refer to *Section (4) and (5) Violations and Sanctions for Undergraduate Students*.

- An "F" in the course or activity in which credit may be earned,
- An "FF" in the course (leading to expulsion from the University)
- Academic Dismissal for any violations of academic dishonesty policies or regulations
- Possible revocation of the degree or Graduate Certificate following a thorough investigation

Graduate students who are assigned an "FF" grade will be academically dismissed from the University and will not be eligible to apply to any graduate program at USF. Procedures regarding Academic Dishonesty and Academic Dismissal may be found on the Graduate School website.

(7) Additional Graduate Guidelines for Academic Dishonesty:

1. If a graduate student who has been accused of academic dishonesty drops the course, the student's registration in the course will be reinstated until the issue is resolved.

2. Any assigned grade may be changed to an "FF", "F", or other grade depending on the instructor's decision or the ultimate resolution of an academic grievance procedure. This includes any instance of academic dishonesty that is not detected until after the student has dropped or completed the course.

3. Notification to the graduate student of the "FF" grade and the option of appeal concerning the alleged academic dishonesty and academic dismissal remains with the instructor and/or department chair. (Refer to the *University Academic Grievance Procedures*.)

4. A graduate student who has been dismissed for reasons of academic dishonesty will have this reflected on the student's transcript with the formal notation: Dismissed for Academic Dishonesty.

5. More serious violations of academic integrity may be referred to the Office of Students Rights and Responsibilities as a student conduct violation.

(8) Appeals: Undergraduate and Graduate

Once the initial violation of the academic integrity regulation has been documented and fairly discussed by the student and the instructor, the student may appeal the instructor's decision that a violation has occurred. At that point the student will follow the procedures outlined in the University of South Florida's student Academic Grievance Procedure Policy. For academic integrity violations that are reviewed at the department and college levels, the respective committees will consider all evidence available to determine if the instructor's decision was correct. The student's ability to proceed within an academic program while an Academic Grievance is in process will be determined by the individual academic program chair/director.

Authority: Art. IX, Sec. 7, Fla. Constitution and Resolutions issued by the FL Board of Governors History–New 12-11-08.

Disruption of Academic Process

Reference: USF Regulation 3.025
http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf3.025.pdf

(1) Disruptive students in the academic setting hinder the educational process. Although disruptive student conduct is already prohibited by the University of South Florida (University/USF) Student Code of Conduct, the purpose of this regulation is to clarify what constitutes disruptive behavior in the academic setting, what actions faculty and relevant academic officers may take in response to disruptive conduct, and the authority of the Office of Student Rights and Responsibilities or designated office handling conduct issues in Student Affairs to initiate separate disciplinary proceedings against students for disruptive conduct.

(2) Disruption of the academic process is defined as the act, words, or general conduct of a student in a classroom or other academic environment which in the reasonable estimation of the instructor:

(a) directs attention away from the academic matters at hand, such as noisy distractions, persistent, disrespectful or abusive interruption of lecture, exam, academic discussion, or general University operations, or

(b) presents a danger to the health, safety or well-being of self or other persons.

References to classroom or academic area include all academic settings (live or online, and including field experiences) and references to Instructor include the course instructor, USF faculty, administrators, and staff. Misconduct occurring in other campus areas on University premises or which adversely affects the University community and/or the pursuit of its mission is already prohibited by the Student Code of Conduct and will be handled by those procedures. Academic discussion that includes disagreement with the course instructor during times when the instructor permits discussion is not in itself disruptive behavior and is not prohibited. Some disruptive students may have emotional or mental health disorders. Although such students may be considered disabled and are protected under the Rehabilitation Act/ADA, they are held to the same standards of conduct as any student.

The following applies to all campuses of the University of South Florida; however, non-substantive procedural modifications to reflect the particular circumstances of each regional campus are permitted. Information concerning these procedures is available through the Student Affairs Office at those regional campuses.

(3) Procedures for Handling Disruption of Academic Process

(a) General Guidelines for Instructor:

1. If a student is disruptive, the Instructor may ask the student to stop the disruptive behavior and/or warn the student that such disruptive behavior can result in academic and/or disciplinary action. Alleged disruptions of the academic process will be handled initially by the Instructor, who will discuss the incident with the student whenever possible. It must be noted that the Faculty Senate considers the traditional relationship between student and instructor as the primary means of settling disputes that may arise.

2. The Instructor is authorized to ask a student to leave the classroom or academic area and desist from the disruptive behavior if the Instructor deems it necessary. If the Instructor does this, s/he will send an Academic Disruption Incident Report within 48 hours simultaneously to

a. the department chair,
b. the Assistant/Associate Dean of the College (as determined by the College),

c. the Office of Student Rights and Responsibilities (OSRR) or the regional campus' designated office in Student Affairs, and
d. the student.

If the situation is deemed an emergency or circumstances require more immediate action, the instructor should notify the appropriate law enforcement agency, OSRR and other authorities as soon as possible. Any filed Incident Report can, and should, be updated if new information pertinent to the situation is obtained.

3. An Instructor may also further exclude the student from the classroom or other academic area pending resolution of the matter. If the Instructor recommends exclusion (temporary or permanent) from the classroom pending resolution, the student must be informed of the exclusion before the next scheduled class (either by phone, email or in person). That notice must:

a. inform the student of the exclusion,
b. inform the student of his/her right to request an expedited review of the exclusion within two days to the Chair of the Department.

If such academic exclusion occurs, and if the student requests a review, the Chair of the Department shall review the exclusion within two days of the date the student requests the review and decide if the student can return to the specific class and/or any academic setting. This decision may be appealed in writing by the student within two days to the Dean of Undergraduate Studies or Graduate Studies or the institutional designee (as appropriate) for review and decision within two days. Any decision rendered at that point must be in writing and will serve as the final and binding academic decision of the University.

Each academic decision or sanction must be communicated to the Office of Students Rights and Responsibilities or the regional campus' designated office as soon as possible.

(b) Possible Academic Sanctions and Grading Guidelines:

Authority of an Instructor and the appropriate Chair or Assistant/Associate Dean's Office may result in any of the following sanctions:

- Warning to the student
- Voluntary withdrawal by the student from the class(es)
- Temporary exclusion and/or permanent dismissal from the instructor's classroom or academic area, program, or college, pending an expedited appeal
- Academic sanction, including assignment of a final grade -- If the final determination is a dismissal from class, the grade assigned for the class will depend on the student's status at the time of dismissal. If the student had a passing grade in the class at the time of dismissal, a grade of "W" will be assigned for the course. If the student had a failing grade in the class at the time of dismissal, a grade of "F" will be assigned for the course. These grades will become a part of the student's permanent record. In addition, if the academic disruption results in dismissal from more than the classroom or academic area of the incident, this grading policy may be applied in all classes affected.

(c) Documentation and Academic Disruption Incident Report:

Instructors should be aware that notes of the dates, times, witnesses and details of the incidents of disruption and the impact of the disruption on those present may be important in any future proceedings which may be necessary. Referrals to the Office of Student Rights and Responsibilities or designated office in Student Affairs require written documentation containing factual and descriptive information. The student is entitled to see this documentation.

The Academic Disruption Incident Report must be submitted by hardcopy (not email) simultaneously within 48 hours to

a) the Department chair,
b) the Assistant/Associate Dean of the College (as determined by the College),
c) the Office of Student Rights and Responsibilities or the regional campus' designated office in Student Affairs, and
d) the student.

The form can be downloaded from the designated website in Student Affairs or completed by way of memorandum containing the following information:

- Date of report
- Student's name
- USF Student ID number
- Instructor's name
- Instructor's phone number
- Instructor's e-mail
- Title of course, course number and section
- Date/time/location of incident
- Detailed summary of the incident, including a description of the disruptive behavior
- Witnesses
- Action, if any, taken by the instructor (e.g., student warned, asked to leave the class, etc.)
- Recommended course of action and reasons for this recommendation
- Instructor's signature

(d) Possible Disciplinary Sanctions for Conduct by the Office of Student Rights and Responsibilities:

Upon receipt of the Academic Disruption Incident Report or other academic referral for disruptive conduct, the Office of Student Rights and Responsibilities or designated office in Student Affairs may initiate the disciplinary process resulting in the imposition of any of the following sanctions in addition to any academic sanctions imposed (in section b):

- Educational sanctions to include but not limited to educational programs/classes and written assignments
- Disciplinary probation
- Provisional suspension
- Suspension

- Restriction from certain or all class(es), program, college, residence hall, or any part or all of USF campuses
- Expulsion

When an incident is being reviewed by OSRR or designated office in Student Affairs for possible disciplinary sanctions, current provisions affecting the student's academic status (temporary or otherwise) will be communicated by the Office of Student Rights and Responsibilities or designated office in Student Affairs to the Instructor and appropriate academic administrators/instructors responsible for the student's current academic standing as soon as possible, but within two weeks of the reported incident. Only final disciplinary sanctions that affect the academic status of the student will be communicated to the Instructor(s) and appropriate academic administrators after the disciplinary process is complete.

(e) Resources:

University Police	(813) 974-2628
Advocacy Program	(813) 974-5756
Counseling Center	(813) 974-2831
General Counsel	(813) 974-2131
Office of Student Rights and Responsibilities (USF Tampa)	(813) 974-9443
Office of Student Rights and Responsibilities (USF-Sarasota-Manatee)	(941) 359-4330
USF Polytechnic Student Affairs/Dean of Students	(863) 667-7049
USF St. Petersburg Vice Chancellor for Student Affairs	(727) 873-4162
Students with Disabilities Services	(813) 974-4309
Assistant/Associate Dean's office in schools and colleges, department chairs	

Authority: Art. IX, Sec. 7, Fla. Constitution and Resolutions issued by the FL Board of Governors., 1006.60, 1006.61 F.S. History—New12-11-08.

Student Academic Grievance Procedure

Reference: USF 10.002 Student Academic Grievance Procedure – http://generalcounsel.usf.edu/policies-and-procedures/pdfs/policy-10-002.pdf

For matters that are not academic in nature, reference ***USF 30-053 Student Grievance Processes and Non-Academic Grievance Policy***

I. Introduction (Purpose and Intent)

The purpose of these procedures is to provide all undergraduate and graduate students taking courses within the University of South Florida system (University/USF) an opportunity for objective review of facts and events pertinent to the cause of the academic grievance. Such review will be accomplished in a collegial, non-judicial atmosphere rather than an adversarial one, and shall allow the parties involved to participate. All parties will be expected to act in a professional and civil manner.

The procedures that follow are designed to ensure objective and fair treatment of both students and instructors. These guidelines are meant to govern all colleges (exclusive of the College of Medicine which maintains its own procedures), however, as individual USF institutions, colleges or campuses may have different levels of authority or titles, each student must obtain the specific designations used by each entity for levels of authority and titles in the process with appropriate designations of authority if necessary.

In the case of grade appeals, the University reserves the right to change a student's grade if it is determined at the conclusion of the grievance process that the grade given was incorrect. In such circumstances, the Dean or Provost/Sr. Vice President for Academic Affairs, the Vice-Chancellor for Academic Affairs, or the Sr. Vice President, USF Health may file an administrative grade change. The term "incorrect" means the assigned grade was based on something other than performance in the course, or that the assignment of the grade was not consistent with the criteria for awarding of grades as described in the course syllabus or other materials distributed to the student. In the case of all other academic grievances, the University reserves the right to determine the final outcome based on the procedures detailed herein.

In the case of Academic Integrity (USF Regulation 3.027) violations, these Student Academic Grievance Procedures apply and include an Academic Integrity Review Process at the College Level as described in section III below.

II. Terms and Guidelines

An *"academic grievance"* is a claim that a specific academic decision or action that affects that student's academic record or status has violated published policies and procedures, or has been applied to the grievant in a manner different from that used for other students. Grievances may relate to such decisions as the assignment of a grade seen by the student as incorrect or the dismissal or failure of a student for his or her action(s). Academic grievances will not deal with general student complaints.

"Instructor" shall mean any classroom instructor, thesis/dissertation/directed study supervisor, committee member or chair, or counselor/advisor who interacts with the student in an academic environment.

"Department Chair/Director" shall mean the academic head of a college department or the director of a program—or in all cases a "Department's designee" appointed to handle academic grievances.

"Dean" shall mean a College Dean, or the Dean of Undergraduate Studies, or the Dean of the Graduate School, or the equivalent as indicated—or in all cases a "Dean's designee" appointed to handle academic grievances for the unit.

"Time" shall mean *"academic time,"* that is, periods when University classes are in session. *The person vested with authority at the appropriate level may extend any of the time periods contained herein for good cause.* Any extensions must be communicated in writing to all parties. For the purposes of this policy, each step shall be afforded three (3) weeks as a standard time limit. When a department considers a grievance according to published departmental procedures approved by the College Dean and Provost or College Dean and Regional Vice Chancellor for Academic Affairs, as pertinent, the time line specified in this academic unit's procedures will govern the process and no additional notice of time extension is needed.

"Written communication" shall mean communication by hard copy to the recipient's address of record.

The *"burden of proof"* shall be upon the student such that the student challenging the decision, action or grade assigned has the burden of supplying evidence that proves that the instructor's decision was

incorrect, in all cases except alleged violations of academic integrity. In cases where the issue is academic integrity, the burden of proof shall be upon the instructor. In considering grievances, decisions will be based on the preponderance of the evidence.

Neither party shall be entitled to bring *"legal representation"* to any actual grievance proceeding as this is an internal review of an academic decision.

As some Colleges may not have departments or some campuses may use different titles, the next level that applies to that College shall be substituted. If the incident giving rise to a grievance occurs on the St. Petersburg campus, the approved policy on that campus shall govern.

III. Statement of Policy

A. Resolution at the Department Level

1. The student shall first make a reasonable effort to resolve his or her grievance with the instructor concerned, with the date of the incident triggering the start of the process (i.e. the issuance of a grade; the receipt of an assignment) and the instructor shall accommodate a reasonable request to discuss and attempt to resolve this issue.

2. If the situation cannot be resolved or the instructor is not available, the student shall file a notification letter within three weeks of the triggering incident to the department Chairperson/Director. This shall be a concise written statement of particulars and must include information pertaining to how, in the student's opinion, University policies or procedures were violated. The department Chairperson/Director shall provide a copy of this statement to the instructor.

3. The department Chairperson/Director shall discuss the statement jointly or individually with the student and the instructor to see if the grievance can be resolved. If the department maintains its own grievance procedure,* it should be applied at this point. If the grievance can be resolved, the Chairperson/Director shall provide a statement to that effect to the student and the instructor with a copy to the College Dean.

4. If the grievance cannot be resolved, the department Chair/Director shall notify both the student and the instructor, informing the student of his/her right to file a written request within three weeks to advance the grievance to the College Level. The instructor may file a written response to the grievance petition. Upon receipt of the student's request to move the process to the College Level and the instructor's response to the grievance (if provided), the Chairperson/Director shall immediately notify the College Dean of the grievance, providing copies of the student's initiating grievance statement, any instructor's written response to the grievance, and the written request from the student to have the process advanced to the College Level (which may include additional responsive or final statements by the student). Should the student not file a written request to move the grievance to the College Level within the prescribed time, the grievance will end.

If the grievance concerns the Chairperson/Director or other officials of the department, the student has a right to bypass the departmental process and proceed directly to the College Level.

B. Resolution at the College Level

1. Upon receipt of the grievance, the College Dean shall either determine that the matter is not an academic grievance and dismiss it or within three weeks shall establish an Academic Grievance Committee. The membership of the Committee shall be constituted as follows:

    a. Three (3) faculty members and two (2) students (undergraduate or graduate as appropriate to the case) shall be selected from the College by the Dean.

    b. Wherever practical, the Committee shall not include members of the faculty or students of the department directly involved with the grievance, or faculty or students of the student's major department. The student or faculty may address the committee. However, if requested by the committee; faculty or students from the department involved with the grievance or from the student's major department may provide expert or other relevant testimony in the proceedings.

2. The Committee will operate in the following manner:

    a) The Committee Chairperson will be appointed by the College Dean from among the three faculty members appointed to the Committee.

    b) The Committee Chairperson shall be responsible for scheduling meetings, overseeing the deliberations of the committee and ensuring that full and fair consideration is provided to all parties. The Committee Chairperson shall vote on committee decisions only when required to break a tie.

    c) In Committee reviews involving Academic Integrity, the following *Academic Integrity Review Process* shall be followed:

        1) The Committee Chairperson shall notify the student and instructor of the date and time of the meeting.

        2) The student and instructor may submit a list of questions to the Committee Chairperson to be answered by the student and instructor. If submitted, the questions will be disseminated by the Committee Chairperson and the Committee Chairperson will ensure that the questions are answered in writing and submitted for review by the Committee, student, and instructor before the initial meeting.

        3) The student or instructor may request to attend a Committee meeting as designated by the Chairperson to present any final statement to the Committee and either may be present during the other's final statement. Neither the student nor instructor may be present during the deliberations.

            The student or instructor may bring an advisor (not to act as legal counsel or to participate in the meetings) to the meeting.

        4) Students shall be permitted to remain in the course or program during the Academic Integrity Review Process. However, if the student is in a clinical or internship setting, the student may be removed from such setting until the issue of Academic Integrity is resolved. In such cases, the program will attempt to identify an alternative educational option to the clinical or internship to enable the student to continue progressing in the program.

d) All deliberations shall be in private and held confidential by all members of the Committee. The recommendation of the Committee shall be based on the factual evidence presented to it.

e) Within three weeks of the Committee appointment, the Committee Chairperson shall deliver in writing to the student, instructor, department Chairperson/Director or Program Director, and College Dean a report of the findings and a recommended resolution.

f) f) Within three weeks of receipt of the Committee recommendation, the College Dean shall provide a decision in writing to all parties.

g) g) The student or the instructor may appeal the decision of the College Dean to the University Level only if the decision of the College Dean is contrary to the recommendation of the Committee or if there is a procedural violation of these Student Academic Grievance Procedures. Such an appeal must be made in writing to the Dean of Undergraduate Studies or Graduate School (as appropriate) within three weeks of receipt of the decision from the College Dean. Otherwise, the College Dean's decision is final and not subject to further appeal within the University.

Resolution at the University Level

The Provost/Sr. Vice President for Academic Affairs or the Sr. Vice President, USF Health has delegated authority to the Dean of Undergraduate Studies to act in place of the Provost/Sr. Vice President in all academic grievance appeals involving undergraduate students unless the grievance occurred in a program within Undergraduate Studies, wherein it will go back to the Provost to redelegate. The Dean of Graduate School will act in place of the Provost/Sr. Vice President in all academic grievance appeals involving graduate students. The Regional Vice Chancellor for Academic Affairs at USF St. Petersburg may delegate authority to a designated academic administrator at USF St. Petersburg to hear the appeal at the University level.

1. The student or the instructor may appeal at the University Level within three weeks of the receipt of a decision made at the College Level, when (1) the decision by a College Dean is contrary to the recommendation of a college Grievance Committee, or (2) there is cause to think a procedural violation of these University Academic Grievance Procedures has been made. Within three weeks of receipt of the appeal to the decision, the Undergraduate/Graduate Dean in consultation with the Faculty Senate and the Student Senate, shall appoint an Appeals Committee consisting of three faculty members drawn from the University Undergraduate Council or Graduate Council (as appropriate), and two students, undergraduate or graduate (as appropriate).

2. The structure, functions and operating procedures of the Appeals Committee will be the same as those of the College Committee (i.e. chaired by one of the appointed faculty members appointed by the Undergraduate/Graduate Dean who will not vote except in the case of a tie, having no representation from either party's respective departments, developing a recommendation to the Undergraduate/Graduate Dean, etc.).

3. Within three weeks of the appointment, the Committee Chairperson shall deliver in writing to the Undergraduate/Graduate Dean a report of the findings of the Committee and a recommended resolution.

4. Within three weeks of receipt of the Committee recommendation, the Undergraduate/Graduate Dean shall provide a decision in writing to all parties.

5. If the Undergraduate/Graduate Dean's decision is that a grade change is merited, the Undergraduate/Graduate Dean shall initiate the grade change on the authority of the Provost and so inform all parties. In all academic grievance appeals, the Undergraduate/Graduate Dean's decision is final and not subject to further appeal within the University.

These procedures shall take effect commencing (February 10, 2009) and shall supersede all other academic grievance procedures currently in effect, with the exception of the procedures of the College of Medicine.

**Departments may develop their own formal procedures for considering grievances. Such procedures must be considered and approved by the College Dean and the Provost, and published on the Department's web site. When such procedures exist, the Department's examination of the grievance will unfold as specified in the procedures. If the Departmental process upholds the student's grievance, the Department Chair will work with the College, the student and the instructor to remedy the situation. If the Department does not uphold the grievance, the Chair will report the fact to the Dean. The student may, in such cases, request the College Level review as outlined in these University procedures*.

Graduate Catalog

~~USF Regulation USF1.009, http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf1.009.pdf~~

The USF Tampa Graduate Catalog, including college and program requirements, and program and course descriptions, is available on the web at http://www.grad.usf.edu. Each Catalog is published and in effect for the academic term(s) noted on the title page.

Student's Program Degree Requirements
In order to graduate, students must meet all requirements specified in the USF Catalog of their choice, except as noted below. As the University is dynamic, changes and updates to the catalog are anticipated. In contract to program requirements, which are tied to a specific catalog, all students must comply with University policies and procedures that come into effect each catalog year.

- Students cannot choose a USF Catalog published prior to admission (or readmission) or during an academic year in which they did not complete at least two terms. If a student is dropped from the system and must be reinstated, the student's choice of Catalog is limited to the USF Catalog in effect at the time of readmission or any one Catalog published during their continuous re-enrollment.

- If state law or certification requirements change, the student must comply with the most current standard or criteria.

- If the College or Department makes fundamental changes to the program that necessitates changes in the degree requirements of enrolled students, the needs of those students will be explicitly addressed in the proposal for change and scrutinized by the Graduate School.

- USF policies and procedures not related to degree requirements such as academic grievance procedures, student conduct code and other procedural processes and definitions may be updated each year and the student will be held to the most current catalog and procedures available.

- USF does not commit itself to offer all the courses, programs, and majors listed in this Catalog. If the student cannot meet all of the graduation requirements specified in the Catalog of choice as a result of decisions and changes made by the University, appropriate substitutions will be determined by the program to ensure that the student is not penalized.

Student's Program of Study
It is recommended that the Department or College establish a program of study for the student at the time of admission into the graduate program, outlining the requirements for the degree sought. In the event state mandates, accreditation requirements, etc., make changes to the degree requirements necessary, it is recommended that the program provide an addendum to the program of study outlining what is required for degree completion.

Assistantships

Graduate Assistantships (GA), Research Assistantships (RA), and Teaching Assistantships (TA) Graduate Assistantships are intended to recruit quality students to graduate study at USF and to enhance the graduate learning experience. Graduate assistantships exist within academic departments or other university offices on campus. Graduate assistants may teach, conduct research, or perform other tasks that contribute to the student's professional development. Graduate students may be classified as Graduate Assistants (GAs), Graduate Teaching Assistants/Associates (GTAs), Graduate Instructional Assistants (GIAs), and/or Graduate Research Assistants/Associates (GRAs). All graduate assistants at USF work under a contract negotiated by the Graduate Assistants United (GAU) and the USF Board of Trustees. The GAU is the labor union certified as the exclusive bargaining agent for graduate assistants at USF.

To receive an assistantship, the graduate student must meet the following eligibility requirements:

- Accepted in a graduate degree program;
- Maintain an overall minimum grade point average (GPA) **and** degree program GPA of 3.00;
- Enrolled full-time during the semester(s) appointed as a graduate assistant.
- For Teaching Assistants, demonstrate proficiency in spoken English (if student is not from an English speaking country)

Full-time enrollment is considered nine (9) graduate credit hours in the fall semester, nine (9) graduate credit hours in the spring semester, and six (6) graduate credit hours in the summer semester. If a graduate assistant is enrolled in the last semester of his/her program of study, the number of registered semester hours may be less than the full-time requirement. Graduate assistants must comply with all Graduate School enrollment requirements to retain their assistantship as stated in the Graduate School Catalog at http://catalog.grad.usf.edu/. For specifics regarding Graduate Assistantship requirements, guidelines, and policies, refer to the Graduate Assistants Policies and Guidelines Handbook ~~2008-2011, available online at: http://www.grad.usf.edu/inc/linked-files/GA_Policies_Guidelines_Handbook_2008_2011.pdf~~

Enrollment Requirements

Students receiving Veterans' Administration benefits should confirm their enrollment requirements with the Office of Veterans' Services or Veterans' Coordinator.

Minimum University Regulations

USF Full-Time Student Definition
Students taking nine (9) or more hours toward their degree in the fall or spring semester, or taking six (6) or more hours in the summer semester, will be classified as Full-Time students for academic purposes. For financial aid requirements, contact the Office of Financial Aid.

Continuous Enrollment for All Graduate Students
All graduate degree-seeking students must be continuously enrolled. Continuous enrollment is defined as completing, with grades assigned, a minimum of 6 hours of graduate credit every three continuous semesters. Colleges and programs may have additional requirements. Students on an approved leave of absence are not subject to the enrollment requirement for the time approved for the leave. Students who have been Admitted to Doctoral Candidacy must follow the Dissertation Hour Enrollment in place of the Continuous Enrollment requirement as specified here for all graduate students (not in candidacy). See also the Time Limitations Policy.

Readmission Following Non-enrollment
A graduate student who is not registered and enrolled for a minimum of six (6) credits in a 12 month period is automatically placed in non-degree seeking (i.e. inactive) status. Students must be readmitted to the degree program to continue their studies. Readmission is at the discretion of the program and is not guaranteed. *Refer to the Readmission Policy in the Graduate Admissions Section for more information.*

Enrollment during Comprehensive Exams and Admission to Candidacy
During the term in which students take the comprehensive exams, students must be enrolled for a minimum of two (2) hours of graduate credit. If the exam is taken between semesters, the student must enroll for a minimum of two (2) hours of graduate credit in the semester before or following the exam. Students must also be enrolled for a minimum of two (2) hours of graduate work in the semester of admission to doctoral candidacy.

Dissertation Hours
Students working on a dissertation must enroll for a minimum of two (2) hours of dissertation every semester, starting with the semester following Admission to Doctoral Candidacy, up to and including the semester the dissertation is submitted to and approved by the Graduate School. Dissertation hours may apply to the Continuous Enrollment Requirement. Colleges and programs may have additional requirements. Students who are dropped from degree-seeking status and formally readmitted to the program must enroll in a minimum of 5 dissertation hours in the semester that the readmission is effective. *Refer to the Readmission Policy in the Graduate Admissions Section for more information.*

Enrollment during Semester of Thesis Submission
Students must be enrolled for a minimum of two (2) thesis hours during the semester that the thesis is submitted and approved by the Graduate School, usually the semester of graduation. Students not enrolled for the minimum requirement will not have the thesis/dissertation approved and therefore may not be certified for graduation.

Enrollment during Semester of Graduation
Students must be enrolled for a minimum of two (2) graduate hours during the semester of graduation.

Enrollment for Graduate Teaching and Research Assistants
Graduate Teaching and Research Assistants should be full-time students. Exceptions must be approved by the College Dean and the Dean of the Graduate School.

Leaves of Absence (LOA)
Leaves of absence may be granted to students under exceptional and unavoidable circumstances. Students requesting a LOA must specify the reasons for the leave, as well as the duration. Requested LOA may be approved for up to two years. Students requiring less than three (3) consecutive terms of absence do not need an approved LOA if they meet the continuous enrollment requirement.

Students with an approved LOA must be enrolled in the first semester after the leave expires. To request an LOA, the student must complete the form available from the Graduate School website. The LOA must be approved by the Major Professor, the Program, the College, and the Graduate School, and is noted in the student's record. If the LOA is granted, the time absent does not count against the student's time limit to obtain the degree.

Students returning from an approved LOA must reactivate their status by contacting the Graduate School for procedures. Doctoral candidates returning from a LOA must also have their candidacy status reactivated.

Academic Standards and Grades

Minimum University Requirements

In Good Standing

To be considered a student in good standing, graduate students must

- Maintain an overall minimum grade point average (GPA) of 3.00 (on a 4.00 scale) in all courses taken as a graduate student, and

- Maintain an overall minimum grade point average (GPA) of 3.00 (on a 4.00 scale) in all courses taken in each of the student's degree-seeking programs.

No grade of **C-** or below will be accepted toward a graduate degree. Students must meet the requirements to be in good standing to graduate. All "I" and "M" grades must be cleared for graduation to be certified. Students who fail to maintain good standing may be placed on probation or academically dismissed.

Grade Point Average (GPA)

The GPA is computed by dividing the total number of quality points by the total number of graded (**A-F**) hours completed. The total quality points are figured by multiplying the number of credits assigned to each course by the quality point value of the grade given. The GPA is truncated to two decimals (3.48) and is not rounded up.

Credit hours for courses with grades of **I, IU, M, MU, N, S, U, Q** and grades which are preceded by **T** (Transfer) are subtracted from the total hours attempted before the GPA is calculated. Graduate students are not eligible for grade forgiveness. All grades earned, regardless of course level, will be posted on the transcript. If a student retakes a course, both grades will be used in the determination of the GPA. Courses taken at USF as non-degree-seeking are not computed in the GPA unless the courses are transferred in and applied to the degree requirements. The program and the college must approve such actions.

Grades for transfer credits accepted toward the degree program will not be counted in the GPA unless the coursework in question was taken as a non-degree-seeking student at USF and meets the requirements stated above (see Institution Based Credit/Transfer of Credit section).

Graduate Grading System

Plus/Minus Grading:

Effective fall semester 2000, graduate and undergraduate grades will be assigned quality points in the Grade Point Average (GPA) grading system. The +/- designation must be included in the syllabus provided at the beginning of the course. The use of the +/- grading system is at the discretion of the instructor. The syllabus policy is available in the office of the Provost.

Letter grade = number of grade points

A+	4.00
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
D-	.67
F	0.00
FF	Failure due to academic dishonesty[3]
CF	Cancelled Financially (Course was cancelled due to financial reasons)
CMU	Cancelled, Missing Grade that has turned to a "U"
IA	Incomplete, grade points not applicable
IB	Incomplete, grade points not applicable
IC	Incomplete, grade points not applicable
ID	Incomplete, grade points not applicable
IF	Incomplete, grade points not applicable*
M	Missing grade/no grade reported by instructor, grade points not applicable
~~MF~~	~~Missing grade changed to F, 0.00 grade points~~
~~MU~~	~~Missing grade changed to U, grade points not applicable~~
N	Audit, grade points not applicable
S/U	Satisfactory/Unsatisfactory, grade points not applicable
W	Withdrawal or drop from course without penalty, grade points not applicable
Z	Continuing registration in multi-semester internship or Thesis/Dissertation courses, grade points not applicable

**Incomplete grade policy change effective fall 08. IF grades earned and posted prior to fall 2008 do calculate in the GPA; IF grades earned as of fall 2008 forward do not calculate in the GPA Refer to Incomplete Grade Policy for more information.*

Satisfactory (S)/ Unsatisfactory (U)

Graduate students may not take courses in the major on an S/U (satisfactory / unsatisfactory) basis unless courses are specifically designated S/U in the Catalog. Students may take courses outside of the major on an S/U basis with prior approval of the course professor, major professor or advisor, and the Dean of the College in which the student is seeking a degree. The student may apply a maximum of six (6) hours of such credit (excluding those courses for which S/U is designated in the Catalog) toward a master's degree. Directed Research, Thesis, and Dissertation courses are designated as variable credit and are graded on an S/U basis only. Before a student begins work under Directed Research, a written agreement must be completed between the student and the professor concerned, setting forth in detail the requirements of the course.

Incomplete (I)

[3] Graduate Students who receive an FF will be academically dismissed from the University and will not be eligible to apply to any graduate program at USF. *See section on Academic Dishonesty and Graduate School Policy on Academic Integrity for more information.*

Definition: An Incomplete grade ("I") is exceptional and granted at the instructor's discretion only when students are unable to complete course requirements due to illness or other circumstances beyond their control. This applies to all gradable courses, including pass/fail (S/U).

Students may only be eligible for an "I" when:

- majority of the student's work for a course has been completed before the end of the semester
- the work that has been completed must be qualitatively satisfactory
- the student has requested consideration for an "I" grade as soon as possible but no later than the last day of finals week.

The student must request consideration for an Incomplete grade and obtain an "I" Grade Contract from the instructor of record. Even though the student may meet the eligibility requirements for this grade, the course instructor retains the right to make the final decision on granting a student's request for an Incomplete. The course instructor and student must complete and sign the "I" Grade Contract Form that describes the work to be completed, the date it is due, and the grade the student would earn factoring in a zero for all incomplete assignments. The due date can be negotiated and extended by student/instructor as long as it does not exceed one semester from the original date grades were due for that course.

The instructor must file a copy of the "I" Grade Contract in the department that offered the course and the Graduate School by the date grades are due. The instructor must not require students to either re-register for the course or audit the course in order to complete the "I" grade. Students may register to audit the course, with the instructor's approval, but cannot re-take the course for credit until the I grade is cleared.

An **I** grade not cleared within the next academic semester (including summer semester) will revert to the grade noted on the contract. **I** grades are not computed in the GPA, but the grade noted on the contract will be computed in the GPA, retroactive to the semester the course was taken, if the contract is not fulfilled by the specified date. When the final grade is assigned, if applicable, the student will be placed on academic probation or academically dismissed (refer to Automated Academic Probation Procedures for information). Students cannot be admitted to doctoral candidacy or certified for graduation with an "**I"** grade.

Example:
Current Semester

- student has a "B" in the course, not including the grade for the missing assignment, therefore is eligible for an "I"
- student's grade, including a zero for the missed work, would be an "D"
- student and instructor complete the "I" Grade Contract, assigning an "ID" (Incomplete +D grade)

Deadline Agreed Upon in Contract (e.g. two weeks)*

If the student completes the work as agreed upon in the Contract by the noted deadline

- instructor submits a change of grade
- student earns final grade comprised of all completed course work

If the student does not complete the work as agreed upon in the Contract by the noted deadline

- "I" automatically drops off and the grade of "D" remains.
- GPA is recalculated for the current semester and retroactively recalculated for the semester in which the "I" was granted.

*Although the instructor establishes the deadline for completion of the work, the deadline may only extend through the end of the subsequent semester.

Missing (M)

The University policy is to issue an **M** grade automatically when the instructor does not submit any grade for a graduate student ~~(undergraduate rules apply to undergraduate and non-degree-seeking students)~~. Until it is removed, the **M** is not computed in the GPA. ~~An **M** grade which is not cleared within the next academic semester (including summer semester) will be converted to **MF** or **MU**, whichever is appropriate. **MF** grades are calculated in the GPA and if applicable, the student will be placed on academic probation or academically dismissed~~. To resolve the missing grade, students receiving an **M** grade must contact their instructor. If the instructor is not available, the student must contact the instructor's department chair. Courses with an **M** grade may not be applied to the degree program requirements.

Students with an **M** grade will not ~~cannot~~ be admitted to doctoral candidacy ~~or certified for graduation~~ until the **M** grade is resolved. ~~with an **M** grade.~~ .

Continuing Registration Grades (Z)

The **Z** grade shall be used to indicate continuing registration in multi-semester internship or thesis/dissertation courses where the final grade to be assigned will indicate the complete sequence of courses or satisfactory completion of the thesis/dissertation. Upon satisfactory completion of a multi-semester internship or thesis/dissertation, the final grade assigned will be an **S**. The Graduate School submits the change of grade for the last registration of thesis/dissertation courses once the thesis/dissertation has been accepted for publication.

Note: Graduation will not be certified until all courses have been satisfactorily completed. No grade changes will be processed after the student has graduated except in the case of university error. Procedures requiring petitions are processed through the Graduate School.

Probation

Any student who is not in good standing at the end of a semester shall be considered on probation as of the following semester. The college or program may also place students on probation for other reasons as designated by the college or program. Notification of probation shall be made to the student in writing by the department, with a copy to the College Dean. At the end of each probationary semester, the department shall recommend, in writing, to the College Dean one of the following:

1. Removal of probation
2. Continued probation; OR
3. Dismissal from the degree program.

Students with a GPA below 3.00 for two consecutive semesters will be prevented from registering for courses without the permission of the College Dean. The College Dean will notify the Dean of the Graduate School in cases of academic dismissal. To be readmitted, the student will need to reapply for admission, meeting the admission criteria in place at the time. For information on the Automated Probation Process go to http://download.grad.usf.edu/Automated_Academic_Probation.pdf

Voluntary Withdrawal

A student may withdraw from the university without grade penalty by the University deadline. Information on the different types of withdrawal (i.e., withdrawing from a single class – see the Drop section, an entire semester, or from the degree program itself) can be obtained from the Registrar's Office. Appropriate alternative calendar dates may apply. Students who withdraw may not continue to attend classes.

Transfer of Credit

USF has two degree-granting institutions: USF Tampa (which includes USF Polytechnic and USF Sarasota-Manatee) and USF St. Petersburg. Students may, with the approval of their graduate program, earn credits at any of the USF institutions. However, the majority of credits needed for a degree must be earned through instruction offered by the institution granting the degree. Students may request a transfer of credit toward their degree program. There are two types of transfer of credit:

Internal Institution Transfer of Credit

Credits earned from USF Tampa, USF Polytechnic, or USF Sarasota-Manatee.

External Institution Transfer of Credit

Credits earned from USF St. Petersburg or other regionally accredited institutions

Requirements for Transfer of Credit:

- **Hours**: Credits may be transferred as indicated on the appropriate tables below

- **GPA**: Credits transferred in must have a grade of B or better

  - For Internal Institution Credits, the grade of the transferred course(s)
    - Are calculated in the GPA at USF
    - Are noted on the transcript as the grade earned

  - For External Institution Credits, the grade of the transferred course(s)
    - Are not calculated in the GPA at USF
    - Are noted on the transcript by a **N/A** if from a USF Regionally accredited institution*

- **Evaluation/Approval:** The graduate program / department will be responsible for evaluating, approving, and initiating the transfer as soon as possible following admission.

- **Time Limits:** All coursework transferred into a graduate program can be no older than

  - seven (7) years at the time of graduation for a master's and Ed.S. program
  - seven (7) years at the time of graduation for a doctoral program.
  - There is no time limitation for courses from a completed master's degree or professional degree used toward a doctoral degree.
  - For readmission, refer to the Readmission Policy.

**USF accepts credits from all regionally accredited institutions in the nation.*

INTERNAL INSTITUTION (Tampa / Sarasota-Manatee/ Polytechnic)	To Graduate Certificates	To Masters or Ed.S. Degree	To Doctoral Degree**
Courses (4000 and above) taken as an undergraduate but not applied to undergraduate degrees	Discretion of the Program	Discretion of the Program	Discretion of the Program
Graduate Courses applied to undergraduate degrees	None	None (Discretion of the Program for approved Accelerated Degree Programs)	None
Non-degree Seeking Status	Up to one graduate course	Up to 12 graduate hours*	Up to 12 graduate hours*
Uncompleted Certificate (Graduate Degree Seeking Students)	Up to one graduate course	Up to 12 graduate hours*	Up to 12 graduate hours*
Completed Certificate	Up to one graduate course (1 course may be applied to up to 2 certificates)	Up to 12 graduate hours*	Up to 12 graduate hours*
Uncompleted Master's or Ed.S. Degree	Discretion of the Program	Discretion of the Program	Discretion of the Program
Completed Master's or Ed.S. Degree	Discretion of the Program	Specific course requirements in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.	Up to 50% of the doctoral program requirement for total course hours (excluding dissertation hours)
Uncompleted Doctoral or completed Professional Degree	Discretion of the Program	Specific course requirements in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.	Up to 50% of the doctoral program requirement for total course hours (excluding dissertation hours)
Completed Doctoral Degree	Discretion of the Program	Specific course requirements in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.	Specific course requirements in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.

*a maximum of twelve (12) internal credits can be transferred to a degree regardless of the source(s)
**Programs that wish to transfer credit from a completed doctoral program to a professional program must submit the proposal to the Graduate School for approval.

~~**EXTERNAL** INSTITUTION~~	~~To Graduate Certificates~~	~~To Masters or Ed.S. Degree~~	~~To Doctoral Degree**~~
~~Courses (equivalent to 4000 and above) taken as an undergraduate but not applied to undergraduate degrees~~	~~Up to one graduate course~~	~~Up to 12 hours~~	~~Up to 12 hours~~
~~Graduate Courses applied to undergraduate degrees~~	~~None~~	~~None~~	~~None~~
~~Non-degree Seeking Status~~	~~Up to one graduate course~~	~~Up to 12 graduate hours*~~	~~Up to 12 graduate hours*~~
~~Uncompleted Certificate (Graduate Degree Seeking Students)~~	~~Up to one graduate course~~	~~Up to 12 graduate hours*~~	~~Up to 12 graduate hours*~~
~~Completed Certificate~~	~~Up to one graduate course~~	~~Up to 12 graduate hours*~~	~~Up to 12 graduate hours*~~
~~Uncompleted Master's or Ed.S. Degree~~	~~Up to one graduate course~~	~~Up to 40% of the USF program~~	~~Up to 40% of the USF program~~
~~Completed Master's or Ed.S. Degree~~	~~Up to one graduate course. Specific course requirements in common across both programs may be waived with the substitution of other coursework at the discretion of the program.~~	~~Specific course requirements in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.~~	~~Up to 40% of the USF doctoral program requirement for total course hours (excluding dissertation hours)~~
~~Uncompleted Doctoral or completed Professional Degree~~	~~Up to one graduate course~~	~~Up to 40% of the USF program~~	~~Up to 40% of the USF doctoral program requirement for total course hours (excluding dissertation hours)~~
~~Completed Doctoral Degree~~	~~Up to one graduate course. Specific course requirements in common across both programs may be waived with the substitution of other coursework at the discretion of the program.~~	~~Specific course requirements in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.~~	~~Specific course requirements in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.~~

~~*a maximum of twelve (12) credits can be transferred to a degree regardless of the source(s)~~
~~**Programs that wish to transfer credit from a completed doctoral program to a professional program must submit the proposal to the Graduate School for approval.~~

Students may, with the approval of their graduate degree program, transfer credits from any regionally accredited institution into their graduate degree program, as long as the majority of the credits are earned at the institution granting the degree. Credits obtained from USF System Institutions will be calculated into the GPA at USF and will be noted on the transcript as the grade earned. Credits from other regionally accredited universities are not calculated into the GPA at USF.

- Only credits with a grade of B or better may be transferred.
- Credit for coursework expires seven (7) years after receiving the credit.
- There is no time limitation for courses from a completed master's degree or professional degree applied toward a doctoral degree.

- The graduate degree program / department will be responsible for evaluating, approving, and initiating the transfer as soon as possible at the time of admission.

Note - Students taking courses at USF System Institutions other than their home USF institution should seek the approval of their graduate program director prior to taking the courses to ensure that the courses are eligible for transfer.

	To Graduate Certificates	To Masters or Ed.S. Degree	To Doctoral Degree**
Courses (4000 and above) taken as an undergraduate but not applied to completed undergraduate degrees	Discretion of the Graduate Degree Program, if taken at USF System. Up to one course if not taken at a USF System Institution.	Discretion of the Graduate Degree Program, if taken at USF. Up to 12 credits if not taken at USF System Institution. .	
Graduate Courses applied to undergraduate degrees	None	None (Discretion of the Program for approved USF Accelerated Degree Programs)	None
Non-degree Seeking Status	Up to one graduate course	Up to 12 graduate hours*	
Certificate Coursework (Graduate Degree Seeking Students)	Up to one graduate course (1 course may be applied to up to 2 certificates)	Up to 12 graduate hours*	
Uncompleted Master's or Ed.S. Degree	Discretion of the Graduate Degree Program, if taken at a USF System Institution For transfers from non-USF Institutions, up to 49% of required credits may be transferred in at the discretion of the Graduate Degree or Certificate Program.		
Completed Master's or Ed.S. Degree	Specific course requirements in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.		Courses from a completed Master's or Ed.S. Degree may not be transferred to a new graduate degree program. A completed Master's or Ed.S. Degree may be applied to the Master's or Ed.S. component requirement for a doctoral program, with Graduate Degree Program Approval. For non-USF Institutions, Specific course requirements in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.
Uncompleted Doctoral or	Discretion of the Program	Specific course requirements	Up to 49% of the doctoral

completed Professional Degree		in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.	program requirement for total course hours (excluding dissertation hours)
Completed Doctoral Degree	Courses from a completed doctoral Degree may not be transferred to a Graduate Certificate or a Master's Program. For USF and non-USF system Specific course requirements in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.		Specific course requirements in common across both degree programs may be waived with the substitution of other approved coursework at the discretion of the program.

*a maximum of twelve (12) credits can be transferred to a degree regardless of the source(s)
**Programs that wish to transfer credit from a completed doctoral program to a professional program must submit the proposal to the Graduate School for approval.

Change of Graduate Degree Program

See Change of Graduate Program in the Admissions Section. ~~Students who wish to change from one degree program to another (at the same level) must obtain a Graduate Change of Program Application from the Office of the Registrar or their college advising office. The new department will consider the Change of Program request as a new application. The Deans of the Colleges involved and the Dean of the Graduate School must approve the Change of Degree. The new department may elect to accept all, some, or none of the graduate courses previously taken by the student and only those courses accepted will be computed in the GPA. Students desiring to change program levels (e.g. from a Master's program to Doctoral program) must submit a new application for admission.~~

Accelerated Program Guidelines

Programs who desire to offer Accelerated Degree Programs must establish guidelines that define the following. The guidelines must then be submitted and approved by the Policy Committee of the Graduate Council. These guidelines are used in the development of a new Accelerated Program.

In clearly defined written policy, programs will:

- Define the number of shared credits: No more than ½ of the required graduate program credits can be completed while in undergraduate status.
- Develop a program of study in which shared coursework and the degree requirements for both degrees are clearly stated.
- Define when the student will receive the bachelor's degree: either at the completion of 120 credits earned or at the completion of the 5 year program.
- Formally admit students into accelerated 5 year programs through a defined admission process. Students should be admitted into a 5 year program at the beginning of the senior year.

- Advise students about the financial aid implications of the 5 year program and will refer students to the Office of Financial Aid for advice.

- Review the student's academic record prior to entering graduate status in the 5 year program. Students must receive a grade of B or above in graduate level courses taken while in undergraduate status.

- Permit students to formally withdraw from the 5 year program and receive the bachelor's degree, as long as the student has met the undergraduate requirements for the specified program.

Acceptance into the 5 year program is contingent upon final approval by the Dean of the Graduate School.

Dual Degree Programs

A student may ~~may wish to~~ pursue two graduate degrees simultaneously as part of an approved Dual Degree Program. (Students pursuing a combined bachelor's and graduate degree are considered to be in an Accelerated Program -see catalog section for information.)

A Dual Degree program - is defined as a student pursuing two graduate degrees simultaneously. Up to 15% of the total combined credit hours for the two degree programs may be shared, with Graduate School approval.

> Example:
> A student is enrolled in two master's programs, each requiring 30 credits minimum. The student may share 9 hours (equal to or less than 15%) across the combined 60 total minimum credit hours required.

The degrees may be conferred simultaneously or independently.

Procedures for applying for a Dual Degree Program are available on the Graduate School website. Dual Degree Programs are formalized through the College, Graduate School, and Graduate Council. For information contact the Graduate School.

Interdisciplinary Degree Programs

An Interdisciplinary Degree Program – is defined as a student pursuing a single stand-alone graduate degree, which is offered across two or more graduate degree programs. A single degree is conferred. Interdisciplinary Degree Programs are formalized through the College, Graduate School, and Graduate Council and must follow the University requirements for new degree program development, including notation on the Workplan. For information contact the Graduate School.

Procedures for developing an Interdisciplinary Degree Program are available on the Graduate School website.

~~Upon approval by the appropriate College Dean(s) and Dean of the Graduate School, a prescribed number of courses (generally no more than nine (9) hours of core or basic courses) required for one degree may be applied to another degree that requires the same courses, without repetition or alternative courses. Procedures for applying for a Dual degree program are available on the Graduate School website.~~

Off-Campus Courses and Programs

Graduate courses and programs are offered at locations other than the Tampa, Sarasota, St. Petersburg, and Lakeland campuses. Information on course enrollment procedures for off-campus courses and programs may be obtained from the College in which the courses or programs are offered.

Section 8

University Degree Requirements

Degree Requirements

The following sections describe the University requirements established by the Graduate School for the Master's, Education Specialist, and Doctoral degrees. However, individual programs and colleges may establish additional or *more stringent* requirements.

Student Responsibilities

The University of South Florida and all colleges, departments and programs therein establish certain academic requirements that must be met before a degree is granted. These requirements concern such things as curricula and courses, majors and minors, and academic residence. Faculty and graduate program directors are available to help the student understand and arrange to meet these requirements, but the student is responsible for fulfilling them. At the end of a student's course of study, if all requirements for graduation have not been satisfied, the degree will not be granted. For this reason, it is important for students to acquaint themselves with all regulations and to remain currently informed throughout their college careers. Courses, programs, and requirements described in the catalog may be suspended, deleted, restricted, supplemented, or changed in any other manner at any time at the sole discretion of the University and the USF Board of Trustees.

Graduate Faculty Definition

The University of South Florida recognizes Graduate Faculty and Affiliate Graduate Faculty.

Graduate Faculty is defined to consist of all tenure-track or tenured faculty appointed at the Assistant, Associate, or Professor rank, who hold a terminal degree or equivalent in their discipline.

Graduate Faculty members

- are eligible to teach graduate courses and
- may direct and serve on master's, specialist, and doctoral level committees.

  To chair a doctoral level committee, a Graduate Faculty member must engage in current and sustained scholarly, creative, or research activities, such as publications, performances, exhibitions, patents, inventions and research grants.

Affiliate Graduate Faculty membership may be granted by the Graduate School Dean to individuals whose skills or expertise meet criteria established by the College. Affiliate Graduate Faculty membership is in effect for a specified period of time and specific purposes.

Affiliate members may be eligible

- to teach graduate courses,
- to serve on master's, specialist, and doctoral level committees,
- to direct master's and specialist's level committees, and

- to co-direct doctoral level committees, at the discretion of the College.

  Emeritus Professors and retired or recently resigned professors may also be appointed as Affiliate Graduate Faculty with the approval of the College and Graduate School Dean.

Graduate Faculty Approval – Graduate faculty is defined as noted above; Colleges and Departments may have additional requirements. The Graduate School will maintain a list of Graduate Faculty along with approval guidelines from the Colleges and Departments. For a current list of Graduate Faculty and Affiliate Graduate Faculty in any program contact the program director or coordinator. *Also see Section 3 Faculty and Research Interests.*

Graduate School Requirements

USF Regulation 6C4-3.011, http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf3.011.pdf

Master's Degree Requirements

Minimum Hours
A minimum of thirty (30) hours is required for a master's degree, at least sixteen (16) hours of which must be at the 6000 level. At least twenty (20) hours must be in formal, regularly scheduled course work, ten (10) of which must be at the 6000 level. Up to six (6) hours of 4000-level courses may be taken as part of a planned degree program. Additional graduate credit may be earned in 4000-level courses only if specifically approved by the appropriate College Dean. Lower level undergraduate course may not be used to satisfy master's course requirements but may be taken to meet specific prerequisites. Students enrolled in undergraduate courses as part of a planned degree program are expected to demonstrate a superior level of performance in these courses. All graduate and undergraduate courses taken as a graduate student count in the overall GPA, whether or not they count toward the minimum hours for the degree. Graduate students may not enroll for more than 18 hours in any semester without written permission from the College Dean.

Institutional Enrollment Requirement
The majority of credits toward a graduate degree must be earned through instruction offered by the institution (e.g., USF Tampa, USF St. Petersburg, USF Polytechnic, USF Sarasota-Manatee)granting the degree. For information about the minimum number of credit hours required for the degree refer to the degree requirements in the program listing and the Transfer of Credit Policy.

Time Limitations
Master's and Ed.S. degrees must be completed within five (5) years from the student's date of admission for graduate study. Courses taken prior to admission to the USF graduate program, for example as non-degree seeking or from other institutions that were transferred in, can be no older than seven years at the time of graduation. Master and Ed.S. degrees (including dual degree programs) that require course work in excess of 50 credit hours may be granted a longer statute of limitations by the University Graduate Council.

Time Limit Extensions
In the event that a student nears the end of the time limitation as specified above, but the student needs more time to complete the degree, the student may submit a request for an extension using the *Time Limit Extension Request Form,* available on the Graduate School website http://www.grad.usf.edu/student-forms.php ~~http://www.grad.usf.edu/student-forms.asp~~.
Requests must include

- the reasons for the delay in completion,

- the anticipated time needed for completion,
- and endorsements from the graduate faculty advisor, graduate program, and College Dean or designee,
- a detailed plan of study and timeline for the remaining requirements for the degree prior to submission to the Graduate School for approval.
- *(Editor's note – for the time limit extension procedures, if the time limit extension will cause courses taken or transferred into the program to be older than 7 years, then a request for course concurrency may be required or the courses may be invalidated toward the degree requirements, per the time limit policy)*

If approved, the time limit extension also applies to courses applied toward the degree. However, programs may require additional or repeat coursework as part of the condition of the time limit extension. Students who exceed the time limitations may have their registration placed on hold until a request for extension has been approved. Only one time limit extension request is permitted. Students who are temporarily unable to continue the program should submit a Leave of Absence Request, which extends the time limit for the duration of the approved Leave (see the section on *Leave of Absence* in the *Enrollment Requirements* section.).

Enrollment Requirements
Refer to the Academic Policies Section

Major Professor
The Major Professor serves as the student's advisor and mentor. Students should confer with the department to confirm the internal process and timeline for the selection and appointment of the Major Professor. The student must identify a major professor and receive that person's agreement to serve as major professor. The selection of the Major Professor must be approved and appointed by the department as soon as possible, but no later than the time the student has completed 50% of the program. Students must have a major professor in order to maintain Satisfactory Academic Progress. If a major professor cannot be identified or in the event a major professor is unable or unwilling to continue serving on the student's committee, the student is responsible for finding another major professor. Students who are unable to find a replacement major professor should confer with the Program Director for available options (including converting to a non-thesis program if available.) If no other options exist the student may be requested to voluntarily withdraw from the program or may be honorably withdrawn in good academic standing. The student and major professor should plan a program of study which, when completed, will satisfy the degree requirements specified. A copy of this program, signed by the student and professor, must be maintained in the student's department file.

Major Professors must meet the following requirements:

- Be graduate faculty, as defined by the University. Faculty who do not meet this definition may serve as Co-Major Professor with faculty who do.

- Be engaged in current and sustained scholarly, creative, or research activities and have met departmental (or equivalent) requirements.

- Have been approved by the Department Chair (or equivalent) to serve as a Major Professor or Co-Major Professor.

The membership of graduate faculty will be based upon criteria developed within the appropriate program or department and approved at the college level. These criteria must be forwarded to the Dean of the Graduate School.

In the event a Major Professor leaves the University (i.e., for an appointment at another university, due to retirement, etc.) and the Major Professor is willing to continue serving on the student's committee, the Major

Professor then becomes a Co-Major Professor on the committee and another faculty is appointed as the other Co-Major Professor. It is important that one of the Co-Major Professors be accessible on the university campus for the student to make satisfactory progress on the thesis/dissertation. In the event a Major Professor is on temporary leave (e.g. sabbatical, research, etc.); the Major Professor shall coordinate with the Program Director to facilitate the needs of the student. In some instances a student may choose to have two professors serve as Major Professor. In this situation the faculty are approved as "Co-Major Professors" and jointly serve in that role. Consequently both faculty must sign approval on paperwork pertaining to the student's processing (i.e. committee form, change of committee form, etc.)

Appointment of a (Co)-Major Professor(s) may be rescinded by the Department Chair (or equivalent), with the approval of the appropriate Department (or equivalent) faculty committee (separate from student advisory committee.)

(Co-) Major Professor(s) of the Graduate Student Supervisory Committee Responsibilities
Available on the Graduate School Website: http://www.grad.usf.edu/policies.asp

Thesis Committee
Students working toward a thesis degree will have the benefit of a committee of members of the graduate faculty. The committee will approve the course of study for the student and plan for research, supervise the research and any comprehensive qualifying exams, and read and approve the thesis for content and format.

Composition
The committee will consist of the major professor and at least two other members or co-major professors and at least one other member of the department or area of interest in which the degree is sought. (Colleges and Programs may require additional committee members and specify characteristics.)

Member Definition
All graduate faculty, as defined by the University and the College/Department, and approved by their department and college, are assumed by the Graduate School as qualified to be a member of and/or supervise a committee. Persons desiring to serve on a Graduate committee who are not defined as Graduate Faculty (i.e. visiting faculty, professionals, etc.) by the University and the College/Department must submit a curriculum vitae and be approved by the Department, College, and, as needed, the Graduate School, for each committee.

Committee members must meet the following requirements:

- Be graduate or affiliate graduate faculty, as defined by the University
- Have the background and expertise that contributes to the success of the student.

In addition to the requirements specified in the Graduate Faculty definition, committee membership will be based upon criteria developed within the appropriate program or department and approved at the college level. These criteria must be forwarded to the Dean of the Graduate School.

Approval
Once a committee has been determined, a Supervisory Committee Form needs to be completed by the student and submitted to the Committee Members for original signatures. Check with the College for instructions and forms. The original appointment form and two (2) copies should be submitted to the College Associate Dean's office for approval. A copy of the approved form should be kept in the student's file. An approved and current Committee Form must be on file in the program/college before graduation may be certified. Committee forms need to be processed as early in the program as possible, but no later than the semester prior to graduation. (Colleges and departments may institute additional requirements for membership on Supervisory Committees.)

Changes to Committee

Changes to a Supervisory Committee must be submitted on a Change of Committee Form. Check with the College for instructions and forms. Original signatures of faculty being added to the Committee, along with the approval signature of the (Co-) Major Professor(s), must be on the form. Faxed signatures are acceptable. Faculty who are removed from the Committee are not required to sign the form, provided that the (Co-) Major Professor(s) has signed. In such instances the signature of the (Co-) Major Professor(s) indicate(s) approval of the change, as well as acknowledgement and approval of the change by the removed member. Any non-faculty being added to a committee must submit a Curriculum Vitae (CV) for college approval. Change of Committee Forms should be submitted for approval as soon as the change takes place. Changes to a Committee are official only once approved and filed by the program and college.

Masters Comprehensive Examination

Prior to clearance for the degree, candidates must perform satisfactorily on a comprehensive examination or an alternative method designated by the academic unit to measure student competency in the major area. Students must be enrolled for a minimum of two (2) hours of graduate credit during the semester when the comprehensive examination is taken. If the exam is taken between semesters, the student must be enrolled for a minimum of two (2) hours of graduate credit in the semester before or following the exam.

Thesis

If a thesis is required, it must conform to the guidelines of the University. Refer to the Thesis and Dissertation Guidelines, available on the web at http://www.grad.usf.edu/thesis.asp for complete information about requirements, procedures, and deadlines. *For enrollment requirements, refer to the Academic Policies section in the Catalog.*

Format

The Thesis must conform to one of two formats:

Option 1 – a traditional format[4] inclusive of:

Part I: Preliminary Pages
- Title Page
- Dedication (optional page)
- Acknowledgments (optional page)
- Table of Contents
- List of Tables (if applicable)
- List of Figures (if applicable)
- Abstract

Part II: Text (divided by chapter or section headings)

Part III: References / Bibliography[5]
- Appendices Title Page
- Appendix Sections (if applicable)

[4] Deviations from the available format are acceptable if approved in advance by the Supervisory Committee and Graduate School.

[5] Include either References or a Bibliography, as specified by your style guide.

Option 2 – a collection of articles/papers instead of chapters. References may be at the end of each section or at the end of the entire document. Copyright permissions (if applicable) must be noted on the Acknowledgements page

Part I: Preliminary Pages
- Title Page
- Dedication (optional page)
- Acknowledgments and copyright permission (if applicable)
- Table of Contents
- Abstract
- Introduction Chapter Overview

Part II: Collection of Articles/Papers

Part III: References / Bibliography[6]
- Appendices Title Page
- Appendix Sections (if applicable)

Directed Research

Directed Research hours may satisfy up to 50% of the thesis hour requirement.

Manuscript Processing Fee

USF Regulation USF4-0107, http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf4.0107.pdf
Students participating in the thesis/dissertation process are required to pay a processing fee. More information is available on the Thesis and Dissertation website.

Exchange of Thesis for Non-Thesis Credit

If a student changes from thesis to non-thesis during a semester and is currently enrolled in thesis credit, the current thesis credits may be exchanged without academic penalty if a Graduate School Petition is filed with the Graduate School no later than the last day to withdraw without Academic Penalty. If a student enrolled in a thesis required program has taken thesis credits but elects to change to non-thesis track or program, the accumulated thesis credits may not be exchanged or converted to another non-structured credit. The thesis hours will remain on the transcript and will retain the "Z" grade.

Thesis Defense

Policies and procedures for the thesis defense are handled within the College and Program. Contact the College and Program for requirements.

Thesis Final Submission Guidelines

Information on requirements for submission of the finished and approved manuscript copies is available online at the Thesis and Dissertation website http://www.grad.usf.edu/thesis.asp. Students who fail to submit the final copy of a thesis by the posted submission deadline will be considered for graduation in the following semester and must therefore apply for graduation by the posted deadline, enroll in a minimum of two (2) thesis hours for that subsequent semester, and meet the submission requirements as posted on the Thesis/Dissertation website. Only after the Graduate School has approved the manuscript can the student be certified for the degree.

Mandatory Electronic Submission

[6] Include either References or a Bibliography, as specified by your style guide.

Students are required to submit the thesis in an electronic format (ETD). Requirements and procedures are available at the Graduate School website http://www.grad.usf.edu/thesis.asp.

Submission to Pro-Quest
All theses will be submitted to Pro-Quest for microfilming and archiving, effective Fall 2010.

Changes after Publication
Once a thesis is approved and accepted by the Graduate School for publication, it cannot be changed.

Release of Thesis Publications
The University recognizes the benefits from collaboration with sponsors on research projects but also recognizes the possibility of conflicts of interest in the disclosure of the results of the collaborations. While the sponsor's economic interests in the restriction of disclosure should be considered, the University has a primary mission to extend knowledge and disseminate it to the public and the broader academic community. The University's "Statement of Policy Regarding Inventions and Works" acknowledges the possible need for delays in publication of sponsored research to protect the sponsor's interests, but it provides no definite guidelines for the restrictions of publication beyond the statement: "Disclosure delays mutually acceptable to the Inventor, the Vice President for Research, and the sponsor, if any, are authorized in order to allow patent applications to be filled prior to publication, thereby preserving patent rights..."[7]

To protect the University's primary goal from un-due compromise, the University has adopted the following guidelines:

1. The recommendations of sponsors, regarding publication of research results should be considered advisory rather than mandatory.

2. In support of academic discourse and the mission to promote and share academic works, Theses will be released for worldwide access once submitted to and approved by the USF Graduate School. In the event that a patent or copyright application provides reason to delay the release of the Thesis, a petition to request a one year delay may be submitted to the Graduate School for consideration. Such requests must be received by the format check of the thesis.

3. Students should not be delayed in the final defense of their theses by agreements involving publication delays.

Duty to Disclose New Inventions and Works
USF 0-300 http://generalcounsel.usf.edu/policies-and-procedures/pdfs/policy-0-300.pdf and USF 12.003 http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf12.003.pdf.
For information about the requirements of this policy contact the Division of Patents and Licensing at (813) 974-0994.

Thesis Change of Grade
In the semester in which the final manuscript has been received, reviewed, and certified for permanent filing in the University Library, the Graduate School submits the change of grade from "Z" to "S" for the last registration of thesis courses to the office of the registrar when all grades are due at the end of the semester.

[7] April Burke, "University Policies on Conflict of Interest and Delay of Publications," Report of the Clearinghouse on University-Industry Relations, Association of American Universities, February, 1985.

Education Specialist Degree (Ed.S.) Requirements

Ed.S. Thesis
Students who are required to submit an Ed.S. Thesis must meet all of the requirements for the thesis, as specified in the Master's Degree section of this publication. For specific degree program information, refer to the College of Education.

Ed.S. Project
Students who are required to submit an Ed.S. Non-Thesis project must meet all of the requirements as specified by the College of Education. A project does not need to meet the requirements of a thesis and is not submitted to the Graduate School for approval and archiving.

Doctoral Degree Requirements

The doctoral degree is granted in recognition of high attainment in a specific field of knowledge. It is a research degree and is not conferred solely upon the earning of credit, the completion of courses, or the acquiring of a number of terms of residency, but also the successful completion of scholarly work. The length of residency and the requirements below are minimums; programs/colleges may elect to establish more rigorous requirements. The degree will be granted after the student has shown proficiency and distinctive achievement in a specified field, has demonstrated the ability to do original, independent investigation, and has presented these findings with a high degree of literary skill in a dissertation. A major professor will be appointed as soon as possible but no later than the time the student has completed 50% of the program. The advisor will advise on any specific subject matter deficiencies and assist in the choice of a major professor and area of research.

Minimum Hours
Because the doctoral degree is earned on the basis of advancement to doctoral candidacy status and satisfactory completion of the dissertation, the Graduate School does not specify any minimum number of courses or credit hours that must be completed for award of the degree. However, programs with formally approved concentrations must have core major requirements that all students must successfully complete. Students must comply with general enrollment requirements and also institutional enrollment~~residency~~ requirements. Up to six (6) hours of 4000-level courses may be taken as part of a planned degree program. Additional graduate credit may be earned in 4000-level courses only if specifically approved by the appropriate College Dean. Lower level undergraduate course may not be used to satisfy doctoral course requirements but may be taken to meet specific prerequisites. Students enrolled in undergraduate courses as part of a planned graduate degree program are expected to demonstrate a superior level of performance in these courses. All graduate and undergraduate courses taken as a graduate student count in the overall GPA, whether or not they count toward the minimum hours for the degree.
All doctoral students must have at least one gradable (A-F) graduate course taken at USF to satisfy the GPA minimum requirements~~.~~. ~~No~~ An undergraduate course~~s~~ may not be used to satisfy the gradable minimal course requirement. ~~for the doctoral course requirements with the exception of courses included in the master's degree~~.

Time Limitations
Doctoral degrees must be completed within seven (7) years from the student's original date of admission for doctoral study. All courses applied to the doctoral degree must be completed within seven (7) years, including courses taken

1) prior to admission to the USF doctoral program,
2) taken as non-degree seeking, or
3) transferred in from other institutions.

There is no time limitation for courses from a completed master's degree used toward a doctoral degree. For students who are readmitted, see Readmission Policy. Typically a student will reach candidacy within four years, but this may vary per discipline.

Time Limit Extensions
In the event that a student nears the end of the time limitation as specified above, but the student needs more time to complete the degree, the student may submit a request for an extension using the *Time Limit Extension Request Form,* available on the Graduate School website http://www.grad.usf.edu/student-forms.php .

Requests must include

- the reasons for the delay in completion,
- the anticipated time needed for completion,
- and endorsements from the graduate faculty advisor, graduate program, and College Dean or designee,
- a detailed plan of study and timeline for the remaining requirements for the degree

Prior to submission to the Graduate School for approval. If approved, the time limit extension also applies to courses applied toward the degree. However, programs may require additional or repeat coursework as part of the condition of the time limit extension. Students who exceed the time limitations may have their registration placed on hold until a request for extension has been approved. Only one time limit extension request is permitted. Students who are temporarily unable to continue the program should submit a Leave of Absence Request, which extends the time limit for the duration of the approved Leave (see Leave of Absence in the Enrollment Requirements section for information; the *Leave of Absence Request Form* is available online at: http://www.grad.usf.edu/student-forms.php).

Enrollment Requirements
See Academic Policies Section

Institutional Enrollment Requirement
The majority of credits toward a graduate degree must be earned through instruction offered by the institution (e.g. USF Tampa, USF St. Petersburg, USF Polytechnic, USF Sarasota-Manatee)granting the degree. For information about the minimum number of credit hours required for the degree refer to the degree requirements in the program listing and the Transfer of Credit Policy.

Major Professor
The Major Professor serves as the student's advisor and mentor. Students should confer with the department to confirm the internal process and timeline for the selection and appointment of the Major Professor. The student must identify a major professor and receive that person's agreement to serve as major professor. The selection of the Major Professor must be approved and appointed by the department as soon as possible, but no later than the time the student has completed 50% of the program. Students must have a major professor in order to maintain Satisfactory Academic Progress. If a Major Professor cannot be identified or in the event a Major Professor is unable or unwilling to continue serving on the student's committee, the student is responsible for finding another Major Professor. Students who are unable to find a replacement Major Professor should confer with the Program Director for available options. If no other options exist the student may be requested to voluntarily withdraw from the program or may be honorably withdrawn in good academic standing. The student and Major Professor should plan a program of study which, when completed, will satisfy the degree requirements specified. A copy of this program, signed by the student and professor, should be maintained in the student's department file.

Major Professors must meet the following requirements:

- Be active in scholarly pursuits as evidenced by at least one referred publication in the last three years.
- Be graduate faculty, as defined by the University. Faculty who do not meet this definition may serve as Co-Major Professor with faculty who do
- Be engaged in current and sustained scholarly, creative, or research activities and have met departmental (or equivalent) requirements
- Have been approved by the Department Chair (or equivalent) to serve as a Major Professor or Co-Major Professor

The membership of graduate faculty will be based upon criteria developed within the appropriate program or department and approved at the college level. These criteria must be forwarded to the Dean of the Graduate School.

In the event a Major Professor leaves the University (i.e. for an appointment at another university, due to retirement, etc.) and the Major Professor is willing to continue serving on the student's committee, the Major Professor then becomes a Co-Major Professor on the committee and another faculty is appointed as the other Co-Major Professor. It is important that one of the Co-Major Professors be accessible on the university campus for the student to make satisfactory progress on the thesis/dissertation. In the event a Major Professor is on temporary leave (e.g. sabbatical, research, etc.); the Major Professor shall coordinate with the Program Director to facilitate the needs of the student. In some instances a student may choose to have two professors serve as Major Professor. In this situation the faculty are approved as "Co-Major Professors" and jointly serve in that role. Consequently both faculty must sign approval on paperwork pertaining to the student's processing (i.e. committee form, change of committee form, admission to candidacy, etc.).

Appointment of a (Co)-Major Professor(s) may be rescinded by the Department Chair (or equivalent), with the approval of the appropriate Department (or equivalent) faculty committee (separate from student advisory committee.)

(Co-) Major Professor(s) of the Graduate Student Supervisory Committee Responsibilities
Available on the Graduate School Website: http://www.grad.usf.edu/policies.asp.

Doctoral Committee
As soon as an area of research is determined and a major professor is selected, a Doctoral Supervisory Committee will be appointed and approved for the student. The department will request approval of the Doctoral Committee from the Dean of the College and, as needed, the Dean of the Graduate School. The Doctoral Committee will approve the student's course of study and plan for research, supervise the research, grade the written comprehensive qualifying examination, read and approve the dissertation for content and format, and conduct the dissertation defense.

Composition
The Doctoral Committee will consist of at least four members, three of whom must come from the academic area in which the major work for the degree will be done.

Member Definition
All graduate faculty, as defined by the University and the College/Department, and approved by their department and college, are assumed by the Graduate School as qualified to be a member of and/or supervise a doctoral committee. Persons desiring to serve on a committee who are not defined as Graduate Faculty (i.e. visiting faculty, professionals, etc.) by the University and the College/Department

must submit a curriculum vitae and be approved by the Department, College, and Graduate School, for each committee.

Committee members must meet the following requirements:

- Be graduate or affiliate graduate faculty, as defined by the University
- Have the background and expertise that contributes to the success of the student.

In addition to the requirements specified in the Graduate Faculty definition, committee membership will be based upon criteria developed within the appropriate program or department and approved at the college level. These criteria must be forwarded to the Dean of the Graduate School.

Approval

Once a committee has been determined, a Supervisory Committee Form needs to be completed by the student and submitted to the Committee Members for original signature. Check with the College for instructions and forms. To insure uniformity of excellence across the colleges, (Co-)Major Professor(s) of Ph.D. Dissertation Committees will need to submit a current curriculum vitae (equivalent to an NIH Bio, approximately two pages long with the last three [3] years of scholarly activity included) with the committee appointment form to the College Dean or designee. This approval is in addition to the approval from their department chairperson. (Colleges and departments may institute additional requirements for membership on Supervisory Committees.) Once approved, the original form and the approved Curriculum Vitae (CV) are placed in the student's file. An approved and current Committee Form must be on file in the program/college before graduation may be certified. Committee forms need to be processed as early in the program as possible, but no later than the semester prior to graduation.

Changes to Committee

Changes to a Supervisory Committee must be submitted on a Change of Committee Form. Check with the College for instructions and forms. Original signatures of faculty being added to the Committee, along with the approval signature of the (Co-) Major Professor(s), must be on the form. Faxed signatures are acceptable. Faculty who are removed from the Committee are not required to sign the form, provided that the (Co-) Major Professor(s) has signed. In such instances the signature of the (Co-) Major Professor(s) indicate(s) approval of the change, as well as acknowledgement and approval of the change by the removed member. Any non-faculty being added to a committee must submit a CV for approval. If a faculty member is being added as a Co-Major Professor, or if there is an appointment change to the Major Professor position, a CV must be included for the faculty member who is being added to that position. Change of Committee Forms should be submitted for approval as soon as the change takes place. Changes to a Committee are official only once approved and filed by the program and college. An approved and current Committee Form must be on file before graduation may be certified.

Doctoral Qualifying Examination

As soon as the substantial majority of the course work is completed, the student must pass a written qualifying examination covering the subject matter in the major and related fields. This examination may be supplemented by an oral examination. Students must be enrolled for a minimum of two (2) hours of graduate credit in their discipline at the time they take the qualifying examination. If the exam is taken between semesters, students must be enrolled for a minimum of two (2) hours of graduate credit in the semester before or following the exam.

Admission to Candidacy

In order to be admitted to doctoral candidacy, students must meet the following requirements at USF:

1. admission to a doctoral program
2. appointment of a Doctoral Committee ,

3. attainment of an overall and degree program Grade Point Average (GPA) of 3.00 at USF at the time of candidacy. (All "I" and "M" grades, including "IF" and "MF", must be cleared before candidacy may be finalized.)
4. successful completion of a qualifying examination
5. certification by the Doctoral Committee that the above qualifications have been successfully completed.

The Admission to Candidacy form should be submitted for approval during the semester that the qualifying exams were completed, but no later than the semester following the successful completion of the exam. The form will be approved by the Dean of the College and forwarded to the Dean of the Graduate School for final approval. Doctoral Candidacy is effective as of the day that the Graduate School approves of the request and changes the student's status to 6C. For procedures and processing deadlines refer to the Graduate School website at www.grad.usf.edu.

Once candidacy status is approved, students with approved candidacy are eligible to enroll in dissertation hours (7980) in the semester that immediately follows the last business day of the approval window. For example, students approved during the Fall approval window may enroll in the Spring. Students approved during the Spring approval window may enroll in the summer and students approved during the Summer approval window may enroll in the Fall. **Students may NOT enroll in dissertation hours prior to being admitted to doctoral candidacy**.

Each degree program has a required number of dissertation hours for completion of the degree. Departments may, with College approval, apply Directed Research hours toward the total number of dissertation hours required. Directed Research hours shall not exceed 50% of the dissertation hour requirement. No directed research hours will be converted to dissertation hours (i.e. a directed research course dropped and a dissertation course added) prior to or during the approval window. *For more information refer to Enrollment Requirements in the Academic Policies section.*

Dissertation

Dissertation requirements are for the academic degrees of Ph.D. and Ed.D. For the professional degrees of Au.D. and D.P.T., contact the professional school for doctoral project requirements. The Dissertation must conform to the guidelines of the University. Refer to the Thesis and Dissertation Guidelines, available on the web at http://www.grad.usf.edu/thesis.asp for information about requirements, procedures, and deadlines. For enrollment requirements, refer to the Academic Policies section in the Catalog.

Format

The Dissertation must conform one of two available formats

Option 1 - traditional format[8] inclusive of:

Part I: Preliminary Pages

Title Page
Dedication (optional page)
Acknowledgments (optional page)
Table of Contents
List of Tables (if applicable)
List of Figures (if applicable)
Abstract

Part II: Text (divided by chapter or section headings)

[8] Deviations from the two available formats are acceptable if approved in advance by the Supervisory Committee and Graduate School.

Part III: References / Bibliography[9]
Appendices Title Page
Appendix Sections (if applicable)

Part IV: About the Author (required for dissertations)

Option 2 — collection of articles/papers instead of chapters. References may be at the end of each section or at the end of the entire document. Copyright permissions (if applicable) must be noted on the Acknowledgements page.

Part I: Preliminary Pages
Title Page
Dedication (optional page)
Acknowledgments and copyright permission (if applicable)
Table of Contents
Abstract

Part II: Collection of Articles/Papers

Part III: References / Bibliography[10]
Appendices Title Page
Appendix Sections (if applicable)

Directed Research
Directed Research hours taken with the (Co) Major Professor(s) prior to approval to doctoral candidacy by the Graduate School may satisfy up to 50% of the dissertation hour requirement, with program approval.

Manuscript Processing Fee
USF Regulation USF4-0107, http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf4.0107.pdf Students participating in the thesis/dissertation process are required to pay a processing fee. More information is available on the website at http://www.grad.usf.edu/thesis.asp.

Dissertation Defense
After the Doctoral Committee has determined that the final draft of the dissertation is suitable for presentation; the Committee will request the scheduling and announcement of the Dissertation Defense (also called Final Oral Examination or Oral Defense.) Check with the College and program for college and program specific procedures for this process. A copy of the announcement should be sent to the Graduate School, preferably two weeks in advance of the defense date. The announcement must also be posted in a public forum for a minimum of twenty-four hours to comply with statute requirements for a public meeting. A student must successfully defend the dissertation in order to be able to proceed and complete the final submission process.

Outside Chair of the Dissertation Defense
The Dissertation Defense (or Final Oral Examination) shall be presided over by a senior and distinguished scholar from outside the department, nominated by the Major Professor. If the chair is from another institution, this individual should have the

[9] Include either References or a Bibliography, as specified by your style guide.
[10] Include either References or a Bibliography, as specified by your style guide.

equivalent qualifications necessary to chair a dissertation in the subject area at the University of South Florida. Note that the Major Professor may not serve as the "Outside Chair."

Procedures for Conducting the Oral Defense

1. The oral defense should be conducted to allow for the student to make any necessary corrections following the defense and still meet the final copy deadline for turning in the dissertation to the Office of Graduate School.

2. It is required that all members of the Dissertation Committee be present for the examination unless an absence is approved prior to the defense taking place by the Graduate School Dean. In the event that a member cannot attend in person, participation is permissible via speakerphone or video conference. A minimum of three members, including the Major Professor is required to proceed with the defense. The Outside Chair is not considered as part of the Committee.

3. The presentation should be considered an important function in the department and all graduate students and faculty be encouraged to attend.

4. The presentation and defense are open to the public and as such, must meet the requirements of the Sunshine Laws for the State of Florida. The voting is not public.

5. The room selected for the examination should have adequate seating with an alternate room selected in case of problems.

6. The Outside Chair should open the proceedings by introducing the candidate and the Dissertation Committee.

7. The examination should begin with a presentation by the candidate designed to summarize the dissertation.

8. The remainder of the examination may take place in a different setting and will consist of questions about the research by the Outside Chair and the Dissertation Committee and by other interested persons. It is suggested that questioning should be limited to about 15 minutes for each person with subsequent rounds of questioning as necessary.

9. Questions from the faculty-at-large and/or the public may be allowed at the end of the committee's questioning.

10. The length of the examination period will generally not exceed three hours. Throughout this time the Outside Chair is to be in charge of all proceedings and, ideally, is expected to play a balancing role between advocacy and contention. The Outside Chair, at anytime during the course of the examination, may request all visitors to leave.

11. Following the completion of these proceedings, the Outside Chair will ask all visitors and the candidate to leave and will re-convene the Dissertation Committee only. The Outside Chair may share his/her impressions and opinions of the candidate and the dissertation. The Outside Chair will preside over the deliberations and voting of the committee, but is not to participate in the voting. The voting is to be limited to

"pass" and "fail" votes. The Outside Chair has the responsibility of tallying the votes and of informing the candidate of the final decision. ***The vote of the Dissertation Committee must be unanimous and recorded on the Successful Defense form***. he College Graduate Dean will resolve substitutions and disagreements within the committee.

12. The Outside chair will convey the decision of the Dissertation Committee (Successful Defense form) to the Department/College Graduate office to be kept in the student's file.

Suggested Guide for Dissertation Defense Proceedings

1. Introduction of Candidate and Committee Members.
2. Presentation by Candidate.
3. Questions by Committee Members.
4. Questions from other faculty and/or other observers.
5. Candidate and observers leave the examination room.
6. Deliberation and voting by the committee, only; sign documentation (to be determined by College/Department) if defense is successful.
7. The candidate shall be informed of the vote.
8. The record of the successful defense (to be determined by the College or Department) is forwarded to the College/Department for the student's file.

Dissertation Final Submission Guidelines

Information on requirements for submission of the finished and approved manuscript copies is available online at the Thesis and Dissertation website http://www.grad.usf.edu/thesis.asp . Students who fail to submit the final copy of a dissertation by the posted submission deadline will not be considered for graduation. The student may be considered for graduation in the following semester and must therefore apply for the degree (graduation) by the posted deadline, enroll in a minimum of two (2) dissertation hours for that subsequent semester, and meet the submission requirements as posted on the Thesis/Dissertation website. Only after the Graduate School has approved the manuscript can the student be certified for the degree.

Mandatory Electronic Submission

Students are required to submit the dissertation in an electronic format (ETD). Requirements and procedures are available at the Graduate School website http://www.grad.usf.edu/thesis.asp.

Submission to Pro-Quest

All dissertations are submitted to Pro-Quest for microfilming and archiving.

Changes after Publication

Once a dissertation is approved and accepted by the Graduate School for publication, it cannot be changed.

Release of Dissertation Publications

The University recognizes the benefits from collaboration with sponsors on research projects but also recognizes the possibility of conflicts of interest in the disclosure of the results of the collaborations. While the sponsor's economic interests in the restriction of disclosure should be considered, the University has a primary mission to extend knowledge and disseminate it to the public and the broader academic community. The University's "Statement of Policy Regarding Inventions and Works"

acknowledges the possible need for delays in publication of sponsored research to protect the sponsor's interests, but it provides no definite guidelines for the restrictions of publication beyond the statement: "Disclosure delays mutually acceptable to the Inventor, the Vice President for Research, and the sponsor, if any, are authorized in order to allow patent applications to be filled prior to publication, thereby preserving patent rights..."[11]

To protect the University's primary goal from un-due compromise, the University has adopted the following guidelines:

1. The recommendations of sponsors, regarding publication of research results should be considered advisory rather than mandatory.

2. In support of academic discourse and the mission to promote and share academic works, Dissertations will be released for worldwide access once submitted to and approved by the USF Graduate School. In the event that a patent or copyright application provides reason to delay the release of the Dissertation, a petition to request a one year delay may be submitted to the Graduate School for consideration. Such requests must be received by the format check of the dissertation.

3. Students should not be delayed in the final defense of their dissertations by agreements involving publication delays.

Duty to Disclose New Inventions and Works
USF 0-300 http://generalcounsel.usf.edu/policies-and-procedures/pdfs/policy-0-300.pdf and USF 12.003 http://generalcounsel.usf.edu/regulations/pdfs/regulation-usf12.003.pdf.
For information about the requirements of this policy contact the Division of Patents and Licensing at (813) 974-0994.

Dissertation Change of Grade
In the semester in which the final manuscript has been received, reviewed, and certified for permanent filing in the University Library, the Graduate School submits the change of grade from "Z" to "S" for the last registration of dissertation courses to the office of the registrar when all grades are due at the end of the semester.

The Use of "Ph.D." in Credentials and Publication
Students may only use the credential of "Ph.D." after degree conferral is granted. It is inappropriate to use the credential until it is officially and formally granted. The use of the abbreviation "Ph.D." in university publications, correspondence, etc., including websites and other electronic media, shall be upper case "P", lower case "h" followed by a period, an upper case "D" and another period. It shall not be used in the format of all upper case letters without periods, as in "PHD".

[11] April Burke, "University Policies on Conflict of Interest and Delay of Publications," Report of the Clearinghouse on University-Industry Relations, Association of American Universities, February, 1985.

Section 9

Graduation Information and Opportunities

Application for Degree (Graduation)

To graduate, a student must submit the Application for Degree through their College. This application must be submitted in the term of expected graduation by the deadline noted in the academic calendar. If a student applies for graduation and is not approved, a new Application for Degree must be submitted by the deadline in a new term. In order for the degree statement to appear on a student's academic record, the student must file the aforementioned application whether or not participation in the commencement ceremony is desired.

The application for a graduate degree is online at
http://www.registrar.usf.edu/forms/GraduateGraduationApp824112011-08-24_16_24_22.pdf

The application must be submitted to the College advising office prior to the graduation application deadline. Inquiries concerning approval or denial of graduation should be made to the appropriate college. It is the student's responsibility to clear all "I" (Incomplete) and "M" (Missing) grades in all courses and to provide official transcripts of all transferred course work needed for graduation at least three weeks prior to the end of the term in which he/she expects to graduate.

Graduation Requirements

It is the student's responsibility to make sure that he/she has met all degree requirements (e.g. be *in good standing)* as specified in the Policies and Degree Requirements sections of this publication, as well as any College and Program requirements for the degree.

Commencement

Graduate students **may not** participate in commencement exercises **until all requirements** for the degree sought have been fulfilled. Students graduating from programs based from the Tampa campus (despite location, i.e. may be located in St. Petersburg, Sarasota, Lakeland, etc., such as students in Marine Science) participate in commencement exercises on the Tampa campus. All doctoral graduates receive degree conferral from the Tampa campus and therefore participate in commencement exercises in Tampa.

Diplomas

Diplomas are mailed to the student's permanent address approximately six (6) weeks after commencement. Students with a change of address need to fill out a change of address form at the Registrar's office. Questions regarding diplomas and degree certification should be directed to the Registrar's office at 974-2000.

Letters of Certification

Students in need of verification of the degree prior to receiving their diploma may request a Letter of Certification. This letter specifies that the student has finished all of the requirements for the degree and the date the degree will be conferred on. The letter must include the student's social security number, name of degree program and official name of the degree. The Major Professor, the College Dean (or designee), the Coordinator (or designee) in the Graduate School, and the Registrar must sign the Letter of Certification. A template for the Certification Letter is available on the Graduate School website at http://www.grad.usf.edu/student-forms.php

Posthumous Degrees or Degrees in Memoriam

The University may award a posthumous master's or doctoral (and medical) degree to a student who was in good standing at the University at the time of his or her death and who had completed all substantive requirements for the degree. The University may also award masters, doctoral and medical degrees in memoriam to a student who was in good standing at the University at the time of his or her death.

To award a non-thesis degree, the student would need to have completed all courses required for the degree. Courses required for the degree, in which the student is enrolled at the time of his or her death, must have been completed to the satisfaction of the faculty so that passing grades might be posted. All other requirements (e.g., grade point average, tests, etc.) must have been satisfied as well.

To award a thesis degree, all courses must be completed as described above and the thesis must be sufficiently complete to the satisfaction of the faculty so that certification of completion may be posted to the student's record.

Procedures for Award of Posthumous Degrees or Degrees in Memoriam
The Chairperson of a Department, on his or her own initiative or upon the request of the family of the student, may recommend a posthumous degree, or a degree in memoriam, by forwarding the recommendation to the respective College Dean and then to the Graduate School Dean. If approved by the Graduate School Dean, the recommendation with supporting documentation will be forwarded to the Provost for approval. If the Provost approves the recommendations, the Office of the Registrar will be notified and the degree will be awarded at the next commencement ceremony or will be presented to the student's family in an appropriate setting.

Diplomas for posthumous degrees will be identical to other degrees awarded in the same colleges and majors. Diplomas for Degrees in Memoriam will be prepared to read "Master of Arts in Memoriam, Master of Science in Memoriam," "Doctor of Philosophy in Memoriam," etc., depending upon the degree the student was pursuing at the time of his or her death.

Transcripts

Transcripts of a student's USF academic record may be requested by the student through the Office of the Registrar. A student's academic record can only be released upon authorization of the student. Students requesting transcripts may do so in person or by writing to the Office of the Registrar. By law, the request must include the student's signature and date. For transcripts to be issued, the student must have no financial obligations to the University. Procedures for requesting a transcript are available on the Office of the Registrar's website at http://www.registrar.usf.edu/. Degree statements are posted approximately five weeks after the graduation ceremony. Current term grades are posted approximately one week after the final exams end. If grades for the current term are needed, clearly indicate that the transcript request is to be held for grades.

Office of Postdoctoral Affairs

The Office of Postdoctoral Affairs (OPA) serves as an administrative and academic center of excellence for postdoctoral scholars, and ensures they have an exemplary professional and personal development experience while at USF. It fosters a robust postdoctoral community, provides opportunities to enhance the postdoctoral experience and future success of its constituents, and serves as a dedicated resource for postdoctoral scholars, faculty, and administrators.

Objectives of the OPA:

- Provide guidance to colleges and postdoctoral scholars throughout the hiring process.
- Establish, maintain, and evaluate postdoctoral policies.
- Build collaboration among postdoctoral scholars, colleges, and graduate students.
- Offer professional development workshops for postdoctoral scholars and their mentors.
- Maintain a detailed database of current and alumni postdoctoral scholars.
- Submit postdoctoral data for university, state, national, and international reports.
- Facilitate the development of a USF Postdoctoral Association.

For more information, please see www.grad.usf.edu/postdoc

Section 10

Degrees, Programs, and Concentrations

New graduate degrees, programs and concentrations are continually under development and may now be approved and available. Check the website for recently approved programs and for information on which programs are currently accepting applications and which are currently closed for admission. For the most current list of authorized degrees, programs and concentrations, Accelerated Degree Programs, and Dual Degree Programs, go to http://www.grad.usf.edu/programs/programs.asp. As of the date of this publication, the University is authorized to offer 49 different degrees with graduate programs (majors) offered as follows:

125~~126~~	**Master's programs**	238[c5]	Concentrations at the Master's level
2	**Education Specialist programs**	15	Concentrations at the Specialist level
44	**Doctoral programs***	110	Concentrations at the Doctoral level

**including the Ph.D., Ed.D., Au.D., D.N.P., Dr.P.H., D.P.T., and M.D.*

How to understand Degrees, versus Programs, versus Concentrations.

The University offers a number of degrees (e.g. M.A., M.S.E.S., Ph.D., etc.) under which various programs (a.k.a. majors) are offered – for example *Biology*. Concentrations are formalized areas of study available within the program – for example *Conservation Biology*. Definitions are noted on the following page.

Some programs are offered as the area of study presented. Other programs are offered through a variety of concentrations within the program. The Degree is awarded in the Program, e.g. M.S. in Nursing. USF offers over 300 Concentrations within the 170 Programs that are authorized. For example:

Adult Education (Curriculum and Instruction) M.Ed. Education

Would translate to: M.Ed. in Curriculum and Instruction with a Concentration in Adult Education

M.Ed.	= the name of the degree - "Master of Education"
Curriculum and Instruction	= the name of the program of study the degree is awarded in
Adult Education	= the name of the concentration within the program

To learn more about the program or concentration, refer to the corresponding college section of the catalog. Depending on the College, the information may be listed under the concentration name (as is the case for the College of Education) or the program name (as is the case for the College of Arts and Sciences.).Note: Programs may also offer plans, tracks, or areas of study which are informal groupings within a program or concentration.

Questions about degrees and concentrations may be directed to the Graduate School.

Definitions

Degrees
(http://files.acad.usf.edu/edout/New-Degree/USF-Procedures-on-New-Academic-Program.pdf)
A degree program is defined as an organized curriculum leading to a college degree in an area of study recognized as an academic discipline by the higher education community, as demonstrated by assignment of a Classification of Instructional Programs (CIP) code by the National Center for Educational Statistics, or as demonstrated by similar programs existing at other colleges and universities, and having designated faculty and instructional resources. Each degree program will be assigned a CIP code and included in the State University System Academic Degree Program Inventory.

Example: Doctor of Philosophy (Ph.D.)

Graduate Program (Major) (ref: BOG Regulation 6C-8.011)
An organized curriculum offered as a major area of study that is part of an existing or proposed degree program and does not constitute sufficient distinct coursework, faculty, and instructional resources to be considered a separate degree program. A Program Major must be reasonably associated with the degree program under which it is offered and share common core or prerequisite courses with other majors within the same degree program. A Program Major will not be assigned a CIP Code, will not be included in the State University System Academic Degree Program Inventory, and will not be recognized as a standalone degree program at the University. The number of credit hours for a Program Major will be established by the University for each degree level.

Example: Curriculum and Instruction

Concentration (approved by Graduate Council 3/15/10)
A Concentration is a coordinated set of courses in conjunction with examinations, thesis and/or dissertation, sub-curriculum that is applicable to one or more existing graduate programs. The total number of credit hours must not equal or exceed the number of credit hours established for the Degree Program(s). Concentrations must be approved by the Department (or equivalent), College, and Graduate Council. Concentrations are listed on a student's transcript, but not on the diploma. Also reference BOG Regulation 6C-8.011.

Example: Adult Education

Full Example:
Doctor of Philosophy (Ph.D.) in Curriculum and Instruction (program)
with a Concentration in Adult Education

List of Authorized Degrees and Graduate Programs – By Degree and Level

Degree Code	Degree Description	Graduate Programs Offered Under That Degree
MASTERS DEGREES		
M.A.	Master of Arts	❖ Adult Education ❖ American Studies ❖ Applied Anthropology ❖ Applied Behavior Analysis ❖ Art History ❖ Autism Spectrum Disorders and Severe Intellectual Disabilities ❖ Career and Technical Education ❖ Chemistry (non-thesis option) ❖ Classics: Latin/Greek ❖ ~~College Teaching~~ ❖ Communication ❖ Counselor Education ❖ Criminal Justice Administration ❖ Criminology ❖ Early Childhood Education ❖ ~~Business~~ Economics ❖ Elementary Education ❖ English ❖ English Education ❖ Exceptional Student Education ❖ Foreign Language Education ❖ French ❖ Geography ❖ Gerontology ❖ Global Sustainability ❖ History ❖ Latin American, Caribbean and Latino Studies ❖ Library and Information Science ❖ Linguistics ❖ Linguistics: English as a Second Language ❖ Mass Communications ❖ Mathematics ❖ Mathematics Education ❖ Music Education ❖ Philosophy ❖ Physical Education ❖ Political Science ❖ Psychology ❖ Reading Education ❖ Rehabilitation and Mental Health Counseling (5 yr) ❖ Rehabilitation and Mental Health Counseling (Post Baccalaureate) ❖ Religious Studies ❖ School Psychology ❖ Science Education

Degree Code	Degree Description	Graduate Programs Offered Under That Degree
		❖ Social Science Education ❖ Sociology ❖ Spanish ❖ Special Education, Behavior Disorders ❖ Special Education, Gifted ❖ Special Education, Intellectual Disabilities ❖ Special Education, Motor Disabilities ❖ Special Education, Specific Learning Disabilities ❖ Statistics ❖ Women's Studies
M.A.B.M.H.	Master of Arts in Bioethics and Medical Humanities	❖ Bioethics and Medical Humanities
M.A.T.	Master of Arts in Teaching	❖ Elementary Education ❖ English Education ❖ Exceptional Student Education ❖ Foreign Language Education ❖ Mathematics Education (6-12) ❖ Middle Grades Mathematics ❖ Science Education ❖ Social Science Education
M.Acc.	Master of Accountancy	❖ Accountancy
M.Arc.	Master of Architecture	❖ Architecture
M.B.A.	Master of Business Administration	❖ Business Administration
M.C.E.	Master of Civil Engineering	❖ Civil Engineering
M.C.H.E.	Master of Chemical Engineering	❖ Chemical Engineering
M.D.	Doctor of Medicine	❖ Medicine
M.E.	Master of Engineering	❖ Chemical Engineering ❖ Electrical Engineering ❖ Mechanical Engineering
M.E.V.E.	Master of Environmental Engineering	❖ Environmental Engineering
M.Ed.	Master of Education	❖ Curriculum and Instruction ❖ Educational Leadership
M.F.A.	Master of Fine Arts	❖ Art ❖ Creative Writing ❖ ~~Dramatic Writing~~

Degree Code	Degree Description	Graduate Programs Offered Under That Degree
M.H.A.	Master of Health Administration	❖ Health Administration
M.I.E.	Master of Industrial Engineering	❖ Industrial Engineering
M.L.A.	Master of Liberal Arts	❖ Liberal Arts
M.M.	Master of Music	❖ Music
M.M.E.	Master of Mechanical Engineering	❖ Mechanical Engineering
M.P.A.	Master of Public Administration	❖ Public Administration
M.P.H.	Master of Public Health	❖ Public Health
M.S.	Master of Science	❖ Audiology (Post Baccalaureate) ❖ Aural (Re)Habilitation (Post Baccalaureate) ❖ Biology ❖ Chemistry ❖ Entrepreneurship in Applied Technologies ❖ Environmental Science and Policy ❖ Finance ❖ Geology ❖ Management ❖ Management Information Systems ❖ Marine Science ❖ Microbiology ❖ Nursing ❖ Physics ❖ Speech-Language Pathology (post Bacc)
M.S.B.	Master of Science in Biotechnology	❖ Biotechnology
M.S.B.C.B.	Master of Science in Bioinformatics & Computational Biology	❖ Bioinformatics and Computational Biology
M.S.B.E.	Master of Science in Biomedical Engineering	❖ Biomedical Engineering
M.S.C.E.	Master of Science in Civil Engineering	❖ Civil Engineering
M.S.C.H.	Master of Science in Chemical Engineering	❖ Chemical Engineering
M.S.C.P.	Master of Science in Computer Engineering	❖ Computer Engineering
M.S.C.S.	Master of Science in Computer Science	❖ Computer Science
M.S.E.E.	Master of Science in Electrical	❖ Electrical Engineering

Degree Code	Degree Description	Graduate Programs Offered Under That Degree
	Engineering	
M.S.E.M.	Master of Science in Engineering Management	❖ Engineering Management
M.S.E.S.	Master of Science in Engineering Science	❖ Biomedical Engineering ❖ Chemical Engineering ❖ Civil Engineering ❖ Electrical Engineering ❖ Engineering Science (5 year program) ❖ Environmental Engineering ❖ Mechanical Engineering
M.S.E.V.	Master of Science in Environmental Engineering	❖ Environmental Engineering
M.S.I.E.	Master of Science in Industrial Engineering	❖ Industrial Engineering
M.S.M.	Master of Science in Marketing	❖ Marketing
M.S.M.E.	Master of Science in Mechanical Engineering	❖ Mechanical Engineering
M.S.M.S.	Master of Science in Medical Sciences	❖ Medical Sciences
M.S.P.H.	Master of Science in Public Health	❖ Public Health
M.S.R.E.	Master of Science in Real Estate	❖ Real Estate
M.S.W.	Master of Social Work	❖ Social Work
M.U.C.D.	Master of Urban and Community Design	❖ Urban and Community Design
M.U.R.P.	Master of Urban & Regional Planning	❖ Urban and Regional Planning
EDUCATION SPECIALIST DEGREES		
Ed.S.	Education Specialist	❖ Curriculum and Instruction ❖ Educational Leadership
DOCTORATE DEGREES		
Au.D.	Doctor of Audiology	❖ Audiology
D.N.P.	Doctor of Nursing Practice	❖ Nursing
D.P.T.	Doctor of Physical Therapy	❖ Physical Therapy

Degree Code	Degree Description	Graduate Programs Offered Under That Degree
Dr.P.H.	Doctor of Public Health	❖ Public Health
Ed.D.	Doctor of Education	❖ Educational Leadership ❖ Educational Program Development
Ph.D.	Doctor of Philosophy	❖ Aging Studies ❖ Applied Anthropology ❖ Biology ❖ Biomedical Engineering ❖ Business Administration ❖ Cancer Biology ❖ Chemical Engineering ❖ Chemistry ❖ Civil Engineering ❖ Communication ❖ Communication Sciences and Disorders ❖ Computer Science and Engineering ❖ Criminology ❖ Curriculum and Instruction ❖ Economics (New!) ❖ Electrical Engineering ❖ Engineering Science ❖ English ❖ Geography and Environmental Science and Policy ❖ Geology ❖ Government ❖ History ❖ Industrial Engineering ❖ Marine Science ❖ Mathematics ❖ Mechanical Engineering ❖ Medical Sciences ❖ Music ❖ Nursing Science ❖ Philosophy ❖ Physics, Applied ❖ Psychology ❖ Public Health ❖ School Psychology ❖ Second Language Acquisition and Instructional Technology ❖ Social Work ❖ Sociology ✣

List is accurate as of 7/7/10. To view the most current list and available concentration areas within the degree programs go to: http://www.grad.usf.edu/programs/programs.asp

List of Authorized Graduate Degree Programs – By Program

MASTERS PROGRAMS	DEGREE	DEGREE DESCRIPTION
1. Accountancy	M.Acc.	Master of Accountancy
2. Adult Education	M.A.	Master of Arts
3. American Studies	M.A.	Master of Arts
4. Applied Anthropology	M.A.	Master of Arts
5. Applied Behavior Analysis	M.A.	Master of Arts
6. Architecture	M.Arc.	Master of Architecture
7. Art	M.F.A.	Master of Fine Arts
8. Art History	M.A.	Master of Arts
9. Audiology (Post Baccalaureate)	M.S.	Master of Science
10. Aural (Re) Habilitation (Post Baccalaureate)	M.S.	Master of Science
11. Autism Spectrum Disorders and Severe Intellectual Disabilities	M.A.	Master of Arts
~~11.~~12. Bioethics and Medical Humanities	M.A.B.M.H.	Master of Arts in Bioethics and Medical Humanities
~~12.~~13. Bioinformatics and Computational Biology	M.S.B.C.B.	Master of Science in Bioinformatics & Computational Biology
~~13.~~14. Biology	M.S.	Master of Science
~~14.~~15. Biomedical Engineering	M.S.B.E.	Master of Science in Biomedical Engineering
~~15.~~16. Biomedical Engineering	M.S.E.S.	Master of Science in Engineering Science
~~16.~~17. Biotechnology	M.S.B.	Master of Science in Biotechnology
~~17.~~18. Business Administration	M.B.A.	Master of Business Administration
~~18.~~19. Business Economics	M.A.	Master of Arts
~~19.~~20. Career and Technical Education	M.A.	Master of Arts
~~20.~~21. Chemical Engineering	M.C.H.E.	Master of Chemical Engineering
~~21.~~22. Chemical Engineering	M.E.	Master of Engineering
~~22.~~23. Chemical Engineering	M.S.C.H.	Master of Science in Chemical Engineering
~~23.~~24. Chemical Engineering	M.S.E.S.	Master of Science in Engineering Science
~~24.~~25. Chemistry	M.S.	Master of Science
~~25.~~26. Chemistry (non-thesis option)	M.A.	Master of Arts
~~26.~~27. Civil Engineering	M.C.E.	Master of Civil Engineering
~~27.~~28. Civil Engineering	M.S.C.E.	Master of Science in Civil Engineering
~~28.~~29. Civil Engineering	M.S.E.S.	Master of Science in Engineering Science
~~29.~~30. Classics: Latin/Greek	M.A.	Master of Arts
~~30.~~31. ~~College Teaching~~	~~M.A.~~	~~Master of Arts~~
~~31.~~32. Communication	M.A.	Master of Arts
~~32.~~33. Computer Engineering	M.S.C.P.	Master of Science in Computer Engineering
~~33.~~34. Computer Science	M.S.C.S.	Master of Science in Computer Science
~~34.~~35. Counselor Education	M.A.	Master of Arts
~~35.~~36. Creative Writing	M.F.A.	Master of Fine Arts
~~36.~~37. Criminal Justice Administration	M.A.	Master of Arts
~~37.~~38. Criminology	M.A.	Master of Arts
~~38.~~39. Curriculum and Instruction	M.Ed.	Master of Education
~~39.~~40. ~~Dramatic Writing~~	~~M.F.A.~~	~~Master of Fine Arts~~
~~40.~~41. Early Childhood Education	M.A.	Master of Arts
~~41.~~42. Educational Leadership	M.Ed.	Master of Education
~~42.~~43. Electrical Engineering	M.E.	Master of Engineering

~~43.~~44. Electrical Engineering	M.S.E.E.	Master of Science in Electrical Engineering
~~44.~~45. Electrical Engineering	M.S.E.S.	Master of Science in Engineering Science
~~45.~~46. Elementary Education	M.A.	Master of Arts
~~46.~~47. Elementary Education	M.A.T.	Master of Arts in Teaching
~~47.~~48. Engineering Management	M.S.E.M.	Master of Science in Engineering Management
~~48.~~49. Engineering Science (5 year program)	M.S.E.S.	Master of Science in Engineering Science
~~49.~~50. English	M.A.	Master of Arts
~~50.~~51. English Education	M.A.	Master of Arts
~~51.~~52. English Education	M.A.T.	Master of Arts in Teaching
~~52.~~53. Entrepreneurship in Applied Technologies	M.S.	Master of Science
~~53.~~54. Environmental Engineering	M.E.V.E.	Master of Environmental Engineering
~~54.~~55. Environmental Engineering	M.S.E.S.	Master of Science in Engineering Science
~~55.~~56. Environmental Engineering	M.S.E.V.	Master of Science in Environmental Engineering
~~56.~~57. Environmental Science and Policy	M.S.	Master of Science
~~57.~~58. Exceptional Student Education	M.A.	Master of Arts
~~58.~~59. Exceptional Student Education	M.A.T.	Master of Arts in Teaching
~~59.~~60. Executive MBA Program	M.B.A.	Master of Business Administration
~~60.~~61. Finance	M.S.	Master of Science
~~61.~~62. Foreign Language Education	M.A.	Master of Arts
~~62.~~63. Foreign Language Education	M.A.T.	Master of Arts in Teaching
~~63.~~64. French	M.A.	Master of Arts
~~64.~~65. Geography	M.A.	Master of Arts
~~65.~~66. Geology	M.S.	Master of Science
~~66.~~67. Gerontology	M.A.	Master of Arts
~~67.~~68. Global Sustainability	M.A.	Master of Arts
~~68.~~69. Health Administration	M.H.A.	Master of Health Administration
~~69.~~70. History	M.A.	Master of Arts
~~70.~~71. Industrial Engineering	M.I.E.	Master of Industrial Engineering
~~71.~~72. Industrial Engineering	M.S.I.E.	Master of Science in Industrial Engineering
~~72.~~73. Latin American, Caribbean and Latino Studies	M.A.	Master of Arts
~~73.~~74. Liberal Arts	M.L.A.	Master of Liberal Arts
~~74.~~75. Library and Information Science	M.A.	Master of Arts
~~75.~~76. Linguistics	M.A.	Master of Arts
~~76.~~77. Linguistics: English as a Second Language	M.A.	Master of Arts
~~77.~~78. Management	M.S.	Master of Science
~~78.~~79. Management Information Systems	M.S.	Master of Science
~~79.~~80. Marine Science	M.S.	Master of Science
~~80.~~81. Marketing	M.S.M.	Master of Science in Marketing
~~81.~~82. Mass Communications	M.A.	Master of Arts
~~82.~~83. Materials Science and Engineering	M.S.M.S.E.	Master of Science in Materials Science and Engineering
~~83.~~84. Mathematics	M.A.	Master of Arts
~~84.~~85. Mathematics Education	M.A.	Master of Arts
~~85.~~86. Mathematics Education (6-12)	M.A.T.	Master of Arts in Teaching
~~86.~~87. Mechanical Engineering	M.E.	Master of Engineering
~~87.~~88. Mechanical Engineering	M.M.E.	Master of Mechanical Engineering

~~88.~~89. Mechanical Engineering	M.S.E.S.	Master of Science in Engineering Science
~~89.~~90. Mechanical Engineering	M.S.M.E.	Master of Science in Mechanical Engineering
~~90.~~91. Medical Sciences	M.S.M.S.	Master of Science in Medical Sciences
~~91.~~92. Microbiology	M.S.	Master of Science
~~92.~~93. Middle Grades Mathematics	M.A.T.	Master of Arts in Teaching
~~93.~~94. Music	M.M.	Master of Music
~~94.~~95. Music Education	M.A.	Master of Arts
~~95.~~96. Nursing	M.S.	Master of Science
~~96.~~97. Philosophy	M.A.	Master of Arts
~~97.~~98. Physical Education	M.A.	Master of Arts
~~98.~~99. Physics	M.S.	Master of Science
~~99.~~100. Political Science	M.A.	Master of Arts
~~100.~~101. Psychology	M.A.	Master of Arts
~~101.~~102. Public Administration	M.P.A.	Master of Public Administration
~~102.~~103. Public Health	M.P.H.	Master of Public Health
~~103.~~104. Public Health	M.S.P.H.	Master of Science in Public Health
~~104.~~105. Reading Education	M.A.	Master of Arts
~~105.~~106. Real Estate	M.S.R.E.	Master of Science in Real Estate
~~106.~~107. Rehabilitation and Mental Health Counseling (5 year program)	M.A.	Master of Arts
~~107.~~108. Rehabilitation and Mental Health Counseling (Post Baccalaureate)	M.A.	Master of Arts
~~108.~~109. Religious Studies	M.A.	Master of Arts
~~109.~~110. School Psychology	M.A.	Master of Arts
~~110.~~111. Science Education	M.A.	Master of Arts
~~111.~~112. Science Education	M.A.T.	Master of Arts in Teaching
~~112.~~113. Social Science Education	M.A.	Master of Arts
~~113.~~114. Social Science Education	M.A.T.	Master of Arts in Teaching
~~114.~~115. Social Work	M.S.W.	Master of Social Work
~~115.~~116. Sociology	M.A.	Master of Arts
~~116.~~117. Spanish	M.A.	Master of Arts
~~117.~~118. Special Education, Behavior Disorders	M.A.	Master of Arts
~~118.~~119. Special Education, Gifted	M.A.	Master of Arts
~~119.~~120. Special Education, Intellectual Disabilities	M.A.	Master of Arts
~~120.~~121. Special Education, Motor Disabilities	M.A.	Master of Arts
~~121.~~122. Special Education, Specific Learning Disabilities	M.A.	Master of Arts
~~122.~~123. Speech-Language Pathology (Post Bacc)	M.S.	Master of Science
~~123.~~124. Statistics	M.A.	Master of Arts
~~124.~~125. Urban and Community Design	M.U.C.D.	Master of Urban and Community Design
~~125.~~126. Urban and Regional Planning	M.U.R.P.	Master of Urban & Regional Planning
~~126.~~127. Women's Studies	M.A.	Master of Arts
EDUCATION SPECIALIST PRORAMS	DEGREE	**DEGREE DESCRIPTION**
▪ Curriculum and Instruction	Ed.S.	Education Specialist
▪ Educational Leadership	Ed.S.	Education Specialist

DOCTORATE PROGRAMS		DEGREE	DEGREE DESCRIPTION
1.	Aging Studies	Ph.D.	Doctor of Philosophy
2.	Applied Anthropology	Ph.D.	Doctor of Philosophy
3.	Audiology	Au.D.	Doctor of Audiology
4.	Biology	Ph.D.	Doctor of Philosophy
5.	Biomedical Engineering	Ph.D.	Doctor of Philosophy
6.	Business Administration	Ph.D.	Doctor of Philosophy
7.	Cancer Biology	Ph.D.	Doctor of Philosophy
8.	Chemical Engineering	Ph.D.	Doctor of Philosophy
9.	Chemistry	Ph.D.	Doctor of Philosophy
10.	Civil Engineering	Ph.D.	Doctor of Philosophy
11.	Communication	Ph.D.	Doctor of Philosophy
12.	Communication Sciences and Disorders	Ph.D.	Doctor of Philosophy
13.	Computer Science and Engineering	Ph.D.	Doctor of Philosophy
14.	Criminology	Ph.D.	Doctor of Philosophy
15.	Curriculum and Instruction	Ph.D.	Doctor of Philosophy
16.	Economics	Ph.D.	Doctor of Philosophy
17.	Educational Leadership	Ed.D.	Doctor of Education
18.	Educational Program Development	Ed.D.	Doctor of Education
19.	Electrical Engineering	Ph.D.	Doctor of Philosophy
20.	Engineering Science	Ph.D.	Doctor of Philosophy
21.	English	Ph.D.	Doctor of Philosophy
22.	Geography and Environmental Science and Policy	Ph.D.	Doctor of Philosophy
23.	Geology	Ph.D.	Doctor of Philosophy
24.	Government	Ph.D.	Doctor of Philosophy
25.	History	Ph.D.	Doctor of Philosophy
26.	Industrial Engineering	Ph.D.	Doctor of Philosophy
27.	Marine Science	Ph.D.	Doctor of Philosophy
28.	Mathematics	Ph.D.	Doctor of Philosophy
29.	Mechanical Engineering	Ph.D.	Doctor of Philosophy
30.	Medical Sciences	Ph.D.	Doctor of Philosophy
31.	Medicine	M.D.	Doctor of Medicine
32.	Music	Ph.D.	Doctor of Philosophy
33.	Nursing Practice	D.N.P.	Doctor of Nursing Practice
34.	Nursing Science	Ph.D.	Doctor of Philosophy
35.	Philosophy	Ph.D.	Doctor of Philosophy
36.	Physical Therapy	D.P.T.	Doctor of Physical Therapy
37.	Physics, Applied	Ph.D.	Doctor of Philosophy
38.	Psychology	Ph.D.	Doctor of Philosophy
39.	Public Health	Dr.P.H.	Doctor of Public Health
40.	Public Health	Ph.D.	Doctor of Philosophy
41.	School Psychology	Ph.D.	Doctor of Philosophy
42.	Second Language Acquisition and Instructional Technology	Ph.D.	Doctor of Philosophy
43.	Social Work	Ph.D.	Doctor of Philosophy
44.	Sociology	Ph.D.	Doctor of Philosophy

Accelerated Graduate Degree Programs

The following lists some of the Accelerated Graduate Degree Programs offered through U.S.F. New accelerated programs may have been approved since the publication of this list, others may now be inactive. For a current list, refer to: www.grad.usf.edu or contact the program of interest. At the time of publication there were 20~~23~~ Accelerated Graduate Degree Programs.

Program College(s)	Name of Program (Major) or Concentration (Specialization)	Degree	Program	Comments about the program
Behavioral and Community Sciences	**Addictions and Substance Abuse Counseling (Rehabilitation and Mental Health Counseling)**	M.A.	5 Year Program Concentration	3 plus 2 accelerates to the MA
Arts and Sciences	**Biology**	M.S.	5 Year Program Concentration	BS/MS in CMMB 3 plus 2 – awards simultaneous degrees
Arts and Sciences	**Chemistry**	BA/MA	5 Year Program	3 plus 2 – awards simultaneous degrees
Arts and Sciences and Public Health	**Environmental Science and Policy and Public Health**	BS / MPH or MSPH		3 plus 2 BS and MPH or MSPH
Behavioral and Community Sciences	**Marriage and Family Therapy (Rehabilitation and Mental Health Counseling)**	M.A.	5 Year Program Concentration	3 plus 2 accelerates to the MA
Arts and Sciences	**Mathematics**	BA/MA	5 Year Program	3 plus 2 – awards simultaneous degrees
Behavioral and Community Sciences	**Rehabilitation and Mental Health Counseling**	B.A/M.A.	5 Year Program	3 plus 2 accelerates to the MA
Behavioral and Community Sciences	**Speech – Pathology - INACTIVE**	M.S.	5 Year Program –	3 plus 2 accelerates to the MS - Inactivated
Arts and Sciences and Business Administration	**Arts and Sciences and Business**	BA or BS/MBA	5 Year Program	3 plus 2 may be mapped to most UG departments in AS and awards a BA or BS & MBA simultaneously
~~Arts and Sciences and Education~~	~~**French and Master of Teaching**~~	~~BA/ MAT~~	~~5 year Program~~	~~3 plus 2—BA and MAT~~
~~Arts and Sciences and Education~~	~~**Interdisciplinary Natural Science and Master of Teaching**~~	~~BS/MAT~~	~~5 year Program~~	~~3 plus 2—BS and MAT~~
~~Arts and Sciences and Education~~	~~**Interdisciplinary Social Sciences and Master of Teaching**~~	~~BA/ MAT~~	~~5 Year Program~~	~~3 plus 2—BA and MAT~~
~~Arts and Sciences and Education~~	~~**Spanish and Master of Teaching**~~	~~BA/ MAT~~	~~5 Year Program~~	~~3 plus 2—BA and MAT~~[c6]
Business	Management Information Systems (eff 201108)	BS/MS		
Business and Honors College	**Business and Honors College**	B.A./ M.B.A.	5 Year Program	
Education	**Special Education, Varying Exceptionalities**	BS/MA	5 Year Program	3 plus 2 – awards simultaneous degrees

Engineering	**Engineering**	M.E., M.S.	5 Year Program	3 plus 2 may be mapped to any Engineering department and awards the bachelor & master simultaneously
Medicine	**Medicine/Medical Sciences (eff 10/14/02)**	M.D./Ph.D.		Ph.D. Plus Program
Medicine and Honors College	**Medicine / Honors**	BA/M.D.	7 Year Program	Medicine has an accelerated program agreement with the Honors College. The BA is awarded after the 4th year then the student accelerates to the 2nd year as a medical student.
Medicine and Honors College	**School of Physical Therapy and Honors College**	B.A./ D.P.T.	6 Year Program	
Nursing	**Nursing**	BS/MS	5 Year Program	UG with an AS in nursing progressing toward the MS in nursing - BS/MS simultaneous degrees
Nursing	**Nursing Education (Nursing)**	M.S.	5 Year Program Concentration	
Public Health	**Public Health**	BS/MPH BS/MSPH	5 Year Program	Concentrations in Public Health Education admits UG students at 90 hours, PHC, and accelerates to the master degree
Public Health and Arts and Sciences	**Environmental Science and Policy and Public Health**	BA / MPH or MSPH		
School of Architecture and Community Design The Arts	**Architecture**	M.Arc.	Accelerated Year Program	2 plus 4 accelerated to the M.Arc. degree

Dual Degree Programs

Reference: Section 7 Academic Policies section on Dual Degrees for the official policy:

> ***~~Dual Degree Programs~~***
> ***~~A student may wish to pursue two degrees simultaneously. Upon approval by the appropriate College Dean(s) and Dean of the Graduate School, a prescribed number of courses (generally no more than nine (9) hours of core or basic courses) required for one degree may be applied to another degree that requires the same courses, without repetition or alternative courses. Procedures for applying for a Dual degree program are available on the Graduate School website.~~***

The following lists some of the formalized Dual Degree Programs offered through the University of South Florida. New Dual Degree programs may have been approved since the publication of this list; others may now be closed to new admissions. If the program you are interested in is not listed below, contact the program of interest to see if your program qualifies for a Dual Degree option. Information about the degree requirements for these dual degrees may be found in the corresponding college sections of the Ccatalog. ~~Students may also enroll in non-formalized Dual Degree Programs by obtaining approval from the two programs of interest and the Graduate School.~~ To apply for ~~either~~ a ~~formalized~~ Dual Degree Program~~, or to apply for a non-formalized Dual Degree,~~ students must complete the Dual Degree Application, available online at: http://www.grad.usf.edu/student-forms.asp. At the time of publication there were fifteen (~~15~~)18 formalized Dual Degree Programs, Dual Concentrations, and combined programs. Some Colleges also offer Dual Concentrations. For information on these, check the College Sections of the Catalog or contact the College. Each is listed twice, once under each program.

Name of Dual Degree Programs		Effective	College(s)
Applied Anthropology (M.A.)	Public Health (M.P.H.)		Arts and Sciences Public Health
Applied Anthropology (Ph.D.)	Public Health (M.P.H.)		Arts and Sciences Public Health
Audiology (Au.D.)	Communication Sciences and Disorders (Ph.D.)	4/17/06	Behavioral and Community Sciences
Biochemistry and Molecular Biology (Ph.D.)	Public Health (M.P.H.)	2003	Medicine Public Health
Biomedical Engineering (MSBE)	Entrepreneurship in Applied Technologies (M.S.)	3/26/07	Engineering Business
Biomedical Engineering (Ph.D.)	Medicine (M.D.)		Engineering Medicine
Biomedical Engineering (PhD)	Medicine (MD)	3/19/07	Engineering Medicine
Biotechnology (MSB)	Entrepreneurship in Applied Technologies (M.S.)	9/15/08	Medicine Business
Communication Sciences and Disorders (Ph.D.)	Audiology (Au.D.)	4/17/06	Behavioral and Community Sciences
Education (MEd)	Religious Studies (M.A.)		Education Arts and Sciences
Entrepreneurship in Applied Technologies (M.S.)	Biomedical Engineering (MSBE)	3/26/07	Engineering Business
Entrepreneurship in Applied Technologies (M.S.)	Biotechnology (MSB)	9/15/08	Medicine Business
Entrepreneurship in Applied Technologies (M.S.)	Global Sustainability (M.A.)		Business Graduate Studies
Global Sustainability (M.A.)	Entrepreneurship in Applied Technologies (M.S.)		Business Graduate Studies
Health Administration (MHA)	Public Health: Health Policies and Programs		Public Health

	(M.P.H.)		
Law (J.D.)	Public Health (MPH)	4/16/07	Public Health Stetson Law School
Law (J.D.)	Medicine (M.D.)	2007	Medicine Stetson Law School
Medical Sciences (Ph.D.)	Medicine (M.D.)	11/20/06	Medicine
Medicine (M.D.)	Biomedical Engineering (Ph.D.)		Engineering Medicine
Medicine (M.D.)	Law (J.D.)	2007	Medicine Stetson Law School
Medicine (M.D.)	Medical Sciences (Ph.D.)	11/20/06	Medicine
Medicine (MD)	Biomedical Engineering (PhD)	3/19/07	Engineering Medicine
Nursing (M.S.)	Public Health: Environmental and Occupational Health (MPH)	9/14/09	Public Health
Nursing (M.S.)	Public Health (Occupational Health) (M.P.H.)	10/27/99	Nursing Public Health
Physical Therapy (D.P.T.)	Public Health (M.P.H.)	10/17/05	Medicine Public Health
Public Health (M.P.H.)	Biochemistry and Molecular Biology (Ph.D.)	2003	Medicine Public Health
Public Health (M.P.H.)	Applied Anthropology (M.A.)		Arts and Sciences Public Health
Public Health (M.P.H.)	Applied Anthropology (Ph.D.)		Arts and Sciences Public Health
Public Health (M.P.H.)	Physical Therapy (D.P.T.)	10/17/05	Medicine Public Health
Public Health (M.P.H.)	Law	4/16/07	Public Health Stetson Law School
Public Health (Occupational Health) (M.P.H.)	Nursing (M.S.)	10/27/99	Nursing Public Health
Public Health: Dual Concentration in Epidemiology and Biostatistics			Public Health
Public Health: Health Policies and Programs (M.P.H.)	Health Administration (MHA)		Public Health
Public Health: Maternal and Child Health and ~~Clinical~~ (MPH)	Social Work (MSW)		Behavioral and Community Sciences Public Health
Public Health: Environmental and Occupational Health (MPH)	Nursing (M.S.)	9/14/09	Public Health
Religious Studies (M.A.)	Education (MEd)		Education Arts and Sciences
Social Work (MSW)	Public Health: Maternal and Child Health and (MPH)		Behavioral and Community Sciences Public Health

Section 11

Graduate Certificates

Office of Graduate Certificates

University of South Florida
4202 E. Fowler Ave., SVC 1072
Tampa, FL 33620-8470

Web address: www.gradcerts.usf.edu
Email address: ~~gradcerts@admin.usf.edu~~ askusf4you@usf.edu
Phone: 813-974-8031~~2442~~
Fax: 813-974-7061

Senior Director: ~~—~~Lagretta Lenker
Coordinator: Kathy Barnes

Certificates Offered

Following is an alphabetical list of Graduate Certificates offered at USF. Some certificates may be currently inactive and new certificates may now be available. For information about Graduate Certificates currently offered and certificate requirements, go to the Graduate Certificate website at: www.gradcerts.usf.edu

Addictions and Substance Abuse Counseling
Africana Studies
Aging and Neuroscience
Autism Spectrum Disorder (ASD)
Behavioral Health Counseling*
Biochemistry and Molecular Biology
Bioinformatics
Biomedical Ethics
Biostatistics
Biotechnology
Cardiovascular Engineering
Career Counseling*
Children's Mental Health**
Clinical Investigation**
College Student Affairs
College Teaching*
Community Design and Development
Community Development
Comparative Literary Studies
Concepts and Tools of Epidemiology
Creative Writing
Criminal Justice Administration*
Cuban Studies
Diasporas and Health Disparities

Digital Music Education**
Disabilities Education: Severe and/or Profound
Disaster Management**
Diversity
English Education
Entrepreneurship*
Environmental Health
Environmental Policy and Management
Epidemiology
ESOL**
Evaluation
Foreign Language Education: Professional
Foreign Language Education: Culture and Content
Genocide and Human Rights
Geographical Information Systems
Geriatric Social Work/Clinical Gerontology
Gerontology
Gifted Education**
Global Health and Latin American and Caribbean Studies
Global Health Practice
Globalization Studies
Health Care Risk Management & Patient Safety
Health Informatics
Health Management and Leadership*
Health Sciences
Hearing Specialist: Early Intervention
Hospice, Palliative Care and End of Life Studies
Humanitarian Assistance**
Hydrogeology
Infection Control
Informal Science Institutions Environmental Ed.
Instructional Technology: Distance Education**
Instructional Technology: Florida Digital Educator**
Instructional Technology: Instructional Design*
Instructional Technology: Multimedia Design
Instructional Technology: Web Design**
Intellectual Property
Interdisciplinary Transportation
Latin American & Caribbean Studies
Leadership in Developing Human Resources
Marriage and Family Therapy
Materials Science and Engineering
Maternal Child Health Epidemiology
Maternal and Child Health
Mathematics
Mathematics Education
Medical Biochemistry, Microbiology & Immunology
Medicine and Gender
Mental Health Counseling*
Mental Health Planning, Evaluation and Accountability
Metabolic and Nutritional Medicine

Molecular Medicine
Multimedia Journalism*
Museum Studies
Music
Nonprofit Management
Nursing Education
Nursing and Healthcare Informatics*
Occupational Health Nursing**
Pharmacy Sciences**
Planning for Healthy Communities
~~Play Therapy~~[c7]
Political Science
Positive Behavior Support
Post-Masters Clinical Nurse Leader
Post Masters in Higher Education Leadership
Post Master's Nurse Practitioner
Post Master's Educational Leadership (K-12)
Professional Engineering Excellence (APEX)
Post-Master's: Library and Information Science*
Professional and Technical Communication
Public Health Generalist**
Public Health Policy and Programs**
Public Management
Reading *
Regulatory Affairs – Medical Devices**
Rehabilitation Technology
Research Methods*
Safety Management
Science Education
School Counseling Post-Masters
School Library Media Specialist*
Social Marketing & Public Health
Social Science Education
Statistical Data Analysis
Systems Engineering**
Teacher Education
Teaching Composition
Teaching English as a Second Language (TESL)
Technology Management**
Total Quality Management**
Transportation Systems Analysis**
Violence and Injury: Prevention and Intervention
Water, Health and Sustainability
Wireless Engineering**
Women's Health
Women's Studies

* Partially online
**Fully online

Graduate Certificate Policies

The areas of study for the graduate certificates are created within the mission of graduate education. Students will be awarded certificates upon completion of specific course work, which has been approved by the Graduate Council. The graduate certificate is not defined as a degree by the Graduate School; rather, it is a focused collection of courses that, when completed, affords the student some record of distinct academic accomplishment in a given discipline or set of related disciplines. Moreover, the graduate certificate is not viewed as a guaranteed means of entry into a graduate degree program. While the courses comprising a graduate certificate may be used as evidence in support of a student's application for admission to a degree program, the certificate itself is not considered to be a prerequisite.

Process of Approval for New Graduate Certificates
Proposals for new areas of study for graduate certificates are created and submitted by the academic unit that wishes to offer such a certificate. Proposals must be accompanied by endorsement from the department heads and deans of the colleges/schools in which the contributing course work is offered as well as from the academic unit or units whose students or degree programs could be impacted by the creation of the graduate certificate. The Graduate Council will consider all the proposals for new graduate certificates to assure proposal guidelines have been followed and that repetition and redundancy across areas of study for certificates are not evident. Those meeting the criteria set forth by Graduate Council will then be recommended to the Provost for approval.

Criteria for Approval
The general principles applied to the assessment of the academic quality of proposals for new graduate areas of study for certificate include:

1. The proposed sequence of course work must offer a clear and appropriate educational objective at the post-baccalaureate level.

2. The proposed curriculum will achieve its educational objective in an efficient and well-defined manner.

3. A perceived need for such a certificate should exist. This provision might be defined in terms of either external markets (i.e., external demand for the skills associated with such a certificate) or internal academic means (i.e., the need for a critical mass of students in a given discipline).

4. An appropriate number of credit hours must comprise the area of study for the certificate. The number of graduate credits cannot be less than nine (9) or more than one-half of the credits necessary for a related master's degree from the Graduate School.

5. If the area of study for a certificate requires new courses, those courses must be approved by the appropriate College bodies or offices and the Graduate Council.

Student Eligibility and Admission Criteria
Student must apply and be accepted into the graduate certificate area of study to be eligible to receive a certificate. The prerequisites and general criteria of eligibility for admission to any graduate certificate area of study include:

1. An earned baccalaureate degree or its equivalent from a regionally accredited college or university or enrollment in a USF five-year academic program is required. Students in five-year academic programs may be admitted upon completion of 120 semester hours.

2. Each graduate area of study sets the requirements for admission, including minimum grade point average, standardized test scores, and other similar criteria as part of the application. However, prospective

non-degree seeking graduate certificate students must meet University graduate admissions grade point average requirements.

Students who wish to pursue a graduate certificate must apply to the Graduate Certificate Office (www.gradcerts.usf.edu) and be admitted to the certificate area. Students are encouraged to contact the coordinator prior to applying.

- **Non-Degree Seeking Students**
  All non-degree seeking students who wish to pursue approved graduate certificates should apply for admission to the certificate through the Graduate Certificate Office (www.gradcerts.usf.edu) as soon as possible for maximum benefit, but must apply to the certificate and complete required coursework within five years of taking the first course applicable to the certificate. Students must submit a Completion Form for the certificate to be awarded.

- **Degree Seeking Students**

  - All degree seeking students who wish to pursue approved graduate certificates must apply for admission to the certificate through the Graduate Certificate Office (www.gradcerts.usf.edu). The application must be received ~~be admitted to such areas of study~~ prior to conferral of the degree that includes the same coursework. Students who have completed all coursework must apply for admission to the certificate and submit a Completion Form prior to the deadline to apply for graduation by the fourth week of the semester in which the student plans to graduate. ~~before a second graduate certificate course is completed.~~

  - Degree seeking students who are pursuing a Graduate Certificate in a discipline outside of their graduate degree program (major) must apply for admission to the certificate through the Graduate Certificate Office (www.gradcerts.usf.edu). The application must be received prior to the deadline to apply for graduation (by the fourth week of the semester) in which the student plans to graduate. Required coursework for the certificate must be completed within five years of taking the first course applicable to the certificate. Students must submit a Completion Form for the certificate to be awarded.

3. Certificate-seeking-students not currently enrolled in a degree-granting graduate program, will be admitted into a separate classification within the University, and will be classified as "Graduate Certificate Students." This separate classification will permit the University to monitor statistical and enrollment data for certificate areas of study, and will allow inclusion of such efforts in the annual reports and academic planning. The Graduate Certificate Office will note successful completion of a certificate on the student's transcript upon completion.

4. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good standing".

5. All graduate certificate students may apply one graduate course to two graduate certificates.

6. All graduate certificate students must meet all prerequisites for courses in which they wish to enroll. Should a graduate certificate student subsequently apply and be accepted to a degree-granting program, up to twelve (12) hours of USF credit earned as a graduate certificate student may be applied to satisfy graduate degree requirements. Any application of such credit must be approved by the degree-granting college and must be appropriate to the program. *See the Transfer of Credit Policy for more information.*

7. For information on transfer of credit policies pertaining to Graduate Certificates, refer to the transfer of credit policy in Section 7, Academic Policies, of this catalog,

Certificate Requirements
To receive a graduate certificate:

1. Students must successfully complete certificate requirements as established by the university. Graduate Certificate students will be held to the academic standards for all graduate students as specified in the Graduate Catalog, unless otherwise noted in the section in the Graduate Catalog regarding Graduate Certificates.

1. Students must submit a completion form. Degree-seeking students must submit this form before graduating from their degree program. Non-degree-seeking students must submit this form no later than one semester after completing their certificate course work.

2. Students must have been awarded a bachelor's or higher degree.

SECTION 12

COLLEGE OF ARTS AND SCIENCES

Changes to Note

The follow curricular changes for the College of Arts and Sciences were approved by the USF-Tampa Graduate Council on the date noted.

Program changes

Sociology (M.A.)	change adm deadlines, GRE scores, curr,	5/16/11
Sociology (Ph.D.)	change adm deadlines, GRE scores, curr.	5/16/11
Liberal Arts (M.L.A.)	change admission requirements	11/15/10

Originally submitted as a change to concentration; revised to apply to program

Programs Placed Inactive

Interdisciplinary Social Natural Science (B.A.)/Science Education (M.A.T.)	10/18/10
Interdisciplinary Social Science (B.A.)/Social Science Education (M.A.T.)	1018/10
Foreign Language –French (B.A.)/Foreign Language Education (M.A.T.)	10/18/10
Foreign Language-Spanish (B.A.)/Foreign Language Education (M.A.T.)	10/18/10
Foreign Language – Latin (B.A.)/Foreign Language Education (M.A.T.)	10/18/10
Liberal Arts (M.L.A.)-Close Liberal Studies Conc. (Eff. 201105)	7/19/11

New Certificate

Professional and Technical Communication	12/6/10

Certificate changes

Comp Lit	change requirements	3/21/11
Creative Writing	change curriculum requirements	9/20/10

New Courses

LIS 6949	Practicum in Archives and Special Collections	4/18/11
ENC 6266	Professional and Tech. Communication	2/21/11

Course changes

SYA 7980	Doctoral Dissertation	descrp change	6/6/11
LIS 6946	Supervised Fieldwork	change to S/U grading	3/21/11
LIS 6906	Independent Study	change to regular grading	1/11/11
GLY 6492	Hydrogeology Internship	Discontinue Cont Enrollment option	11/15/10

Notes for the Record

Name change: **School of Library and Information Sciences** to **School of Information**	11/15/10

University of South Florida
College of Arts and Sciences
4202 E. Fowler Ave SOC107
Tampa, FL 33620

Web address: http://www.cas.usf.edu/
Email: see individual department listings
Phone: 813-974-6957
Fax: 813-974-4075

College Dean: Eric Eisenberg
Associate Dean: Robert Potter
Graduate Coordinator: Robert Potter

Accreditation:
The Commission on Colleges of the Southern Association of College and Schools. Contact college for other accreditation information

College Structure:
The College of Arts and Sciences is USF's largest college with more than 2,100 graduate students. The college is comprised of three schools including the School of Social Sciences, the School of Natural Sciences & Mathematics, and the School of Humanities, all with strong interdisciplinary connections among them and throughout the university.

Mission Statement:
The College of Arts and Sciences is a community of scholars dedicated to the idea that educated people are the basis of a just and free society. The essences of education are a capacity for the appreciation of social change within a context of prior human achievement. The faculty of the Arts and Sciences strive to instill in their students a history of human ideas, a love of learning, and an understanding of the means that scholars have used in their search for beauty and order in the natural world. The education provided by the disciplines of the Arts and Sciences is the foundation upon which the lives and professions of our students are built, and the basis from which personal growth occurs.

The College of Arts and Sciences takes as its goal a melding of the natural, humanistic and social philosophies into a comprehensive whole that encourages the development of new ideas and new approaches to the understanding of our universe. It is the responsibility of scholars to share their discoveries for the betterment of society. Thus, the Arts and Sciences embrace the disciplines that strive to make immediate use of knowledge in the service of social goals as well as the disciplines whose discoveries contribute to the fund of basic information that is the stepping stone of applied knowledge.

Major Research Areas:
See individual departments.

Degrees, Programs, and Concentrations Offered:
- Master of Arts (M.A.)*
  - American Studies
  - Applied Anthropology
    - Bio-cultural Medical Anthropology
    - Cultural Resource Management
    - Heritage Studies
  - Chemistry (non-thesis)

Communication
Economics
English
Literature
Rhetoric & Composition
French
Geography
Economic, Social and Planning Issues in the Urban Environment
Geographic Information Systems and Spatial Analysis
Natural/Technological Hazards and Environmental Justice
History
American History
Ancient History
European History
Latin American History
Medieval History
Latin American, Caribbean, and Latino Studies
Library and Information Science
Linguistics
Linguistics: English as a Second Langauge
Mass Communications
Media Studies
Multimedia Journalism
Strategic Communication Management
Mathematics
Pure & Applied
Philosophy
Philosophy & Religion
Political Science
Psychology
Clinical Psychology
Cognition, Neuroscience & Social Psychology
Industrial-Organizational Psychology
Religious Studies
Sociology
Spanish
Statistics
Women's Studies
*M.A. Programs are also available for Secondary School Teachers and Jr. College Teachers (offered with College of Education)

Master of Fine Arts (M.F.A.)
Creative Writing
Fiction
Poetry

Master of Liberal Arts (M.L.A.)
Liberal Arts
Africana Studies
Film Studies
Florida Studies (USF-STPT)
Humanities

Liberal Studies
Social & Political Thought

Master of Public Administration (M.P.A.)
Public Administration

Master of Science (M.S.)
Biology
Cell Biology & Molecular Biology
Ecology and Evolution
Environmental & Ecological Microbiology
Physiology and Morphology
Chemistry
Analytical Chemistry
Biochemistry
Computational Chemistry
Environmental Chemistry
Inorganic Chemistry
Organic Chemistry
Physical Chemistry
Polymer Chemistry
Environmental Science and Policy
Geology
Microbiology
Physics
Applied Physics
Atmospheric Physics
Atomic & Molecular Physics
Laser Physics
Materials Physics
Medical Physics
Optical Physics
Semiconductor Physics
Solid State Physics

Master of Science in Materials Science and Engineering (M.S.M.S.E.)
Materials Science and Engineering

Master of Urban and Regional Planning (M.U.R.P.)
Urban and Regional Planning

Doctor of Philosophy (Ph.D.)
Applied Anthropology
Bio-cultural Medical Anthropology
Cultural Resource Management
Heritage Studies
Biology
Cell Biology, Microbiology, & Molecular Biology
Ecology and Evolution
Environmental & Ecological Microbiology
Physiology and Morphology
Cancer Biology

Chemistry
- Analytical Chemistry
- Biochemistry
- Computational Chemistry
- Environmental Chemistry
- Inorganic Chemistry
- Organic Chemistry
- Physical Chemistry
- Polymer Chemistry

Communication
Economics
English
- Literature
- Rhetoric & Composition

Geography and Environmental Science and Policy
Geology
Government
History
Mathematics
- Pure & Applied
- Statistics

Philosophy
- Philosophy and Religion

Physics (Applied)
Psychology
- Clinical Psychology
- Cognition, Neuroscience & Social Psychology
- Industrial-Organizational Psychology

Second Language Acquisition & Instructional Technology (through the Dept. of Secondary Education)
Sociology

~~**Concentrations:**~~
- ~~Africana Studies~~
- ~~American History~~
- ~~Analytical Chemistry~~
- ~~Ancient History~~
- ~~Atmospheric Physics~~
- ~~Atomic and Molecular Physics~~
- ~~Biochemistry~~
- ~~Bio-Cultural Medical Anthropology~~
- ~~Cell Biology and Molecular Biology~~
- ~~Cell Biology, Microbiology and Molecular Biology~~
- ~~Clinical Psychology~~
- ~~Cognition, Neuroscience, and Social Psychology~~
- ~~Computational Chemistry~~
- ~~Cultural Resource Management~~
- ~~Ecology and Evolution~~
- ~~Economic, Social and Planning Issues in Urban Environment~~
- ~~Environmental and Ecological Microbiology~~
- ~~Environmental Chemistry~~
- ~~European History~~

~~Fiction~~
~~Film Studies~~
~~Florida Studies*~~
~~Geographic Information Systems and Spatial Analysis~~
~~Heritage Studies~~
~~Humanities~~
~~Industrial and Organizational Psychology~~
~~Inorganic Chemistry~~
~~Journalism Studies (at St. Petersburg)~~
~~Laser Physics~~
~~Latin American History~~
~~Latin/Greek: co-op program with U.F.~~
~~Liberal Studies~~
~~Literature~~
~~Materials Physics~~
~~Media Studies~~
~~Medical Physics~~
~~Medieval History~~
~~Multimedia Journalism~~
~~Natural/Technological Hazards and Environmental Justice~~
~~Optical Physics~~
~~Organic Chemistry~~
~~Philosophy and Religion~~
~~Physical Chemistry~~
~~Physiology and Morphology~~
~~Poetry~~
~~Polymer Chemistry~~
~~Pure and Applied (Math)~~
~~Rhetoric and Composition~~
~~Semiconductor Physics~~
~~Social and Political Thought~~
~~Solid State Physics~~
~~Statistics (inactivated effective 200608)~~
~~Strategic Communication Management~~

Graduate Certificates Offered:
See Graduate Certificates Section

COLLEGE REQUIREMENTS

Thesis Enrollment

Upon successful completion of all M.A./M.S. degree requirements except for thesis, Arts and Sciences graduate students must enroll in a minimum of two (2) credit hours of Thesis each semester (except Summers) until the completion of the master's degree.

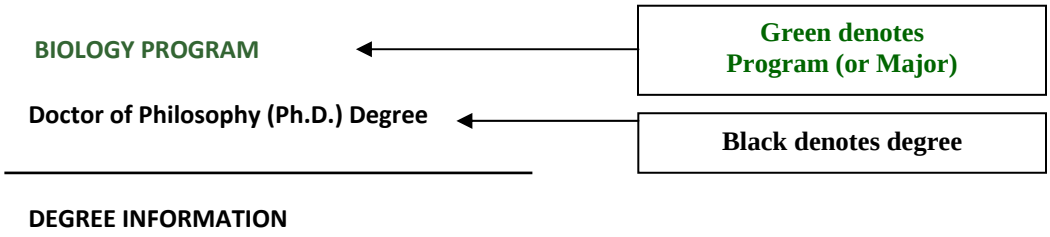
Dissertation Enrollment

Doctoral students who have been admitted to candidacy, are required to accumulate a minimum of six (6) credit hours of Dissertation during each previous 12-month period (previous three (3) terms, e.g., Fall, Spring, Summer) until the degree is granted.

About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the College that offers them. For example, the Master of Science degree with a "program" (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or "concentrations" within a degree program.

PROGRAMS



CONCENTRATIONS

Concentration Requirements are listed separately under each Program.

The Program and Concentration are listed on the official transcript. Other areas, such as application tracks, are not listed on the transcript.

Example:
Master of Arts in Applied Anthropology
with a Concentration in Bio-cultural Medical Anthropology

AMERICAN STUDIES PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15

Minimum Total Hours:	33
Program Level:	Masters
CIP Code:	05.0102
Dept Code:	AMS
Program (Major/College)	AMS AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Humanities and Cultural Studies
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The Master of Arts in American Studies offers students the opportunity to study the social relations and cultural patterns that have both unified and divided Americans over time. Topics cover include popular and elite cultures; the material and technological foundations of American society; cultural heroines and heroes; and the values, ideals, and lifestyles of ordinary people as well as those of recognized historical figures. Students learn how to analyze a broad range of texts, including literature, art, film, and material culture, for evidence of these patterns in American life and culture.

Accreditation:

Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- 3.00 upper division undergraduate GPA
- an official transcript
- GRE required with a verbal score of 500 or higher and an analytical writing score of not less than 4.5
- an academic writing sample

DEGREE PROGRAM REQUIREMENTS

Total required hours 33

CORE REQUIREMENTS (12 hours)

AMS 6156	Theories and Methods of Cultural Studies	3
AMS 6254	Cultural Era	3
AMS 6805	Major Ideas in American Civilization	3
AMS 6938	Seminar in American Studies	3

Electives (15 hours)

To be selected from 5000 or 6000 level courses in American Studies and/or related departments, such as: English, History, Humanities, Philosophy, Religious Studies, Sociology, and Women's Studies. No more than 6 hours from any one department may be credited toward the degree without written consent from the Graduate Director. Work in AMS 6002 American Lives (3), AMS 6375 The American South (3), AMS 6901 Directed Readings in American Studies (1-3), AMS 6915 Directed Research (1-12), AMS 6934 Selected Topics (1-3), and AMS 6940 Internship in American Studies (1-3) may be included.

Thesis (6 hours)

AMS 6971 - During the semester immediately following completion of required course work, each student will select a thesis topic, constitute a thesis committee, and write and orally defend a thesis proposal. The student will then write a 40 to 80 page thesis. The thesis is an extended research project within a specific area of Concentration, culminating in a written academic analysis. Upon completion of the thesis, the subject of which must be determined in consultation with the Graduate Director, the student must schedule an oral defense.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

APPLIED ANTHROPOLOGY PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: December 15
Fall admission only

Minimum Total Hours: 40
Program Level: Masters
CIP Code: 45.0201
Dept Code: ANT
Program (Major/College): APA AS

Concentrations:
Bio-cultural Medical Anthropology
Cultural Resource Management
Heritage Studies

CONTACT INFORMATION

College: Arts and Sciences
Department: Anthropology

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The M.A. program, initiated in 1974, was the first in the country to focus on career training for the practice of Applied Anthropology. Faculty at USF specialize in various areas including medical anthropology, biological anthropology, urban policy and community development, education, archaeology, cultural resource management (CRM), economic development, immigration, linguistics, media, and issues pertaining to race, gender, and ethnicity. Geographic specializations emphasize the Caribbean, Latin America, Sub-Saharan Africa, and the United States. More than 200 graduates have received an education in anthropology and its practical uses, leading to employment in government and private sector agencies and organizations. For many, the MA is a terminal degree that qualifies them for professional careers in administration, program evaluation, planning, research, and cultural resource management. Others have gone on to earn doctoral degrees and have gained employment in academic or higher level nonacademic positions. There are three graduate concentrations: Bio-cultural Medical Anthropology, Cultural Resource Management, and Heritage Studies.

Master's level anthropology at USF has three tracks, all leading to the M.A. in Applied Anthropology but with emphases in cultural anthropology, biological anthropology, and archaeology. Although these three tracks share some common requirements, and are bound by general rules of the USF Graduate School, they have different curricula and employment trajectories. Archaeology graduates typically enter careers in contract archaeology, or public and private agencies and museums responsible for managing archaeological resources. The cultural focus of the M.A. in Applied Anthropology is designed to lead to employment in diverse areas that include health care, education, urban planning, human services, private sector consulting and research, and non-governmental community organizations. Museum and heritage programming represent an area of overlap between the two emphases. Students who wish to pursue these kinds of specialties will develop curricula that draw from both applied and public archaeology requirements in consultation with their advisors. Biological Anthropology students are trained to work in health care, law enforcement, private sector consulting and research, and non-governmental organizations. M.A. students can select elective courses to fulfill a concentration in Bio-cultural Medical Anthropology, Cultural Resource Management, Heritage Studies.

For information regarding the dual degree M.A./MPH program with the College of Public Health, refer to the separate listing under Applied Anthropology or Public Health

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Biocultural medical research in the U.S., Latin America, and Africa including nutrition, population genetics, forensics, maternal and child health, and HIV/AIDS; media and visual anthropology; urban anthropology; Florida archaeology; Mesoamerican archaeology; archaeological science; cultural resource management; language shift and revitalization; bilingualism; heritage studies.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Must meet all admissions criteria established by USF. While the GRE is required, there is no minimum score for admission into the program. Other admission requirements include:

- a statement of purpose
- a signed Research Ethics statement
- at least three letters of recommendation
- a resume or curriculum vitae
- graduate assistant application form (optional)
- optional writing sample

DEGREE PROGRAM REQUIREMENTS

Total required hours (40)

Core Requirements:

1. *Applied Anthropology cultural track*
   M.A. students are required to take
   ANG 6705 (Foundation of Applied Anthropology)
   ANG 6701 (Contemporary Applied Anthropology)
   ANG 5486 (Quantitative Methods) (or equivalent in another department), and
   ANG 6766 (Research Methods in Applied Anthropology)
   plus five (5) elective graduate seminars in Anthropology and
   one (1) graduate seminar outside the Anthropology Department

2. *Applied Anthropology archaeology track*
   M.A. students are required to take
   ANG 6705 (Foundation of Applied Anthropology)
   ANG 6198 (Regional Problems in Methods of Public Archaeology)
   ANG 6110 (Archaeological Theory and Current Issues)
   ANG 5486 (Quantitative Methods) (or equivalent in another department), and
   ANG 6197 (Public Archaeology)
   plus two (2) electives in archaeology
   one (1) elective in biological anthropology
   one (1) elective from any graduate seminar in Anthropology, and
   one (1) graduate seminar outside the Anthropology Department

3. *Applied Anthropology biological track*
   M.A. students are required to take
   ANG 6705 (Foundations of Applied Anthropology)
   ANG 5486 (Quantitative Methods) (or equivalent in another department)
   ANG 6701 (Contemporary Applied Anthropology)
   ANG 6766 (Research Methods in Applied Anthropology)
   ANG 6511 (Human Variation)

ANG 6469 (Selected Topics in Medical Anthropology)/ANG6511 (Seminar in Physical Anthropology) Theory and Methods in Applied Bioanthropology)
plus three (3) additional graduate seminars in Anthropology and
one (1) graduate seminar outside the Department

4. ANG 6915 Directed Research in Internship: M.A. Internship, 4 credit hours minimum.

5. ANG 6971: Thesis (6 credit hours), at least 2 credit hours per semester until thesis is accepted.

CONCENTRATION REQUIREMENTS
Students select one of the following concentrations:

Concentration in Bio-cultural Medical Anthropology

Graduate students in the M.A., Ph.D., or dual degree programs can select three graduate medical anthropology elective courses with the ANG prefix, one of which must be cross-listed with ANG 6511 (Seminar in Physical Anthropology). The following courses are regularly offered and can be taken as bio-cultural medical electives:

ANG 6465	Regional Problems in Medical Anthropology
ANG 6739	Applied Anthropology and International Health
ANG 6469	Selected Topics in Medical Anthropology

Anthropology (recent selected topics courses include Nutritional Anthropology, Ethnicity and Health Care, Community and Health Care, Social Epidemiology of AIDS, Cross-cultural Aspects of Aging, Forensic Anthropology (Cross listed with ANG 6511), Human Biology of Afro-Cuban Populations (cross-listed with ANG 6511), Theories and Methods in Applied Bio-anthropology. Other electives as approved by advisor.

Graduate students pursuing a concentration in Bio-cultural Medical Anthropology must take the basic course requirements of their graduate program.

Concentration in Cultural Resource Management (9 hours)

Graduate students in the M.A. or Ph.D. degree programs, regardless of track, may select this 9-credit concentration. Two courses:

ANG 6197	Public Archaeology	3
ANG 6115	Special Topics in Archaeology	3
	(When topic is Current Issues and Techniques in Cultural Resources Management, 3 cr.)	

Third 3-credit class will be selected from the following options:

ANG 6448	Regional Problems in Urban Anthropology (when topic is Issues in Heritage Tourism, or other as approved by Graduate Director)
ANG 6115	Topics in Public Archaeology (when topic is Historical Archaeology, Florida Archaeology, Southeastern Archaeology, Museum Methods, or other as approved by Graduate Director)

Graduate class in Geographic Information Systems, whether offered in Anthropology or another department. Graduate students pursuing a concentration in Cultural Resource Management must take the basic course requirements of their graduate program.

Concentration in Heritage Studies

The concentration in Heritage Studies allows M.A. and Ph.D. students to create a focused plan of study around issues of cultural heritage preservation, interpretation, and representation. Students will learn to identify, document, and critically interpret the significance of cultural heritage in urban, rural, and non-US settings, with a particular emphasis on community-based and collaborative approaches to these issues. One

course, ANG 7708 (Selected Topics in Applied Anthropology: Issues in Heritage Studies, 3 cr.) is required. In addition, students select two electives from among the following options:

ANG 5395	Visual Anthropology	3
ANG 6081	Museum Methods	4
ANG 6197	Public Archaeology	3
ANG 6436	Issues in Heritage Tourism	3
ANG 6448	Regional Problems in Urban Anthropology (topics include 'Ethnohistory,' 'Museums in Culture,' 'Ethnicity and Public Policy,' 'Heritage Research and Management,' 'Culture and Environmental Resources,')	3
ANG 6676	Seminar in Anthropological Linguistics (when the topic is 'Language and Culture' or 'Language and Racism')	3
ANG 7487	Quantitative Research Methods	3

Comprehensive Exam

The comprehensive exam requirement is satisfied upon successful completion of Foundation of Applied Anthropology (ANG 6705). Successful completion entails earning a final grade of "B" or better in this course.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

APPLIED ANTHROPOLOGY AND PUBLIC HEALTH PROGRAMS

Dual Degree Program
Master of Arts (M.A.)/Master of Public Health (MPH) Degrees

DEGREE INFORMATION

Program Admission Deadlines:
Fall: December 15
Fall admissions only

Minimum Total Hours: Applied Anthropology 37
Public Health 42
Program Level: Masters
CIP Code: Applied Anthropology: 45.0201
Public Health: 51.2201
Dept Codes: ANT, DEA
Program (Major/College): ANT AS / MPH PH

Concentrations:
Bio-cultural Medical Anthropology
Cultural Resource Management
Heritage Studies

CONTACT INFORMATION

Colleges: Arts and Sciences
Public Health

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The two programs review applicants independently. Application forms for Anthropology and Public Health are completed with each listing both as major areas or study. The review process may begin in either college. The timing of application should take into consideration that the COPH admits students three times a year (Fall, Spring, and Summer) and the Department of Anthropology admits students annually in the Fall. Once the applicant has been accepted into one program, the application is forwarded to the other program for review.

After admission to both programs, the Graduate Admissions office instructs the Registrar's Office to classify the student as dually enrolled in anthropology and public health. In choosing which program to apply to first, students should take into consideration the following: requirements in Anthropology for admission are different than in Public Health; admission to one program does not guarantee admission to the other; and of course, the student's interests and career plans. Upon completion of all requirements for the dual degree program, the student submits separate applications for graduation to Anthropology and Public Health, and is certified for graduation by both programs and receives two diplomas. Dual degree students can also select elective courses to fulfill a concentration in Bio-cultural Medical Anthropology.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Must meet all admissions criteria established by USF with the exception that applicants must have a 3.20 undergraduate GPA. The GRE is required for consideration in both programs, but there is no minimum score for admission into Anthropology. Admission requirements for the M.P.H. in Public Health include at least 3.20 GPA at both the undergraduate and graduate levels, and a GRE of 550V and 620Q, 4.0 A.W. In addition, admission to any of the dual programs will consider letters of recommendation, past experience, goal statement, and availability of faculty. Other admission requirements include:

- a statement of purpose
- a signed Research Ethics statement
- at least three letters of recommendation
- a resume or curriculum vitae
- graduate assistant application form (optional)
- optional writing sample

.

DEGREE PROGRAM REQUIREMENTS

M.A. in Applied Anthropology (40 hours)

1. ANG 6705 Foundation of Applied Anthropology 3
2. ANG 6701 Contemporary Applied Anthropology 3
3. ANG 6766 Research Methods in Applied Anthropology 3

4. Graduate level statistics course fulfilled by PHC 6050 Biostatistics I or ANG 5486 Quantitative Methods

5. Four graduate level seminars (variable topics) in Anthropology, at least two in the area of medical anthropology (often ANG 6469 Selected Topics in Medical Anthropology); one of these fulfilled by taking in public health PHC 6410 Social and Behavioral Sciences Applied to Health or PHC 6931 Advanced Seminar in SBS Applied to Health

6. One graduate level course outside the Department of Anthropology fulfilled by public health courses

7. Comprehensive examination requirement met by successfully completing ANG 6705 (Foundation of Applied Anthropology). Successful completion entails earning a final grade of "B" or better in this course.

8. Internship: ANG 6915; one semester, full-time after completion of course requirements, in the field of public health to dually fulfill MPH requirement for Supervised Field Experience PHC 6945, 4 credit hours minimum

9. Thesis: ANG 6971: dually fulfills MPH requirement for Special Project, PHC 6977, 6 credit hours minimum

M.P.H. in Public Health (42 hours)

Requirements include public health core courses, concentration area courses, electives, supervised field placement, comprehensive exam, and special project. For specific information please refer to the Catalog listing for the MPH in Public Health

Concentration in Bio-cultural Medical Anthropology

Graduate students in the M.A., Ph.D., or dual degree programs can select three graduate medical anthropology elective courses with the ANG prefix, one of which must be cross-listed with ANG 6511 (Seminar in Physical Anthropology). The following courses are regularly offered and can be taken as bio-cultural medical electives:

ANG 6465	Regional Problems in Medical Anthropology
ANG 6739	Applied Anthropology and International Health (3)
ANG 6469	Selected Topics in Medical Anthropology

.

Recent selected topics courses include Nutritional Anthropology, Ethnicity and Health Care, Community and Health Care, Socio-Cultural Aspects of AIDS, Reproductive Health, Cross-cultural Aspects of Aging, Forensic Anthropology (Cross listed with ANG 6511), Human Biology of Afro-Cuban Populations (cross-listed with ANG 6511), Theories and Methods in Applied Bio-anthropology. Other electives as approved by advisor.

Graduate students pursuing a concentration in Bio-cultural Medical Anthropology must take the basic course requirements of their graduate program.

Concentration in Cultural Resource Management (9 hours)

Graduate students in the M.A. or Ph.D. degree programs, regardless of track, may select this 9-credit concentration.

Two courses:

ANG 6197	Public Archaeology	3
ANG 6115	Seminar in Anthropology: Special Topics in Archaeology (When topic is Current Issues and Techniques in Cultural Resources Management)	3

Third 3-credit class will be selected from the following options:

ANG 6448	Regional Problems in Urban Anthropology (when topic is Issues in Heritage Tourism, or other as approved by Graduate Director)
ANG 6115	Seminar in Anthropology: Special Topics in Public Archaeology (when topic is Historical Archaeology, Florida Archaeology, Southeastern Archaeology, Museum Methods, or other as approved by Graduate Director)

Graduate class in Geographic Information Systems, whether offered in Anthropology or another department. Graduate students pursuing a concentration in Cultural Resource Management must take the basic course requirements of their graduate program.

Concentration in Heritage Studies

The concentration in Heritage Studies allows M.A. and Ph.D. students to create a focused plan of study around issues of cultural heritage preservation, interpretation, and representation. Students will learn to identify, document, and critically interpret the significance of cultural heritage in urban, rural, and non-US settings, with a particular emphasis on community-based and collaborative approaches to these issues. One course, ANG 7708 (Issues in Heritage Studies, 3 cr.) is required. In addition, students select two electives from among the following options:

ANG 5395	Visual Anthropology	3
ANG 6081	Museum Methods	4
ANG 6197	Public Archaeology	3
ANG 6436	Issues in Heritage Tourism	3
ANG 6448	Regional Problems in Urban Anthropology (topics include 'Ethnohistory,' 'Museums in Culture,' 'Ethnicity and Public Policy,' 'Heritage Research and Management,' 'Culture and Environmental Resources,')	3
ANG 6495	Oral History and Life History: Approaches to Qualitative Research	3
ANG 6676	Seminar in Anthropological Linguistics (when the topic is 'Language and Culture' or 'Language and Racism')	3
ANG 7487	Quantitative Research Methods	3

COURSES –

See http://www.ugs.usf.edu/sab/sabs.cfm

APPLIED ANTHROPOLOGY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: December 15
Fall admission only

Minimum Total Hours: 46 beyond MA
Program Level: Doctoral
CIP Code: 45.0201
Dept Code: ANT
Program (Major/College): APA AS

Concentrations:
Bio-cultural Medical Anthropology
Cultural Resource Management
Heritage Studies

CONTACT INFORMATION

College: Arts and Sciences
Department: Anthropology

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Ph.D. program in Applied Anthropology, initiated in 1984, was the first doctoral program of its kind. Its primary focus is to prepare students in the theories, methods, skills and techniques of applied anthropology. The program is designed to prepare students to conduct research, teach, and practice applied anthropology in both academic and nonacademic settings. Students participate in either a structured research internship or independent field research for two consecutive semesters. Ph.D. students can select elective courses to fulfill a concentration in Bio-cultural Medical Anthropology, Cultural Resource Management and/or Heritage Studies.

For information regarding the dual degree Ph.D./MPH program with the College of Public Health, see the separate listing under Anthropology or Public Health.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools

Major Research Areas:
Biocultural medical research in the U.S., Latin America, and Africa, including nutrition, population genetics, forensics, maternal and child health, and HIV/AIDS; media and visual anthropology; urban anthropology; Florida archaeology; Mesoamerican archaeology; archaeological science; cultural resource management; language shift and revitalization, bilingualism; heritage studies.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Must meet all admissions criteria established by USF. Applicants must take the GRE, and provide the results in the application process. GRE scores will be a factor in the overall admissions decision. Dual degree applicants (Anthropology/Public Health) will be required to meet any GRE requirements specific to the College of Public Health.

Applicants must also provide:

- a statement of purpose
- a signed Research Ethics statement
- at least 3 letters of recommendation
- a resume or curriculum vitae
- graduate assistant application form (optional)
- optional writing sample

DEGREE PROGRAM REQUIREMENTS

Total required hours: 46 hours beyond the M.A.

CORE REQUIREMENTS

Course requirements

Upon completion of any prerequisites: ANG 6705 (Foundations of Applied Anthropology).

1. Must receive a grade of "B" or better; satisfies preliminary examinations in four subfields. Ph.D. students with a recent (within the past five years) M.A. in Anthropology are not required to take Foundations of Applied Anthropology, although they may do so if their advisor recommends it. Students who opt not to take Foundations must substitute an elective class.

2. For cultural track, five additional required courses within the Department of Anthropology:

   ANG 6490 (Seminar in Cultural Anthropology) (when topic is Anthropological Theory Today)
   ANG 6701 (Contemporary Applied Anthropology)
   ANG 6766 (Research Methods in Applied Anthropology)
   ANG 7704 (Legal and Ethical Aspects of Applied Anthropology)
   ANG 7487 (Quantitative Research Methods)

3. For archaeology track:
   ANG 6198 (Archaeological Methods)
   ANG 6110 (Archaeological Theory and Current Issues)
   ANG 6197 (Public Archaeology) and
   ANG 7487 (Quantitative Research Methods and
   ANG 6115 (Seminar in Archaeology) (when the topic is Advanced Archaeological Theory).

4. For biological track, required courses include:
   ANG 7487 (Quantitative Research Methods)
   ANG 6701 (Contemporary Applied Anthropology)
   ANG 6511 (Seminar in Physical Anthropology)/ANG 6588 (Human Variation), and
   ANG 6469/ANG 6511 (when topic is Theory and Methods in Applied Bioanthropology)
   ANG 6766 (Research Methods in Applied Anthropology)

5. Three elective graduate level Anthropology courses.

External Curriculum Requirement

The external curriculum requirement is designed to promote interdisciplinary perspectives. Students are expected to enroll in a minimum of two (2) or a maximum of three (3) graduate level courses in departments other than Anthropology, selected on the basis of professional interests and in consultation with the major advisor. Students who enter the Ph.D. program with post-baccalaureate degrees in disciplines other than Anthropology may be able to use up to nine (9) credits completed for that degree to satisfy the requirement, after consultation with the major advisor and approval of the Graduate Director. In these cases, the remaining credit hours will be fulfilled through additional coursework in Anthropology.

CORE REQUIREMENTS
Students select one of the following concentrations:

Concentration in Bio-cultural Medical Anthropology

Graduate students in the M.A., Ph.D., or dual degree programs can select three graduate medical anthropology elective courses with the ANG prefix, one of which must be cross-listed with ANG 6511 (Seminar in Physical Anthropology). The following courses are regularly offered and can be taken as bio-medical electives:

ANG 6465 Regional Problems in Medical Anthropology
ANG 6739 Applied Anthropology and International Health (3)
ANG 6469 Selected Topics in Medical Anthropology

Anthropology (recent selected topics courses include Nutritional Anthropology, Ethnicity and Health Care, Community and Health Care, Socio-cultural Aspects of AIDS, Reproductive Health, Cross-cultural Aspects of Aging, Forensic Anthropology (Cross listed with ANG 6511), Human Biology of Afro-Cuban Populations (cross-listed with ANG 6511), Theories and Methods in Applied Bio-anthropology. Other electives as approved by advisor

Graduate students pursuing a concentration in Bio-cultural Medical Anthropology must take the basic course requirements of their graduate program.

Concentration in Cultural Resource Management

Graduate students in the M.A. or Ph.D. degree programs, regardless of track, may select this 9-credit concentration.

Two courses
ANG 6197 Public Archaeology (3)
ANG 6115 Seminar in Archaeology (3) (when topic is Current Issues and Techniques in Cultural Resources Management, 3 cr.)

Third 3-credit class will be selected from the following options:

ANG 6448 Regional Problems in Urban Anthropology (when topic is Issues in Heritage Tourism, or other as approved by Graduate Director) (3)
ANG 6115 Seminar in Archaeology (when topic is Historical Archaeology, Florida Archaeology, Southeastern Archaeology, Museum Methods, or other as approved by Graduate Director)

Graduate class in Geographic Information Systems, whether offered in Anthropology or another department.

Graduate students pursuing a concentration in Cultural Resource Management must take the basic course requirements of their graduate program.

Concentration in Heritage Studies

The concentration in Heritage Studies allows M.A. and Ph.D. students to create a focused plan of study around issues of cultural heritage preservation, interpretation, and representation. Students will learn to identify, document, and critically interpret the significance of cultural heritage in urban, rural, and non-US settings, with a particular emphasis on community-based and collaborative approaches to these issues. One course, ANG 7708, ANG 7708 (Issues in Heritage Studies, 3 cr., is required.

In addition, students select two electives from among the following options:

ANG 5395	Visual Anthropology	3
ANG 6081	Museum Methods	4
ANG 6197	Public Archaeology	3

ANG 6436	Issues in Heritage Tourism	3
ANG 6448	Regional Problems in Urban Anthropology (topics include 'Ethnohistory,' 'Museums in Culture,' 'Ethnicity and Public Policy,' 'Heritage Research and Management,' 'Culture and Environmental Resources,')	3
ANG 6495	Oral History and Life History: Approaches to Qualitative Research	3
ANG 6676	Seminar in Anthropological Linguistics (when the topic is 'Language and Culture' or 'Language and Racism')	3
ANG 7487	Quantitative Research Methods	3

Language Requirement
All Ph.D. students are required to demonstrate proficiency in a foreign language, the specifics to be determined by the student and the supervisory committee, taking into account the nature of the student's research. Minimal proficiency is demonstrated by the ability to satisfactorily translate a selection of the scholarly literature in the foreign language, with the occasional aid of a dictionary. The supervisory committee may require additional levels of proficiency depending on the nature of individual student research. The language requirement must be satisfied no later than the date of the dissertation defense.

Qualifying examination covering area of specialization within applied anthropology and external specialization.
Two-semester internship or dissertation research ANG 7940 (Doctoral Internship in Applied Anthropology, minimum of 4 credit hours).

Dissertation (6 credits)
Dissertation, based on research or internship ANG 7980 (Doctoral Dissertation, minimum of 6 credit hours).

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

APPLIED ANTHROPOLOGY AND PUBLIC HEALTH PROGRAMS

Dual Degree Program
Doctor of Philosophy (Ph.D.)/Master of Public Health (M.P.H.) Degrees

DEGREE INFORMATION

Program Admission Deadlines:
Fall: December 15
Fall admissions only

Minimum Total Hours: Applied Anthropology 46
Public Health 42
Program Level: Doctoral and Masters
CIP Code: Applied Anthropology: 45.0201
Public Health: 51.2201
Dept Code: ANT, DEA
Program (Major/College): APA AS, MPH PH

Concentrations:
Bio-cultural Medical Anthropology
Cultural Resource Management
Heritage Studies

CONTACT INFORMATION

Colleges: Arts and Sciences
Public Health
Departments: Anthropology, Public Health

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

Students interested in combining a program of study leading to a doctorate plus master's degree have two choices: they may obtain a Ph.D. in Applied Anthropology with an M.P.H. in a Public Health concentration; or they may obtain a Ph.D. in Public Health with an M.A. in Applied Anthropology. For the doctoral/master's combination, students develop individual programs of study in consultation with an interdisciplinary academic advisory committee. The committee must approve the plan of study as well as the proposal to fulfill the thesis and dissertation requirements or dissertation and special project requirements through a single project.

The two programs review applicants independently. The review process may begin in either college. The timing of application should take into consideration that the COPH admits MPH students three times a year (Fall, Spring, and Summer) (the Ph.D. program only has a fall admission) and the Department of Anthropology admits students annually in the Fall. Once the applicant has been accepted into one program, the application is forwarded to the other program for review.

After admission to both programs, the Graduate Admissions office instructs the Registrar's Office to classify the student as dually enrolled in anthropology and public health. In choosing which program to apply to first, students should take into consideration the following: requirements in Anthropology for admission are different than in Public Health; admission to one program does not guarantee admission to the other; and of course, the student's interests and career plans. Upon completion of all requirements for the dual degree program, the student submits separate applications for graduation to Anthropology and Public Health, and is certified for graduation by both programs and receives two diplomas. Dual degree students can also select elective courses to fulfill a concentration in Bio-cultural Medical Anthropology.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Must meet all admissions criteria established by USF. The GRE is required for consideration in both programs, but there is no minimum score for admission into Anthropology. Admission requirements for the M.P.H. in Public Health include at least a 3.20 GPA at both the undergraduate and graduate levels, and a GRE of 550V and 620Q, 4.0 AW. In addition, admission to any of the dual degree programs will consider letters of recommendation, past experience, goal statement and availability of faculty. Other admission requirements include:

- a statement of purpose
- a signed Research Ethics statement
- at least 3 letters of recommendation
- a resume or curriculum vitae
- graduate assistant application form (optional)
- optional writing sample

Admission requirements for the Ph.D. in Public Health include at least a 3.20 GPA at both the undergraduate and graduate levels, and a GRE of 550V and 620Q, 4.0 AW. In addition, admission to any of the dual degree programs will consider letters of recommendation, past experience, goal statement and availability of faculty.

DEGREE PROGRAM REQUIREMENTS

Ph.D. in Applied Anthropology (46 hours beyond the M.A.)

CORE REQUIREMENTS

Course requirements

Upon completion of any prerequisites: ANG 6705 (Foundations of Applied Anthropology)

1. Must receive a grade of "B" or better, satisfies preliminary examinations in four subfields.

2. For cultural track, five additional required courses within the Department of Anthropology: ANG 6490 (Seminar in Cultural Anthropology) (when topics is Anthropological Theory Today), ANG 6701 (Contemporary Applied Anthropology), ANG 6766 (Research Methods in Applied Anthropology), ANG 7704 (Legal and Ethical aspects of Applied Anthropology), ANG 7487 (Quantitative Research Methods

3. For biological track, required courses include: ANG 7487 (Quantitative Research Methods, ANG 6701 (Contemporary Applied Anthropology), ANG 6511 (Seminar in Physical Anthropology/6588 (Human Variation), ANG 6469/ANG 6511 (when topic is Theory and Methods in Applied Bioanthropology), and ANG 6766 (Research Methods in Applied Anthropology).

4. Three elective graduate level Anthropology courses.

External Curriculum Requirement

The external curriculum requirement is designed to promote interdisciplinary perspectives. Students are expected to enroll in a minimum of two (2) or a maximum of three (3) graduate level courses in departments other than Anthropology, selected on the basis of professional interests and in consultation with the major advisor. Students who enter the Ph.D. program with post-baccalaureate degrees in disciplines other than Anthropology may be able to use up to 9 credits completed for that degree to satisfy the requirement, after consultation with the major advisor and approval of the Graduate Director. In these cases, the remaining credit hours will be fulfilled through additional coursework in Anthropology.

Language Requirement
All Ph.D. students are required to demonstrate proficiency in a foreign language, the specifics to be determined by the student and the supervisory committee, taking into account the nature of the student's research. Minimal proficiency is demonstrated by the ability to satisfactorily translate a selection of the scholarly literature in the foreign language, with the occasional aid of a dictionary. The supervisory committee may require additional levels of proficiency depending on the nature of individual student research. The language requirement must be satisfied no later than the date of the dissertation defense.

Qualifying examination covering area of specialization within applied anthropology and external specialization.

Internship
Two-semester internship of dissertation research
ANG 7940 (Doctoral Internship in Applied Anthropology, minimum of 4 credit hours

Dissertation, based on research or internship
ANG 7980 (Doctoral Dissertation, minimum of 6 credit hours)

M.P.H. in Public Health (42 hours)

Requirements include public health core courses, concentration area courses, concentration area courses, electives, supervised field placement, comprehensive exam, and special project.

1. Public Health Core Courses (15 hours, required for all concentration areas):

a)	PHC 6410 Social and Behavioral Sciences Applied to Health	3
b)	PHC 6000 Epidemiology	3
c)	PHC 6050 Biostatistics I or ANG 5488 Statistics	
d)	PHC 6102 Principles of Health Policy and Management	3
e)	PHC 6357 Environmental and Occupational Health	3

2. Concentration Area Courses
   a) Health Policies and Programs
   b) Health Care Organizations and Management
   c) International Health Management
   d) Epidemiology
   e) Environmental Health
   f) Tropical Public Health/Communicable Disease
   g) Maternal and Child Health
   h) Public Health Education

For program descriptions and requirements, please see College of Public Health.

CONCENTRATION REQUIREMENTS

Concentration in Bio-cultural Medical Anthropology

Graduate students in the M.A., Ph.D., or dual degree programs can select three graduate medical anthropology elective courses with the ANG prefix, one of which must be cross-listed with ANG 6511 (Seminar in Physical Anthropology). The following courses are regularly offered and can be taken as bio-medical electives:

ANG 6465Regional Problems in Medical Anthropology	3
ANG 6739 Applied Anthropology and International Health	3
ANG 6469Selected Topics in Medical Anthropology	3

Anthropology (recent selected topics courses include Nutritional Anthropology, Ethnicity and Health Care, Community and Health Care, Social Epidemiology of AIDS, Cross-cultural Aspects of Aging, Forensic Anthropology (Cross listed with ANG 6511), Human Biology of Afro-Cuban Populations (cross-listed with ANG 6511), Theories and Methods in Applied Bio-anthropology. Other electives as approved by advisor

Graduate students pursuing a concentration in Bio-cultural Medical Anthropology must take the basic course requirements of their graduate program.

Concentration in Cultural Resource Management

Graduate students in the M.A. or Ph.D. degree programs, regardless of track, may select this 9-credit concentration.

Two courses

ANG 6197	Public Archaeology	3
ANG 6115	Seminar in Archaeology (when topic is Current Issues and Techniques in Cultural Resources Management, 3 cr.)	3

Third 3-credit class will be selected from the following options:

ANG 6448	Regional Problems in Urban Anthropology (when topic is Issues in Heritage Tourism, or other as approved by Graduate Director)	3
ANG 6115	Seminar in Archaeology (when topic is Historical Archaeology, Florida Archaeology, Southeastern Archaeology, Museum Methods, or other as approved by Graduate Director)	

Graduate class in Geographic Information Systems, whether offered in Anthropology or another department.

Graduate students pursuing a concentration in Cultural Resource Management must take the basic course requirements of their graduate program.

Concentration in Heritage Studies

The concentration in Heritage Studies allows M.A. and Ph.D. students to create a focused plan of study around issues of cultural heritage preservation, interpretation, and representation. Students will learn to identify, document, and critically interpret the significance of cultural heritage in urban, rural, and non-US settings, with a particular emphasis on community-based and collaborative approaches to these issues. One course, ANG 7708 (Issues in Heritage Studies, 3 cr., is required.)

In addition, students select two electives from among the following options:

ANG 5395	Visual Anthropology	3
ANG 6081	Museum Methods	4
ANG 6197	Public Archaeology	3
ANG 6436	Issues in Heritage Tourism	3
ANG 6448	Regional Problems in Urban Anthropology (topics include 'Ethnohistory,' 'Museums in Culture,' 'Ethnicity and Public Policy,' 'Heritage Research and Management,' 'Culture and Environmental Resources,')	3
ANG 6495	Oral History and Life History: Approaches to Qualitative Research	3
ANG 6676	Seminar in Anthropological Linguistics (when the topic is 'Language and Culture' or 'Language and Racism')	3
ANG 7487	Quantitative Research Methods	3

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

BIOLOGY PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	January 1 for full consideration; however applications are accepted to February 15 (U.S. Applicants) January 1 (International)
Spring:	August 1 (U.S. Applicants) July 1 (International)

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 26.0101
Dept Code: BIO
Program (Major/College): BIO AS

Concentrations:
Cell Biology and Molecular Biology (CMB)
Ecology and Evolution (EEV)
Environmental and Ecological Microbiology (EVM)
Physiology and Morphology (PMY)

CONTACT INFORMATION

College: Arts and Sciences
Departments: Cell Biology, Molecular Biology and Microbiology (CMMB)
Integrated Biology (IB)

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of Biology was expanded into the Department of Cell Biology, Molecular Biology and Microbiology (CMMB) and the Department of Integrated Biology (IB) in 2009. Each Department has its own Chair and Graduate Director and offers students a Master of Science in Biology with a specific concentration associated with either CMMB or IB. There is no general Biology MS degree program. The CMMB and IB Departments are located in two modern, well- equipped buildings. Most research in the CMMB Department is done by faculty housed in the Bio-Science Faculty building (BSF) , and most of the research within the IB Department is conducted by faculty housed in the Science Center building (SCA). In addition, the department has common research facilities in two nearby buildings. Because of the interdisciplinary aspect of most research projects, faculty and graduate students often work together on broad training research projects that bring together many of the traditionally separate areas of biology. Many of the faculty within CMMB and IB are involved in cooperative research with their colleagues in Chemistry, Public Health, Nursing, Medicine, Geology, Psychology, Geography, Marine Science, and Environmental Science. Often CMMB and IB graduate students have faculty members from these other areas of USF as members of their graduate committees.

Because of the many undergraduate courses that require hands-on experimental laboratories, both CMMB and IB supports many graduate students as Teaching Assistants. CMMB and IB values high quality teaching at all levels of instruction. Research Assistant positions also are available to support research with specific faculty members depending on an individual faculty members funding. Numerous scholarship opportunities are also offered on a competitive basis through the USF Graduate School.

Application to the Biology Program is through one of the two departments, with students selecting a formal Concentration. Refer to the Concentration listing in the Catalog for specific information and requirements.

Applying to the Department of Cell Biology, Microbiology and Molecular Biology

Students interested in attending graduate school within the CMMB Department should visit the CMMB website that can be accessed from the main USF site and review the current CMMB faculty. It is recommended that potential students consider at least 2-3 CMMB faculty that they would be interested in working with and communicate this information in their letter of application. It is also recommended that potential students contact the CMMB Graduate Director as well as the individual faculty members they are interested in working with via email. Such communication will facilitate the assignment of the laboratory rotations that CMMB students will participate in during their first semester of residency and also allow the applicant to determine whether the desired faculty member has positions available in the laboratory. All students admitted to the Masters concentration in Cell Biology and Molecular Biology must establish a Graduate Supervisory Committee. The Graduate Committee shall constitute the major professor and at least two additional credentialed faculty. At least one of the committee members must be a faculty member at USF. Supervisory committee must be formed within two semesters after matriculation. *Refer to Committee information in the University Requirements Section of the Catalog for more information.*

The CMMB Graduate Director, CMMB Chair, and the College Associate Dean (or designee) must approve the Graduate Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a thesis, the student shall enroll for two (2) hours of research credit each semester (other than summer semester), until eligible to enroll in thesis credits.

Applying to the Department of Integrative Biology

Students interested in attending graduate school within the IB Department should contact potential major professors to communicate their research ideas and establish that the professor will consider the student's application. The IB Department requires that all students admitted into the MS program have the approval of a major professor. Applicants should contact faculty conducting research in the student's area of interest well in advance of the application deadline.

For all master's students, the major professor and at least two additional faculty constitute the student's supervisory committee, the major professor and at least one of the committee members must be from the Biology Department. Supervisory committees must be established within two semesters after matriculation. Failure to do so will be cause for dismissal.

The IB Graduate Director, IB Chair, and the College Associate Dean (or designee) must approve the Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a thesis, the student shall enroll for a minimum of two (2) hours of research credit each semester (other than summer semester), until eligible to enroll in thesis credits.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Cell Biology, Molecular Biology, Signal Transduction and Gene Regulation, Cancer Biology, Developmental Biology, Microbiology, Ecology and Evolution, Environmental and Ecological Microbiology, Physiology and Morphology

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Prospective students must apply to a specific Biology MS program concentration via the online application process through the USF Graduate School.
- Must have 3.00 GPA last 60 hours of B.S. degree

- Must have 500V, 600Q, 4.5AW on GRE

- All international students are required to submit the TOEFL test. Non-native English speaking graduate students must score a minimum of at least 570 on the paper based test or a minimum total score of 79 on the internet based test on the TOEFL and at least 50 on the TSE to be eligible for a teaching assistantship.

- For acceptance into the IB Department, acceptance by a faculty member in IB is MANDATORY. IB encourages applicants to contact faculty via email to indicate an interest in the research being conducted in their laboratory. IB will make every effort to pair potential graduate students with appropriate faculty; however, it is recommended that applicants make direct contact with individual faculty.

- It is expected that candidates for the M.S. degrees will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.

Materials necessary for a complete application are listed below.
The following items should be submitted in the envelope provided to:

Integrative Biology Graduate Office
Attention: IB Graduate Director
University of South Florida
4202 E. Fowler Ave – SCA110
Tampa, FL 33620-5150

CMMB Graduate Office
Attention: CMMB Graduate Director
University of South Florida
4202 E. Fowler Ave – BSF 218
Tampa, FL 33620-5150

1. Two official transcripts in a sealed envelope from each post-secondary institution. Transcripts of work completed at USF will be secured by the Office of Admissions. Thus, applicants need only to secure transcripts from other institutions for your application packet.

2. Three letters of recommendation from faculty in sealed envelopes (on their university letterhead) with the envelope seal signed by the recommender. Students shall complete a **Student Recommendation Form** that can be found on the CMMB and IB website and submit it to the recommenders.

3. A brief essay stating your intended field of research and professional goals. Please indicate your specific research interests, in order that we may refer your application to appropriate CMMB or IB faculty members. **In the** essay please list 2-3 CMMB or IB faculty members that you would like to have review your file. *Acceptance into the IB graduate program requires the identification of specific faculty who are willing to direct your research.* This final requirement does not apply to students wishing to study in the CMMB Department.

4. Applicant must complete the Application for Teaching Assistantship (TA) Form that can be found on the CMMB or IB website if they wish to be considered for a TA position. Applicants who do not return this form will not be considered for a teaching position. Applicants should attach a resume to the Application for Teaching Assistantship (TA) Form that highlights any previous teaching experience.

   OFFICIAL test scores must be sent to USF directly from the testing agency. The University of South Florida's 4-Digit Institution Code is: 5828

   Official GRE scores. This exam must have been taken within the last five years.

DEGREE PROGRAM REQUIREMENTS

The thesis based M.S. degree requires successful completion of the following:

1. structured coursework
2. an oral qualifying exam
3. research thesis
4. comprehensive final examination

The Master's Degree Requirements should be completed in two to three years. The CMMB and IB Departments require all graduate work applied toward the completion of degree requirements be completed within a five year period after matriculation. Thesis research should be publishable and students are encouraged to publish their findings. Students must choose a specific concentration in the MS degree that will be completed within either the CMMB or IB Department. The specific requirements for the Master of Science (M.S.) and the specific concentrations are provided below.

1. Credit hour requirement a total of 30 semester hour credits beyond the Baccalaureate Degree is required. *(including BSC 6910. BSC 6971, BSC 6935, and other structured and unstructured courses approved by CMMB or IB)*

2. Students admitted to the CMMB Department must complete three laboratory rotations during their first semester of residency.

3. Successful completion of the oral **comprehensive qualifying examination**. The exam should be taken at the end of the first year, or early in the second year of study. The examination is administered and evaluated by the student's graduate committee.

4. Submission of a **thesis proposal** and approval by the major professor, graduate committee and graduate director.

5. A minimum of eight (8) thesis research credit hours (BSC 6971).

6. Seminar requirement: one presentation, excluding the thesis seminar and defense. Students should present posters or oral presentations based on their thesis research at national/regional professional meetings. The student's graduate committee must approve the presentation.

7. Submission of an acceptable thesis.

8. Presentation of the thesis seminar (BSC 6935) and successful defense of the thesis.

Degree Progress

A student must be registered for an appropriate load (in no case fewer than two [2] graduate hours) in the college for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the advisory committee will be dropped from the program. Registration in courses entitled Directed Research, Thesis must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Thesis: Master's until a Supervisory Committee has been formed and completed the oral qualifying examination. A student who enrolls in courses entitled Thesis: Master's but does not submit a thesis will not be certified for graduation.

CORE REQUIREMENTS

M.S. in Biology Core (4 credit hrs)

BSC 6930 Lectures in Contemporary Biology (1)

Enrollment in this course is required for at least two semesters of residency. (Note: Students in the Integrated Biology Department are required to enroll in this course for an additional semester for a total of three semesters)

CONCENTRATION REQUIREMENTS

CELL BIOLOGY AND MOLECULAR BIOLOGY (CMM)

Offered from the Department of Cell Biology, Molecular Biology and Microbiology (CMMB)

Description:

See program description

Core Requirement:

EEX 7743 Philosophies of Inquiry 3

Concentration Requirements

In addition to the Program requirements, students must complete the following concentration requirements:

BSC 6932 Advances in Scientific Review 2
BSC 6932 Advances in Scientific Writing 2
PCB 6930 Advances in Cell and Molecular Biology 1

Electives* (minimum of 6 credit hrs)

MCB 5206 Public Health and Pathogenic Microbiology 3
MCB 5655 Applied and Environmental Microbiology 3
PCB 5235 Principles of Immunology 3
PCB 6236 Advanced Immunology 3
MCB 5815 Medical Mycology 3
BSC 5931 Molecular Microbial Ecology 3
BSC 5931 Prokaryotic Molecular Genetics 3
MCB 5410 Cellular Microbiology 3
PCB 5256 Developmental Mechanisms 3
BSC 5420 Genetic Engineering and Recombinant DNA Technol 3
PCB 5616 Molecular Phylogenetics 3
PCB 5525 Molecular Genetics 3
PCB 6107 Advanced Cell Biology 4
BSC 5931 Eukaryotic Genomics 3

**The supervisory committee may approve additional courses not listed here.*

Accelerated Non-Thesis B.S./M.S. Program

This program allows B.S. majors to take graduate courses for the elective part of the Biology degree and apply them to a non-thesis M.S. degree in Biology. Successful students will be able to earn the M.S. degree in two additional semesters beyond the completion of the B.S. degree. This accelerated program shares 12 credits between already existing degrees/concentrations:

B.S. in Biology, Concentration in Cell and Molecular Biology (submitted)
M.S in Biology, Concentration in Cell and Molecular Biology (non-thesis option)

Description and Requirements

Biology majors who have completed the following courses may apply to this program:
PCB3023 Cell Biology
PCB3063 Genetics
MCB3410 Cell Metabolism
PCB4024 Molecular Biology of the Cell or PCB4026 Molecular Biology of the Gene

Students who have been admitted to the program but subsequently fail to achieve a 3.0 GPA in the last 60 hours of their B.S. degree, or who do not complete at least 30 of their last 60 hours at USF, will be dismissed from the program.

Once accepted, students must meet with BioAdvise (the advising office for biological sciences within the College of Arts and Sciences) to prepare an action plan to complete the B.S./M.S. accelerated program. This requires them to take all the courses required for the B.S. in Biology: Concentration in Cell and

Molecular Biology. Students may take up to 12 credits of graduate courses as electives in CMMB and apply those courses to both the B.S. and M.S. degrees. They will not be admitted as graduate students until they have completed their B.S. degree and met all the requirements for admission to CMMB as graduate students. The action plan should include a schedule of coursework to complete their B.S. degrees and a date in their last year in the B.S. program to take the GRE.

For fall admission to the M.S. portion of the accelerated program, all application materials must be received by February 15 of the same year. For spring admission, the deadline is August 1 of the previous year.
Application materials are the same as the M.S. in Biology:

1. ~~1.~~ Two official transcripts of undergraduate work from other institutions. Applicants need not supply USF transcripts.
2. ~~2.~~ Three letters of recommendation
3. ~~3.~~ A brief essay stating your professional goals
4. ~~4.~~ GRE scores must be sent to USF directly from the testing agency (USF institution code is 5828).

Graduate Degree Requirements
Students admitted into the M.S. portion of the program must complete all the requirements for the M.S. degree (non-thesis) within three semesters of admission. The requirement is 30 hours of graduate work with at least 16 of these hours completed at the 6000 level; 26 hours must be formally structured courses; and at least 15 hours must be in CMMB courses. Students will be required to take 3 core-courses from the list below as part of these 26 hours. Of the required 26 hours, 9 hours will be derived from the core-CMMB graduate courses listed below (see associated curriculum). These requirements can be partially met by up to 12 hours of graduate courses taken as undergraduates. Any graduate class taken outside of CMMB must be approved by the CMMB Graduate Director. Students should be aware that a B grade or better is required for every graduate class applied to the MS portion of their degree. In addition, students will be required to pass an oral qualifying exam based on a review paper submitted in their final semester. Students must form a committee as part of their action plan to complete their graduate work. This committee will be comprised of at least 3 CMMB faculty, and will serve as the examination committee for the review paper required as part of the M.S. portion of their degree. Upon approval of that paper, students must successfully complete a comprehensive oral exam by their committee.

Timeline and benchmarks:

1. Completion of prerequisite upper division courses and application to the accelerated program. Typically students will be in their junior year.
2. Acceptance into the program and an action plan within a semester of application.
3. Students will take up to 12 credits of graduate credit in CMMB courses following acceptance into the program. Typically these courses will be taken in the latter half of the junior year and in the senior year. BioAdvise will monitor the progress of the students and ensure they follow their action plan. Students who do not complete at least 9 hours of graduate work by graduation will be dropped from the accelerated M.S. program.
4. GRE exams will be taken in a timely manner so scores will be available for admission to the M.S. portion of the program. Students who do not complete the GRE in time will not be admitted to the accelerated M.S. program.
5. Students must apply for admission to the M.S. portion of the program in a timely manner (Fall admission deadline is February 15, Spring deadline is August 1).
6. Students admitted to the accelerated program must form a committee prior to the beginning of their first semester in the M.S. portion of the program and must continue to follow the action plan which will be monitored by BioAdvise.
7. Students admitted to the accelerated M.S. program must complete the requirements within three semesters or will be dismissed from the program.

Model Curriculum for Accelerated Non-thesis M.S./B.S.

Year 1
BSC 2010, BSC 2011 with labs 8

Year 2
MCB 3410-Cell Metabolism 3
PCB 3063-Genetics and lab 4
PCB 3023-Cell Biology and lab 4

Year 3
PCB 4024-Molecular Biology of the Cell 3
PCB 4026-Molecular Biology of the Gene 3
3 hr graduate elective structured course (5000) 3

Year 4
9 hr graduate elective courses (5000 or 6000 9

Year 5
18 hr graduate courses
9hr of which must be derived from the list below

BSC6932 Bioinformatics
BSC6932 Virology
PCB5525 Molecular Genetics
BSC5425 Genetic Engineering
PCB6236 Advanced Immunology
BSC6932 Prokaryotic Molecular Genetics

4 hr non-structured (seminar, independent study, laboratory research)
Oral exam and review paper done at the end of year 5

ECOLOGY AND EVOLUTION (EEV)

Offered from the Department of Integrative Biology

Description:

See Program listing.

Core Requirement:

EEX 7743 Philosophies of Inquiry 3

Concentration Requirements –17 hours minimum

In addition to the Program requirements, students must complete the following concentration requirements:

Seventeen (17) credit hours of course work selected from the list below: The graduate student, major professor and

Graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

BSC 5931 – Conservation Biology 3
BOT 5185 – Marine Botany 4
PCB 6455 – Statistical Ecology 3
PCB 6456 – Biometry I 4
PCB 6458 – Biometry II 3
BSC 5931 – Comparative Approaches in Evolution 3
PCB 6426 – Population Ecology 3

ZOO 5463 – Herpetology	4
ZOO 5456 – Ichthyology	4
BSC 6932 – Advances in Population Biology	1
BSC 6932 – Advances in Ichthyology	1
BSC 6932 – Advances in Herpetology	1
BSC 6932 – Advances in Marine Ecology	1
BSC 6932 – Scientific Writing	2
BSC 6932 – Restoration Ecology	3
BSC 6447 - Community Ecology	3
PCB 6933 – Seminar in Ecology	(variable credit)

ENVIRONMENTAL AND ECOLOGICAL MICROBIOLOGY (EVM)

Offered from the Department of Integrative Biology

Description:

See Program listing.

Core Requirement:

EEX 7743 Philosophies of Inquiry	3

Concentration Requirements –17 hours minimum

In addition to the Program requirements, students must complete the following concentration requirements:

A minimum of 17 credit hours of course work selected from the list below. The graduate student, major professor and graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee. Graduate students concentrating in the area of Environmental and Ecological Microbiology will select from the following list of courses:

MCB 5206 – Public Health and Pathogenic Microbiology	3
MCB 5655 – Applied and Environmental Microbiology	3
PCB 5235 – Principles of Immunology	3
MCB 6930 – Seminar in Applied and Ecological Microbiology	1
PCB 5525 – Molecular Genetics	3
BSC 5931 – Genomics	4
PCB 6456 – Biometry I	4
PCB 6458 – Biometry II	3
PCB 6455 – Statistical Ecology	3
BSC 6932 – Advances in Environmental Ecology	1

PHYSIOLOGY AND MORPHOLOGY (PMY)

Offered from the Department of Integrative Biology

Description:

See Program listing.

Core Requirement:

EEX 7743 Philosophies of Inquiry	3

Concentration Requirements –17 hours minimum

In addition to the Program requirements, students must complete the following concentration requirements:

A minimum of 17 credit hours of course work selected from the list below. The graduate student, major professor and graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee. Graduate students concentrating in the area of Environmental and Ecological Microbiology will select from the following list of courses:

MCB 5206 – Public Health and Pathogenic Microbiology	3
MCB 5655 – Applied and Environmental Microbiology	3
PCB 5235 – Principles of Immunology	3
MCB 6930 – Seminar in Applied and Ecological Microbiology	1
PCB 5525 – Molecular Genetics	3
BSC 5931 – Genomics	4
PCB 6456 – Biometry I	4
PCB 6458 – Biometry II	3
PCB 6455 – Statistical Ecology	3
BSC 6932 – Advances in Environmental Ecology	1

M.S. in Biology Non-Thesis Option

Non-Thesis - For students enrolled in the non-thesis program, a 30-hour minimum is required at the 5000-6000 level; 26 hours must be in formally structured courses, 16 hours must be at the 6000 level; 15 structured hours must be offered by Biology. A review paper of a topic approved by the supervisory committee is required as well as successful completion of the comprehensive oral qualifying exam after all course work has been completed. For non-thesis master's students, this exam will occur at the end of the program of study.

Comprehensive Oral Qualifying Examination. A comprehensive examination (thesis proposal, seminar/presentation and defense of thesis proposal) is required for all master's students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two semesters of matriculation and the exam is normally taken after the completion of all formal course work. Thesis students must take the examination at least one semester before the thesis is presented. Any graduate work counted toward the requirement for the M.S. degree must be completed within five (5) years after matriculation.

All thesis-based Master's Degree students must present a seminar to the Department of Biology and must be enrolled in BSC 6935, during the final semester. The seminar should be a concise summary of the research completed to satisfy the requirements for the M.S. Degree. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee.

COURSES

For updated list of courses see: http://www.ugs.usf.edu/sab/sabs.cfm

BIOLOGY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall: January 1 for full consideration; however applications are accepted to February 15 (U.S. Applicants)
January 1 (International)

Spring: August 1 (U.S. Applicants)
July 1 (International)

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 26.0101
Dept Code: BIO
Program (Major/College): BIO AS

Concentrations:
Cell Biology, Microbiology and Molecular Biology (CMM)
Ecology and Evolution (EEV)
Environmental and Ecological Microbiology (EVM)
Physiology and Morphology (PMY)

CONTACT INFORMATION

College: Arts and Sciences
Departments: Cell Biology, Molecular Biology and Microbiology (CMMB)
Integrated Biology (IB)

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Department of Biology was expanded into the Department of Cell Biology, Molecular Biology and Microbiology (CMMB) and the Department of Integrated Biology (IB) in 2009. Each Department has its own Chair and Graduate Director and offers students a Ph.D. degree in Biology with a specific concentration associated with either CMMB or IB. There is no general Biology PhD degree program. The CMMB and IB Departments are located in two modern, well-equipped buildings. Most research in CMMB Department is done by faculty housed in the Bio-Science Facility building (BSF), and most of the research within the IB Department is conducted by faculty housed in the Science Center building (SCA). In addition, the Department have common research facilities in two nearby buildings. Because of the interdisciplinary aspect of most research projects, faculty and graduate students often work together on broad ranging research projects that bring together many of the traditionally separate areas of biology. Many of the faculty within CMMB and IB are involved in cooperative research with their colleagues in Chemistry, Public health, Nursing, Medicine, Geology, Psychology, Geography, Marine Science, and Environmental Science. Often CMMB and IB graduate students have faculty members from these other areas of USF as members of their graduate committees.

Because of the many undergraduate courses that require hands-on experimental laboratories, both CMMB and IB supports many graduate students as Teaching Assistants. CMMB and IB values high quality teaching at all levels of instruction. Research Assistant positions also are available to support research with specific faculty members depending on an individual faculty members funding. Numerous scholarship opportunities are also offered on a competitive basis through the USF Graduate School.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Cell Biology, Molecular Biology, Cancer Biology, Signal Transduction and Gene Regulation, Developmental Biology, Ecology and Evolution, Environmental and Ecological, Microbiology and Physiology and Morphology, Applied and General Microbiology, Conservation Biology and Coastal Marine Biology, Ecology and Evolution, Environment and Ecological Microbiology, Physiology and Morphology

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Applying to the Department of Cell Biology, Microbiology and Molecular Biology

Students interested in attending graduate school within the CMMB Department should visit the CMMB website that can be accessed from the main USF site and review the current CMMB faculty. It is recommended that potential students consider at least 2-3 CMMB faculty that they would be interested in working with and communicate this information in their letter of application. It is also recommended that potential students contact the CMMB Graduate Director as well as the individual faculty members they are interested in working with via email. Such communication will facilitate the assignment of the laboratory rotations that CMMB students will participate in during their first semester of residency and also allow the applicant to determine whether the desired faculty member has positions available in the laboratory. All students admitted to the PhD concentration in Cell Biology, Microbiology and Molecular Biology must establish a supervisory committee. The supervisory committee shall constitute the major professor and at least three additional credentialed faculty. At least two of the committee members must be faculty members at USF. The supervisory committee must be formed within two semesters after matriculation. The CMMB Graduate Director, CMMB Chair, and the College Associate Dean (or designee) must approve the Supervisory Committee.

Applying to the Department of Integrative Biology

Students interested in attending graduate school within the IB Department should contact potential major professors to communicate their research ideas and establish that the professor will consider the student's application. The IB Department requires that all students admitted into the PhD program have the approval of a major professor. Applicants should contact faculty conducting research in the student's area of interest well in advance of the application deadline. All doctoral degree seeking students must form a Graduate Supervisory committee that consists of four faculty members. The major professor and at least two committee members must be from the IB Department. The Committee must be established within two semesters after matriculation. Failure to do so may be cause for dismissal. The IB Graduate Director, IB Chair, and the College Associate Dean (or designee) must approve the Supervisory Committee.

Program Admission Requirements

- Prospective students must apply to a specific Biology Ph.D. program concentration via the online application process through the USF Graduate School.
- Must have 3.00 GPA last 60 hours of B.S. degree.
- Must have 500V, 600Q, 4.5 AW on GRE.
- All international students are required to submit the TOEFL test. Non-native English speaking graduate students must score a minimum of at least 570 on the paper based or a minimum total score of 79 on the internet-based test TOEFL and at least 50 on the TSE to be eligible for a teaching assistantship.
- For acceptance into the IB Department, acceptance by a faculty member in IB is MANDATORY. IB encourages applicants to contact faculty via email to indicate an interest in the research being conducted in their laboratory. IB will make every effort to pair potential graduate students with appropriate faculty; however it is recommended that applicants make direct contact with individual faculty.
- It is expected that candidates for the PhD degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.

DEGREE PROGRAM REQUIREMENTS

The Ph.D. degree requires successful completion of:

1. structured coursework
2. qualifying exam (dissertation proposal, presentation/seminar and defense of dissertation proposal)
3. oral qualifying exam and Admission to Candidacy
4. oral Defense and submission of approved Dissertation

Coursework

A total of 90 credits beyond the baccalaureate must be earned: this includes any graduate credit earned prior to admission to the doctoral program. A minimum of three years of graduate work beyond the Baccalaureate Degree is required.

Twelve (12) hours of graduate work completed while a non-degree seeking student at this institution may be transferred to the doctoral program, with approval of the supervisory committee. At least one academic year of residence must be on the campus. A year of residence is enrollment in a minimum of nine (9) semester credits for two consecutive semesters. The direction and immediate supervision of graduate work for doctoral students resides with the major professor and student's Graduate Supervisory Committee. Graduate students are not admitted to IB unless a major professor has agreed to serve as the student's supervisor. The University imposes limitations on the time period between admission to candidacy and successful completion of degree requirements. *EDITOR'S NOTE: University policy for time limits may be viewed in the Degree Requirements Section of this catalog.*

The CMMB and IB Departments requires that all graduate work applied toward the completion of degree requirements be completed within a seven year period after matriculation. Doctoral students are encouraged to gain teaching experience in at least two undergraduate courses in the department. Overall degree requirements for the Doctor of Philosophy are as follows:

1. Credit hour requirement: A total of 90 semester hour credits beyond the Baccalaureate degree is required. *(including BSC 7910, BSC 7971, BSC 7980 and other structured and unstructured courses approved by CMMB or IB)*

2. Students admitted to the CMMB Department must complete three laboratory rotations during their first semester of residency.

3. A minimum of twenty-four (24) dissertation research credit hours (BSC 7980) is required.

4. Submission of a doctoral proposal and approval by major professor, graduate committee, and graduate director

5. Successful completion of the dissertation proposal, presentation/seminar and preliminary doctoral examination.

6. Presentation requirement: two presentations, excluding the doctoral seminar and defense. Students are expected to present posters or oral presentations based on their dissertation research at national/regional professional meetings. The graduate committee must approve the presentation.

7. Publication requirement: one research paper must be submitted for publication to a refereed scientific journal by the date of the Doctoral Seminar and Defense. The paper may be sole or coauthored, but it must be based on the dissertation research. The student's supervisory committee must approve the paper prior to submission.

8. Submission of an acceptable dissertation

9. Presentation of the doctoral seminar (BSC 7936) and successful defense of the dissertation.

Degree Progress

A student must be registered no fewer than two [2] credit hours) in the college for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the Graduate Supervisory committee will be dropped from the program. Registration in courses entitled Directed Research, or Dissertation must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Dissertation: Doctoral (BSC 7980) until a Supervisory Committee has been formed and a approved Admission to Candidacy on file with the Graduate School . A student who enrolls in courses entitled Dissertation: Doctoral but does not submit a dissertation will not be certified for graduation.

Ph.D. in Biology Course Requirements

Ph.D. in Biology Core (6 credit hrs.)

BSC 6930 Lectures in Contemporary Biology (1)
Enrollment in this course is required during four semesters of residency

BSC 7980 Dissertation (24 hours)

Doctoral Seminar and Defense.

All doctoral students must present a public seminar to the CMMB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the supervisory committee and submit the dissertation to the Graduate School.

Additional Requirements

Any graduate work counted toward fulfilling the requirements for the Ph.D. degree must be completed within seven (7) years after matriculation.

CONCENTRATION REQUIREMENTS

~~*Refer to the individual Concentration listings for information and requirements.*~~

CELL BIOLOGY AND MOLECULAR BIOLOGY (CMM)

Offered from the Department of Cell Biology, Molecular Biology and Microbiology (CMMB)

Description:

See program description

Core Requirement:

BSC 6920 Lectures in Contemporary Biology	1

Enrollment in this course is required during each semester of residency

Concentration Requirements

In addition to the Program requirements, students must complete the following concentration requirements:

BSC 6932 Advances in Scientific Review	2
BSC 6932 Advances in Scientific Writing	2
PCB 6930 Advances in Cell and Molecular Biology	1

Electives* (minimum of 6 credit hrs)

MCB 5206 Public Health and Pathogenic Microbiology	3
MCB 5655 Applied and Environmental Microbiology	3

PCB 5235 Principles of Immunology	3
PCB 6236 Advanced Immunology	3
MCB 5815 Medical Mycology	3
BSC 5931 Molecular Microbial Ecology	3
BSC 5931 Prokaryotic Molecular Genetics	3
MCB 5410 Cellular Microbiology	3
PCB 5256 Developmental Mechanisms	3
BSC 5420 Genetic Engineering and Recombinant DNA Technology	3
PCB 5616 Molecular Phylogenetics	3
PCB 5525 Molecular Genetics	3
PCB 6107 Advanced Cell Biology	4
BSC 5931 Eukaryotic Genomics	3

**The supervisory committee may approve additional courses not listed here.*

CMMB Written Qualifying Exam

All students in the CMMB PhD degree concentration must complete a written qualifying examination. The exam shall be in the format of a grant proposal and contain the following sections:~~;~~

- Abstract {300 words}
- Specific Aims [1 page]
- Background and Significance of topics [4-5 pages]
- Proposed research program (conducted over 3 year period) [9-10 pages]
- Bibliography (no page limit)

The length of the proposal shall be no more than 15 pages (the abstract and bibliography does not count in the page limit). The topic of the exam shall meet the following guidelines:

- The written proposal *cannot be based in the same* **model organism** that the student will use to carry out their dissertation research
- The written proposal *cannot be based on the analysis of* **the same gene/protein** that the student will investigate during their dissertation research
- The written proposal *cannot be based on the analysis of* **the same pathway** that the student will investigate during their dissertation research

Student shall submit potential topics during the Advances in Scientific Writing course. The Instructor of record will provide deadlines for the submission of these topics as well as the required format. The student's Ph.D. dissertation committee and major professor will approve the topic. No work can be done on the exam until the topic is approved and returned to the student.

Students are required to have an approved topic and complete the SPECIFIC AIMS section of the written qualifying exam during the Advances in Scientific Writing course. This will be during the student's second semester (for those admitted in the fall) or third semester (for those student's admitted in the spring). Successful completion of Advances in Scientific Writing course is required for the student to continue working on the written qualifying exam; otherwise, they must retake the course in a subsequent semester. For students that successfully complete the course, the final version of the written qualifying exam will be due in electronic form to the CMMB Graduate Director no later than **OCTOBER 15th** of the student's third semester (for those admitted in the fall) or fourth semester (for those student's admitted in the spring). ***The proposal is to be an original document prepared and edited by the student.***

Each proposal will be made available to the CMMB faculty. The CMMB Graduate Committee will assign individual proposals to at least a primary and secondary reviewer. The primary reviewer may not be the dissertation advisor of the student that wrote the proposal. When appropriate, a third reviewer may also be utilized. An evaluation rubric will be utilized to assign each proposal an initial "score". Final

grading of the proposal will be carried out during a panel discussion of all faculty involved in the review. The CMMB Graduate Director will serve as the mediator of the meeting and will be responsible for distributing the graded exam and faculty comments to the student. Students that do not pass the written exam shall be provided one chance to complete the exam successfully. The timeline and format of any remediation will be determined during the panel discussion.

ECOLOGY AND EVOLUTION (EEV)

Offered from the Department of Integrative Biology (IB)

Description:

See program description

Core Requirement:

BSC 6930 – Lectures in Contemporary Biology 1

Repeated four times for 4 credit hours plus 6 additional hours of course work.

Concentration Requirements

In addition to the Program requirements, students must complete the following concentration requirements:

A minimum of two courses selected from the list below for a minimum of 6 credit hours. The graduate student, major professor and graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

BSC 5931 – Conservation Biology 3
BOT 5185 – Marine Botany 4
PCB 6455 – Statistical Ecology 3
PCB 6456 – Biometry I 4
PCB 6458 – Biometry II 3
BSC 5931 – Comparative Approaches in Evolution 3
PCB 6426 – Population Ecology 3
ZOO 5463 – Herpetology 4
ZOO 5456 – Ichthyology 4
BSC 6932 – Advances in Population Biology 1
BSC 6932 – Advances in Ichthyology 1
BSC 6932 – Advances in Herpetology 1
BSC 6932 – Advanced in Marine Ecology 1
BSC 6932 – Scientific Writing 2
BSC 6932 – Restoration Ecology 3
BSC 6447 - Community Ecology 3
PCB 6933 – Seminar in Ecology (variable credit)

IB Qualifying Exam

All students in the IB PhD degree concentration must complete a qualifying examination. Successful completion of the preliminary doctoral examination by the end of the 4th semester. The exam consists of 3 parts:

1. Dissertation proposal
2. Seminar/presentation of proposal
3. Defense of dissertation proposal

Dissertation

BSC 7980 – 24 hours minimum

Submission of a doctoral proposal and approval by major professor, graduate committee, and graduate director. Successful completion of the Dissertation Defense Seminar and an oral exam administered by

the Graduate Committee. Seminar requirement: two presentations, excluding the Doctoral Defense Seminar. Students should present posters or oral presentations based on their dissertation research at national/regional professional meetings. The graduate committee must approve the presentation.

Publication Requirement

One research paper must be submitted for publication to a refereed scientific journal by the date of the Doctoral Seminar and Defense. The paper may be sole or coauthored, but it must be based on the dissertation research. The graduate committee must approve the paper prior to submission.

ENVIRONMENTAL AND ECOLOGICAL MICROBIOLOGY (EVM)

Offered from the Department of Integrative Biology (IB)

Description:

See program description

Core Requirement:

BSC 6930 – Lectures in Contemporary Biology	1

Repeated four times for 4 credit hours plus 6 additional hours of course work.

Concentration Requirements

In addition to the Program requirements, students must complete the following concentration requirements:

A minimum of two courses selected from the list below for a minimum of 6 credit hours. The graduate student, major professor and graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee. Graduate students concentrating in the area of Environmental and Ecological Microbiology will select from the following list of courses:

MCB 5206 – Public Health and Pathogenic Microbiology	3
MCB 5655 – Applied and Environmental Microbiology	3
PCB 5235 – Principles of Immunology	3
MCB 6930 – Seminar in Applied and Ecological Microbiology	1
PCB 5525 – Molecular Genetics	3
BSC 5931 – Genomics	4
PCB 6456 – Biometry I	4
PCB 6458 – Biometry II	3
PCB 6455 – Statistical Ecology	3
BSC 6932 – Advances in Environmental Ecology	1

IB Qualifying Exam

All students in the IB PhD degree concentration must complete a qualifying examination. Successful completion of the preliminary doctoral examination by the end of the 4th semester. The exam consists of 3 parts:

1. Dissertation proposal
2. Seminar/presentation of proposal
3. Defense of dissertation proposal

PHYSIOLOGY AND MORPHOLOGY (PMY)

Offered from the Department of Integrative Biology (IB)

Description:

See program description

Core Requirement:

BSC 6930 – Lectures in Contemporary Biology	1

Repeated four times for 4 credit hours plus 6 additional hours of course work.

Concentration Requirements

In addition to the Program requirements, students must complete the following concentration requirements:

A minimum of two courses selected from the list below for a minimum of 6 credit hours. The graduate student, major professor and graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

Graduate students concentrating in the area of Physiology and Morphology will select from the following list of courses:

PCB 6456 – Biometry I	4
PCB 6458 – Biometry II	3
BSC 6932 – Advances in Ichthyology	1
ZOO 5463 – Herpetology	4
ZOO 5456 – Ichthyology	4
ZOO 54xx – Ornithology	3
BSC 6932 – Scientific Writing	2
PCB 5256 – Developmental Mechanisms	3
BSC 6932 – Physiological Ecology	3
BSC 6932 – Advances in Physiology	1
BSC 6932 – Ecoimmunology	3
BSC 5931 – Comparative Approaches in Evolution	3
BSC 5931 – Ecological and Functional Morphology	3
BSC 6932 – Physiology of Movement	3

IB Qualifying Exam

All students in the IB PhD degree concentration must complete a qualifying examination. Successful completion of the preliminary doctoral examination by the end of the 4th semester. The exam consists of 3 parts:

1. Dissertation proposal
2. Seminar/presentation of proposal
3. Defense of dissertation proposal

Admission to Candidacy

The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing the qualifying examination and approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Graduate School. Following admission to candidacy, a student must enroll in BSC 7980 when engaged in research, data collection, or writing activities relevant to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than 16. Students not admitted to candidacy are not eligible to enroll in BSC 7980.

Additional Requirements

Any graduate work counted toward fulfilling the requirements for the Ph.D. degree must be completed within seven (7) years after matriculation.

Doctoral Seminar and Defense.

All doctoral students must present a public seminar to the CMMB or IB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask

questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the supervisory committee and submit the dissertation to the Graduate School.

COURSES

For an updated list of course offerings see: http://www.ugs.usf.edu/sab/sabs.cfm

CANCER BIOLOGY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	
U.S.	February 1
International:	January 2

Minimum Total Hours: 96
Program Level: Doctoral
CIP Code: 26.0911
Dept Code: GRS
Program (Major/College): CNB GS

CONTACT INFORMATION

College: Arts and Sciences
Department: Cancer Biology

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Moffitt Cancer Center and the University of South Florida have joined together to establish a graduate program focused specifically on Cancer Biology. Tremendous advancement in the detection and treatment of cancer has occurred over the last decade, yet cancer continues to adversely affect millions of people worldwide in terms of quality of life, life span and economic burden.

The Moffitt Cancer Center at the University of South Florida is a leading institution of basic research, clinical research and patient treatment. The Moffitt Cancer Center has received national acclaim and is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health. The Cancer Biology Ph.D. Program's goal is to train the next generation of Cancer researchers. Studies of cancer require specific knowledge in multiple fields that have traditionally been independent. Our Cancer Biology Ph.D. program emulates the Moffitt Cancer Center and eliminates these boundaries. Students will receive cancer-oriented training in: molecular biology, immunology, functional genomics, bioinformatics, drug discovery & development, cancer genetics, cancer prevention & control, cancer therapeutics, cell biology, biochemistry, proteomics chemistry.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Extensive background in field of biology or chemistry
- GRE required for full consideration;
- GPA of at least 3.0 or greater;
- Advanced coursework and research experience preferred

DEGREE PROGRAM REQUIREMENTS

Course Requirements:
All students are required to successfully complete the Cancer Biology Program Core Courses. In addition, students must successfully complete at least one elective course that have been approved by the Cancer Biology Education Committee. These elective courses are offered through Departments within the College of Medicine, Engineering, and Arts and Sciences. Dissertation Committees may also require students to take additional course work if needed to correct deficiencies. In special circumstances the Cancer Biology Education Committee can waive course requirements, if the student has recently completed identical coursework elsewhere. Students are required to achieve a minimum GPA of B in all Cancer Biology Core courses and an overall GPA of 3.0 (B) in order to remain in good standing.

Stipends:
All Cancer Biology Ph.D. students in good standing will receive a highly competitive stipend ($22,600 for 2008 first year students) An annual cost of living increase is provided to students starting in their second year of study. Please visit the Program's website for current stipend levels. Students also receive health insurance coverage and direct payment in full of all required tuition and required fees. All students are highly encouraged to apply for funding from outside sources.

Total Minimum Hours: 96
CORE REQUIREMENTS
Required Cancer Biology Core Courses (15 hours minimum)

BSC 6056	Cancer Research Techniques	
PCB 6230	Cancer Biology I	4
PCB 6231	Cancer Biology II	4
PCB 6910	Cancer Laboratory Rotations	1-3
BSC 7911	Directed Research	1-12
PCB 6931	Advances in Cancer Biology	2
PCB 6930	Current Topics in Oncology	2
BSC 6939	Selected Topics in Cancer Biology- Cancer Genetics	1

Qualifying Exam

Dissertation

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CELL BIOLOGY, MICROBIOLOGY, AND MOLECULAR BIOLOGY CONCENTRATION

Doctor of Philosophy (Ph.D.) Degree in the Biology Program with a Concentration in Cell Biology, Microbiology, and Molecular Biology

DEGREE INFORMATION

Program Admission Deadlines:

Fall: January 1 for full consideration; however applications are accepted to February 15 (U.S. Applicants)
January 1 (International)

Spring: August 1 (U.S. Applicants)
July 1 (International)

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 26.0101
Dept Code: BIO
Program (Major/College): BIO AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Cell Biology, Molecular Biology and Microbiology (CMMB)

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

For program information refer to the Biology Program (Ph.D.) listing.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Cell Biology, Molecular Biology, Cancer Biology, Signal Transduction and Gene Regulation, Developmental Biology, Applied and General Microbiology, Conservation

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Applying to the Department of Cell Biology, Microbiology and Molecular Biology

Students interested in attending graduate school within the CMMB Department should visit the CMMB website that can be accessed from the main USF site and review the current CMMB faculty. It is recommended that potential students consider at least 2-3 CMMB faculty that they would be interested in working with and communicate this information in their letter of application. It is also recommended that potential students contact the CMMB Graduate Director as well as the individual faculty members they are interested in working with via email. Such communication will facilitate the assignment of the laboratory rotations that CMMB students will participate in during their first semester of residency and also allow the applicant to determine whether the desired faculty member has positions available in the laboratory.

All students admitted to the PhD concentration in Cell Biology, Microbiology and Molecular Biology must establish a supervisory committee. The supervisory committee shall constitute the major professor and at least three additional credentialed faculty. At least two of the committee members must be faculty members at USF. The supervisory committee must be formed within two semesters after matriculation.

~~The CMMB Graduate Director, CMMB Chair, and the College Associate Dean (or designee) must approve the Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a thesis, the student shall enroll for two (2) hours of research credit each semester (other than summer semester), until eligible to enroll in thesis credits.~~

~~Program Admission Requirements~~

- ~~Prospective students must apply to a specific Biology PhD program concentration via the online application process through the USF Graduate School.~~
- ~~Must have 3.00 GPA last 60 hours of B.S. degree.~~
- ~~Must have 500V, 600Q, 4.5 AW on GRE.~~
- ~~All international students are required to submit the TOEFL test. Non-native English speaking graduate students must score at least 570 on the TOEFL and at least 50 on the TSE to be eligible for a teaching assistantship.~~
- ~~It is expected that candidates for the PhD degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.~~

~~DEGREE PROGRAM REQUIREMENTS~~

~~The Ph.D. degree requires successful completion of:~~

1. ~~structured coursework~~
2. ~~written qualifying exam~~
3. ~~oral qualifying exam and Admission to Candidacy~~
4. ~~oral Defense and submission of approved Dissertation~~

~~Coursework~~

~~A total of 90 credits beyond the baccalaureate must be earned: this includes any graduate credit earned prior to admission to the doctoral program. A minimum of three years of graduate work beyond the Baccalaureate Degree is required.~~

~~Twelve (12) hours of graduate work completed while a non-degree seeking student at this institution may be transferred to the doctoral program, with approval of the supervisory committee. At least one academic year of residence must be on the campus. A year of residence is enrollment in a minimum of nine (9) semester credits for two consecutive semesters. The direction and immediate supervision of graduate work for doctoral students resides with the major professor and student's graduate committee. Graduate students are not admitted unless a major professor has agreed to serve as the student's supervisor. The University imposes limitations on the time period between admission to candidacy and successful completion of degree requirements. *EDITOR'S NOTE: University policy for time limits may be viewed in the Degree Requirements Section of this catalog*.~~

~~The CMMB Department requires that all graduate work applied toward the completion of degree requirements be completed within a seven year period after matriculation. Doctoral students are encouraged to gain teaching experience in at least two undergraduate courses in the department. Overall degree requirements for the Doctor of Philosophy are as follows:~~

1. ~~Credit hour requirement: A total of 90 semester hour credits beyond the Baccalaureate degree is required. *(including BSC 7910, BSC 7971, BSC 7980 and other structured and unstructured courses approved by CMMB or IB)*~~
2. ~~Students admitted to the CMMB Department must complete three laboratory rotation during their first semester of residency.~~
3. ~~A minimum of twenty-four (24) dissertation research credit hours (BSC 7980) is required.~~

4. Submission of a doctoral proposal and approval by major professor, graduate committee, and graduate director

5. Successful completion of the preliminary doctoral examination. The exam consists of a written and oral portion. The specific of the written exam are provided below.

6. Presentation requirement: two presentations, excluding the doctoral seminar and defense. Students are expected to present posters or oral presentations based on their dissertation research at national/regional professional meetings. The graduate committee must approve the presentation.

7. Publication requirement: one research paper must be submitted for publication to a refereed scientific journal by the date of the Doctoral Seminar and Defense. The paper may be sole or coauthored, but it must be based on the dissertation research. The student's supervisory committee must approve the paper prior to submission.

8. Submission of an acceptable dissertation

9. Presentation of the doctoral seminar (BSC 7936) and successful defense of the dissertation.

Degree Progress

A student must be registered for an appropriate load (in no case fewer than two [2] graduate hours) in the college for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the advisory committee will be dropped from the program. Registration in courses entitled Directed Research, or Dissertation must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Dissertation: Doctoral (BSC 7980) until a Supervisory Committee has been formed and a approved Admission to Candidacy on file with the Graduate School . A student who enrolls in courses entitled Dissertation: Doctoral but does not submit a dissertation will not be certified for graduation.

CORE REQUIREMENTS

PhD in Biology Core (6 credit hrs.)

BSC 6920 Lectures in Contemporary Biology 1
Enrollment in this course is required during each semester of residency

CONCENTRATION REQUIREMENTS

Concentration in Cell Biology and Molecular Biology Requirements (5 credit hrs)

BSC 6932 Advances in Scientific Review 2
BSC 6932 Advances in Scientific Writing 2
PCB 6930 Advances in Cell and Molecular Biology 1

Electives* (minimum of 6 credit hrs)

MCB 5206 Public Health and Pathogenic Microbiology 3
MCB 5655 Applied and Environmental Microbiology 3
PCB 5235 Principles of Immunology 3
PCB 6236 Advanced Immunology 3
MCB 5815 Medical Mycology 3
BSC 5931 Molecular Microbial Ecology 3
BSC 5931 Prokaryotic Molecular Genetics 3
MCB 5410 Cellular Microbiology 3
PCB 5256 Developmental Mechanisms 3
BSC 5420 Genetic Engineering and Recombinant DNA Technology 3
PCB 5616 Molecular Phylogenetics 3
PCB 5525 Molecular Genetics 3
PCB 6107 Advanced Cell Biology 4
BSC 5931 Eukaryotic Genomics 3
**The supervisory committee may approve additional courses not listed here.*

~~Written Qualifying Exam~~

~~All students in the CMMB PhD degree concentration must complete a written qualifying examination. The exam shall be in the format of a grant proposal and contain the following sections;~~

- ~~Abstract (300 words)~~
- ~~Specific Aims [1 page]~~
- ~~Background and Significance of topics [4-5 pages]~~
- ~~Proposed research program (conducted over 3 year period) [9-10 pages]~~
- ~~Bibliography (no page limit)~~

~~The length of the proposal shall be no more than 15 pages (the abstract and bibliography does not count in the page limit). The topic of the exam shall meet the following guidelines:~~

- ~~The written proposal *cannot be based in the same* **model organism** that the student will use to carry out their dissertation research~~
- ~~The written proposal *cannot be based on the analysis of* **the same gene/protein** that the student will investigate during their dissertation research~~
- ~~The written proposal *cannot be based on the analysis of* **the same pathway** that the student will investigate during their dissertation research~~

~~Student shall submit potential topics during the Advances in Scientific Writing course. The Instructor of record will provide deadlines for the submission of these topics as well as the required format. The student's PhD dissertation committee and major professor will approve the topic. No work can be done on the exam until the topic is approved and returned to the student.~~

~~Students are required to have an approved topic and complete the SPECIFIC AIMS section of the written qualifying exam during the Advances in Scientific Writing course. This will be during the student's second semester (for those admitted in the fall) or third semester (for those student's admitted in the spring). Successful completion of Advances in Scientific Writing course is required for the student to continue working on the written qualifying exam; otherwise, they must retake the course in a subsequent semester. For students that successfully complete the course, the final version of the written qualifying exam will be due in electronic form to the CMMB Graduate Director no later than **OCTOBER 15th** of the student's third semester (for those admitted in the fall) or fourth semester (for those student's admitted in the spring). ***The proposal is to be an original document prepared and edited by the student.***~~

~~Each proposal will be made available to the CMMB faculty. The CMMB Graduate Committee will assign individual proposals to at least a primary and secondary reviewer. The primary reviewer may not be the dissertation advisor of the student that wrote the proposal. When appropriate, a third reviewer may also be utilized. An evaluation rubric will be utilized to assign each proposal an initial "score". Final grading of the proposal will be carried out during a panel discussion of all faculty involved in the review. The CMMB Graduate Director will serve as the mediator of the meeting and will be responsible for distributing the graded exam and faculty comments to the student. Students that do not pass the written exam shall be provided one chance to complete the exam successfully. The timeline and format of any remediation will be determined during the panel discussion.~~

~~Admission to Candidacy~~

~~The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing the written and oral qualifying examination and , approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Graduate School. Following admission to candidacy, a student must enroll in BSC 7980 when engaged in research, data collection, or writing activities relevant to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than sixteen (16). Students not admitted to candidacy are not eligible to enroll in BSC 7980.~~

~~Additional Requirements~~

~~Any graduate work counted toward fulfilling the requirements for the Ph.D. degree must be completed within seven (7) years after matriculation.~~

~~**Doctoral Seminar and Defense.**~~

~~All doctoral students must present a public seminar to the CMMB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the supervisory committee and submit the dissertation to the Graduate School.~~

~~COURSES~~

~~For an updated list of course offerings see: http://www.ugs.usf.edu/sab/sabs.cfm~~

CHEMISTRY PROGRAM (NON-THESIS OPTION)

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15
Spring: October 1

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 40.0501
Dept Code: CHM
Program (Major/College): CHA AS

Concentrations:
Analytical Chemistry, Biochemistry, Computational Chemistry, Environmental Chemistry, Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Polymer Chemistry

CONTACT INFORMATION

College: Arts and Sciences
Department: Chemistry

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu
http://chemistry.usf.edu

PROGRAM INFORMATION

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
In addition to the five (5) traditional areas, research opportunities also are available in such interdisciplinary and specialized areas as Bio-organic and Bio-inorganic Chemistry, Environmental Chemistry, Nuclear Magnetic Resonance Spectroscopy, Computer Modeling, Polymers, Photochemistry, Marine Chemistry, Medicinal Chemistry, Electrochemistry, Nucleic Acid Chemistry, and Enzymology.

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of 24 full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses and electives provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and very low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Applicants must have earned a BA or BS degree in Chemistry.* In addition, applicants must have

- a combined score of 430V, 570Q, 3.0AW on the GRE. Subject exam is recommended, but not required.
- a minimum of a 3.00 grade point average in the last two years of chemistry coursework

- letters of recommendation from at least three or more people who know the student's academic background
- and for applicants whose native language is not English, a minimum of 550 on the TOEFL exam and for such applicants a minimum of 50 on the TSE if also applying for an assistantship.

*Applicants with other degrees will be considered on a case by case basis.

International students follow USF International Admissions deadlines. Domestic students rolling admission.

DEGREE PROGRAM REQUIREMENTS

General Program Requirements
Graduate students must maintain an overall grade point average (GPA) of 3.00 (B) in all courses. Any graduate student who falls below a 3.00 GPA at the end of any given semester will be placed on academic probation and has the next two semesters (excluding summers) to remedy the situation before being dismissed from the program. No grade below "C" will be accepted toward a graduate degree, but will be used in the computation of the overall GPA.

Enforcement of Minimum Standards
The Graduate Council shall be responsible for ensuring that all graduate students meet the minimum standards as set down in the Graduate Student Handbook. The Graduate Coordinator will periodically review the standing of each student with regard to grade point average (GPA), academic progress, and (in the case of teaching assistants) teaching performance and notify the Graduate Council as necessary. Should disciplinary action appear in order, the student's major professor will be consulted (in order to obtain as many relevant facts as possible) before such action is taken.

Probation
Students who fail to meet the minimum GPA (3.00 for all graduate courses) shall be placed on probation. The student's GPA must meet the minimum of 3.00 by the end of the semester in which probation was initiated or termination from the graduate program will result.

Appeals
In actions based on departmental requirements, petitions and appeals shall be directed to the Chemistry Graduate Council through the student's major professor. (In case of a student who has not yet selected a major professor, the appeal may be carried out through the Graduate Coordinator or through some other chemistry faculty member selected by the student.) Unsuccessful appeals to the Chemistry Graduate Council may be further carried to the chemistry faculty as a whole, and from there to the Dean of the College and then to the University Graduate Council if necessary.

Minimum Grades in Courses
Although all grades in graduate level courses will be used in computing the student's GPA, no grade below "C" may be counted toward fulfillment of the approved course of study. Consequently, any such course in which a student receives a grade below "C" must be repeated, or have the requirement waived by the Supervisory Committee. A student who receives three grades lower than a "B" in structured courses required by his supervisory committee to meet the structured course requirement will be dropped from the program. A student who receives a grade of "U" while a chemistry graduate student will be placed on automatic probation. A second "U" grade is grounds for termination from the Program, and the Chemistry Graduate Council will automatically review the student's status. Students on probation are not excluded from having a teaching assistantships during the probationary semester.

Seminars
All chemistry graduate students must satisfy the following minimum requirements for CHM 6935:

- enrollment every semester of the regular academic year during his/her career as a graduate student, or
- enrollment in seven (7) credit hours for the Ph.D.; four (4) credit hours for the Master's degree. A maximum of two unexcused absences will be permitted each semester, whichever is less. Under

exceptional circumstances, students may petition for a waiver on a semester-by-semester basis if employment or other obligations conflict with the requirement.

Master's Degree General Requirements
Students must meet all degree requirements as specified by the Graduate School. Study for the M.A and the M.S. should take between two and three calendar years beyond the baccalaureate degree to complete. Specific requirements include: a minimum of thirty (30) credit hours beyond the baccalaureate degree; sixteen (16) hours must be at the 6000 level.

M.A. in Chemistry (Non-Thesis Option)
Program Requirements

a) 26 hours must be in formally structured courses approved by the student's committee.

b) Preparation of a review paper on a topic approved by the supervisory committee. The final paper must be approved by the supervisory committee.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CHEMISTRY PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 1

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	40.0501
Dept Code:	CHM
Program (Major/College):	CHM AS

Concentrations:
Analytical Chemistry (ACH), Biochemistry (BCH), Computational Chemistry (CPC), Environmental Chemistry (EVC), Inorganic Chemistry (IOG), Organic Chemistry (OCH), Physical Chemistry (PCH), Polymer Chemistry (POC)

Also offered as a 5-year Program

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Chemistry
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of 24 full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses and electives provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and very low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
In addition to the five (5) traditional areas, research opportunities also are available in such interdisciplinary and specialized areas as Bio-organic and Bio-inorganic Chemistry, Environmental Chemistry, Nuclear Magnetic Resonance Spectroscopy, Computer Modeling, Polymers, Photochemistry, Marine Chemistry, Medicinal Chemistry, Electrochemistry, Nucleic Acid Chemistry, Enzymology, Materials Chemistry and Chemical Education.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Applicants must have earned a B.A. or BS degree in Chemistry.* In addition, applicants must have

- official transcripts
- a GRE score of 430V, 570Q, 3.0 AW The subject exam is recommended, but not required.

- a minimum of a 3.00 grade point average in the last two years of chemistry coursework
- letters of recommendation from at least three or more people who know the student's academic background
- and for applicants whose native language is not English, a minimum of 550 on the TOEFL exam and for such applicants a minimum of 50 on the TSE if also applying for an assistantship.

*Applicants with other degrees will be considered on a case by case basis.

International students follow USF International Admissions deadlines. Domestic students rolling admission.

DEGREE PROGRAM REQUIREMENTS

General Program Requirements
Graduate students must maintain an overall grade point average (GPA) of 3.0 (B) in all courses. Any graduate student who falls below a 3.0 GPA at the end of any given semester will be placed on academic probation and has the next two semesters (excluding summers) to remedy the situation before being dismissed from the program. No grade below "C" will be accepted toward a graduate degree, but will be used in the computation of the overall GPA.

Enforcement of Minimum Standards
The Graduate Council shall be responsible for ensuring that all graduate students meet the minimum standards as set down in the Graduate Student Handbook. The Graduate Coordinator will periodically review the standing of each student with regard to grade point average (GPA), academic progress, and (in the case of teaching assistants) teaching performance and notify the Graduate Council as necessary. Should disciplinary action appear in order, the student's major professor will be consulted (in order to obtain as many relevant facts as possible) before such action is taken.

Probation
Students who fail to meet the minimum GPA (3.0 for all graduate courses) shall be placed on probation. The student's GPA must meet the minimum of 3.0 by the end of the semester in which probation was initiated or termination from the graduate program will result.

Appeals
In actions based on departmental requirements, petitions and appeals shall be directed to the Chemistry Graduate Council through the student's major professor. (In case of a student who has not yet selected a major professor, the appeal may be carried out through the Graduate Coordinator or through some other chemistry faculty member selected by the student.) Unsuccessful appeals to the Chemistry Graduate Council may be further carried to the chemistry faculty as a whole, and from there to the Dean of the College and then to the University Graduate Council if necessary.

Minimum Grades in Courses
Although all grades in graduate level courses will be used in computing the student's GPA, no grade below "C" may be counted toward fulfillment of the approved course of study. Consequently, any such course in which a student receives a grade below "C" must be repeated, or have the requirement waived by the Supervisory Committee. A student who receives three grades lower than a "B" in structured courses required by his supervisory committee to meet the structured course requirement will be dropped from the program. A student who receives a grade of "U" while a chemistry graduate student will be placed on automatic probation. A second "U" grade is grounds for termination from the Program, and the Chemistry Graduate Council will automatically review the student's status. Students on probation are not excluded from having a teaching assistantships during the probationary semester.

Seminars
All chemistry graduate students must satisfy the following minimum requirements for CHM 6935: enrollment every semester of the regular academic year during his/her career as a graduate student, or enrollment in seven (7) credit hours for the Ph.D.; four (4) credit hours for the Master's degree. A maximum of two unexcused absences will be permitted each semester, whichever is less. Under exceptional circumstances, students may petition for a waiver on a semester-by-semester basis if employment or other obligations conflict with the requirement.

Master's Degree General Requirements
Students must meet all degree requirements as specified by the Graduate School. Study for the M.A and the M.S. should take between two and three calendar years beyond the baccalaureate degree to complete. Specific requirements include: a minimum of thirty (30) credit hours beyond the baccalaureate degree; sixteen (16) hours must be at the 6000 level.

Program Requirements
a) 20 hours of formally structured courses approved by the student's committee
b) a research project resulting in a written thesis
c) an oral thesis defense, which will serve as the final comprehensive examination required by the Graduate School

A graduate student working on a master's degree in a program that requires a thesis must register in course CHM 6973 or CHM 6971 when engaged in research, data collection, or writing activities relevant to the master's thesis. The number of credits in these courses must be appropriate to the demands made on faculty, staff, and university facilities. *Editor's note: for information on the University's enrollment policy relevant to a thesis, refer to the enrollment section of the Academic Policies in this catalog.*

Final Thesis Defense
Each student should consult with their supervisory committee for deadlines in submitting the thesis prior to the defense. Thesis or dissertation defense are not normally scheduled during final exam week or during the weeks between regularly scheduled sessions. The thesis defense must be scheduled through the Chemistry Graduate Office at least two weeks in advance. The Chemistry Graduate Office will then announce the defense to the entire Chemistry Department. The candidate normally defends their thesis in the fourth or fifth year. *EDITOR'S NOTE: these deadlines are in addition to those imposed by the Graduate School. The Graduate School sets deadlines pertaining to thesis/dissertations each semester.*

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CHEMISTRY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 1
Summer:	January 1

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 40.0501
Dept Code: CHM
Program (Major/College): CHM AS

Concentrations:
Analytical Chemistry (ACH), Biochemistry (BCH), Computational Chemistry (CPC), Environmental Chemistry (EVC), Inorganic Chemistry (IOG), Organic Chemistry (OCH), Physical Chemistry (PCH), Polymer Chemistry (POC)

CONTACT INFORMATION

College: Arts and Sciences
Department: Chemistry

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of 19 full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses and electives provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and very low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
In addition to the 5 traditional areas, research opportunities also are available in such interdisciplinary and specialized areas as Bio-organic and Bio-inorganic Chemistry, Environmental Chemistry, Nuclear Magnetic Resonance Spectroscopy, Computer Modeling, Polymers, Photochemistry, Marine Chemistry, Medicinal Chemistry, Electrochemistry, Nucleic Acid Chemistry, and Enzymology.

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of 24 full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses and electives provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and very low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Applicants must have earned a B.A. or BS degree in Chemistry. Applicants with other degrees will be considered on a case by case basis. In addition, applicants must have

- official transcripts
- a GRE score of 430V, 570Q, 3.0 AW. The subject exam is recommended, but not required
- a minimum of a 3.00 grade point average in the last two years of chemistry coursework
- letters of recommendation from at least three or more people who know the student's academic background
- and for applicants whose native language is not English, a minimum of 550 on the TOEFL exam and for such applicants a minimum of 50 on the TSE if also applying for an assistantship

International students follow USF International Admissions deadlines. Domestic students rolling admission.

DEGREE PROGRAM REQUIREMENTS

Students with only a Bachelors degree must take 4 ACS entrance exam (with an option to take Biochemistry or Analytical and a requirement to take core exams in Organic, Inorganic, and Physical Chemistry). They must obtain at least the national median ACS score in the required core exams to pass. If they fail, they have the option to retake the exam or remediate the deficiency by obtaining at least B (not a B-) in one of our upper-division undergraduate courses (or by taking the exams in the appropriate course and obtaining the equivalent grade) in the area of the deficiency before their candidacy exam. Students with a Masters degree may be required to adhere to the policy at the discretion of the Graduate Council at the time of acceptance. Entering students will have a Promotion to Candidacy Committee established upon entering the Ph.D. Program. The Committee advises students as to what courses they need to take in their first semester. There are no set course requirements, but the decision of the Committee is binding. Students will normally be expected to take the first semester of the first year covering "Tools of Research," including literature search and analysis, proposal writing, oral presentation skills, and laboratory instrumental techniques. The second semester of the course may be required by a student's promotion to Candidacy committee. Advanced courses in other subject areas may be assigned by the Committee, where appropriate. Final coursework decisions are made by the candidate's research advisor.

Advisor Selection

Students need to choose a pre-Ph.D. candidate research adviser by the beginning of the second semester to begin pre-candidate research in that laboratory (See below). The student will then proceed to initiate a research project by the beginning of the second semester and through the first summer of study. Selection of a research advisor is one of the most important decisions a student will make during the graduate career. In order to avoid hasty or poorly founded decisions each student must discuss potential research projects with at least three members of the chemistry faculty. Appropriate forms can be obtained from the Chemistry Graduate Office and should be completed and returned no later than the end of the second semester (excluding summer semester) after entering the program.

Promotion to Candidacy

At the conclusion of the first year (before the start of the third semester), a written research document outlining progress to date and future plans is submitted to and approved by the Promotion to candidacy Committee. This proposal is subsequently defended in front of the committee. A successful defense results in Promotion to Ph.D. Candidacy, contingent upon the student being formally accepted into a research group. The committee must vote three quarters in favor of the candidate (for a four person committee) or two thirds in favor (for a three person committee) for a pass. A vote of two or four members (or one of three) in favor results in a conditional pass, and the committee must set conditions to be met to promote the student within 30 days of the first meeting. At the discretion of the committee, the student not promoted to candidacy may be given a pass at a JM.A. level of competency and proceed to obtain a terminal research master's degree or be terminated from the program. Appropriate forms to document promotion to candidacy must be completed and forwarded to the Graduate School. The forms may be obtained from the Chemistry Graduate Office.

Dissertation Committee
Upon promotion the candidate must formally choose and declare a research adviser and a dissertation committee must be established initially with at least three members. An additional committee member from outside the department or university must be added before the final defense. The research advisor chairs the committee.

Original Research Proposal
An original research proposal must be written and defended by the end of the first semester of the third year. At the discretion of the research adviser, the student's original research proposal may or may not be related to the student's current or future research. The student must be informed of the research adviser's preference in advance of seeking approval for the thesis topic. The dissertation committee formally approves the proposal and its defense. The candidate should meet with the dissertation committee members (individually or as a group) to discuss the proposal topic. The original research proposal should follow the format of a major federal granting agency appropriate to the nature of the proposed research. The format of the proposal, in conjunction with the topic, should be approved in advance by the dissertation committee. The written proposal must be given to the dissertation committee members two weeks in advance of the scheduled defense. After the defense, the committee must vote three quarters in favor of the candidate (for a four person committee) or two thirds in favor (for a three person committee) for a pass. A vote of two of four members (or one of three) in favor results in a conditional pass, and the committee must set conditions to be met to pass the candidate within 30 days of the first meeting. Students not passing will normally be terminated from the Ph.D. program.

Research Data Presentation and Dissertation
By the end of the fourth year, a research data presentation must be made to dissertation committee and the committee formally advises the candidate on research milestones that need to be met before permission to "write up" the dissertation is granted. The permission to "write up" the dissertation can be given at any subsequent time. A peer-reviewed publication based upon the dissertation research is required to obtain the degree of Ph.D. Note: Extenuating circumstances will be reviewed on a cases-by-case basis. Further, students have to wait a minimum of 6 months after successful completion of the Research Data Presentation (aka Data Defense) (and the associated online data base forms) before they will be permitted to defend their dissertation. This rule can only be waived by the Department Chair with the written approval of the majority of the Thesis Committee in the case of exceptional circumstances.

Final Dissertation Defense
Each student should consult with their supervisory committee for deadlines in submitting the dissertation prior to the defense. Thesis or dissertation defense are not normally scheduled during final exam week or during the weeks between regularly scheduled sessions. The dissertation defense must be scheduled through the Chemistry Graduate Office at least two weeks in advance. The Chemistry Graduate Office will then announce the defense to the entire Chemistry Department. The candidate normally defends their dissertation in the fourth or fifth year. *NOTE: these deadlines are in addition to those imposed by the Graduate School. The Graduate School sets deadlines pertaining to thesis/dissertations each semester.*

Candidates may be offered a departmental TA position in year five given satisfactory progress in research as judged by the dissertation committee and approval of the Department Chair, TA's are not normally awarded beyond year 5. RA's are only permitted beyond year six in exceptional cases with the written approval of the department chair. It is important to note that the Graduate School will not award tuition waivers for credit hours beyond 120 for students entering with a baccalaureate degree and 90 for students entering with a master's degree.

Supervisory Committees
The M.S. and M.A. supervisory committee should consist of at least three members including the major professor, and two other chemistry faculty members, at least one of whom is outside the student's major area (analytical, biochemistry, etc.)According to University Regulations, the Ph.D. supervisory committee must consist of at least four (4) members, including the student's research director. At least two (2) of the members must be from an area related to the student's research.

COURSES
See http://www.ugs.usf.edu/sab/sabs.cfm

CLASSICS: LATIN/GREEK PROGRAM

Co-Op with University of Florida
Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Application is made through University of Florida

Minimum Total Hours: n/a
Program Level: Masters
CIP Code: 16.1200
Dept Code: WLE
Program (Major/College): CLS AS

CONTACT INFORMATION

College: Arts and Sciences
Department: World Language Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Joint Co-op program with University of Florida

Accreditation:
Contact Program for information.

ADMISSION INFORMATION

Admission through the University of Florida.

DEGREE PROGRAM REQUIREMENTS

Check with Program for information.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

COMMUNICATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	January 15
Spring:	October 15

Minimum Total Hours:	36
Program Level:	Masters
CIP Code:	23.1001
Dept Code:	SPE
Program (Major/College):	SPE AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Communication
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of Communication offers a broad and integrated approach to communication studies that embraces the traditions of the humanities, the convergence of rhetorical and communication theory, and the relations among aesthetic, humanistic, and scientific approaches to inquiry. Students are encouraged to examine the pragmatics of rhetorical and communication theory in such settings as business and industry, government, education, medicine and health care, media, the arts, and the family. The department offers course work leading to the Master of Arts degree and the Doctor of Philosophy.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Same as university requirements, plus

- two letters of recommendation;
- a writing sample,
- a statement of purpose.
- GRE Scores are required, with at least 500V
- TOEFL Scores
- Transcripts
- CV or resume

DEGREE PROGRAM REQUIREMENTS

Total minimum hours – 36

Core Requirements (3 hours)
COM 6001 (3)
This course must be taken the first time it is offered after the student is admitted to the graduate program.

Requirements

1) Establish a supervisory faculty committee consisting of a major professor and two additional members, at least one of whom is a member of the Department of Communication. The supervisory committee must be approved by the Director of Graduate Studies.

2) Select a program option, either Thesis or Non-Thesis.

   Thesis Program (36 hours) - In addition to the three (3) hours of core requirements, each student must also take COM 7325 either Qualitative Methods OR Critical Methods and complete 24 hours of elective course work, six (6) hours of which may consist of a course or courses from other departments and must have advisor approval. Each student must complete at least six (6) hours of thesis credit (SPC 6971) and submit an approved thesis.

   Non-Thesis Program (36 hours) - In addition to the three (3) hours of core requirements, 33 hours of elective course work are required, six (6) hours of which may consist of courses from other departments and must have advisor approval.

3) Prepare a Plan of Study approved by the student's supervisory committee. The Plan of Study expresses the ways in which the student will show evidence of the following:
   a) expertise in one or more of the central domains of communication study
   b) expertise in the research methodologies needed to carry out original research in the specialized area of concentration (Thesis Program students only)

Comprehensive Exam Requirements
All Non-Thesis program students must pass both written and oral comprehensive examinations. Thesis Program students do not complete comprehensive exams.

Total Thesis Hours Required
A minimum of six (6) thesis hours are required (Thesis Program students only).

Thesis Requirements
In consultation with the major professor, Thesis Program students will select a thesis topic, constitute a thesis committee, and write orally defend a thesis proposal. The thesis is an extended research project within a specific area of communication research culminating in a written academic analysis. Upon completion of the thesis, the student must pass an oral defense.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

COMMUNICATION PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 15
Fall admission only.

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 23.1001
Dept Code: SPE
Program (Major/College): SPE AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Communication

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Department of Communication offers a broad and integrated approach to communication studies that embraces the traditions of the humanities, the convergence of rhetorical and communication theory, and the relations among aesthetic, humanistic, and scientific approaches to inquiry. Students are encouraged to examine the pragmatics of rhetorical and communication theory in such settings as business and industry, government, education, medicine and health care, media, the arts, and the family. The Department offers course work leading to the Master of Arts degree and the Doctor of Philosophy.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university requirements, plus

- three letters of recommendation;
- a writing sample,
- a statement of purpose
- GRE Scores are required with at least 500V
- TOEFL Scores
- Transcripts
- CV or resume

DEGREE PROGRAM REQUIREMENTS

Core Requirements (6 hours)
COM 6001 (3) COM 7325 (3) either Qualitative Methods OR Critical Methods

In addition to the six (6) hours of core requirements, students are required to take a minimum of 39 hours of coursework beyond the M.A. degree (not counting credits for dissertation research).

1. Establish a supervisory faculty committee consisting of a major professor and at least two additional members from the Department of Communication and at least one member outside the Department of Communication. The supervisory committee must be approved by the Director of Graduate Studies..

2. Prepare a Plan of Study approved by the student's supervisory committee. The Plan of Study expresses the ways in which the student will show evidence of the following:
    - expertise in one of the central domains of communication study;
    - expertise in the research methodologies needed to carry out original research in the specialized area of concentration and;
    - 6 hours of coursework in an area of study outside the department.

3. Enroll in and successfully complete a minimum of four (4) sections (12 hours) of COM 7933 classes designated as "**Ph.D. seminars**" during coursework.

4. In addition to COM 7325, complete an additional six (6) hours of coursework to fulfill the research tool requirement. If students elect to take both Qualitative and Critical Methods, they must take an additional methods course (3 hours) subject to the approval of their major professor.

Qualifying Exam Requirement
All students must pass a written and oral qualifying examination covering the student's area of specialization and methodological competence. This examination will be prepared and evaluated by the student's supervisory committee

Total Dissertation Hours Required
A minimum of six (6) dissertation hours are required.

Dissertation Requirements
In consultation with the major professor and supervisory committee, students will select a dissertation topic and write and orally defend a dissertation proposal. Upon completion of the dissertation, the student must pass an oral defense.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CREATIVE WRITING PROGRAM

Master of Fine Arts (M.F.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 15 for fall only

Minimum Total Hours: 45
Program Level: Masters
CIP Code: 23.0501
Dept Code: ENG
Program (Major/College): CWR AS

Concentrations:
Fiction
-Poetry

CONTACT INFORMATION

College: Arts and Sciences
Department: English

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The **Master of Fine Arts in Creative Writing** is a graduate-level program offering concentrations in fiction and poetry (with the opportunity to study other genres of writing such as screenwriting and creative nonfiction). The program emphasizes the craft of writing and concentrates on the student's original work. The MFA requires 45 hours of coursework and typically will take three years for the student to complete. Our goal is to help MFA students to produce publishable theses and secure teaching or editing positions upon graduation.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Application deadline: January 15th. Students accepted into the program will begin coursework in the fall. No applications will be considered for spring or summer admission. To be considered for admission to the Master of Fine Arts degree program in Creative Writing, the following requirements must be met:

- an undergraduate degree, preferably in English, from an accredited institution, with a 3.2 average, or its equivalent
- a score in the 73rd percentile or better on the verbal reasoning section of the Graduate Record Examination general test (typically 550 or better) and at least 4 on the analytical writing section. International applicants must also take the Test of English as a Foreign Language (TOEFL) and must score at least 600
- three letters of recommendation, preferably from former English instructors, assessing the student's potential to do graduate level work
- a writing sample in one genre only: 12-20 pages of double-spaced fiction; 12-20 pages of double-spaced creative nonfiction, or 10-15 pages of single-spaced poetry
- a two-to-three page personal statement, describing the student's background, purpose for attending graduate school, and career goals

- a completed application submitted to the Graduate Admissions Office

All supplementary application materials (i.e., statement, writing sample, and letters of recommendation) should be submitted directly to the department at the following address

Graduate Director
Department of English, CPR107
University of South Florida
4204 Fowler Ave.
Tampa, Fl 33620-5550

Materials including GRE scores and transcripts must be received by the application deadline in order for students to be considered for admission. Graduates of USF do not need to order official transcripts. Applications are reviewed by an admissions committee after the deadline. Students will be notified by mail of the admissions decision with four to six weeks after the deadline.

DEGREE PROGRAM REQUIREMENTS

To complete the Master of Fine Arts in Creative Writing, students must satisfy the following requirements:

Total Minimum Hours: 45 hours
Earn 45 credit hours with an overall grade point average of 3.0 or better in the required courses. The distribution of the requirements will be

- 18 hours in writing workshops and craft seminars
- 3 hours in pedagogy
- 3 hours in bibliographic studies
- 12 hours in literature courses, and
- 9 hours in thesis studies (taken in the final year of the program).

Complete a book-length manuscript in creative nonfiction, fiction, or poetry that will meet departmental and university requirements for the thesis. The thesis shall consist of 48-64 pages of poems (single- or double-spaced), at least 100 pages of fiction (double-spaced) or at least 100 pages of creative nonfiction (double-spaced). . All students must write a three- to ten-page introduction to their thesis that explains their goals for the work.

Six courses (18 hours) chosen from:

CRW 6130 Fiction Writing 3*
CRW 6331 Poetry Writing 3*
CRW 6236 Nonfiction Writing 3*
*may be taken up to three times for a maximum of 9 credits.

CRW 6025 The Craft of Fiction 3
Required for students admitted to the fiction concentration, optional for students admitted to the poetry concentration and nonfiction tracks.

CRW 6352 The Craft of Poetry 3
Required for students admitted to the poetry concentration; optional for students admitted to the fiction concentration and nonfiction tracks.

CRW 6025 The Craft of Nonfiction 3
Required for students admitted to the nonfiction track, optional for students admitted to the fiction and poetry concentrations.

CRW 6025 Special Topics in Creative Writing 3
This new course might concentrate on screenwriting, translation, editing, creative writing pedagogy (with a community service component), or study of a particular genre or technique.

CRW 6025 Practice in Teaching Creative Writing 3

ENG 6009 Introduction to Graduate Studies 3
This course must be taken in the student's first or second semester of graduate studies.

Electives (12 hours)
Four courses in any combination of graduate-level (6000 and above) literature courses offered by the English Department. These courses are coded AML 6---, ENL 6---, and LIT 6---.
Sample courses include:

AML 6017	Studies in American Literature to 1860	3
AML 6018	Studies in American Literature 1860-1920	3
AML 6027	Studies in Modern American Literature	3
AML 6608	Studies in African-American Literature	3
ENL 6206	Studies in Old English	3
ENL 6216	Studies in Middle English	3
ENL 6226	Studies in Sixteenth-Century British Literature	3
ENL 6228	Studies in Seventeenth-Century British Literature	3
ENL 6236	Studies in Restoration and Eighteenth-British Literature	3
ENL 6246	Studies of the English Romantic Period	3
ENL 6256	Studies in Victorian Literature	3
ENL 6276	Studies in Modern British Literature	3
LIT 6096	Studies in Contemporary Literature	3
LIT 6105	Studies in Continental Literature	3
LIT 6934	Selected Topics in English Studies	3

Thesis (9 hours)
ENG 6971 Thesis: Master's (9 hours total) — taken in the student's final year of study. The student must be registered in at least 3 hours of ENG 6971 during the semester prior to graduation.

Graduate Certificate
For information on Graduate Certificates please visit http://www.outreach.usf.edu/gradcerts/

English Graduate Certificates Offered:

Creative Writing	–contact Professor Rita Ciresi at rciresi@cas.usf.edu
Comparative and Interdisciplinary Literary Studies	– contact Dr. Susan Mooney at smooney@cas.usf.edu
Teaching Composition	– contact Dr. Debra Jacobs at djacobs@cas.usf.edu

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

~~ECOLOGY AND EVOLUTION CONCENTRATION~~

~~Master of Science (M.S.) Degree in the Biology Program with a Concentration in Ecology and Evolution~~

~~DEGREE INFORMATION~~

~~**Program Admission Deadlines:**~~

~~**Fall**: January 1 for full consideration; however applications are accepted to February 15 (U.S. Applicants)~~
~~January 1 (International)~~

~~**Spring**: August 1 (U.S. Applicants)~~
~~July 1 (International)~~

~~**Minimum Total Hours:** 30~~
~~**Program Level:** Masters~~
~~**CIP Code:** 26.0101~~
~~**Dept Code:** BIO~~
~~**Program (Major/College):** BIO AS~~

~~CONTACT INFORMATION~~

~~**College:** Arts and Sciences~~
~~**Department:** Integrated Biology (IB)~~

~~**Contact Information:** www.grad.usf.edu~~
~~**Other Resources:** www.usf4you.usf.edu~~

~~PROGRAM INFORMATION~~

~~For program information refer to the Biology Program (M.S.) listing.~~

~~**Accreditation:**~~
~~Accredited by the Commission on Colleges of the Southern Association of College and Schools.~~

~~**Major Research Areas:** Ecology and Evolution~~

~~ADMISSION INFORMATION~~

~~Must meet University requirements (see Graduate Admissions) as well as requirements listed below.~~

~~***Applying to the Department of Integrative Biology***~~

~~Students interested in attending graduate school within the IB Department should contact potential major professors to communicate their research ideas and establish that the professor will consider the student's application. The IB Department requires that all students admitted into the MS program have the approval of a major professor. Applicants should contact faculty conducting research in the student's area of interest well in advance of the application deadline. For all master's students, the major professor and at least two additional faculty constitute the student's supervisory committee, the major professor and at least one of the committee members must be from the Integrative Biology Department. Supervisory committees must be established within two semesters after matriculation. Failure to do so may be cause for dismissal.~~

~~The IB Graduate Director, IB Chair, and the College Associate Dean (or designee) must approve the Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a thesis, the student shall enroll for a minimum of two (2) hours of research credit each semester (other than summer semester), until eligible to enroll in thesis credits.~~

~~Program Admission Requirements~~

- ~~Prospective students must apply to a specific Integrative Biology MS program concentration via the online application process through the USF Graduate School.~~
- ~~Must have 3.00 GPA last 60 hours of B.S. degree~~
- ~~Must have 500V, 600Q, 4.5AW on GRE~~
- ~~All international students are required to submit the TOEFL test. Non-native English speaking graduate students must score at a minimum of at least 570 on the paper based test or a minimum total score of 79 on the internet based test on the TOEFL and at least 50 on the TSE to be eligible for a teaching assistantship.~~
- ~~For acceptance into the IB Department, acceptance by a faculty member in IB is MANDATORY. IB encourages applicants to contact faculty via email to indicate an interest in the research being conducted in their laboratory. IB will make every effort to pair potential graduate students with appropriate faculty, however, it is recommended that applicants make direct contact with individual faculty. The Graduate Director can assist student in selecting a potential Major Professor.~~
- ~~It is expected that candidates for the M.S. degrees will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.~~

~~Materials necessary for a complete application are listed below:~~

~~The following items should be submitted in the envelope provided to:~~

~~Integrative Biology Graduate Office~~
~~Attention: IB Graduate Director~~
~~University of South Florida~~
~~4202 E. Fowler Ave – SCA110~~
~~Tampa, FL 33620-5150~~

1. ~~**Transcripts.** Two official transcripts in a sealed envelope from each post-secondary institution. Transcripts of work completed at USF will be secured by the Office of Admissions. Thus, applicants only to secure transcripts from other institutions for your application packet.~~
2. ~~**Letters of Recommendation.** Three letters of recommendation from faculty in sealed envelopes (on their university letterhead) with the envelope seal signed by the recommender. Students shall complete a **Student Recommendation Form** that can be found on the IB website and submit it to the recommenders.~~
3. ~~**Essay.** A brief 1-2 page essay stating your intended field of research and professional goals. Please indicate your specific research interests, in order that we may refer your application to appropriate IB faculty members. In the essay please list 2-3 IB faculty members that you would like to have review your file. *Acceptance into the IB graduate program requires the identification of specific faculty who are willing to direct your research.*~~
4. ~~**TA Application.** Applicant must complete the Application for Teaching Assistantship (TA) Form that can be found on the CMMB or IB website if they wish to be considered for a TA position. Applicants who do not return this form will not be considered for a teaching position. Applicants should attach a resume to the Application for Teaching Assistantship (TA) Form that highlights any previous teaching experience.~~
5. ~~**Official GRE Scores.** This exam must have been taken within the last five years. OFFICIAL test scores must be sent to USF directly from the testing agency. The University of South Florida's 4-Digit Institution Code is: 5828~~

DEGREE PROGRAM REQUIREMENTS

The thesis based M.S. degree requires successful completion of the following:

1. structured coursework
2. an oral qualifying exam
3. research thesis
4. defense of thesis examination

The Master's Degree Requirements should be completed in two to three years. The IB Department requires all graduate work applied toward the completion of degree requirements be completed within a five year period after matriculation. Thesis research should be publishable and students are encouraged to publish their findings. The specific requirements for the Master of Science (M.S.) and the specific concentrations are provided below.

1) Credit hour requirement: a total of 30 semester hour credits beyond the Baccalaureate Degree is required. *(including BSC 6910. BSC 6971, BSC 6935, and other structured and unstructured courses approved by IB)*

2) Successful completion of the oral **comprehensive qualifying examination**. The exam should be taken at the end of the first year, or early in the second year of study. The examination is administered and evaluated by the student's graduate committee.

3) Submission of a **thesis proposal** and approval by the major professor, graduate committee and graduate director.

4) A minimum of eight (8) thesis research credit hours (BSC 6971).

5) Seminar requirement: one presentation, excluding the thesis seminar and defense. Students should present posters or oral presentations based on their thesis research at national/regional professional meetings. The student's graduate committee must approve the presentation.

6) Submission of an acceptable thesis.

7) Presentation of the thesis seminar (BSC 6935) and successful defense of the thesis.

Degree Progress

A student must be registered for an appropriate load (in no case fewer than two [2] graduate hours) in the college for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the advisory committee will be dropped from the program. Registration in courses entitled Directed Research, Thesis must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Thesis: Master's until a Supervisory Committee has been formed and completed the oral qualifying examination. A student who enrolls in courses entitled Thesis: Master's but does not submit a thesis will not be certified for graduation.

Core Requirements

M.S. in Biology Core (3 credit hrs)

BSC 6930 Lectures in Contemporary Biology (1)
Enrollment in this course is required taken three times for credit)

Concentration Requirements (17 hrs)

Seventeen (17) credit hours of course work selected from the list below: The graduate student, major professor and Graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

BSC 5931 – Conservation Biology 3
BOT 5185 – Marine Botany 4

~~PCB 6455 – Statistical Ecology 3~~
~~PCB 6456 – Biometry I 4~~
~~PCB 6458 – Biometry II 3~~
~~BSC 5931 – Comparative Approaches in Evolution 3~~
~~PCB 6426 – Population Ecology 3~~
~~ZOO 5463 – Herpetology 4~~
~~ZOO 5456 – Ichthyology 4~~
~~BSC 6932 – Advances in Population Biology 1~~
~~BSC 6932 – Advances in Ichthyology 1~~
~~BSC 6932 – Advances in Herpetology 1~~
~~BSC 6932 – Advances in Marine Ecology 1~~
~~BSC 6932 – Scientific Writing 2~~
~~BSC 6932 – Restoration Ecology 3~~
~~BSC 6447 - Community Ecology 3~~
~~PCB 6933 – Seminar in Ecology (variable credit)~~

~~Thesis (6971) 8 hours~~

~~A minimum of eight thesis research credit hours is required.~~

~~Non-Thesis M.S.~~

~~For students enrolled in the non-thesis program, a 30-hour minimum is required at the 5000-6000 level; 26 hours must be in formally structured courses, 16 hours must be at the 6000 level; 15 structured hours must be offered by IB. A review paper of a topic approved by the supervisory committee is required as well as successful completion of the comprehensive oral qualifying exam after all course work has been completed. For non-thesis master's students, this exam will occur at the end of the program of study.~~

~~Comprehensive Oral Qualifying Examination~~

~~A comprehensive examination (thesis proposal, seminar/presentation and defense of thesis proposal) is required for all master's students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two semesters of matriculation and the exam is normally taken after the completion of all formal course work. Thesis students must take the examination at least one semester before the thesis is presented. Any graduate work counted toward the requirement for the M.S. degree must be completed within five (5) years after matriculation. Submission of a thesis proposal and approval by the major professor, graduate committee, and graduate director. All thesis-based Master's Degree students must present a seminar to the Department of Biology and must be enrolled in BSC 6935, during the final semester. The seminar should be a concise summary of the research completed to satisfy the requirements for the M.S. Degree. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee.~~

~~COURSES~~

~~See: http://www.ugs.usf.edu/sab/sabs.cfm~~

ECOLOGY AND EVOLUTION CONCENTRATION

Doctor of Philosophy (Ph.D.) Degree in the Biology Program with a Concentration in Ecology and Evolution

DEGREE INFORMATION

Program Admission Deadlines:

Fall: January 1 for full consideration; however applications are accepted to February 15 (U.S. Applicants)
January 1 (International)

Spring: August 1 (U.S. Applicants)
July 1 (International)

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 26.0101
Dept Code: BIO
Program (Major/College): BIO AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Integrated Biology (IB)

Contact Information: www.grad.usf.edu

ROGRAM INFORMATION

For program information refer to the Biology Program (Ph.D.) listing.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Ecology and Evolution

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Applying to the Department of Integrative Biology

Students interested in attending graduate school within the IB Department should contact potential major professors to communicate their research ideas and establish that the professor will consider the student's application. The IB Department requires that all students admitted into the PhD program have the approval of a major professor. Applicants should contact faculty conducting research in the student's area of interest well in advance of the application deadline. All doctoral degree seeking students must form a Graduate Supervisory Committee. The Committee consists of four faculty. The major professor and at least two committee members must be from the IB Department and the committee must be established within two semesters after matriculation. Failure to do so will be cause for dismissal.

The IB Graduate Director, IB Chair, and the College Associate Dean (or designee) must approve the Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a dissertation, the

~~student shall enroll for a minimum of two (2) hours of research credit each semester (other than summer), until eligible to enroll in dissertation credits.~~

~~Program Admission Requirements~~

- ~~Prospective students must apply to a specific Biology PhD program concentration via the online application process through the USF Graduate School.~~
- ~~Must have 3.00 GPA last 60 hours of B.S. degree.~~
- ~~Must have 500V, 600Q, 4.5 AW on GRE .~~
- ~~All international students are required to submit the TOEFL test. Non-native English speaking graduate students must score a minimum of at least 570 on the paper based test or a minimum total score of 79 on the internet base test on the TOEFL and at least 50 on the TSE to be eligible for a teaching assistantship.~~
- ~~For acceptance into the IB Department, acceptance by a faculty member in IB is MANDATORY. IB encourages applicants to contact faculty via email to indicate an interest in the research being conducted in their laboratory. IB will make every effort to pair potential graduate students with appropriate faculty, however it is recommended that applicants make direct contact with individual faculty. The Graduate Director is available to assist students in identifying a potential Major Professor.~~
- ~~It is expected that candidates for the PhD degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.~~

~~DEGREE PROGRAM REQUIREMENTS~~

~~The Ph.D. degree requires successful completion of:~~

1. ~~structured coursework~~
2. ~~qualifying exam (dissertation proposal, presentation/seminar, and defense of dissertation proposal)~~
3. ~~oral qualifying exam and Admission to Candidacy~~
4. ~~oral Defense and submission of approved Dissertation~~

~~Coursework~~

~~A total of 90 credits beyond the baccalaureate must be earned: this includes any graduate credit earned prior to admission to the doctoral program. A minimum of three years of graduate work beyond the Baccalaureate Degree is required. Twelve (12) hours of graduate work completed while a non-degree seeking student at this institution may be transferred to the doctoral program, with approval of the supervisory committee. At least one academic year of residence must be on the campus. A year of residence is enrollment in a minimum of nine (9) semester credits for two consecutive semesters. The direction and immediate supervision of graduate work for doctoral students resides with the major professor and student's graduate committee. Graduate students are not admitted unless a major professor has agreed to serve as the student's supervisor. The University imposes limitations on the time period between admission to candidacy and successful completion of degree requirements. *University policy for time limits may be viewed in the Degree Requirements Section of this catalog.*~~

~~The IB Department requires that all graduate work applied toward the completion of degree requirements be completed within a seven year period after matriculation. Doctoral students are encouraged to gain teaching experience in at least two undergraduate courses in the department. Overall degree requirements for the Doctor of Philosophy are as follows:~~

1. ~~Credit hour requirement: A total of 90 semester hour credits beyond the Baccalaureate degree is required. *(including BSC 7910, BSC 7971, BSC 7980 and other structured and unstructured courses)*~~

~~2. Submission of a doctoral proposal and approval by major professor, graduate committee, and graduate director~~

~~3. A minimum of twenty-four (24) dissertation research credit hours (BSC 7980) is required.~~

~~4. Successful completion of the dissertation proposal, presentation/seminar and preliminary doctoral examination. There is an oral exam.~~

~~5. Presentation requirement: two presentations, excluding the doctoral seminar and defense. Students are expected to present posters or oral presentations based on their dissertation research at national/regional professional meetings. The graduate committee must approve the presentation.~~

~~6. Publication requirement: one research paper must be submitted for publication to a refereed scientific journal by the date of the Doctoral Seminar and Defense. The paper may be sole or coauthored, but it must be based on the dissertation research. The student's supervisory committee must approve the paper prior to submission.~~

~~7. Submission of an acceptable dissertation~~

~~8. Presentation of the doctoral seminar (BSC 7936) and successful defense of the dissertation.~~

~~***Degree Progress***~~

~~A student must be registered for an appropriate load (in no case fewer than two [2] graduate hours) in the college for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the advisory committee will be dropped from the program. Registration in courses entitled Directed Research, or Dissertation must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Dissertation: Doctoral (BSC 7980) until a Supervisory Committee has been formed and a approved Admission to Candidacy on file with the Graduate School . A student who enrolls in courses entitled Dissertation: Doctoral but does not submit a dissertation will not be certified for graduation.~~

~~**CORE REQUIREMENTS**~~

~~PhD in Biology Core (10 credit hrs.)~~

~~BSC 6930 – Lectures in Contemporary Biology 1~~
~~Repeated four times for 4 credit hours plus 6 additional hours of course work.~~

~~**Concentration Requirements (6 hours)** A minimum of two courses selected from the list below for a minimum of 6 credit hours. The graduate student, major professor and graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.~~

~~BSC 5931 – Conservation Biology 3~~
~~BOT 5185 – Marine Botany 4~~
~~PCB 6455 – Statistical Ecology 3~~
~~PCB 6456 – Biometry I 4~~
~~PCB 6458 – Biometry II 3~~
~~BSC 5931 – Comparative Approaches in Evolution 3~~
~~PCB 6426 – Population Ecology 3~~
~~ZOO 5463 – Herpetology 4~~
~~ZOO 5456 – Ichthyology 4~~
~~BSC 6932 – Advances in Population Biology 1~~
~~BSC 6932 – Advances in Ichthyology 1~~
~~BSC 6932 – Advances in Herpetology 1~~

BSC 6932 – Advanced in Marine Ecology 1
BSC 6932 – Scientific Writing 2
BSC 6932 – Restoration Ecology 3
BSC 6447 - Community Ecology 3
PCB 6933 – Seminar in Ecology (variable credit)

Qualifying Examination
All students in the IB PhD degree concentration must complete a qualifying examination. The exam consists of 3 parts:

1. Dissertation proposal
2. Seminar/presentation of proposal
3. Defense of dissertation proposal

Admission to Candidacy
The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing an oral qualifying examination and, approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Graduate School. Following admission to candidacy, a student must enroll in BSC 7980 when engaged in research, data collection, or writing activities relevant to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than 24. Students not admitted to candidacy are not eligible to enroll in BSC 7980.

Additional Requirements
Any graduate work counted toward fulfilling the requirements for the Ph.D. degree must be completed within seven (7) years after matriculation.

Dissertation
BSC 7980 – 24 hours minimum
Submission of a doctoral proposal and approval by major professor, graduate committee, and graduate director. Successful completion of the Dissertation Defense Seminar and an oral exam administered by the Graduate Committee. Seminar requirement: two presentations, excluding the Doctoral Defense Seminar. Students should present posters or oral presentations based on their dissertation research at national/regional professional meetings. The graduate committee must approve the presentation.

Doctoral Seminar and Defense
All doctoral students must present a public seminar to the IB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the supervisory committee and submit the dissertation to the Graduate School.

Publication Requirement
One research paper must be submitted for publication to a refereed scientific journal by the date of the Doctoral Seminar and Defense. The paper may be sole or coauthored, but it must be based on the dissertation research. The graduate committee must approve the paper prior to submission.

COURSES

For an updated list of course offerings see: http://www.ugs.usf.edu/sab/sabs.cfm

~~BUSINESS~~ ECONOMICS PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	June 1
Spring:	October 15
Summer:	No admission

Minimum Total Hours: 30
Program Level: Masters
CIP Code: **45.0601**
Dept Code: ECN
Program (Major/College): ~~ECN~~ ECO AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Economics

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The M.A. in Economics prepares students for careers as professional economists in business and government. It is also excellent preparation for continued graduate study in economics.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools (SACS)

Major Research Areas:
Health economics, public economics, urban and regional economics, international trade, economic development, history of economic thought, industrial organization, advanced microeconomics, and advanced econometrics

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Must have a 3.00 or higher upper-level GPA.
- Must have a 500 or higher GMAT; or GRE score of 430 or higher verbal portion and 570 or higher quantitative portion.
- International applicants from non English-speaking countries must also have a TOEFL score of 550 or higher on the written version, a minimum score of 213 on the computer-based test or a 79 on the internet-based test.
- Must have at least a 3.0 GPA in prerequisite courses in intermediate microeconomics, intermediate macroeconomics, statistics, and calculus.

DEGREE PROGRAM REQUIREMENTS

Program Minimum hours: 30

All students are required to take courses in advanced economic theory and econometrics. Undergraduate economics majors at USF may complete the program in one year beyond the B.A. in the 5-Year B.A./M.A. Program. Students preparing for doctoral studies select from these and additional courses in economic theory, mathematics, and quantitative methods. Where appropriate students may select courses in other departments in the University.

Students must satisfy all University requirements for the M.A. degree. Departmental requirements include 30 hours of graduate credit selected with the approval of the department's graduate advisor. At least 24 hours must be in Economics not including Independent Study (ECO 6906) and Directed Research (ECO 6917). To graduate, a student must have at least an overall 3.0 GPA and at least a 3.0 GPA for all economics courses, and pass an oral examination.

Core Requirements		**12 hours**
ECO 6115	Microeconomics I	3
ECO 6206	Aggregate Economics	3
ECO 6405	Mathematical Economics I	3
ECO 6424	Econometrics I	3

Electives	18 hours
Economics	at least 12 credits
Unrestricted	at most 6 credits

Economics electives must be drawn from the following set of graduate-level coruses offered in the Department of Economics:

ECO 6120	Economic Policy Analysis	3
ECO 6305	History of Economic Thought	3
ECO 6425	Econometrics II	3
ECO 6505	Public Finance	3
ECO 6525	Public Sector Economics	3
ECO 6706	International Trade: Theory and Policy	3
ECO 7116	Microeconomics II	3
ECO 7406	Mathematical Economics II	3
ECO 7426	Econometrics III	3
~~ECO 7427~~	~~Econometrics IV~~	~~3~~
ECP 6405	Industrial Organization I	3
ECP 6408	Economics of Organization	3
ECP 6415	Issues in Regulation and Anti-Trust	3
ECP 6536	Economics of Health Care I	3
ECP 6614	Urban Economics	3
ECP 6624	Regional Economics	3
ECP 7406	Industrial Organization II	3
ECP 7537	Economics of Health Care II	3
ECS 6015	Economic Development	3

With the approval of the Graduate Director, unrestricted elective courses may be satisfied either by graduate-level courses offered by any department within the University or by certain MBA courses taught within the Department of Economics:

In addition to completing the 30 hours of coursework with overall and major GPAs of at least 3.0, a student must pass an oral examination conducted by a panel of three faculty members who have taught courses in the student's program. At least one faculty member must be drawn from those who teach the core courses. The oral examination provides a forum for the student to provide evidence that s/he has sufficient knowledge and breadth of fundamental economic concepts so as to be able to undertake rigorous economic analysis, both theoretical and empirical in nature.

Total minimum hours: **30**

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ECONOMICS PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15

Minimum Total Hours: 69
Program Level: Doctoral
CIP Code: 45.0601
Dept Code: ECN
Program (Major/College): **ECO/**AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Economics

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Doctor of Philosophy in Economics prepares students for careers as professional economists in academia, business and government.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Health Economics, Industrial Organization, International Trade/Economics Development, Public Economics, Urban and Regional Economics

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Bachelor's degree or equivalent from a regionally accredited university or international equivalent
- 3.00 GPA or better in all upper division undergraduate classes
- Graduate Admissions Test taken within the preceding 5 years with minimum scores of 500 (V) and 660 (Q on the GRE and 575 on the GMAT
- Minimum of 2 courses in calculus*
- Minimum of 1 course in probability and statistics*
- Intermediate-level microeconomics and macroeconomics*

*Applicants must earn a grade of B or better in each of these courses.

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours **69 hours**

CORE REQUIREMENTS **(27 hours)**

ECO 6405	Mathematical Economics I	3
ECO 7406	Mathematical Economics II	3
ECO 6115	Microeconomics I	3
ECO 7116	Microeconomics II	3
ECO 6206	Aggregate Economics	3
ECO 6424	Econometrics I	3
ECO 6425	Econometrics II	3
ECO 7426	Econometrics III	3
ECO 6305	History of Economic Thought	3

Fields ***(12 hours)***

Select two pairs from the groupings below:

ECP 6536	Economics of Health Care I	3
ECP 7537	Economics of Health Care II	3
ECS 6015	Economic Development	3
ECO 6706	International Trade: Theory and Policy	3
ECP 6405	Industrial Organization	3
ECP 7406	Industrial Organization II	3
ECO 6505	Public Finance	3
ECO 6525	Public Sector Economics	3
ECP 6614	Urban Economics	3
ECP 6624	Regional Economics	3

Electives **(9 hours)**

Three graduate courses - secondary field outside of economics, as approved by the advisor

Qualifying Examination

Examinations in mathematical economic/microeconomics and econometrics

Dissertation **(21 hours minimum)**

ECO 7980	Dissertation

Graduation Requirements:

- Complete 27 credit hours of required coursework with required GPA
- Complete 12 credit hours of economics field coursework with required GPA
- Complete 9 hours of secondary field coursework with the required GPA
- Pass the qualifying examinations in mathematical economic/microeconomics and econometrics
- Write and successfully defend the doctoral dissertation proposal
- Complete at least 21 credit hours of dissertation coursework
- Write and successfully defend a doctoral dissertation.

COURSES

For an updated list of course offerings see: http://www.ugs.usf.edu/sab/sabs.cfm

ENGLISH PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 1
Fall admission only

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 23.0101
Dept Code: ENG
Program (Major/College): ENG AS

Concentrations:
Literature (LIT)
Rhetoric and Composition (RAC)

CONTACT INFORMATION

College: Arts and Sciences
Department: English

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The MA in English with a concentration in Literature is a continuation of the BA with greater depth in literary knowledge and an introduction and implementation of methods, standards, and conventions of scholarship on literature. It is a generalist degree with broad-based distribution requirements, but it has the flexibility to study cutting-edge theories and newly emerging fields of interests (including cultural and comparative studies, ethnic literatures, and genre studies such as film). The option for PhD preparation will conclude with a portfolio of three 15-20 page essays and an oral defense; the option for teacher preparation will have two additional courses required, including one with pedagogical emphasis and a comprehensive examination.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: n/a

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Literature:

- BA in English
- GRE general exam: 600V, 4.0 AW
- undergraduate major GPA 3.50, 3.30 last 2 years
- three (3) letters of recommendation
- a two-to-three page personal statement describing the student's background, purpose for attending graduate school, and career goals
- a writing sample of no more than ten pages that demonstrates academic or disciplinary writing

Rhetoric and Composition:

- BA in English
- GRE general exam: 600V, 4.0AW
- undergraduate major GPA 3.5, 3.3 last 2 years
- three (3) letters of recommendation
- a two-to-three page personal statement describing the student's background, purpose for attending graduate school, and career goals.
- a writing sample of no more than ten pages that demonstrates academic or disciplinary writing

DEGREE PROGRAM REQUIREMENTS

Program of Study 33 Credit Hours

CORE REQUIREMENTS:

ENG 6009 Introduction to Graduate Studies (3) (this should be taken in the first semester of coursework)

CONCENTRATION REQUIREMENTS:

In addition to the core requirements, students must complete the requirements below for the selected concentration:

Literature Concentration - OPTION I – Ph.D. Preparation

Required (3 credits)

ENG 6018 or ENG 6019	3

Historical Distribution (12 credits)*: four courses chosen from the following:

1 Medieval or Renaissance (including 17th Century)

ENL 6206	3
ENL 6216	3
ENL 6226	3
ENL 6228	3

1 18th Century (Either British tradition or Literature of the Americas)

AML 6017
ENL 6236

1 19th Century (Either British tradition or Literature of the Americas):

AML 6017
AML 6018
ENL 6246
ENL 6256

1 20th Century (Either British traditions or Literature of the Americas):

AML 6027
ENL 6276
LIT 6096

Cultural & Critical Studies (6 credits)*: two courses in ethnic literature (including African-American, Latino/a, post-colonial), world literature, women's literature or gender studies, critical theory, film, or genre

———AML 6608
———ENG 6018
———ENG 6019
———ENG 6067
———LIT 6934
Or other courses as approved by the Graduate Director

*Of the six courses in Historical Distribution and Cultural-Critical Studies, two must be from British traditions and two from American Traditions.

Electives (6 credits)
Students taking ENC 6745 Teaching Practicum must use this as an elective if they count it toward the 33 credits in the degree. No CRW courses will be allowed in the literature track. Only one practicum will be allowed to satisfy degree requirements (including ENC 6745) in Option I. One Directed Study may be used to substitute for degree requirement with the approval of the Graduate Director.

Portfolio and Defense (3 credits)
Three directed study hours to prepare portfolio. In their fourth and final semester (excluding summer terms), MA students will submit a portfolio for review to a three-member faculty committee six weeks prior to the Graduate School deadline for thesis/dissertation submission. Upon submission, the student and chair of the committee will establish a defense date with the Graduate Program Specialist.

The portfolio will contain the following:

- An introductory first-person essay in which the student offers a self-evaluation of the contents of the portfolio and how it reflects his or her own process of revision, intellectual growth, plans for publication/dissemination, and professional development (minimum five pages, not to exceed fifteen).
- Three revised seminar papers 15-20 pages in length, including appropriate MLA or Chicago Style documentation.
    - Papers should represent three distinct literary periods, including at least one prior to 1800 and one after 1800. In addition, the contents of the portfolio should represent diversity on a national level, with at least one paper focusing on literature of the Americas and the other on literature from Britain (broadly construed) or its colonies.
    - Papers should be developed under the direction of three different faculty members from the English Department, who then will form the committee for the defense. One member of the committee will serve as the chair, who will coordinate the circulation of the portfolio, the scheduling of the defense, and the submission of evaluation forms to the graduate director within specified deadlines.

The portfolio will be reviewed and evaluated by this three-member faculty committee using the published assessment rubric.

Members of the portfolio committee will be asked to work with the student to revise the papers she/he wrote for class. The goal is to get the papers into a form that might reasonably be published.

Because this option is not a thesis, it does not have to be submitted to the Graduate School, and so it does not need to adhere to the Graduate School deadlines. Defenses should be concluded two weeks before the end of classes. The whole portfolio, along with the revised papers and the introductory essay, should be circulated two weeks prior to the defense, to give committee members an opportunity to read it through.

The MA Portfolio will be evaluated as "Pass Plus," "Pass," "Pass Minus," or "Fail."

Students earning a grade of "Fail" on the MA Portfolio will be placed on Academic Probation for the term following the exam. Probationary status can be removed by earning a passing grade ("Pass Minus" or higher) in

the following semester, summer excluded. In the event that the student does not pass the defense in the following semester (excluding summer) and probationary status is not removed, the student can be academically dismissed from the program. Graduate Assistants maintain eligibility for an assistantship

After the defense, a copy of the final, revised portfolio will be submitted according to the requirements of the graduate school and proper documentation will be added to the student's graduate program file.

Oral Defense
The committee chair convenes a meeting with the committee and student for 30 minutes; this oral examination provides the opportunity for faculty to question the student on various aspects of the portfolio, and it gives the student the opportunity to expand upon and refine ideas represented in writing. The defense also provides an opportunity for further suggestions on publication and revision. After 30 minutes, the committee will convene without the student to discuss a final assessment for the portfolio using the published rubric .

Literature Concentration OPTION II – Teacher Enrichment

Required:
ENG 6018 (3) or ENG 6019 (3)

Historical Distribution (18 credits)*

1 Medieval or Renaissance Course (including 17th C):
ENL 6206
ENL 6216
ENL 6226
ENL 6228

1 18th Century Course (Either British traditions or Literature of the Americas):
AML 6017
ENL 6236

2 19th Century Courses (Either British traditions or Literature of the Americas):
AML 6017
AML 6018
ENL 6246
ENL 6256

1 20th Century Course (Either British traditions or Literature of the Americas):
AML 6027
ENL 6276
LIT 6096

Cultural – Critical Studies (3 credits)*: one course in ethnic literature (including African-American, Latino/a, post-colonial), world literature, women's literature or gender studies, critical theory, film, or genre
———AML 6608
———ENG 6018
———ENG 6019
———ENG 6067
———LIT 6934
———Or other courses as approved by the Graduate Director

*Of the seven courses from Historical Distribution and Cultural-Critical Studies, three must be from British traditions and three from American traditions

Pedagogical Emphasis (3 credits):
Choose one from the following:
————CRW 6025 Selected Topics: Practice in Teaching Creative Writing
————ENC 6700 Composition Theory
————ENC 6745 Teaching Practicum (TAs only)
————ENG 6067 History of the English Language
————LAE 6375 Contemporary Composition Studies
————LAE 6389 Practice in Teaching Literature
————LIT 6934 Selected Topics: Practice in Teaching Professional and Technical Writing
————LIT 6934 Selected Topics: Practice in Teaching Writing Center

Elective (3 credits)
Students taking ENC 6745 Teaching Practicum must use this as an elective if they count it toward the 33 credits in the degree. No CRW courses will be allowed in the literature track. Only one practicum will be allowed to satisfy degree requirements (including ENC 6745) in Option I. One Directed Study may be used to substitute for degree requirement with the approval of the Graduate Director.

Comprehensive Exam:
During their final term of coursework, students will take a comprehensive written exam on literature from the six areas of historical distribution:

1) Medieval and Early Modern
2) Eighteenth-century British and Early Literature of the Americas
3) Nineteenth-century British and colonies
4) Nineteenth-century Literature of the Americas
5) Twentieth-century British and postcolonial
6) Twentieth-century Literature of the Americas

Students will prepare for the exam by reading the list of identified works (available at the start of the program). The list will be established and published with a clear expiration date (five years); the succeeding list will be ready at least one year prior to implementation in the exam.

Rhetoric and Composition Concentration

Core Requirements:		**12 credits**
ENC 6700 Studies in Composition Theory	3	
ENC 6720 Studies in Composition Research	3	
ENC 6421 Studies in Rhetoric and Technology	3	
ENC 6336 Studies in the History of Rhetoric	3	

Electives **15 credits**
Three (3) electives within Literature or Rhetoric and Composition from the following (9 credit hours):

ENC 6261 Advanced Technical Writing
ENC 6266 Professional and Technical Communication
ENC 6333 Contemporary Rhetorics
ENC 6422 New Media Production
ENC 6740 Theory and Development of Writing Programs
LAE 6375 Contemporary Composition Studies
ENC 6266 Professional and Technical Communication

Outside Electives (6 credit hours)
Two electives in English or outside department, related to course of study

Thesis **6 credits minimum**
ENG 6971 (3) - MA Thesis on a Rhetoric and Composition subject plus an oral defense

The M.A. thesis – 40-50 pages, typed body in 12 point Times New Roman font, double-spaced – should be based on student's specialization in Rhetoric and Composition. This manuscript can be a revision and extension of a course paper or conference paper. It must contribute to the discipline by advancing scholarly discussion sin Rhetoric and Composition studies and offering new knowledge.

Graduate Certificate Program
For information on Graduate Certificates please visit http://www.outreach.usf.edu/gradcerts/

English Graduate Certificates Offered:

Creative Writing	–contact Professor Rita Ciresi at rciresi@usf.edu
Comparative and Interdisciplinary Literary Studies	– contact Dr. Susan Mooney at smooney@usf.edu
Teaching Composition	– contact Dr. Debra Jacobs at djacobs@usf.edu

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ENGLISH PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 1
Fall admission only
Minimum Total Hours: 60 Post-Masters
Program Level: Doctoral
CIP Code: 23.0101
Dept Code: ENG
Program (Major/College): ENG AS

Concentrations:
Literature (LIT)
Rhetoric and Composition (RAC)

CONTACT INFORMATION

College: Arts and Sciences
Department: English

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The PhD program in English with a concentration in Literature seeks to produce teacher-scholars who have a sound general knowledge of British and American literature and a specialized knowledge of their fields of concentration. Each student in the program must take courses in teaching college English. These courses in teaching are practicums that include actual teaching experience.

The PhD program in English with a concentration in Rhetoric and Composition seeks to equip teacher-scholars with both a robust familiarity with critical, literary, and rhetorical theory and with the pedagogical experiences requisite for quality instruction. Students will specialize their studies toward a particular field of concentration.

The PhD in English involves a minimum of 30 hours of course work beyond the MA degree, exclusive of credits devoted to the foreign language requirement and to the doctoral dissertation after Included in these hours must be ENG 6005 Scholarly Research and Writing, ENG 6018 or ENG 6019 and one other theory-rich course, and two courses designated as Doctoral Seminars, with an extra credit of ENG 7939. After completing the necessary course work, students must take a written qualifying exam with oral defense. Students passing this exam and fulfilling the foreign language requirement are then admitted to doctoral candidacy. Students who carry deficiencies on this exam for more than two terms, or who fail this exam more than once, are dismissed from the program. Upon the completion and approval of the dissertation, students will defend the dissertation in a oral examination. After successful completion of the dissertation and defense, students are awarded the doctoral degree.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Literature/Rhetoric and Composition-

- M.A. in English from an accredited university
- GRE general exam: 650 V, 4.0 AW
- GRE subject test in Literature in English; no minimum score (for literature applicants only)

- GPA – minimum 3.70 graduate GPA
- three (3) letters of recommendation, at least two of these letters should be from professors who have taught the applicant at the graduate level
- a two-to-three page personal statement describing the student's background, purpose for attending graduate school, and career goals
- a critical paper representing the student's work (unless published, this work should be a paper that the student has written for a university graduate English course, and it should be accompanied by a note from the professor confirming the course for which the paper was written)

DEGREE PROGRAM REQUIREMENTS

Total Minimum hours: (30) hours beyond the MA degree

CORE REQUIREMENTS
ENG 6005 — Scholarly Research and Writing (3)

CONCENTRATION REQUIREMENTS:

Literature Concentration

ENG 6018—Criticism & Theory I or ENG 6019— Criticism & Theory II (may have been taken at the MA level)

One theory-rich course chosen from the following (3 credits):
ENC 6336 Studies in the History of Rhetoric
ENG 6018 Criticism & Theory I
ENG 6019 Criticism & Theory II
Or other courses designated theory-rich in the department's Graduate Bulletin or otherwise approved by the Graduate Director

ENG 7939 Doctoral Seminar (8 credits)
Must be taken twice (two credits total) in conjunction with a three-credit course; the two courses plus the two seminar credits total 8 credits

One practicum in teaching or in tutoring for the Writing Center (3 credits)
ENC 6745 Teaching Practicum
LAE 6375 Contemporary Composition Studies
LAE 6389 Practice in Teaching Literature
Or other courses as approved by the Graduate Director

Electives (10 credits)
10 hours minimum from other courses in the Department of English

Other
Demonstrated proficiency in one foreign language by one of the following means:
Place beyond Level IV in a language placement test (administered by World Language Education Department)
Earn a B or better in one of the graduate courses Reading for French, Spanish, or German
Earn a B or better in two semester courses of an intermediate foreign language (e.g., Spanish III and Spanish IV)
Earn a B or better in a fourth semester language course (e.g., Spanish IV)
Earn a B or better in a second semester Latin course

Qualifying Exam
Ph.D. qualifying exam (students may enroll in directed reading hours with exam committee members)

Dissertation
ENG 7980 Dissertation: Doctoral—Minimum of 10 dissertation hours (no maximum), plus oral defense

Rhetoric & Composition Concentration

Core Requirements (12 credits)

ENC 6700 Studies in Composition Theory
ENC 6720 Studies in Composition Research
ENC 6336 Studies in the History of Rhetoric
ENC 6421 Studies in Rhetoric and Technology

ENG 7939 Doctoral Seminar (8 credits)
Must be taken twice (two credits total) in conjunction with a three-credit course; the two courses plus the two seminar credits total 8 credits

Electives
(12-15 credits, dependent upon whether ENC 6745 was taken at the MA level)
Four or five elective courses in Rhetoric and Composition chosen from the following:
ENC 6261 Advanced Technical Writing
ENC 6266 Professional and Technical Communication
ENC 6333 Contemporary Rhetorics
ENC 6422 New Media Production
ENC 6740 Theory and Development of Writing Programs
LAE 6375 Contemporary Composition Studies
ENC 6266 Professional and Technical Communication

Other: Foreign Language Requirement
Demonstrated proficiency in one foreign language by one of the following means:

- Place beyond Level IV in a language placement test (administered by World Language Education)
- Earn a B or better in one of the graduate courses Reading for French, Spanish, or German
- Earn a B or better in two semester courses of an intermediate foreign language (e.g. Spanish III and Spanish IV)
- Earn a B or better in a fourth semester language course (e.g. Spanish IV)
- Earn a B or better in a second semester Latin course

Ph.D. Qualifying Exam
After completing 30 hours of coursework, the language requirement, and all incomplete grades, a student may take the Ph.D. examination. The standardized exam will be offered twice each academic year for all eligible students and consists of:

- **A 24-hour take-home exam** divided into four written sections (1,000 words apiece), the content of which corresponds to the four core courses: Composition Theory, Research Methods, Rhetoric and Technology, and historical Rhetorics. Questions will be picked up in the English office at 9:00 a.m. on the day of the exam. Questions will be digitally submitted to the exam chair by 9:00 a.m. on the following day for SafeAssign submission in Blackboard.
- **A manuscript suitable for publication** in a specified scholarly journal (7,000-8,500 words) to be turned in at the same time as the 24-hour exam. The topic of the manuscript should be based on the student's specialization in Rhetoric and Composition. This manuscript can be a revision of a course paper or conference paper or an extension of their project from the Scholarly Writing and Research class. It must contribute to the discipline by advancing scholarly discussions in Rhetoric and Composition studies and offering new knowledge.

Both parts of the exam carry equal weight. All exams will be assessed by a rotating committee of at least 3 Rhetoric and Composition faculty representing different areas of disciplinary expertise. Every exam question will be graded by each member of the committee, although emphasis will be placed upon readers' areas of specialization when determining the final score for each question.

Dissertation
ENG 7980 Dissertation: Doctoral—Minimum of 10 dissertation hours (no maximum), plus oral defense

Graduate Certificate Program
For information on Graduate Certificates please visit http://www.outreach.usf.edu/gradcerts/

English Graduate Certificates Offered:

Creative Writing	–contact Professor Rita Ciresi at rciresi@cas.usf.edu
Comparative and Interdisciplinary Literary Studies	– contact Dr. Susan Mooney at smooney@cas.usf.edu
Teaching Composition	– contact Dr. Debra Jacobs at djacobs@cas.usf.edu

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ENVIRONMENTAL AND ECOLOGICAL MICROBIOLOGY CONCENTRATION

Master of Science (M.S.) Degree in the Biology Program with a Concentration in Environmental and Ecological Microbiology

DEGREE INFORMATION

Program Admission Deadlines:

Fall: January 1 for full consideration; however applications are accepted to February 15 (U.S. Applicants)
January 1 (International)

Spring: August 1 (U.S. Applicants)
July 1 (International)

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 26.0101
Dept Code: BIO
Program (Major/College): BIO AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Integrated Biology (IB)

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

For program information refer to the Biology Program (M.S.) listing.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Environment and Ecological Microbiology

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Applying to the Department of Integrative Biology
Students interested in attending graduate school within the IB Department should contact potential major professors to communicate their research ideas and establish that the professor will consider the student's application. The IB Department requires that all students admitted into the MS program have the approval of a major professor. Applicants should contact faculty conducting research in the student's area of interest well in advance of the application deadline. For all master's students, the major professor and at least two additional faculty constitute the student's supervisory committee, the major professor and at least one of the committee members must be from the Integrative Biology Department. Graduate Supervisory Committees must be established within two semesters after matriculation. Failure to do so will be cause for dismissal.

The IB Graduate Director, IB Chair, and the College Associate Dean (or designee) must approve the Graduate Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a thesis, the student shall enroll for a minimum of two (2) hours of research credit each semester (other than summer semester), until eligible to enroll in thesis credits.

~~Program Admission Requirements~~

- ~~Prospective students must apply to a specific Integrative Biology MS program concentration via the online application process through the USF Graduate School.~~
- ~~Must have 3.00 GPA last 60 hours of B.S. degree~~
- ~~Must have 500V, 600Q, 4.5AW on GRE~~
- ~~All international students are required to submit the TOEFL test. Non-native English speaking graduate students must score a minimum of at least 570 on the paper based test or a minimum total score of 79 on the internet based test on the TOEFL and at least 50 on the TSE to be eligible for a teaching assistantship.~~
- ~~For acceptance into the IB Department, acceptance by a faculty member in IB is MANDATORY. IB encourages applicants to contact faculty via email to indicate an interest in the research being conducted in their laboratory. IB will make every effort to pair potential graduate students with appropriate faculty, however, it is recommended that applicants make direct contact with individual faculty. The Graduate Director can assist the student in selecting a potential Major Professor.~~
- ~~It is expected that candidates for the M.S. degrees will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.~~

~~Materials necessary for a complete application are listed below:~~

~~The following items should be submitted in the envelope provided to:~~

~~Biology Graduate Office~~
~~Attention: (Integrative Biology)~~
~~University of South Florida~~
~~4202 E. Fowler Ave – SCA110~~
~~Tampa, FL 33620-5150~~

1. ~~**Transcripts.** Two official transcripts in a sealed envelope from each post-secondary institution. Transcripts of work completed at USF will be secured by the Office of Admissions. Thus, applicants need only to secure transcripts from other institutions for your application packet.~~

2. ~~**Letters of Recommendation.** Three letters of recommendation from faculty in sealed envelopes (on their university letterhead) with the envelope seal signed by the recommender. Students shall complete a **Student Recommendation Form** that can be found on the IB website and submit it to the recommenders.~~

3. ~~**Essay** A 1-2 page essay stating your intended field of research and professional goals. Please indicate your specific research interests, in order that we may refer your application to appropriate IB faculty members. **In the** essay please list 2-3 IB faculty members that you would like to have review your file. *Acceptance into the IB graduate program requires the identification of specific faculty who are willing to direct your research.*~~

4. ~~**TA Application.** Applicant must complete the Application for Teaching Assistantship (TA) Form that can be found on the IB website if they wish to be considered for a TA position. Applicants who **do not return this form will n**ot be considered for a teaching position. Applicants should attach a resume to the Application for Tea*ching Assistantship (TA) Form that highlights any previous teaching experience.*~~

5. ~~**OFFICIAL GRE test scores.** This exam must have been taken within the last five years. **Official Scores must be sent to USF directly from the testing agency. The University of South Florida's 4-Digit Institution Code is: 5828**~~

~~DEGREE PROGRAM REQUIREMENTS~~

~~The thesis based M.S. degree requires successful completion of the following:~~

~~1. structured coursework~~
~~2. an oral qualifying exam~~
~~3. research thesis~~
~~4. defense of thesis examination~~

~~The Master's Degree Requirements should be completed in two to three years. The IB Department requires all graduate work applied toward the completion of degree requirements be completed within a five year period after matriculation. Thesis research should be publishable and students are encouraged to publish their findings.~~

~~1) Credit hour requirement: a total of 30 semester hour credits beyond the Baccalaureate Degree is required. *(including BSC 6910. BSC 6971, BSC 6935, and other structured and unstructured courses approved by CMMB or IB)*~~

~~2) Successful completion of the oral **comprehensive qualifying examination**. The exam should be taken at the end of the first year, or early in the second year of study. The examination is administered and evaluated by the student's graduate committee.~~

~~3) Submission of a **thesis proposal** and approval by the major professor, graduate committee and graduate director.~~

~~4) A minimum of eight (8) thesis research credit hours (BSC 6971).~~

~~5) Seminar requirement: one presentation, excluding the thesis seminar and defense. Students should present posters or oral presentations based on their thesis research at national/regional professional meetings. The student's graduate committee must approve the presentation.~~

~~6) Submission of an acceptable thesis.~~

~~7) Presentation of the thesis seminar (BSC 6935) and successful defense of the thesis.~~

~~Degree Progress~~
~~A student must be registered for an appropriate load (in no case fewer than two [2] graduate hours) in the college for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the advisory committee will be dropped from the program. Registration in courses entitled Directed Research, Thesis must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Thesis: Master's until a Supervisory Committee has been formed and completed the oral qualifying examination. A student who enrolls in courses entitled Thesis: Master's but does not submit a thesis will not be certified for graduation.~~

~~CORE REQUIREMENTS~~
~~M.S. in Biology Core (3credit hrs)~~
~~BSC 6930 Lectures in Contemporary Biology (1) Repeated three times for 3 credit hours~~

~~Concentration Requirements~~
~~A minimum of 17 credit hours of course work selected from the list below. The graduate student, major professor and graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee. Graduate students concentrating in the area of Environmental and Ecological Microbiology will select from the following list of courses:~~

~~MCB 5206 – Public Health and Pathogenic Microbiology 3~~
~~MCB 5655 – Applied and Environmental Microbiology 3~~
~~PCB 5235 – Principles of Immunology 3~~
~~MCB 6930 – Seminar in Applied and Ecological Microbiology 1~~
~~PCB 5525 – Molecular Genetics 3~~
~~BSC 5931 – Genomics 4~~
~~PCB 6456 – Biometry I 4~~
~~PCB 6458 – Biometry II 3~~
~~PCB 6455 – Statistical Ecology 3~~
~~BSC 6932 – Advances in Environmental Ecology 1~~

~~Thesis~~

~~BSC 6971 Thesis – 8 hrs minimum~~
~~Submission of a thesis proposal and approval by the major professor, graduate committee, and graduate director.~~

~~Non-Thesis~~

~~For students enrolled in the non-thesis program, a 30-hour minimum is required at the 5000-6000 level; 26 hours must be in formally structured courses, 16 hours must be at the 6000 level; 15 structured hours must be offered by IB. A review paper of a topic approved by the supervisory committee is required as well as successful completion of the comprehensive oral qualifying exam after all course work has been completed. For non-thesis master's students, this exam will occur at the end of the program of study.~~

~~Comprehensive Oral Qualifying Examination~~~~. A comprehensive examination (thesis proposal, seminar/presentation and defense of thesis proposal) is required for all master's students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two semesters of matriculation and the exam is normally taken after the completion of all formal course work. The exam should be taken at the end of the first year, or early in the second year of study. The examination is administered and evaluated by the student's graduate committee. Thesis students must take the examination at least one semester before the thesis is presented. Any graduate work counted toward the requirement for the M.S. degree must be completed within five (5) years after matriculation.~~

~~All thesis-based Master's Degree students must present a seminar to the Department of Biology and must be enrolled in BSC 6935, during the final semester. The seminar should be a concise summary of the research completed to satisfy the requirements for the M.S. Degree. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee.~~

~~COURSES~~

~~See: http://www.ugs.usf.edu/sab/sabs.cfm~~

~~ENVIRONMENTAL AND ECOLOGICAL MICROBIOLOGY CONCENTRATION~~

~~Doctor of Philosophy (Ph.D.) Degree in the Biology Program with a concentration in Environmental and Ecological Microbiology~~

~~DEGREE INFORMATION~~

~~**Program Admission Deadlines:**~~

~~**Fall**: January 1 for full consideration; however applications are accepted to February 15 (U.S. Applicants)~~
~~January 1 (International)~~

~~**Spring**: August 1 (U.S. Applicants)~~
~~July 1 (International)~~

~~**Minimum Total Hours:** 90~~
~~**Program Level:** Doctoral~~
~~**CIP Code:** 26.0101~~
~~**Dept Code:** BIO~~
~~**Program (Major/College):** BIO AS~~

~~CONTACT INFORMATION~~

~~**College:** Arts and Sciences~~
~~**Department:** Integrated Biology (IB)~~

~~**Contact Information:** www.grad.usf.edu~~

~~PROGRAM INFORMATION~~

~~For program information refer to the Biology Program (Ph.D.) listing.~~

~~**Accreditation:**~~
~~Accredited by the Commission on Colleges of the Southern Association of College and Schools.~~

~~**Major Research Areas:** Environment and Ecological Microbiology~~

~~ADMISSION INFORMATION~~

~~Must meet University requirements (see Graduate Admissions) as well as requirements listed below.~~

~~***Applying to the Department of Integrative Biology***~~
~~Students interested in attending graduate school within the IB Department should contact potential major professors to communicate their research ideas and establish that the professor will consider the student's application. The IB Department requires that all students admitted into the PhD program have the approval of a major professor. Applicants should contact faculty conducting research in the student's area of interest will well in advance of the application deadline. All doctoral degree seeking students must form a supervisory committee. The Committee consists of four faculty. The major professor and at least two committee members must be from the IB Department and the committee must be established within two semesters after matriculation. Failure to do so may be cause for dismissal.~~

~~The IB Graduate Director, IB Chair, and the College Associate Dean (or designee) must approve the Graduate Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a dissertation, the student shall enroll for a minimum of two (2) hours of research credit each semester (other than summer), until eligible to enroll in dissertation credits.~~

~~Program Admission Requirements~~

- ~~Prospective students must apply to a specific Biology PhD program concentration via the online application process through the USF Graduate School.~~
- ~~Must have 3.00 GPA last 60 hours of B.S. degree.~~
- ~~Must have 500V, 600Q, 4.5 AW on GRE.~~
- ~~All international students are required to submit the TOEFL test. Non-native English speaking graduate students must score a minimum of at least 570 on the paper based test or a minimum total score of 79 on the internet based test on the TOEFL and at least 50 on the TSE to be eligible for a teaching assistantship.~~
- ~~For acceptance into the IB Department, acceptance by a faculty member in IB is MANDATORY. IB encourages applicants to contact faculty via email to indicate an interest in the research being conducted in their laboratory. IB will make every effort to pair potential graduate students with appropriate faculty, however it is recommended that applicants make direct contact with individual faculty. The Graduate Director is available to assist students to identify a potential Major Professor.~~
- ~~It is expected that candidates for the PhD degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.~~

~~DEGREE PROGRAM REQUIREMENTS~~

~~The Ph.D. degree requires successful completion of:~~

1. ~~structured coursework~~
2. ~~qualifying exam (dissertation proposal, presentation/seminar and defense of dissertation proposal)~~
3. ~~oral qualifying exam and Admission to Candidacy~~
4. ~~oral Defense and submission of approved Dissertation~~

~~Coursework~~

~~A total of 90 credits beyond the baccalaureate must be earned: this includes any graduate credit earned prior to admission to the doctoral program. A minimum of three years of graduate work beyond the Baccalaureate Degree is required. Twelve (12) hours of graduate work completed while a non-degree seeking student at this institution may be transferred to the doctoral program, with approval of the supervisory committee. At least one academic year of residence must be on the campus. A year of residence is enrollment in a minimum of nine (9) semester credits for two consecutive semesters. The direction and immediate supervision of graduate work for doctoral students resides with the major professor and student's graduate committee. Graduate students are not admitted unless a major professor has agreed to serve as the student's supervisor. The University imposes limitations on the time period between admission to candidacy and successful completion of degree requirements. *University policy for time limits may be viewed in the Degree Requirements Section of this catalog.*~~

~~The IB Department requires that all graduate work applied toward the completion of degree requirements be completed within a seven year period after matriculation. Doctoral students are encouraged to gain teaching experience in at least two undergraduate courses in the department. Overall degree requirements for the Doctor of Philosophy are as follows:~~

1. ~~Credit hour requirement: A total of 90 semester hour credits beyond the Baccalaureate degree is required. *(including BSC 7910, BSC 7971, BSC 7980 and other structured and unstructured courses)*~~
2. ~~A minimum of twenty-four (24) dissertation research credit hours (BSC 7980) is required.~~

~~3. Submission of a doctoral proposal and approval by major professor, graduate committee, and graduate director~~

~~4. Successful completion of the dissertation proposal, presentation/seminar and preliminary doctoral examination. There is an oral exam.~~

~~5. Presentation requirement: two presentations, excluding the doctoral seminar and defense. Students are expected to present posters or oral presentations based on their dissertation research at national/regional professional meetings. The graduate committee must approve the presentation.~~

~~6. Publication requirement: one research paper must be submitted for publication to a refereed scientific journal by the date of the Doctoral Seminar and Defense. The paper may be sole or coauthored, but it must be based on the dissertation research. The student's supervisory committee must approve the paper prior to submission.~~

~~7. Submission of an acceptable dissertation~~

~~8. Presentation of the doctoral seminar (BSC 7936) and successful defense of the dissertation.~~

~~***Degree Progress***~~

~~A student must be registered for an appropriate load (in no case fewer than two [2] graduate hours) in the college for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the advisory committee will be dropped from the program. Registration in courses entitled Directed Research, or Dissertation must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Dissertation: Doctoral (BSC 7980) until a Supervisory Committee has been formed and a approved Admission to Candidacy on file with the Graduate School . A student who enrolls in courses entitled Dissertation: Doctoral but does not submit a dissertation will not be certified for graduation.~~

~~**CORE REQUIREMENTS**~~

~~PhD in Biology Core (10 credit hrs.)~~
~~BSC 6930 Lectures in Contemporary Biology (1)~~
~~*Repeated four times for 4 credit hours plus 6 additional hours of coursework.*~~

~~**Concentration Requirements**~~

~~A minimum of two courses selected from the list below for a minimum of 6 credit hours. The graduate student, major professor and graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee. Graduate students concentrating in the area of Environmental and Ecological Microbiology will select from the following list of courses:~~

~~MCB 5206 – Public Health and Pathogenic Microbiology 3~~
~~MCB 5655 – Applied and Environmental Microbiology 3~~
~~PCB 5235 – Principles of Immunology 3~~
~~MCB 6930 – Seminar in Applied and Ecological Microbiology 1~~
~~PCB 5525 – Molecular Genetics 3~~
~~BSC 5931 – Genomics 4~~
~~PCB 6456 – Biometry I 4~~
~~PCB 6458 – Biometry II 3~~
~~PCB 6455 – Statistical Ecology 3~~
~~BSC 6932 – Advances in Environmental Ecology 1~~

~~Qualifying Exam~~

~~All students in the IB PhD degree concentration must complete a qualifying examination. The exam consists of 3 parts:~~

1. ~~Dissertation proposal~~
2. ~~Seminar/presentation of proposal~~
3. ~~Defense of dissertation proposal~~

~~Admission to Candidacy~~

~~The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing an oral qualifying examination and, approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Graduate School. Following admission to candidacy, a student must enroll in BSC 7980 when engaged in research, data collection, or writing activities relevant to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than 24. Students not admitted to candidacy are not eligible to enroll in BSC 7980.~~

~~Additional Requirements~~

~~Any graduate work counted toward fulfilling the requirements for the Ph.D. degree must be completed within seven (7) years after matriculation.~~

~~Doctoral Seminar and Defense.~~

~~All doctoral students must present a public seminar to the IB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the supervisory committee and submit the dissertation to the Graduate School.~~

~~COURSES~~

~~See: http://www.ugs.usf.edu/sab/sabs.cfm~~

ENVIRONMENTAL SCIENCE AND POLICY PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15
Spring: October 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 3.0104
Dept Code: ESP
Program (Major/College): ESP AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Geography

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Contact the program for information.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

- Applicant must hold B.S. or B.A. degree in a relevant subject area
- Applicant must submit transcripts of undergraduate degree and results of GRE taken at most five (5) years before the application.
- Applicant must submit a statement of interests, documenting capabilities, achievements, goals and intended area of academic and research concentration in the Department if admitted.
- Applicant must submit at least three (3) letters of recommendation from persons familiar with the applicant's achievements, capabilities, and potential, including two persons qualified to judge the applicant's academic performance.
- Program may have additional requirements; check before applying. It is strongly recommended that the applicant contact the Department's Graduate Program Director for guidance in applying to the M.S. Degree Program.

Program Admission Requirements

Same as university requirements. Students must submit

- GRE scores
- have a GPA of at least 3.0 in his/her last 60 undergraduate hours
- if non-native English speaker, TOEFL of at least 600.

DEGREE PROGRAM REQUIREMENTS

The curriculum consists of 36 credits divided into three categories:

1) Core Requirements 15 credits
2) Elective Requirements 12 credits
3) Research Requirements 9 credits

Core Requirements (15 credits)

Applications/Tools: Students select a course whose primary objective is mastery of research tools or methods with applications to research in the environmental field, subject to the approval of the Graduate Director and the student's Supervisory Committee. Courses that meet these criteria include:

a) **GIS 5049** – Geographic Information Systems for Non-Majors
b) **GIS 6100 –** Advance Geographic Information Systems
c) **STA 5166 –** Computational Statistics I (or other statistics course approved by the Graduate Director such as PCB 6456 or GEO 6166)
d) **PCB 6456 –** Biometry
e) **GEO 6166 –** Multivariate Statistical Analysis

Advanced topics in Environmental Science - Students must complete both of the following courses:

a) GEO 6116 – Perspective in Environmental Thought
b) EVR 6922 – ES&P Capstone Seminar (taken after a minimum of 24 program hours have been completed)

Students must take two courses from the following list. At least one class must be an EVR course.

EVR 6934	Seminar in Environmental Science (varying special topics)
EVR 6937	Seminar in Environmental Science and Policy (varying special topics)
EVR 6216	Advances in Water Quality Policy and Management
EVR 6101	Geomorphology for Environmental Scientists
EVR 6408	Wildlife Ecology
GEO 6347	Natural Hazards
GEO 6288	Hydrologic Systems
GEO 6286	Advances in Water Resources
GEO 6263	Soils Seminar
GEO 6217	Karst Geomorphology Seminar
GEO 6215	Geomorphology Seminar
GEO 6209C	Physical Geography Seminar
GEO 6345	Technological Hazards and Environmental Justice
PHC 6712	Air Pollution Research.

Elective Requirements (12 credits)

Students must complete 12 credit hours of elective courses within an area of concentration selected according to their interests and career goals. Students should select appropriate advanced coursework within their chosen area of concentration, in close consultation with their major professor and Supervisory Committee, to develop programs of study that fit their scholarly and career interests, and for thesis option students, the needs of their research. Students completing an approved (by the Graduate Director) graduate certificate as part of their programs can count 12 hours from the certificate program towards the M.S. degree elective requirements. Students completing the Environmental Policy and Management Certificate can apply GEO 6116 and EVR 6922 (or approved course substitutions) toward the M.S. degree core requirements. Additional certificate courses that meet M.S. degree core requirements will be applied to the core and remaining courses will be counted as electives in the MS program. Each student's elective program of study is subject to the approval of the Graduate Director. Areas in which students may decide to complete their electives, where courses are supported by the ES&P Program and/or affiliated Departments, include:

1. **Ecology**. 12 credits primarily from courses offered within the ES&P Program in the Department of Geography, and courses in the Department of Biology, to be selected in consultation with the student's major professor and Supervisory Committee. This area features a particular concentration in landscape

ecology, wildlife ecology and management, conservation biology, ecological modeling, and field methods, including the use of GIS, GPS, and remote sensing technologies.

2. **Environmental Policy and Management**. 15 credits (only 12 hours can be applied towards the MS program) guided by the guidelines for the Graduate Certificate in Environmental Policy and Management. Credits will be applied to the core and elective requirements for the M.S. program as described above.

3. **Geology.** 12 credits primarily from courses offered within the ES&P Program in the Department of Geography and courses in the Department of Geology to be selected in consultation with the student's Supervisory Committee. This area features a particular concentration in karst geology and public policy planning in karstic environments: and a concentration in paleogeology.

4. **Hydrogeology.** 15 credits (only 12 hours can be applied towards the MS program) as required by the Graduate Certificate in Hydrogeology, as specified by the Department of Geology.

5. **Hazards Assessment and Mitigation**. 12 credits primarily from courses offered within the ES&P Program in the Department of Geography, and courses in the Department of Geology, and Civil Engineering, to be selected in consultation with the student's major professor and Supervisory Committee.

6. **Urban Environment**. 12 credit hours primarily in the Department of Geography, to be selected in consultation with the student's major professor and Supervisory Committee.

7. **Water Quality and Policy.** 12 credits drawn from relevant courses offered within the ES&P Program in the Department of Geography, and courses in the Department of Civil and Environmental Engineering, and Government and International Affairs, to be selected in consultation with the student's major professor and Supervisory Committee. This area features a particular concentration in urban runoff water quality, watershed-based water quality assessment, and watershed planning and management for water quality protection.

8. **Other**. 12 credits in other areas of concentration are also considered. The student may select an area of concentration that is strongly supported by graduate studies at USF and by one or more faculty members in the Department of Geography. The student should be able to describe how the courses form a coherent area of concentration relevant to his or her scholarly interests, research objectives, and/or career goals, and prepare a brief statement to that effect for the approval of the Graduate Director. The student should then select courses in consultation with his/her major professor and Supervisory Committee.

Research Requirements (9 credits)

The M.S. in ES&P is a research-oriented degree. Thesis track students complete a Thesis which constitutes an original scholarly contribution and is conducted under the direction of a Major Professor and a 3- member Faculty Supervisory Committee (of which the Major Professor serves as chair). Students should form their Supervisory Committee before completion of 18 credits of coursework, typically near the end of their first full year in the Program. Students complete a Thesis Proposal subject to approval of the Supervisory Committee typically early in the second year of studies. Students defend their Thesis in an oral presentation, and submit a written document for the approval of the Supervisory Committee, which is then submitted to the University as a requirement for earning the degree.

The research requirements include the following coursework, for a minimum total of 9 credit hours:

1. Directed Research (Thesis Preparation, EVR (6920): Students complete at least 6 credit hours of thesis research under the direct supervision of their major professor, typically during the second year of studies. After completion of all Core and Elective requirements, students remain enrolled in at least 2 credit hours per semester of EVR 6920 until the completion and submittal of the Thesis which completes the requirements for the degree. Throughout this period students must work in close cooperation with their major professor and Supervisory Committee, and provide the Committee a summary of progress at least once per semester.

2. Research Methods/Design Preparation: All students selecting the Thesis option will complete a research methods/design course (GEO 6970 – Research Methods in Geography). Other courses may be substituted for this requirement with the permission of the student's advisor and the Graduate Program Director.

3. Research Colloquium (EVR 6930), 1 credit hour

Thesis/Non-Thesis Options

There are two options to complete the M.S. Degree:

A. **Thesis Option.** The thesis option is a 36-hour program designed for students who wish to complete original research as part of their graduate studies. The thesis option is a viable option for all students. Those intending to continue graduate work to the Ph.D. level are strongly encouraged to complete a thesis.

B. **Non-Thesis Option.** Students complete a minimum of 36 hours, with 24 hours of electives, keeping in mind that a minimum degree requirement is 16 hours at the 6000 level. Students must pass a comprehensive written examination that is administered during the semester they plan to graduate.

Comprehensive Examination

Thesis Option:

1. The student is required to present his/her thesis research at a public thesis defense.

2. As part of the thesis defense, an oral comprehensive exam is also administered. The defense and oral exam is scheduled and organized by the student's major professor, in consultation with the student's Supervisory Committee and the Graduate Director. As part of this process, a Presentations Form (available in the department office) needs to be completed one week prior to the defense date.

3. The exam can be completed only during the spring and fall Semesters.

4. A copy of the thesis must be made available in the department office one week prior to the defense for public review.

Non-Thesis Option:

1. The examining committee will be comprised of the student's Supervisory Committee.

2. Non-thesis students are required to complete a six-hour long, written, closed book, comprehensive exam, which typically consists of series of questions that are prepared by the examination committee. Students are not allowed any outside materials during the exam, which is to be hand-written on paper supplied by the examination committee.

3. The exam can be completed during the spring or fall semesters, but not during the summer.

4. Students are encouraged to complete the exam during the last semester of their coursework. The exam must be completed no later than one semester after the student completes the coursework for the degree. You must be registered for two credits in that semester in the semester that the exam is completed.

5. All non-thesis examinations will be scheduled for the same day each semester (i.e. all students will sit for the exam at the same time), the date being set by the Graduate Director. Students must coordinate with their major professors when they will take the exam.

6. Questions are solicited and organized by the student's major professor in consultation with the student's examination committee.

7. The answers to the questions are evaluated by the student's Supervisory Committee within two weeks of the exam.

8. If the answer to any question is determined to be incorrect or incomplete, the student may be required to retake that portion of the exam in the form of an oral exam that is only open to the committee. Students are encouraged to complete the oral exam in the same semester they completed the first written exam.

9. If the student fails all portions of the exam, they will have one opportunity to retake the entire exam. This second exam must be completed no later than the semester after the student receives notification that a second exam is necessary.

10. If it is determined that the student did not successfully complete his/her comprehensive exam after their second attempt, he/she will be dismissed from the program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

FRENCH PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 34
Program Level: Masters
CIP Code: 16.0901
Dept Code: WLE
Program (Major/College): FRE AS

CONTACT INFORMATION

College: Arts and Sciences
Department: World Languages
Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Contact Program for Information.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university plus

- 2-3 letters of recommendation,
- a writing sample in French, and
- an oral interview in French (can be done by phone).
- The GRE is not required.

DEGREE PROGRAM REQUIREMENTS

Core requirements

1. Proficiency in a second foreign language.
2. Satisfactory completion of a written comprehensive examination on French language, literature, and civilization. This exam is based on a reading list.
3. FOW 6805 Bibliography for 1 credit hour
4. Course work following one of the plans listed below:

Plan A - 37 hours of graduate courses in French.
Students take the required FOW 6805 and select the remaining 12 French graduate courses as approved by the Graduate Program Director

Comprehensive Exam
5 exams from a selected reading list the semester the student completes coursework

Thesis
This is a non-thesis option.

Plan B - 37 hours
Students take the required FOW 6805 and select the remaining graduate courses as approved by the Graduate Program Director. Nine to 10 of those courses will be in French and two to three will be graduate courses in another area/department (for a total of 12 courses), as approved by the French Graduate Program Director.

Comprehensive Exam
5 exams from a selected reading list the semester the student completes coursework, with 4 exams in French and one in the selected other area/department

Thesis
This is a non-thesis option.

Plan C - 28 semester hours in French plus a thesis (6 credit hours)
Students take the required FOW 6805 and select the remaining 9 French graduate courses as approved by the Graduate Program Director.

Comprehensive Exam
5 exams from a selected reading list the semester the student completes coursework

Thesis
Thesis, including 6 credit hours of FRE 6971 Thesis

Plan D - 28 semester hours plus a thesis (6 credit hours)
Students take the required FOW 6805 and select the remaining graduate courses as approved by the Graduate Program Director. Six to seven of those courses will be in French and two to three will be graduate courses in another area/department (for a total of 9 courses), as approved by the Graduate Program Director.

Comprehensive Exam
5 exams from a selected reading list the semester the student completes coursework, with 4 exams in French and one in the selected other area/department

Thesis
Thesis, including 6 credit hours of FRE 6971 Thesis

OTHER INFORMATION

Special Programs Overseas
The Department of World Languages, in cooperation with the International Affairs Center, offers several study programs overseas. These include study in several locations in France and Canada. For complete details, contact the program advisors or the International Affairs Center.

COURSES
See http://www.ugs.usf.edu/sab/sabs.cfm

GEOGRAPHY PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15 (with or without GA application)

Minimum Total Hours: 30 Thesis Option
36 Non-Thesis Option
Program Level: Masters
CIP Code: 45.0701
Dept Code: GPY
Program (Major/College): GPY AS

Concentrations:
~~Geographic Information Systems and Spatial Analysis (TGP)~~
~~Natural/Technological Hazards and Environmental Justice (EVG)~~
Economic, Social and Planning Issues in the Urban Environment (USG)
Natural/Technological Hazards and Environmental Justice (EVG)
Geographic Information Systems and Spatial Analysis (TGP)

Also offered as:
Graduate Certificate: Geographic Information System Certificate Program - go to http://www.outreach.usf.edu/gradcerts/certinfo.asp?certname=GISS for information.

CONTACT INFORMATION

College: Arts and Sciences
Department: Geography

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Geography is the study of the human-environment relationship either in a global or more regional context. Physical geographers focus on physical/human interrelationships and the interconnections among the various physical environmental elements. Human geographers focus on human interactions with their own environmental constructions, both built and social. Physical and human geographers both rely on specific techniques, including cartography, geographic information systems, and field work, in their research. The Department of Geography provides the opportunity to pursue the study of geography with particular emphasis on applied work geared to help solve real world problems.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Economics, Social, & Planning in the Urban Environment
Karst Science, Meteorology, Climatology and Climate Change
Physical Geography
Natural/Technological Hazards and Health
Landscape Ecology

Water Resources and Policy
Geographic Information Science

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university plus

- At least two letters of recommendation,
- transcripts,
- a letter of intent, and
- a graduate assistant application if the applicant is applying for a GA position.
- The GRE is required.
- BA with 3.0 GPA

DEGREE PROGRAM REQUIREMENTS

The Department of Geography offers a Masters of Arts (M.A.) in Geography with a thesis and non-thesis option. Students must complete a minimum of 30 semester hours of graduate level course work for the thesis option and 36 hours for the non-thesis option.

Core Requirements (9 hours)

Required Core Courses (9 Hours)

All students must take the following core courses:

GEO 6058	Geographic Literature and History	3
GEO 6970	Geographic Research Design	3

Based upon the student's area of interest, he/she must take one course from the following list of Quantitative or Qualitative course offerings:

Quantitative:

GEO 6166	Multivariate Statistical Analysis	3

Another course can be substituted for GEO 6166 with the permission of the Graduate Program Director. Possible substitutions, based upon the student's area of interest can include, but is not limited to the following:

Geology:	GLY 5865 Statistical Models in Geology	3
Biology:	PCB 6455 Statistical Ecology	3
Statistics:	STA 5166 Computational Statistics I	3
Sociology:	SYA 6405 Sociological Statistics	3

Qualitative:

American Studies:	AMS 6156 Theories and Methods of Cultural Studies	3
Anthropology:	ANT 6766 Research Methods Applied Anthropology	3
Communication:	COM 6400 Communication Theory	3
Philosophy:	PHI 6305 Seminar in Epistemology	3
Sociology:	SYA 6315 Qualitative Research Methods	3
Women's Studies:	WST 6001 Feminist Issues, Research, Methods	3

Regional:

Students are strongly encouraged to complete at least one of the following regional courses:

GEA 6195	Seminar in Advanced Regional Geography	3
GEA 6215	Seminar in North American Geography	3
GEA 6252	Seminar in the Geography of the American South	3
GEA 6406	Seminar in Latin American and Caribbean Geography	3
GEA 6504	Seminar in European Geography	3
GEA 6745	Asian Geography Seminar	3

Concentration Requirements

Students specialize in one of the three concentrations (A, B, and C) that the department offers. Students must select a minimum of three courses (9 credits) from the selected concentration.

Thesis option students take six credit hours of electives at a level of 5000 or higher, keeping in mind that a minimum of ten hours is required at the 6000-level. At least one of the electives must be taken outside of the student's concentration excluding GEO 6908, 6918, and 6944. Electives may also be selected from courses offered outside of the Department, with the consent of the student's advisor and the graduate program director. A maximum of six approved hours taken outside the department can be used in the student's degree program. The remaining 6 credit hours are taken as Thesis (GEO 6971). Students in the thesis option can only apply three credit hours of Internship (GEO 6944), and three credit hours of Directed Research (GEO 6918) or Independent Research (GEO 6908) toward the degree.. Upon completion of a minimum of 15 hours students are required to defend a thesis proposal. Students must also complete a thesis defense during the semester they plan to graduate, and they must be enrolled in a minimum of 2 semester hours of thesis credit during the semester in which they submit their thesis to the Graduate School.

Non-thesis option students complete a total of 36 hours, with 27 hours of electives completed at a level of 5000 or higher, keeping in mind that a minimum degree requirement is 16 hours at the 6000 level. Students can also take up to nine hours outside the department with the consent of their advisor and the graduate program director, to apply toward their degree program. Students can apply three credit hours of Internship (GEO 6944), three credit hours of Directed Research (GEO 6918) and/or Independent Research (GEO 6908) toward their degree program. Students must pass a comprehensive written examination that is administered during the semester in which they plan to graduate.

Students select one of the following concentrations:

Concentration A: Economic, Social and Planning Issues in the Urban Environment

GEO 6116	Perspective of Environmental Thought	3
GEO 6345	Technological Hazards and Environmental Justice	3
GEO 6347	Natural Hazards	3
GEO 6428	Seminar in Human Geography	3
GEO 6475	Political Geography Seminar	3
GEO 6605?	Contemporary Urban Issues	3
GEO 6545	Economic Geography Seminar	3
GEO 6566	Site Feasibility Analysis	3
GEO 6704	Transportation Geography	3
GEO 7606?	Seminar in Urban Environments	3

Concentration B: Natural/Technological Hazards and Environmental Justice

GEO 6116	Perspective of Environmental Thought	3
GEO 6178	Environmental Applications of GIS	3
GEO 6209C	Physical Geography Seminar	3
GEO 6215	Geomorphology Seminar	3
GEO 6217	Karst Geomorphology	3
GEO 6263	Soils Seminar	3
GEO 6286	Water Resources	3
GEO 6288	Hydrological Systems	3
GEO 6345	Technological Hazards and Environmental Justice	3
GEO 6347	Natural Hazards	3
MET 6140 / GEO 6255	Weather, Climate and Society	3

Concentration C: Geographic Information Systems and Spatial Analysis

GEO 5075	Global Positioning Systems	3
GEO 6115	Field Techniques	3
GEO 6119	Geographical Techniques and Methodology	3
GIS 6038C	Remote Sensing	3

GIS 6039	Remote Sensing Seminar	3
GIS 6100	Geographic Information System	3
GIS 6307	GIS Seminar	3
GEO 6166	Multivariate Statistical Analysis	3
GIS 6355	Water Resources Applications of GIS	3
GIS 6306	Environmental Applications of GIS	3
GIS 6112	Spatial Database Development	3
GIS 6103	Programming for GIS	3

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

GEOGRAPHY AND ENVIRONMENTAL SCIENCE AND POLICY PROGRAM

Doctor of Philosophy (Ph.D.)

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15

Minimum Total Hours: 60
Program Level: Doctoral
CIP Code: 45.0799
Dept Code: GEP
Program (Major/College): GEP AS

CONTACT INFORMATION

College: Arts and Sciences
Departments: Geography

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Ph.D. degree in Geography and Environmental Science and Policy is an interdisciplinary program, the curriculum of which is designed to take advantage of the strengths of multiple University departments in critical areas of geography and the environment. Emphasis is placed on providing theoretical rigor and methodological skills enabling students to make significant and original research and policy contributions in an integrated interdisciplinary environment. In addition, the degree has a very strong applied component reflecting the Departments' strong emphases in working on solutions to real-world geographical and environmental problems.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Economics, Social, and Planning Issues in the Urban Environment
Karst Science and Climate Change
Natural/Technological Hazards and Health
Landscape Ecology
Water Resources and Policy

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below. Admission standards follow those of the M.S. programs in the constituting Departments.

Program Admission Requirements

- Undergraduate degree in relevant field, with preparation in both science and policy
- Graduate Record Exam is required – minimum of 500V 500Q
- GPA at least 3.20 in upper division undergraduate and graduate credits
- If non-native English speaker, TOEFL of at least 600
- Ability to conduct research in a field of current interest to departmental faculty

A minimum cumulative GPA of 3.20 at the undergraduate level or Masters' Degree from an accredited institution of higher learning. Applicants whose first language is not English must also submit a score of at least 600 on the Tests of English as a Foreign Language (TOEFL). See Department guidelines for application materials expected and other expected qualifications for admittance.

DEGREE PROGRAM REQUIREMENTS

The curriculum consists of 60 semester hours past the master's degree, or 90 hours past the bachelor's degree, and allows distinct concentration either in Environmental Science and Policy or in Geography. The curriculum consists of the following requirements:

1. Core Requirements	9 credits
2. Area of Emphasis Electives	9 credits
3. Other Electives and Dissertation	42 credits

Core Requirements
Students must complete all the following courses

1. Seminar in Natural Environments	3 credits
2. Seminar in Urban Environments	3 credits
3. Doctoral Dissertation Preparation	3 credits

Area of Emphasis Elective Courses
Upon entering the Program, students select an area of emphasis from among the five Major Research Areas listed above. Students complete nine (9) credits of coursework within the area of emphasis as designated by the Graduate Director or by the student's major professor and Faculty Supervisory Committee. The coursework should be selected in a way that supports the student's intended dissertation research. A wide variety of advanced graduate courses are available at the University in each of the five areas of emphasis.

Other Electives and Dissertation Credits
Students complete 42 credit hours in the form of elective coursework, directed reading, independent study, or dissertation hours. The student's major professor and Faculty Supervisory Committee will advise students on the selection of the proper mix of coursework and other study to support the agreed upon dissertation research. It is likely that students will include coursework from a variety of departments to support the elective requirements, and students may choose to complete a Graduate Certificate in a particular field, from another department, as part of their studies. Students entering the PhD program who have not completed a Masters Degree in either Geography or Environmental Science and Policy should expect to complete coursework equivalent to the requirements of one of those Masters programs.

Ph.D. Candidacy and Dissertation
A student will be admitted to candidacy following successful completion of comprehensive qualifying exams and the successful oral defense of a dissertation proposal. To complete the degree will require the full completion and oral defense of a comprehensive Ph.D. dissertation. See Program guidelines for detailed procedures on dissertation research, faculty supervision, structure of examinations and defenses, and completion of the dissertation. A minimum of 18 hours of Doctoral Dissertation Research (EVR 7980/GEO 7980) are required.

See Program guidelines for additional information.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

GEOLOGY PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall: February 15
Spring: October 15*

Fall admission only
*Spring admission available only for students entering the Hydrogeology Internship field of study

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 40.0601
Dept Code: GLY
Program (Major/College): GLY AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Geology

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

*Deadline for students seeking assistantship/fellowship support is one month earlier. Foreign student applicants should provide their materials as early as is feasible to permit time to meet immigration and visa requirements if admitted.

PROGRAM INFORMATION

Geology incorporates the fundamentals of biology, chemistry, mathematics, and physics to study the earth and the processes that affect our planet.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: n/a

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university admission requirements plus

- 3 letters of recommendation,
- personal statement,
- listing of previous coursework,
- transcripts,
- GRE required, but no minimum specified.

DEGREE PROGRAM REQUIREMENTS

The Department of Geology requires a candidate for the thesis-track M.S. Degree to complete at least 30 graduate credit hours. These hours are subdivided into 24 hours of structured coursework, of which at least ten (10) must be at the 6000 level, and at least six (6) hours in thesis research (GLY 6971). The curriculum for a Geology graduate student varies depending on the area of research interest. Specific course work for the degree is determined via consultation between the student, his/her primary advisor and his/her student advisory committee. Other pertinent information regarding graduate study is contained in the Department's Graduate Student Handbook, which is available upon request.

All degree candidates are required to maintain satisfactory academic progress at all times. Satisfactory academic progress in this program is defined as progress in course and thesis work. Evidence of academic progress includes timely completion of departmental requirements such as selecting a primary advisor, forming a student advisory committee, completion of any prerequisites or deficiencies, timely progress toward completion of the thesis, maintaining a satisfactory GPA, defending a thesis proposal, and making a public presentation. A schedule for meeting these requirements is contained in the Department's Graduate Student Handbook.

Hydrogeology Internship
M.S. Option –
This program requires 30 hours of structured coursework, and a 3-credit internship project. A list of approved courses is available from the Department. Criteria for selecting appropriate internship projects are contained in the Geology Graduate handbook. Internship projects, which are supervised by Professional Geologists (PGs), must receive prior approval by the Internship Coordinator. The curriculum requires a comprehensive exit exam that is based on coursework and the internship project. Before the exit exam, the student must submit an Internship Project Report approved by the supervising PG. The hydrogeology internship committee determines the format of the exam. Normally, it is an oral examination following the student's presentation of the results of the internship project to the hydrogeology internship committee.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

GEOLOGY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15*
Summer:	February 15

Minimum Total Hours:	60
Program Level:	Doctoral
CIP Code:	40.0601
Dept Code:	GLY
Program (Major/College):	GLY AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Geology
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

*Deadline for students seeking assistantship/fellowship support is one month earlier. Foreign student applicants should provide their materials as early as is feasible to permit time to meet immigration and visa requirements if admitted.

PROGRAM INFORMATION

Geology incorporates the fundamentals of biology, chemistry, mathematics, and physics to study the earth and the processes that affect our planet.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: n/a

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university admission requirements plus

- 3 letters of recommendation,
- personal statement,
- listing of previous coursework,
- transcripts,
- GRE is required, but no minimum specified.

DEGREE PROGRAM REQUIREMENTS

The Ph.D. program in Geology requires a minimum of 15 semester hours of graduate (6000 level) structured course work after the Master's or equivalent. Course requirements beyond this are at the discretion of the student's committee. All doctoral students must maintain good standing in the Graduate School (overall GPA =3.0) and maintain satisfactory academic progress toward the degree. Any student who receives a C in a structured course will be placed on academic probation. This probation can be terminated by achieving grades of B or higher in the subsequent semester of full-time enrollment. If a second grade of C is received, the student is terminated from the doctoral program. Only courses in which the student receives at least a B may be counted toward the 15-hour, structured-course requirement. There is also a requirement that Ph.D. students have at least two semesters of full-time residence. While meeting the residency requirements, candidates must be full-time students in good academic standing.

General examinations and presentations of thesis proposals should be completed no later than the end of the second year in the doctoral program. The examining and dissertation committees are the same and will be comprised of no less than five members, at least three of which must be USF faculty, and at least one member from outside the department.

Admission to candidacy will be based on the results of a general examination administered by the student's committee. The format of the exam will be determined by the committee at least one week prior to the onset of the examination. Normally, it will consist of a written section or sections, followed by an oral examination chaired by the student's research advisor. After admission to candidacy, all doctoral students will make at least one formal presentation of their research prior to graduation. Any appropriate venue is acceptable, e.g., Dept. colloquium, oral or poster sessions at a scientific meeting of at least regional scope.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

GOVERNMENT PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15 Fall admissions only

Minimum Total Hours:	57 (post-masters)
Program Level:	Doctoral
CIP Code:	45.0901
Dept Code:	GIA
Program (Major/College):	GOV AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Government and International Affairs
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Students apply for admission directly into the Ph.D. program. Those who are interested in first earning a Masters in Political Science or a Masters in Public Administration need to apply to those programs separately.

Students must submit

- a completed application,
- 2 official transcripts from their undergraduate or graduate institutions,
- official GRE Scores,
- 3 letters of recommendation (from academic sources or from those able to judge the applicant's academic abilities), and
- a 500 word personal statement expressing reasons for pursuing a Ph.D. in Political Science at the University of South Florida.
- Writing sample

At a minimum, students must have either a 3.3 or 1100 combined verbal and quantitative GRE score to be admitted. A Masters degree in Political Science, Public Administration, International Studies, or a related field will count favorably towards admission, but it is not a requirement for admission.

DEGREE PROGRAM REQUIREMENTS

The 57 credit hour post-M.A. program is as follows:

Interdisciplinary Professional Seminar 3

Disciplinary Core Requirements (9 hours required)

INR 5012 Globalization	3
PAD 6041 Ethics in Public Service	3
POT 6007 Theories of Governance	3

Tracks

Track 1: Public Affairs

Core Electives within Discipline (9 hours required)

INR 6107 Comparative Foreign Policy	3
INR 6XXX International Law & Organizations	3
PAD 6XXX Budgeting and International Finance	3
PAD 5044 Environment of Public Administration	3
PAD 6060 Public Administration Theory	3
POS 6045 Seminar in American National Government	3
POS 6157 Seminar in Urban Government and Politics	3

Track 2: Sustainable Political Communities

Core Electives within Discipline (9 hours required)

CPO 5934 Area Studies in Comparative Politics (areas vary)	3
CPO 6036 Politics in Developing Areas	3
CPO 6XXX Comparative Environmental Politics	3
INR 6XXX Peace and Conflict Studies	3

Core Electives in Linked Programs (12 hours required, in at least two different disciplines)

Anthropology

ANG 6315 International Health and Applied Sociology	3
ANG 7936 Applied Anthropology and Human Problems	3
ANG 5937 Environmental Anthropology	3
ANG 6448 Regional Problems in Urban Anthropology	3

Geography and Environmental Science

GEO 5605 Contemporary Urban Issues	3
GEO 6408 Geography and Globalization: Remapping the World	3
GEO 6345 Technological Hazards and Environmental Justice	3
GEO 6119 Perspectives of Environmental Thought	3
EVR 6937 Seminar in Environmental Policy	3

History

HIS 6939 Colonialism and Culture	3
HIS 6939 U.S./Latin American Relations	3
HIS 6XXX Florida Environmental History	3
HIS 6XXX Environmental History	3
HIS 6XXX Immigration and Ethnicity in America	3
HIS 6XXX Rural Culture of the American South	3
HIS 6XXX Gender and Sexuality in US History	3

Sociology

SYD 6605 Community Analysis	3
SYD 6605 City and Community	3
SYD 6706 Race and Ethnicity	3

[Note: additional courses from various disciplines will be added as they are developed and implemented]

Capstone Interdisciplinary Seminar (Required)	3
Disciplinary Dissertation Research Proposal Preparation	6
Dissertation	18
Total Credit Hours (beyond the M.A.)	57

Other Requirements

In addition to the course work hours described in Section IV-A, students must also complete the following to earn a Ph.D.

Comprehensive Exam

All students must pass two written comprehensive examinations. The first exam tests students in the general areas of political science and international studies, and the second exam test students on their chosen track. Both exams must be taken on the same day. A rotating committee of faculty members composes and grades those exams. The comprehensive examinations for the Ph.D. program are separate from the comprehensive examinations for the MA in Political Science program. Students may not substitute comprehensive examinations taken to fulfill a Masters degree for their Ph.D. comprehensive exams.

Foreign Language

All students must demonstrate competency in at least one foreign language. Students must pass the competency exam administrated by the World Language Education Department. Additionally, students, whose research focuses on a particular area of the world, must be proficient in language(s) native to that region.

Dissertation Proposal

Students must present their dissertation proposal in written and oral form to their dissertation committee. Dissertation committees must contain four members from the Department of Government & International Affairs, one of whom is the student's major dissertation advisor. Students must also select a professor from outside the department. After passing this oral defense, students then research and write their dissertation. Students must present their dissertation at an oral defense, and their committees determine whether the students passed. Finally, students must submit written copies of their dissertations with the signatures of their committee members. All dissertations must conform to University of South Florida format rules.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

HISTORY PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 15
Fall admission only

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 54.0101
Dept Code: HTY
Program (Major/College): HTY AS

Concentrations:
American History (AHY)
Ancient History (AHS)
European History (EHS)
Latin American History (LAH)
Medieval History (MHS)

CONTACT INFORMATION

College: Arts and Sciences
Department: History

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of History offers the M.A. degree. Members of the graduate faculty in History have earned recognition as teachers, scholars, and contributors to the community. The Department offers both a Master of Arts degree organized around the following fields:

Field 1: American History to 1877
Field 2: American History since 1877
Field 3: Ancient History
Field 4: Medieval History
Field 5: Early Modern Worlds
Field 6: Modern Europe since 1789
Field 7: Latin America

Across these fields, students can request, in consultation with their Major Professor, concentrations organized thematically or geographically. .

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university plus

- **GPA** of at least 3.0
- **GRE** Scores of at least 500 Verbal, 500 Quantitative, and 4.5 in writing. Only current scores within the last 5 years) will be accepted.
- **Letters of Recommendation:** Two letters of recommendation on behalf of the applicant are required. These letters should come from academic sources familiar with the quality of the applicant's college-level work and indicate his/her graduate program potential. We require letters of Recommendation to be submitted in hard copy signed, and on official letterhead. Electronically submitted letters of recommendation (i.e. email) will not be accepted.
- **Statement of Purpose:** A two-page statement is required that delineates historical and intellectual areas of interest, proposed fields of study, educational and professional goals, the faculty the applicant is potentially interested in working with, and why the applicant sees him/herself as a good fit with our program.
- **A Writing Sample:** A sample of written work which indicates the applicant's ability to write effectively and preferably, to conduct historical research and analysis must be submitted. The sample should be approximately 15 pages in length. Appropriate examples include a term paper, research paper, or thesis chapter.
- No application materials (e.g. letters, writing samples, statements of purposes) will be accepted electronically. The Letters of Recommendation, Statement of Purpose, and writing sample should be sent directly to

  Graduate Program Director
  University of South Florida
  Department of History
  4202 E. Fowler Ave., SOC 107
  Tampa, FL 3620-8100

A B.A. in history is preferred. The Department will consider applicants without a recent background in undergraduate history, but they may be required to complete Theory of History (HIS 4104) as well as several upper division and/or graduate level courses in relevant fields with a grade of "B" or higher. These should be chosen in consultation with the Graduate Program Director or Major Professor.

DEGREE PROGRAM REQUIREMENTS

In addition to the general requirements of the University, a candidate is required to complete a total of 36 hours in the following distribution:

Total Minimum Hours:	36

Core Requirements

Core Courses	
HIS 6112 Analysis of Historical Knowledge	4

Major Field (16 hours)

HIS 6939 Seminar in	4
HIS 6925 Colloquium in	4
HIS 6908 Directed Research	1-19

Minor Field (8 hours)

HIS 6939 Seminar in History	4
HIS 6925 Colloquium in History	4
HIS 6908 Directed Research	1-19

Of the 36 hours required for the Master of Arts, at least 20 must be in formal, regularly scheduled course work. A minimum of 16 must be at the 6000 level. Subject to the satisfaction of above requirements, courses at the 5000 level are acceptable as part of a planned degree program. In special circumstances, major advisors may approve up to six (6) hours at the 4000 level with the understanding that additional and superior work will be required of the graduate student. Students may take a maximum of 8 hours in Directed Research and/or Independent Study and a maximum of 8 hours in "Colloquia" (HIS 6925).

After beginning course work, M.A. students select an advisor in their anticipated major field of study. Students arrange their programs and schedules of appropriate courses with their Major Professor. . Additionally, the student in consultation with the advisor asks two other members (normally one from the major and one from the minor fields) to serve on a supervisory committee. The student is required to have completed successfully at least 4 credits of course work with each member of his/her committee. Students with two unresolved "Incomplete" grades (of any credit total) will not be permitted to register for additional history courses until at least one "Incomplete" grade is resolved.

Thesis (HIS 6971) (8 hours)

Non-Thesis (8 hours)
8 hours of 6000 level regularly scheduled history courses.

Comprehensive Examinations:
A six-hour written comprehensive examination will be in fields and consist of answering two questions in a major field and one in a minor field. In addition, at the discretion of the committee, an oral examination may be administered. The examination questions and student answers will form part of the student's Department file. A student must have no "incomplete" grades and be enrolled for a minimum of two (2) hours during the term the comprehensive examination is taken.

Transferring classes from other Institutions or from USF Tampa
With approval, graduate courses taken at other institutions (including USF St. Petersburg and other separately accredited USF Institutions) or taken at USF Tampa may be transferred in or provide for a waiver of degree requirements. For the History Program at USF Tampa a student may transfer up to 9 credits of graduate level coursework from a non-completed degree from another institution (including separately accredited USF Institutions), or 12 credits from enrollment at USF Tampa (for instance as a non-degree seeking student). In all cases a grade of "B" or better is required. To view the entire baseline University Policy on what may be transferred or waived, refer to the Transfer of Credit Policy in the Graduate Catalog online at www.grad.usf.edu/catalog

Language Requirements:
A reading proficiency in one foreign language most applicable to a student's field of research (as determined by the Major Professor) must be demonstrated by all students in the M.A. program. The language requirement will be fulfilled in one of two ways:

1) A two-hour examination administrated by the Department. The student will be expected to translate satisfactorily a 500 word passage, with the assistance of a dictionary.
2) With the approval of the major professor, the student may take two semesters of an intermediate level foreign language. In order to fulfill the foreign language requirement, the student must receive a "B" or above in each semester's course. Those students who have met these requirements as an undergraduate may have the language requirement waived by petitioning the Graduate Committee.

Students with a major field in American History and with a thesis topic that does not require use of a foreign language may substitute quantitative methods for the language requirements. The quantitative methods option will be fulfilled by successful completion with a grade of at least "B" in one of the following courses:

ANG 5486	Quantitative Methods in Anthropology	3
EDF 6407	Statistical Analysis in Educational Research	4
POS 6736	Political Research Methods	3
MAT 5932	Selected Topics	3

Graduation and Master's Thesis:

- A satisfactory performance in the core course, two fields, and the completion of a comprehensive examination are required of all M.A. students for graduation.
- In order to graduate, a student must submit an "Application for Degree" to the CAS Graduate/Undergraduate Office by the deadline noted in the Academic Calendar for the term during which graduation is anticipated.
- Students selecting the thesis option must follow the final submission process in the Graduate School to be considered for graduation. For information refer to the Graduate School website www.grad.usf.edu
- Students may not participate in commencement unless all requirements have been satisfactorily completed.
- All requirements for master's degrees must be completed within five (5) calendar years from the student's date of admission for graduate study.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

HISTORY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 15
Fall admission only

Minimum Total Hours: 58 (post-masters)
Program Level: Doctoral
CIP Code: 54.0101
Dept Code: HTY
Program (Major/College): HTY AS

CONTACT INFORMATION

College: Arts and Sciences
Department: History
Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Our Ph.D. program features an innovative model of doctoral education designed to insure broad interdisciplinary connection with related disciplines. Areas of specialization cover a number of fields, including Colonial through Modern US; the Ancient, Medieval, and Early Modern Worlds; Modern Europe; and Latin America.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
The minimum requirements for consideration for admission to the Ph.D. program in history include:

- **Master's Degree and Grade Point Average:** Applicants must have completed an M.A. in History or a related field (as determined by the admissions committee) with a G.P.A. in graduate level coursework of at least 3.5 as demonstrated by official transcripts.
- **GRE**. Applicants will have a minimum score of at least 600 Verbal and 500 Quantitative. Only current scores (within the last 5 years) will be accepted. .
- **Letters of Recommendation:** Three Letters of Recommendation on behalf of the applicant are required. These letters should come from academic sources familiar with the quality of the applicant's scholarly work and indicate his/her doctoral program potential. We accept only signed, hard copies, on official letterhead. No electronic letters of recommendation will be accepted.
- **Statement of Purpose:** A statement is required that delineates historical and intellectual areas of interest, proposed fields of study, educational and professional goals, faculty the applicant is potentially interested in working with, and why the applicant sees him/herself as a good fit with our program.
- **Sample of Writing**: A sample of written work which indicates the applicant's ability to conduct primary source based research and to write effectively must be submitted. The sample may include a publication, seminar paper, or a thesis chapter
- **Language:** Applicants will provide evidence of proficiency in the foreign language(s) of their primary field of study.
- **Further Information**: may be requested by the Department as necessary, possibly including a finalist interview. .

The Letters of Recommendation, Statement of Purpose, and Writing Sample should be sent directly to:

Graduate Program Director
Department of History
University of South Florida
4202 E. Fowler Ave., SOC 107
Tampa, FL 33620-8100

Electronic submissions of application materials (including letters of recommendation) will not be accepted.

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours: 58

Plan of Study
In addition to the general requirements of the University as explained in the USF Graduate Catalog, a candidate is required to complete a total of 58 credit hours in the following distribution:

Core Requirements
Interdisciplinary Professional Seminar 3 hours
This course is as an Introduction to the interdisciplinary nature of this unique Ph.D. program, and will offer new students to the History program the opportunity to engage with their colleagues in Political Science and Sociology. This *Pro-Seminar* is organized around one common theme and focuses on the methodologies and theories of these related disciplines so that students gain a working knowledge of the complementary aspects of these fields

HIS 6112 Analysis of Historical Knowledge 4 hours
Analysis of Historical Knowledge examines both the theories behind and the practical effects of varieties of methodological approaches to historical research. Students who have taken this course as part of a USF History M.A. will not be required to repeat it.

HIS 7xxx Seminar in Comparative Studies 4 hours
Seminar in Comparative Studies introduces doctoral candidates to the breadth of historical scholarship on social concepts such as globalization, imperialism, identity, urbanization, etc. These seminars will guide students through historical scholarship on various times and places, all organized and united around the same central concept, to demonstrate the different perspectives achieved by comparative study.

Major Field Studies 20 hours
Students will complete approximately five courses within the History department devoted to the study of their primary region and period of interest.

Interdisciplinary Electives 6-8 hours
Students will complete two courses chosen from the graduate course offerings in the Department of Sociology and/or the Department of Government and International Affairs

Government and International Affairs

INR 6036	Seminar in International Political Economy	3
CPO 6036	Politics of Developing Areas	3
INR 5012	Globalization	3
PAD 6041	Ethics and Public Service	3
CPO 6xxx	Comparative Environmental Politics	

Anthropology

ANG 6197	Public Archaeology	
ANG 6447	Selected Topics in Urban Anthropology: Anthropology and Development	3
ANG 6469	Selected Topics in Medical Anthropology: Foundations of Medical Anthropology	3
ANG 6465	Regional Problems in Medical Anthropology	3
ANG 6315	Applied Anthropology and International Health	
ANG 7709	Applied Anthropology and Human Problems	
ANG 5937	Seminar in Anthropology: Environmental Anthropology	
ANG 6448	Regional Problems in Urban Anthropology	3

Sociology

SYA 7475	Community Analysis	
SYO 7420	Comparative Sociology of Health Care Systems	
SYD 7237	Immigrants to America: Community Impacts	
SYP 7111	Communities and Identity	3
SYG 7209	City and Community	
SYA 7930	Globalization and Cities	
SYD 7505	Seminar in Urban Research	
SYO 7435	Sociology of Disability in Urban Society	3
SYD 6225	Seminar in the Sociology of Education and Inequalities	
SYA 6008	Social Problems, Identities, and Communities	3
SYP 6425	Sociology of Consumer Culture	3
SYP 6425	Sociology of Consumer Culture: Social Movements in a Global Society	
SYD 6706	Global Perspectives on Race and Ethnicity	3

Capstone Seminar 3-4 hours

This course will act as the final participatory coursework of the Ph.D. candidates before they proceed to the dissertation writing stage.

Language Requirement for Ph.D. Students

Students must demonstrate proficiency in their primary language of research by the end of the first year of study. In fields where more than one language is required, students must complete their language exams before they can take the comprehensive exam. Language requirements must be fulfilled before students can progress to the dissertation stage. Written examinations to test a student's language proficiency will be administered through the USF Dept. of World Languages in conjunction with the student's Major Advisor. The precise format of the exam and the level of language competency needed to pass will be determined in each case by the student's advisor.

Field	Language (s) Required
Ancient	Classical Greek, Classical Latin, French, and German
Asia	Primary Asian language of research plus one additional language
Byzantine	Byzantine Greek, Latin, French, and German
Early Modern Europe	Primary European language of research plus one additional European language (Latin may be required in some cases)
Europe	Primary European language of research plus on additional European languages
Latin America	Spanish and Portuguese
Medieval Europe	Medieval Latin, plus two additional European languages
Middle East	Primary Middle Eastern language of research plus one additional language
United States	Foreign language most pertinent to research agenda

Comprehensive Exam

- After admission to the Ph.D. program, the student must complete 40 hours (minimum) of coursework before taking written and oral comprehensive examinations in the applicable major and minor fields.
- If a student has satisfactorily completed the "Analysis" requirement at the MA level that is before admission to candidacy the student is eligible to take the comprehensive examination after a minimum of 36 hours of coursework.
- These exams will be conducted by the student's Supervisory Committee. The oral exams shall be taken within one week after the written exams have been completed. Exams may be retaken once if necessary.

Dissertation Proposal

Students must complete an oral dissertation defense with the members of the dissertation committee. Dissertation committees must be composed of a minimum of four faculty members, one of whom may be drawn from an academic institution other than USF. Faculty from fields other than History may serve on dissertation committees upon approval of the student's faculty advisor.

Dissertation Writing Hours **18 hours**

These hours are intended to give students the opportunity to work closely with their dissertation committee and focus on research, writing, and revision.

Transferring classes from other Institutions or from USF Tampa

With approval, graduate courses taken at other institutions (including USF St. Petersburg and other separately accredited USF Institutions) or taken at USF Tampa may be transferred in or provide for a waiver of degree requirements. For the History Program at USF Tampa a student may transfer up to 9 credits of graduate level coursework from a non-completed degree from another institution (including separately accredited USF Institutions), or 12 credits from enrollment at USF Tampa (for instance as a non-degree seeking student). In all cases a grade of "B" or better is required. To view the entire baseline University Policy on what may be transferred or waived, refer to the Transfer of Credit Policy in the Graduate Catalog online at www.grad.usf.edu/catalog

Timeframe

All requirements must be completed within the university-mandated time frame after admission to the Ph.D. program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

LATIN AMERICAN, CARIBBEAN, AND LATINO STUDIES PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	36
Program Level:	Masters
CIP Code:	5.0107
Dept Code:	GIA
Program (Major/College):	LAS AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Institute for the Study of Latin America and the Caribbean (ISLAC)
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The mission of ISLAC is to promote the study of Latin America and the Caribbean, to further USF's strategic plan for internationalization. ISLAC is an academic unit devoted to interdisciplinary research and teaching focused on economic, social, political and cultural formations in Latin America and the Caribbean and among the Hispanic/Latino populations in North America, framing these issues in the broader context of human security in the Americas. ISLAC holds mini research awards for Affiliate Faculty. This is a way to encourage and support research, conference participation and course development in all fields related to Latin American, Caribbean and Latino Studies.

The Institute fosters greater knowledge of Latin America and the Caribbean and Latino issues, through partnerships with community organizations and USF departments to sponsor lectures and cultural events that are open to the public throughout the year. ISLAC faculty and staff are engaged with USF administration to strengthening communities' ties and to advance the internationalization of USF programs, research, curricula, faculty and students.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Faculty Interests Include:
ISLAC 63 affiliate faculty members are drawn from a number of social science, humanities, arts, and human service fields, including, but not limited to History, Spanish-American and Caribbean Languages and Literature, Humanities, Anthropology, Political Science, Sociology, Economics, Business, Geography, Public Administration, Fine Arts, Public Health, Education, African Diaspora, Women's Studies and Mental Health.

Research Areas:
Cuba, Caribbean, Southern Cone, Gulf Coast, Puerto Rico, Bolivia, Mexico, Ecuador, Peru, Guatemala, Nicaragua, Brazil, Costa Rica, Honduras, Meso and Central America.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as University in addition to: must have

- 3.00 GPA
- three letters of recommendation
- statement of purpose and
- resume
- GRE not required, but suggested for full financial consideration

DEGREE PROGRAM REQUIREMENTS

The Curriculum consists of 36 credits divided into three categories:

Core requirements	9 credits (6 seminar, 3 methodology)
Major Field requirements	12 credits
Minor Field requirements	6 credits
Additional Elective	3 credits
Thesis or Electives	6 credits

Core Requirements

Students must take two interdisciplinary core seminars and a methods course upon entering the program. The core seminars, directed by a faculty member from one of the participating departments, will familiarize students with the literature, existing knowledge, and research approaches of the various fields of area studies and invited to acquaint students with faculty and their research. The purposes of the seminars are:

- to provide an interdisciplinary graduate experience
- to foster a community of scholars and learners focused on Latin American, Caribbean, and Latino experiences
- to encourage the integration of learners into the larger Latin communities of Tampa Bay, West Florida, and the hemisphere.

Students will also take a three (3) hour methodology course that acquaints them with particular research relevant to their discipline and when possible, Latin America and/or the Caribbean. This includes special approaches to finding documentation from Latin America and the Caribbean; newly-available search tools available on the internet; and an overview of how disciplines utilize different research materials.

Major and Minor Fields

With the concurrence of the ISLAC advisor, students will elect major and minor fields during their first semester. These fields will draw heavily on participating departments (e.g. Anthropology, History, Government and International Affairs, Art History). At that time the student will constitute a supervisory committee, made up of two professors from the major field and one from the minor field. The committee members will counsel the student and serve as members of the exam or thesis committees.

A large number of courses are available to fulfill the major and minor field requirements. These are listed separately and change somewhat from year to year. Departments who frequently work with ISLAC are Anthropology, Government and International Affairs, Sociology, Mass Communication, Geography, Social Work, Women Studies, Global Health, Philosophy, Economics, History, .World Languages, Humanities and American Studies, Art History and Africana Studies. Students may also request to have courses from other departments count toward major or minor fields.

Electives

Students can take one elective from outside the major and minor fields, in order to complement their core studies. These might be technical courses, study abroad courses internships, math and science courses, methodology, or another unrelated field. In all cases, students must justify their elective hours and receive approval from their committees.

In addition, students opting for the non-thesis track must take one more course in each of their major and minor fields (2 courses total). Students considering teaching in community colleges are encouraged to take more classes in their major field.

Graduation Requirements

At the conclusion of their coursework, students who opted for thesis must gain approval of the thesis by the committee. All candidates for the degree must also demonstrate language proficiency either by examination or by completing a 3000-level course in Spanish or Portuguese with a B or better. Finally, all non-thesis candidates must pass a six (6) hour comprehensive written exam of three questions, which will be composed and graded by the committee. Students must also meet all College and University Graduation Requirements.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm or http://shell.cas.usf.edu/islac/

LIBERAL ARTS PROGRAM

Master of Liberal Arts (M.L.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 24.0101
Dept Code: HUM
Program (Major/College): MLA AS

Concentrations:
Africana Studies (AFT)
Film Studies (FLM)
~~Florida Studies (Offered in St. Petersburg) (FST)~~
Humanities (HTS)
Liberal Studies (LSS) *closed for admission*
Social and Political Thought (SPT)~~———————~~

CONTACT INFORMATION

College: Arts and Sciences
Departments: Africana Studies
Humanities and Cultural Studies

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Master of Liberal Arts offers students an opportunity to study from an interdisciplinary perspective the ideas and works that have shaped world culture. Five program concentrations are available: Africana Studies (AFT), Film Studies (FLM), Humanities (HTS), Liberal Studies (LSS) *closed for admission,* Social and Political Thought (SPT).

~~the Liberal Studies Sequence, though broadly interdisciplinary, focuses on a concept, movement or idea. The Humanities Sequence requires a concentration in the Dept of Humanities and American Studies. The Social and Political Thought Sequence requires a program of study approved by a faculty committee. The Africana studies Sequence requires a concentration in Africana Studies. It is an interdisciplinary program that focuses on the study of African American, African, and African Diasporan culture and society. The Florida Studies Sequence allows students to build a program based on a broad array of Florida-based classes drawing on many programs, including History, English, Marine Science, Political Science, Journalism and Media Studies, Art, and Anthropology. All programs require a minimum of 27 credits of course work and a 6 credit thesis.~~

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Upper division undergraduate GPA of 3.00
- ~~a GRE required with least 500 V and 4.5 AW~~
- Applicants are required to take the GRE as part of the application process and matter of record.

- Contact individual concentration advisors for possible additional requirements (e.g., transcripts, recommendations, preferred GRE Scores, writing samples, etc.)

DEGREE PROGRAM REQUIREMENTS

Program Minimum Hours **33**

Students select from the following Concentrations:

Africana Studies Concentration – Total minimum required hours (33)

Courses – 30 hours from the approved course list.

Option I~~:~~

~~Twenty-one hours must be in Africana Studies courses, which include~~

Concentration courses	12 hours
AFA 6805 – African Historiography	3
AFA 6207 – African American Historiography	3
AFA 6120 – Social Theory and Social Thought	3
AFA 6355 – African American Community Research	3

Electives	18 hours
Africana Studies elective credits ~~and~~	9
Approved outside electives;	9

Thesis 3 hours

AFA 6971- Thesis

Comprehensive Exam

Satisfactory completion of written comprehensive examination and thesis.

Option II~~:~~

~~Fifteen hours must be in Africana Studies courses, which include~~

Concentration courses	12 hours
AFA 6805 – African Historiography	3
AFA 6207 – African American Historiography	3
AFA 6120 – Social Theory and Social Thought	3
AFA 6355 – African American Community Research	3

Other Required Courses 15 hours

Outside courses leading to a Graduate Certificate in an applied skills area

Electives 3 hours

Africana Studies elective courses

Internship 3 hours

AFA 6945 Internship

Comprehensive Exam

Satisfactory completion of a written comprehensive examination.

Film Studies Concentration – Total minimum required hours (33)

Concentration Courses	27 hours ~~of coursework, including~~:
HUM 6801 Theories and Methods of Cultural Studies	3
HUM ~~6821~~6586 Film Theory	3
HUM 6815 or AMS 6815 Research Seminar	3
Additional coursework selected in consultation with the Graduate Director.	18

Thesis 6 hours

AMS 6971 or HUM 6971 - Thesis

After the completion of coursework, each student will select a thesis topic; constitute a thesis committee; and write and orally defend a thesis proposal. Each student will then write and orally defend a 40-80 page thesis. During the proposal and thesis writing stage, students are required to enroll for 6 thesis hours.

Comprehensive Exam

The submission and oral defense of the thesis proposal equates to the comprehensive exam.

Humanities Concentration – Total minimum required hours: (33)

Concentration Courses –	27 hours
27 hours in courses from the approved list.	
Humanities Courses	18 hours
HUM 6815 Research in Humanities (3)	
HUM 6801 Theories and Methods of Cultural Studies (3)	
Other courses from the approved list	
Outside electives- up to 9 hours	9 hours

At least 15 hours must be at the 6000 level; 6 hours may be at the 4000 level.

Lanaguage Translation Exam

After the completion of coursework, each student will take a language translation examine in the language of their choosing;

Thesis 6 hours

HUM 6971

After the completion of coursework, each student will select a thesis topic; constitute a thesis committee; and write and orally defend a thesis proposal. Each student will then write and orally defend a 40 to 80 page thesis. During the proposal and thesis writing stage, students are required to enroll for 6 thesis credits.

Liberal Studies Concentration – Total minimum required hours: (33)

Closed for Admission

Concentration Courses 27 hours

Courses chosen in consultation with the Graduate Director, including

- HUM 6801 Theories and Methods of Cultural Studies (3) or
- AMS 6156 Theories and Methods in Cultural Studies (3), or
- an equivalent methodology course pertinent to the student's field of study

And

- HUM 6815 Research in Humanities (3) or
- AMS 6938 Seminar in American Studies (3) or
- an equivalent applied research seminar pertinent to the student's field of study.

At least nine but no more than 12 hours must be taken in a single department. Six hours may be at the 4000 level.

Thesis 6 hours

After the completion of coursework, each student will select a thesis topic; constitute a thesis committee; and write and orally defend a thesis proposal. Each student will then write and orally defend a 40 to 80 page thesis. During the proposal and thesis writing stage, students are required to enroll for 6 thesis hours.

Social and Political Thought Concentration—Total minimum required hours: (33)

Concentration Courses 27 hours

Courses approved by a committee selected by the student from the program faculty.

~~Eight hours may be at the 4000 level.~~

Thesis 6 hours

After the completion of coursework, each student will select a thesis topic; constitute a thesis committee; and write and orally defend a thesis proposal. Each student will then write and orally defend a 40 to 80 page thesis. During the proposal and thesis writing stage, students are required to enroll for 6 thesis hours.

~~**Florida Studies Concentration (USF St. Petersburg) - Total minimum required hours: (33)**~~

~~Course - 27 hours of courses from an approved list.~~

~~At least 20 hours must be at the 6000 level; four hours may be at the 4000 level. After the completion of coursework, each student will select a thesis topic; constitute a thesis committee; and write and orally defend a thesis proposal. Each student will then write and orally defend a 40 to 80 page thesis. During the proposal and thesis writing stage, students are required to enroll for 6 thesis hours.~~

All Concentrations require the student to work closely with an assigned major professor. Prior to registration for the second semester in the Liberal Studies and Africana Studies sequences, the student must submit in writing to the Master of Liberal Arts Program Director (Liberal Studies Concentration) or the Director of Africana Studies (Africana Studies Concentration) a signed statement of intent to focus on a particular concept, idea, theme, or area of emphasis. This statement must be approved, dated, and signed by the Director and made a part of the student's record. Subsequent courses selected for study are expected to center around this stated focus. Variation from the focus must be approved by the Director. Courses may be taken from any of the programs listed below:

American Studies
Anthropology
Art
Communication
Criminal Justice
English
Geography
History
Humanities
Interdisciplinary Social Science
Language
Mass Communications
Philosophy
Political Science
Religious Studies
Sociology

Specific course listings for each Concentration may be obtained from the MLA office, CPR 363.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

LIBRARY AND INFORMATION SCIENCE PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	June 1
Spring:	October 15
Summer:	March 1

Minimum Total Hours:	39
Program Level:	Masters
CIP Code:	25.0101
Dept Code:	LIS
Program (Major/College):	LIS AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	School of ~~Library and~~ Information ~~Science~~
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The mission of the School of ~~Library and~~ Information ~~Science~~ is to educate students for careers and leadership roles in library and information professions that serve the needs of a culturally diverse, technological society; to contribute to the body of theoretical and applied knowledge in the discipline; and to serve current and emerging needs in the University, the community, and the profession. For Goals, Objectives, and Student Learning Outcomes, refer to the program's web page.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools and the American Library Association (ALA).

For students interested in School Library Media as a profession, completion of the USF/SLIS program results in (1) a Master of Arts degree accredited by the American Library Association, which will allow the recipient to work in all types of libraries, (2) appropriate coursework for passing the state examination for certification as an Educational Media Specialist for Grades K-12 in the state of Florida. For more information, see
http://si.usf.edu/graduate/programs/media/
~~http://slis.usf. edu/ graduate/ programs/ media/~~

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
GRE is required with minimum scores of 550V, 450Q. However, the LIS program will waive the GRE requirement if the student meets one of the following criteria:

- a 3.5 or higher GPA in a completed master's degree program from a regionally accredited institution
- a 3.25 or higher GPA in upper division undergraduate work from a regionally accredited institution.
- Doctoral degree (including professional degrees such as the JD and MD) from a regionally accredited institution.

All students not meeting one of the above criteria will be considered for conditional admission based on all of the following criteria:

- A minimum score of 550 on the Verbal section and 450 on the Quantitative section of the General GRE test.
- An academic writing sample
- Three written letters of recommendation

Conditional admission status will be converted to regular status upon completion of the first three LIS courses with a GPA of 3.5 or above. LIS 5020 must be included as one of these courses.

1. A satisfactory score on the TOEFL (79 on the internet-based test and 550 on the paper-based test) may be required for natives of non English-speaking countries.

2. All students are required to write a statement describing their purpose and goals in the LIS program

DEGREE PROGRAM REQUIREMENTS

A minimum of 39 semester hours is required for the Master's degree program. Students must maintain a 3.0 grade point average of "B" or better and no more than two grades below "B" will be accepted. Transfer credit from other recognized graduate schools is limited to six semester hours taken within the last five years with grades of "B" or better. All transfers must be approved by the candidate's faculty advisor. Transfer credits must be posted to a student's permanent record no later than one full term prior to graduation.

Required Courses

The student must complete the following 39 hour program, including six core courses:

LIS 5020 Foundations of Library and Information Science **or** 3

- LIS 6260 Information Science in Librarianship 3

LIS 6271 Research Methods in Library and Information Science 3

LIS 6409 Introduction to Library Administration 3

LIS 6511 Collection Development and Maintenance 3

LIS 6603 Basic Information Sources and Services 3

LIS 6711 Organization of Knowledge I **or** 3

- LIS 6735 Technical Services in Libraries 3

Elective courses totaling 21 credit hours. These courses must be approved by the student's advisor. Some options include:

LIS 5268	Microcomputer Applications Library and Information Centers	3
LIS 5315	Instructional Graphics	3
LIS 5333	TV in Schools and Libraries	3
LIS 5418	Health Informatics for Medical Librarians	3
LIS 5566	Multicultural Literature for Children and Young Adults	3
LIS 5937	Selected Topics in Library Studies	4 ~~Jan~~
LIS 6110	History of Libraries	3
LIS 6111	History of Children's Literature	3
LIS 6206	Adult Services in Libraries	3
LIS 6212	Reading Guidance Programs in Libraries and Classrooms	3
LIS 6225	Storytelling	3
LIS 6303	Preparing Instructional Media	3
LIS 6316	Visualization of Knowledge	3
LIS 6402	Advanced Library Administration	3
LIS 6432	Seminar in Academic Libraries	3
LIS 6445	Seminar in Public Libraries	3

LIS 6455	Organization and Administration of the School Media Center	3
LIS 6463	Library Networks and Systems	3
LIS 6464	Library Systems Analysis and Planning	3
LIS 6472	Seminar in Special Libraries	3
LIS 6473	Law Librarianship	3
LIS 6475	Health Sciences Librarianship	3
LIS 6542	The Curriculum and Instructional Technology	3
LIS 6565	Books and Related Materials for Young Adults	3
LIS 6585	Materials for Children	3
LIS 6609	Online Information Sources and Services	3
LIS 6610	Information Sources and Services in the Humanities	3
LIS 6620	Information Sources and Services in the Social Sciences	3
LIS 6624	Information Sources and Services in Business and Law	3
LIS 6630	Information Sources and Services in Science and Technology	3
LIS 6661	Government Documents	3
LIS 6724	Classification and Cataloging of Non-Book Materials	3
LIS 6726C	Indexing and Abstracting	3
LIS 6712	Organization of Knowledge II	3
LIS 6514	Digital Libraries	3
LIS 6906	Independent Study	3
LIS 6946	Supervised Fieldwork	3
LIS 6949	Practicum in Archives and Special Collections	2-6

Courses Outside the School

Degree-seeking students are permitted to enroll in courses, usually limited to six semester hours, outside the School of ~~Library and~~ Information ~~Science~~ when, in the context of the development of a purposeful program, an interdisciplinary approach seems appropriate. Students must obtain the prior approval of their Fac
ulty advisor.

Comprehensive Examination

Students must pass a written comprehensive examination. Students will take the comprehensive examination in their last semester. Students must be enrolled for a minimum of two credit hours during the semester in which they take the comprehensive examination. The School conducts comprehensive examinations only in the spring, summer, and fall semesters.

OTHER INFORMATION

ALA-USF, ASIST-USF, and SLA-USF are student chapters of the American Library Association, American Society for Information Science & Technology and Special Libraries Association linked with the School of ~~Library and~~ Information ~~Science~~ and are open to all members of the University community interested in information science or librarianship. All provide programs and guest speakers of interest to the campus community, maintain several discussion lists, and publish a newsletter for their members. These organizations are the voice of students in the school, and members of the associations are included on committees within the School.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm
http://si.usf.edu/
~~http://slis.usf.edu/~~

LINGUISTICS PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines: Closed for new admissions

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 16.0102
Dept Code: WLE
Program (Major/College): LIN AS

CONTACT INFORMATION

College: Arts and Sciences
Department: World Languages

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

Currently, students are not being admitted to this program.

LINGUISTICS: ENGLISH AS A SECOND LANGUAGE PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15

Minimum Total Hours: 39
Program Level: Masters
CIP Code: 16.0102
Dept Code: WLE
Program (Major/College): ESL AS
Also offered as: Applied Linguistics

CONTACT INFORMATION

College: Arts and Sciences
Department: World Languages
Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Linguistics is primarily an upper-level and graduate discipline with strong interdisciplinary concerns. The Linguistics Program offers two graduate tracks:

1. The Master of Arts in Linguistics (thesis)(**currently inactive**), and
2. The Master of Arts in Applied Linguistics (Teaching English as a Second Language); (non-thesis).

For information on the M.A. in Linguistics, refer to that Program listing.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Language testing, curriculum development, second language learning and teaching.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university. GRE is also required but may be waived for applicants with a master's degree. Scores at or above 430 V and 4.0 AW are generally considered acceptable. Also must have:

- three letters of recommendation,
- a two-page statement of purpose, written by the applicant.
- Students whose native language is other than English and whose bachelor's degree was not earned in an English-medium university in an English speaking country must provide a TOEFL score of 600 (250 on the computerized version).

Applicants should note that proficiency in a second language is required by the time of graduation.

DEGREE PROGRAM REQUIREMENTS

Non-Thesis: Applied Linguistics (TESL)

Core Requirements (27 hours)

LIN 5700 Applied Linguistics	3
LIN 6081 Introduction to Graduate Studies in Linguistics	3
LIN 6675 Grammatical Structure of American English	3
LIN 6720 Second Language Acquisition	3
LIN 6748 Contrastive Analysis	3
TSL 5371 Methods of TESL	3
TSL 5372 ESL Curriculum and Instruction	3
TSL 5440 Language Testing	3
TSL 5525 Cross-Cultural Issues in ESL	3

Electives (6 hours)
Six hours of approved electives Students select electives in consultation with the program adviser.

Internship (6 hours)
TSL 6945 – Internship

A three-part Exit Assessment consisting of a linguistic analysis of an ESL student, theory-to-practice paper and portfolio of major course assignments and other relevant items is required for the program. Students are required to demonstrate proficiency in a language other than their native language by the end of the program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MASS COMMUNICATIONS PROGRAM

Master of Arts (M.A) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February

Minimum Total Hours: 39
Program Level: Masters
CIP Code: 9.0102
Dept Code: MCM
Program (Major/College): COM AS

Concentrations:
Media Studies (MCM)
Strategic Communication Management(PRS)
Multimedia Journalism (MMJ)

CONTACT INFORMATION

College: Arts and Sciences
Department: School of Mass Communications

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The M.A. degree program in Mass Communications is designed for students who are seeking advanced studies in preparation for professional and academic careers in mass communications. The program offers one degree, the Master of Arts in Mass Communications.

The Media Studies Concentration emphasizes the theoretical principles and research methods of mass communications. The Strategic Communication Management Concentration emphasizes public relations management and social science research. The Multimedia Journalism Studies Concentration focuses on story telling through the integration of different delivery platforms, and on management issues in converged newsrooms.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools and the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university except that the students are required to have

- both a 3.0 upper division GPA
- 500V, 500Q on the GRE
- a resume
- three letters of recommendation (academic recommendations preferred)
- a strong letter of intent
- an appropriate bachelors degree from an accredited institution
- Students who lack an appropriate background in the selected concentration may be required to take additional courses to meet concentration minimums.

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours: 39

Core Requirements (12 hours):

MMC 6920 – Introduction to Mass Communication Research	3
MMC 6401 – Mass Communication Theory	3
MMC 6421 – Research Methods	6

Concentration Requirements (12 hours)

Concentration in Media Studies

This program requires 39 hours of course work, including 6 hours of thesis. At least twenty-four hours are taken in the School of Mass Communications. The remaining 9-12 hours may be taken in graduate-level courses offered in other departments of the University.

Concentration in Multimedia Journalism

The graduate concentration in Multimedia Journalism prepares students to take leadership positions in journalism through their knowledge of the field of mass communications, management in the media environment and the ability to combine storytelling skills in the areas of print, broadcast and electronic communication. The concentration requires a total of 39 hours of which 12 are core requirements, 12 are in the multimedia core, 6 are thesis or applied research project, 6 are electives in the Mass Communications graduate program and 3 are in an outside requirement.

Requirements (12 hrs):

JOU 6501 Media Management	3
JOU 5344 Multimedia Journalism	3
JOU 6349 Advanced Multimedia Journalism	3
MMC 6612 Law and Mass Media	3
Thesis OR MMC 6950 Applied Research Project	6
Electives	6
1 Outside Requirement: EME 6936 Web Design and Multimedia	3

Concentration in Strategic Communication Management

The Strategic Communication Management Concentration emphasizes the integration of organizational communication functions such as public relations and advertising into a single communication management function. This program requires 39 hours of course work, including six (6) hours of thesis or six (6) hours of an applied research project, twelve (12) hours of the mass communications core, fifteen (15) hours of the strategic communication core, three (3) hours in management or leadership studies, and six (6) hours of electives.

Students in these concentrations are required to take a comprehensive written examination after they have completed at least 21 hours of mass communications course work, including the required courses for each concentration of study.

Core Requirements: (15 hours)

PUR 6603 Strategic Communication Campaigns	3
PUR 6607 Strategic Communication Management	3
PUR 5505 Introduction to Strategic Communication Theory and Research	3
MMC 6415 Strategic Communication Media	3
MMC 6418 Strategic Message Design	3

Outside requirement (three hours): A course in organizational communication, management or leadership.
Thesis OR Applied research project (6) hours arranged with project committee chair.
Mass Communications or other electives (3 hours).

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MATERIALS SCIENCE AND ENGINEERING PROGRAM

Master of Science in Materials Science and Engineering (M.S.M.S.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15
	Currently not open for admissions
Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	14.1801
Dept Code:	PHY/All Engineering Dept. except Computer Science and Engineering
Program (Major/College):	MSE AS or MSE EN

CONTACT INFORMATION

Colleges:	Arts and Sciences Engineering
Departments:	Physics Chemical Engineering Civil Engineering Electrical Engineering Industrial Engineering Mechanical Engineering
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The field of Materials Science and Engineering (MSE) applies the fundamental principles of physics and chemistry to engineering materials, with a focus on the interrelationship between material structure, their properties, and the means by which they are processed. MSE impacts multiple facets of our economy, such as aerospace, electronics, transportation, communication, construction, recreation, entertainment, environment and energy. It is, by its very nature, an interdisciplinary field. The goal of the MS program in Materials Science and Engineering is to provide a route for well-qualified undergraduate students who desire in-depth graduate-level work including structured courses and research experience, in preparation for work in industry or for entrance into a relevant science or engineering Ph.D. program.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Applicants should have a Bachelor's degree in Engineering (Chemical, Mechanical, Industrial, Electrical, Civil, Materials Science, Ceramic, Metallurgy, Manufacturing, Polymer and related disciplines) or Natural Sciences (Physics, Chemistry or Biology) from an accredited institution.
- An applicant must have a cumulative GPA of 3.0 or higher during undergraduate studies.
- For specific GRE requirements all applicants should contact the admitting department
- At least 2 letters of reference
- Statement of objectives/purpose must be included with the application.

DEGREE PROGRAM REQUIREMENTS

Students will require a minimum of 30 total credit hours to qualify for the MS degree in MSE. The degree may be completed within 12 months by taking 12 credit hours in each of the fall and spring semesters followed by 6 credit hours during the summer. Students must take 15 credit hours of core courses (including a maximum of 3 credit hours for an interdisciplinary Graduate Materials Seminar), 9 hours of elective courses for the thesis option which requires an additional 6 hours of thesis research. For the non-thesis option, 6 additional hours of elective courses would be required in lieu of thesis hours. Courses taken for this program cannot be used to fulfill requirements of another Master's degree program.

Core Requirements

Required Core Courses (15 credit hours)

EML/ECH 6931 & PHY 6938	Materials Characterization	3
PHY/ENG 6935	Graduate Seminar Series in MSE	Min 2, Max 3

And three of the following five courses (9 credit hours):

EML/ECH 6930	Advanced Materials	3
PHY 6938	Materials Physics I	3
PHY 6938	Materials Physics 2	3
ECH/EGN 6930	Diffusion, Transport and Kinetics in Solid Materials	3
PHZ 5405	Introduction to Solid State Physics	3

Elective Courses (9 hours):

EEL 6318	Characterization of Semiconductors	3
EEL 6353, 6354	Semiconductor Device Theory I and II	3, 3
CHE/EEL 6355	Compound Semiconductor Technology	3
PHY 6446	Lasers and Applications	3
PHY 6447	Physics of Lightwave Devices and Applications	3
EEL 6386, 6389	Principles of Semiconductor Device Modeling I, II	3, 3
EEL 6935	Microsystems and MEMS Technology	3
PHZ 5156C	Computational Physics I	
EEL 6935/ECH 6391	Chemical/Biological Sensors and Microfabrication	3
ECH 6749	Biomaterials and Biocompatibility	3
PHZ 6426	Solid State Physics II	3
CGN 6933	Corrosion of Engineering Materials	3
CGN 6933	Durability Issues in Cementitious Materials	3
EML 6930	Failure Mechanisms in Material	3
PHZ 6136	Physical Applications of Group Theory	3
EEL 6937	Introduction to Nanotechnology	3
ECH/EEL 6935	Wide Band Gap Semiconductor Technology I	3
ECH/EEL 6931	Wide Band Gap Semiconductor Technology II	3
CES 6107	Advanced Mechanics of Materials II	3
EEL 6935	Characterization of Defects in Electronic Materials	3
EIN 6935	Statistical Quality Control	3
ESI 6247	Statistical Design Models	3
EML 6232	Laminated Composite Materials	3
EML 6653	Applied Elasticity	3
EEL 5382	Physical Basis of Microelectronics	3
ECH 6230	Advanced Mass Transfer	3
EEE 5356	Integrated Circuit Technology	3
EEL 6935	Advanced I.C. Technology	3
EEL 6936	Bioelectricity	3
EML 6930	Cellular Engineering	3
EIN 6934	Introduction to Haptic Interfaces for Virtual Environments	3
EML 6930	Micro and Nano Manufacturing	3
EEL 0000	Materials for Energy Applications	3
EEL 6936	SiC Technology	3

Thesis/Non-Thesis Options (6 credits)
Thesis Hours (6 credit hours)
For Non-thesis Option six additional credit hours of elective courses is required in lieu of thesis hours.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MATHEMATICS PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
For Teaching Assistants, International and Financial Aid Applicants:

Fall:	February 1
Spring:	August 1

For Domestic applicants (US citizens or permanent residents) without financial aid or Teaching Assistant applications:

Fall:	February 15
Spring:	October 1

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	27.0101
Dept Code:	MTH
Program (Major/College):	MTH AS
Concentrations:	Pure and Applied (PAA)

Also offered as a 5-year program

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Mathematics and Statistics
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of Mathematics at the University of South Florida, Tampa Campus, is composed of approximately thirty faculty who do research in a variety of fields, and teach courses ranging from the freshman to the doctoral level.

The Department serves as the editorial base for the international journals: *Abstract and Applied Analysis* and *Journal of Theoretical Probability.* The Center for Mathematical Services within the department provides lectures, special programs for secondary students, and in service training programs in mathematics.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Algebra, Analysis, Discrete Mathematics, Partial Differential Equations, Probability, Statistics, and Topology, including the following fields: Applied Mathematics, Approximation Theory, Combinatorics, Computational Statistics, Control Theory, DNA computing, Dynamical Systems, Graph Theory, Knot Theory, Nonlinear Analysis, Number Theory, Special Functions, Theoretical Computer Science, and other areas.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Same as general university requirements plus:

- a Bachelor's degree or equivalent in mathematical sciences or related area
- at least a 650 quantitative score on the GRE
- at least a 3.0 GPA in undergraduate math courses
- A completed math department application form
- Statement of goals

Students with insufficient preparation in real analysis and/or abstract algebra will be required to take MAA 4211 and/or MAS 4301 before or during their first semester of study.

DEGREE PROGRAM REQUIREMENTS

In *addition* to the University and College requirements, the students must fulfill the following requirements:
Credit Hours: A candidate must complete at least 30 credit hours in Mathematics. Specifically:

Some graduate courses are organized into Core and Elective Sequences as follows:

Core Requirements
Sequences:

Algebra:

MAS 5107	Advanced Linear Algebra	3
MAS 5311	Algebra I	3
MAS 5312	Algebra II	3

Analysis:

MAA 5306	Real Analysis I	3
MAA 5307	Real Analysis II	3
MAA 6616	Abstract Integration	3

Mathematical Statistics:

STA 5326	Mathematical Statistics I	3
STA 6326		

Topology:

MTG 5316	Topology !	3
MTG 5317	Topology II	3

Electives

Applied Mathematics: three courses, one from each group listed below:

(Group A)

MAP 5407	Methods of Applied Mathematics	3
MAP5345	Applied Partial Differential Equations	3

(Group B)

MAA 5405	Applied Complex Analysis	3
MAT 5932 (MAD 4401)	Selected Topics	1-4

(Group C)

MAP 6205	Control Theory and Optimization	3
MAT 6932	Selected Topics	1-4

Combinatorics:

MAD 6206	Combinatorics I	3
MAD 6207	Combinatorics II	3

Complex Analysis:

MAA 6406	Complex Analysis I	3
MAA 6407	Complex Analysis II	3

Statistical Methods:

STA 5166	Statistical Methods I	3
STA 6167	Statistical Methods II	3

Dynamical Systems:

MAT 5932	Selected Topics	1-4
MAT 6932	Selected Topics	1-4

Foundations:

MHF 5306	Mathematical Logic and Foundations I	3
MHF 6307	Mathematical Logic and Foundations II	3

Linear Models and Multivariate Analysis:

STA 6208	Linear Statistical Models	3
STA 6356		

Nonlinear Analysis:

MAP 5316	Ordinary Differential Equations I	3
MAP 5317	Ordinary Differential Equations II	3

Ordinary Differential Equations:

MAP 6336	Theory Ordinary Differential Equations I	3
MAT 5932	Selected Topics	1-4

Partial Differential Equations:

MAP 5345	Applied Partial Differential Equations	3
MAP 6356	Partial Differential Equations	3

Probability:

STA 5446	Probability Theory I	3
STA 6447	Probability Theory I	3

Stochastical Processes and Time Series Analysis:

STA 6206	Stochastic Processes	4
STA 6876	Time Series Analysis	3

Theory of Computing:

MHF 5306	Mathematical Logic and Foundations I	3
MAD 6616	Algebraic Automata Theory	3

For degree requirements, each course from the Elective Sequence list above counts towards only one Elective Sequence. A qualifying examination based on a Core Sequence is called a Core Qualifying Examination. The syllabus for each examination is available from the Department. Core Qualifying Examinations are offered in January, May and September. A student who passes a Core Qualifying Examination at Ph.D. level will be considered to have completed the corresponding Core Sequence. Credit hours of MAT 6908 Independent Study, MAT 6939 Graduate Seminar, and MAT 6911 / 7912 Directed Research, earned before passing two Core Qualifying Examinations at Ph.D. level, do not count towards M.A. or Ph.D. degree. These courses, MAT 6908, 6911, 6939 and 7912, however, can be taken by a student before passing two Core Qualifying Examinations at Ph.D. level, with an approval from the Graduate Program Director, and also from the Seminar Organizer for MAT 6939. The course work for more than one credit hour for MAT 6939 needs an approval from the Graduate Committee.

1. The Mathematics graduate courses of 5000 level or higher, offered regularly for mathematics majors from the Mathematics department, are counted towards the 30-hour requirement.

2. Up to 6 hours of 4000 level or higher courses, taken from our department or other departments at USF, may be counted towards the 30-hour requirement with approval by the Graduate Program Director and the Department Chairperson.

3. *Completion of Sequences*: A Candidate must complete two Core or Elective Sequences, at least one of which must be a Core Sequence, and receive at least a 3.0 average in each sequence.

4. *Thesis or Examination Requirement*: Each candidate for the M.A. degree must either be examined on a thesis or pass one of the written Core Qualifying Examinations.

A student who elects the thesis option must register for a minimum of six (6) credit hours in MAT 6971, only six (6) hours of which may be applied toward the 30-hour degree requirement. The comprehensive examination takes the form of an oral thesis defense, in which the candidate must demonstrate knowledge of the general subject area of the thesis.

A student who elects the exam option must pass one of the Core Qualifying Examinations at M.A. level. A student may repeat each examination once.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MATHEMATICS PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
For Teaching Assistants, International and Financial Aid Applicants:

Fall:	February 1
Spring:	August 1

For Domestic applicants (US citizens or permanent residents) without financial aid or Teaching Assistant applications:

Fall:	February 15
Spring:	October 1

Minimum Total Hours:	90
Program Level:	Doctoral
CIP Code:	27.0101
Dept Code:	MTH
Program (Major/College):	MTH AS
Concentrations:	Pure and Applied (PAA) Statistics (STT)

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Mathematics and Statistics
Contact Information:	www.grad.usf.edu

PROGRAM INFORMATION

The Department of Mathematics at the University of South Florida, Tampa Campus, is composed of approximately thirty faculty who do research in a variety of fields, and teach courses ranging from the freshman to the doctoral level. The Department serves as the editorial base for the international journals: *Abstract and Applied Analysis* and *Journal of Theoretical Probability.* The Center for Mathematical Services within the department provides lectures, special programs for secondary students, and in service training programs in mathematics.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Algebra, Analysis, Discrete Mathematics, Partial Differential Equations, Probability, Statistics, and Topology, including the following fields: Applied Mathematics, Approximation Theory, Combinatorics, Computational Statistics, Control Theory, DNA computing, Dynamical Systems, Graph Theory, Knot Theory, Nonlinear Analysis, Number Theory, Special Functions, Theoretical Computer Science, and other areas.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

In addition to the M.A. program requirements, entrants to the Ph.D. Program must have a Master's degree in Mathematics or a strong enough background as determined by the Graduate Admissions Committee, and three letters

of recommendation, at least two of which from mathematicians indicating an aptitude for doctoral study. See list below.

Program Admission Requirements
Same as general university requirements plus:

- a Bachelor's degree or equivalent in mathematical sciences or related area
- at least a 650 quantitative score on the GRE
- at least a 3.5 GPA in graduate and/or upper undergraduate math courses
- three letters of recommendation (two of which should be from college level math professors)
- a completed math department application form
- a statement of goals

DEGREE PROGRAM REQUIREMENTS

In *addition* to the University and College requirements, the students must fulfill the following requirements. Some graduate courses are organized into Core and Elective Sequences as follows:

Core Sequences:

Algebra:	MAS 5107, 5311, 5312
Analysis:	MAA 5306, 5307, 6616
Mathematical Statistics:	STA 5326, 6326
Topology:	MTG 5316, 5317

Elective Sequences:

Applied Mathematics: three courses, one from each group listed below.

(Group A)	MAP 5407, 5345
(Group B)	MAA 5405, MAT 5932 (MAD 4401)
(Group C)	MAP 6205, MAT 6932 (Dynamical Sys II)

Combinatorics:	MAD 6206, 6207
Complex Analysis:	MAA 6406, 6407
Statistical Methods:	STA 5166, 6167
Dynamical Systems:	MAT 5932, 6932
Foundations:	MHF 5306, 6307
Linear Models and Multivariate Analysis:	STA 6208, 6356
Nonlinear Analysis:	MAP 5316, 5317
Ordinary Differential Equations:	MAP 6336, MAT 5932 (Dynamical Systems I)
Partial Differential Equations:	MAP 5345, 6356
Probability:	STA 5446, 6447
Stochastical Processes and Time Series Analysis:	STA 6206, 6876
Theory of Computing:	MHF 5306, MAD 6616

For degree requirements, each course from the Elective Sequence list above counts towards only one Elective Sequence. A qualifying examination based on a Core Sequence is called a Core Qualifying Examination. The syllabus for each examination is available from the Department. Core Qualifying Examinations are offered in January, May and September. A student who passes a Core Qualifying Examination at Ph.D. level will be considered to have completed the corresponding Core Sequence. Credit hours of MAT 6908 Independent Study, MAT 6939 Graduate Seminar, and MAT 6911 / 7912 Directed Research, earned before passing two Core Qualifying Examinations at Ph.D. level, do not count towards M.A. or Ph.D. degree. These courses, MAT 6908, 6911, 6939 and 7912, however, can be taken by a student before passing two Core Qualifying Examinations at Ph.D. level, with an approval from the Graduate Program Director, and also from the Seminar Organizer for MAT 6939. The course work for more than one credit hour for MAT 6939 needs an approval from the Graduate Committee.

1. *Core Qualifying Examinations:* The student is required to pass two of the Core Qualifying Examinations at Ph.D. Level. A student is expected to complete both within 13 months after entering the Ph.D. program unless an extension is granted by the Mathematics Graduate committee. A student may repeat each examination once.

2. *Elective Qualifying Examination*: After passing two Core Qualifying Examinations, the student will select a Dissertation Advisor and a Doctoral Committee will be appointed by the Department Chairperson. The Committee will determine a course of study leading to the written Elective Qualifying Examination, which may be based on one of the Elective Sequences above, possibly supplemented by other material. The syllabus for this examination, and the names of two examiners from the Faculty, must be approved by the Mathematics Graduate Program Director at least one semester before the examination is to take place. A student is expected to complete all three examinations within 25 months after entering the Ph.D. program unless an extension is granted by the Mathematics Graduate Committee. A student may repeat each examination once. The student will be admitted to candidacy after completion of the above two requirements.

3. *Completion of Four Sequences:* The student must complete four sequences from among Core and Elective Sequences with at least a 3.0 average in each sequence.

4. *Progress Evaluation*: Each Spring semester after admission to doctoral candidacy, the candidate shall give an oral presentation to the Doctoral Committee of the problem(s) under investigation. The presentation may also include a discussion of partial results. The Dissertation Advisor shall submit to the Department Chairperson a written report of the presentation.

5. *Dissertation*: Students admitted to doctoral candidacy are required to take at least 16 hours in MAT 7980 Doctoral Dissertation, with a minimum of 6 credits of dissertation hours accumulated during each previous 12-month period (previous 3 terms, e.g. Fall, Spring, Summer) until the degree is granted. The dissertation is expected to contain new mathematical results which are worthy of publication. Research towards the dissertation typically forms the major part of the work required for the Ph.D. in Mathematics.

6. *The Final Oral Examination*: The Final Oral Examination is also called the Dissertation Defense The department defers to the university requirements.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MICROBIOLOGY PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
U.S. Students:

Fall:	January 1 for full consideration; however applications are accepted to February 15 (U.S. Applicants) January 1 (International
Spring:	August 1

International Students:

Fall:	January 1
Spring:	July 1

Application must be completed by January 1 by applicants who wish to be considered for assistantships.

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	26.0503
Dept Code:	BIO
Program (Major/College):	MIC AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	CMM Biology
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The MS in microbiology degree is administered by the Department of Cell Biology, Molecular Biology and Microbiology (CMMB). Most research in the CMMB Department is done by faculty housed in the modern Bio-Science Facility building (BSF). In addition, the department has common research facilities in two nearby buildings. Due to the interdisciplinary aspect of most research projects, faculty and graduate students often work together on broad ranging research projects that bring together many of the traditionally separate areas of biology. Many of the faculty within CMMB are involved in cooperative research with their colleagues in Chemistry, Integrative Biology, Public Health, Nursing, Medicine, Geology, Psychology, Geography, Marine Science, and Environmental Science. Often CMMB graduate students have faculty members from these other areas of USF as members of their graduate committees.

Because of the many undergraduate courses that require hands-on experimental laboratories, the both CMMB and IB support many graduate students as Teaching Assistants. CMMB and IB value high quality teaching at all levels of instruction. Research Assistant positions may also be available to support research with specific faculty members depending on an individual faculty members funding. Numerous scholarship opportunities are also offered on a competitive basis through the USF Graduate School.

Applying to the Department of Cell Biology, Microbiology and Molecular Biology

Students interested in attending graduate school within the CMMB Department should visit the CMMB website that can be accessed from the main USF site and review the current CMMB faculty. It is recommended that potential students consider at least 2-3 CMMB faculty that they would be interested in working with and communicate this information in their letter of application. It is also recommended that potential students contact the CMMB Graduate Director as well as the individual faculty members they are interested in working with via email. Such communication will facilitate the assignment of the laboratory rotations that CMMB students

will participate in during their first semester of residency and also allow the applicant to determine whether the desired faculty member has positions available in the laboratory. All students admitted to the Masters concentration in Cell Biology and Molecular Biology must establish a supervisory committee. The supervisory committee shall constitute the major professor and at least two additional credentialed faculty. At least one of the committee members must be a faculty member at USF. Supervisory committee must be formed within two semesters after matriculation. The CMMB Graduate Director and CMMB Chair must approve the Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a thesis, the student shall enroll for a minimum of two (2) hours of research credit each semester (other than summer semester), until eligible to enroll in thesis credits.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Applied Microbiology, Pathogenic Microbiology, Cellular Microbiology, Molecular Microbiology, Ecological Microbiology

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Prospective students must apply to the Microbiology MS program via the online application process through the USF Graduate School.
- Must have 3.00 GLA last 60 hours of B.S. degree
- Must have 500V, 600Q, 4.5 AW on GRE
- All international students are required to submit the TOEFL test. Non-native English speaking graduate students must score at least 570 on the TOEFL and at least 50 on the TSE to be eligible for a teaching assistantship.
- It is expected that candidates for the M.S. degrees will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.

Materials necessary for a complete application are listed below:

The following items should be submitted in the envelope provided to:

CMMB Graduate Office
Attention: CMMB Graduate Director
University of South Florida
4202 E. Fowler Ave – BSF 218
Tampa, FL 33620-5150

1) Two official transcripts in a sealed envelope from each post-secondary institution. Transcripts of work completed at USF will be secured by the Office of Admissions. Thus, applicants only need to secure transcripts from other institutions for the application packet.

2) Three letters of recommendation from faculty in sealed envelopes (on their university letterhead) with the envelope seal signed by the recommender. Students shall complete a **Student Recommendation Form** that can be found on the CMMB website and submit it to the recommenders.

3) A brief essay stating your intended field of research and professional goals. Please indicate your specific research interests, in order that we may refer your application to appropriate CMMB faculty members. In the essay please list 2-3 CMMB faculty members that you would like to have review your file.

4) **Applicants must complete the Application for Teaching Assistantship (TA) Form** that can be found on the CMMB or IB website if they wish to be considered for a TA position. Applicants who do not return this form will not be consider for a teaching position. **Applicants should attach a resume to the Application for Teaching Assistantship (TA) Form** that highlights any previous teaching experience.

5) OFFICIAL test scores must be sent to USF directly from the testing agency. The University of South Florida's 4-Digit Institution Code is: 5828 Official GRE scores. This exam must have been taken within the last five years.

DEGREE PROGRAM REQUIREMENTS

The thesis based M.S. degree requires successful completion of the following:

1. structured coursework
2. an oral qualifying exam
3. research thesis
4. comprehensive final examination

The Master's Degree Requirements should be completed in two to three years. The CMMB Department requires that all graduate work applied toward the completion of degree requirements be completed within a five year period after matriculation. Thesis research should be publishable and students are encouraged to publish their findings. Students must choose a specific concentration in the M.S. degree that will be completed within either the CMMB Department. The specific requirements for the Master of Science (M.S.) in Microbiology are provided below

1. Credit hour requirement: 30 semester hour credits beyond the Baccalaureate Degree is required. *(including: BSC6910, BSC 6971, BSC 6935 and other structured and unstructured courses approved by CMMB or IB)*

2. Students admitted to the CMMB Department must complete three laboratory rotation during their first semester of residency.

3. Successful completion of the **comprehensive qualifying examination**. The exam should be taken at the end of the first year, or early in the second year of study. The examination is administered and evaluated by the student's graduate committee.

4. Submission of a **thesis proposal** and approval by the major professor, graduate committee and graduate director.

5. A minimum of eight (8) thesis research credit hours (BSC 6971).

6. Seminar requirement: one presentation, excluding the thesis seminar and defense. Students should present posters or oral presentations based on their thesis research at national/regional professional meetings. The student's graduate committee must approve the presentation.

7. Submission of an acceptable thesis.

8. Presentation of the thesis seminar (BSC 6935) and successful defense of the thesis.

M.S. in Microbiology Course Requirements

Required coursework (9 credit hrs)

BSC 6930 Lectures in Contemporary Biology 1
Enrollment in this course is required during each semester of residency

BSC 6932	Advances in Scientific Review	2
BSC 6932	Advances in Scientific Writing	2
PCB 6930	Advances in Cell and Molecular Biology	1

Microbiology Electives* (minimum of 6 hrs)

MCB 5206	Public Health and Pathogenic Microbiology	3
MCB 5655	Applied and Environmental Microbiology	3
PCB 5335	Principles of Immunology	3
PCB 6236	Advanced Immunology	3
MCB 5815	Medical Mycology	3
BSC 5931	Molecular Microbial Ecology	3
BSC 5931	Prokaryotic Molecular Genetics	3
MCB 5410	Cellular Microbiology	3
PCB 5616	Molecular Phylogenetics	3
PCB 5525	Molecular Genetics	3
BSC 5420	Genetic Engineering and Recombinant DNA Technology	3

**The supervisory committee may approve additional courses not listed here*

M.S. in Microbiology Non-Thesis Option

Non-Thesis - For students enrolled in the non-thesis program, a 30-hour minimum is required at the 5000-6000 level; 26 hours must be in formally structured courses; 16 hours must be at the 6000 level; 15 structured hours must be offered by CMMB. A review paper of a topic approved by the supervisory committee is required as well as successful completion of the comprehensive qualifying exam after all course work has been completed. For non-thesis master's students, this exam will occur at the end of the program of study.

Comprehensive Oral Qualifying Examination.

A final comprehensive oral examination is required for all master's students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two years of matriculation and the exam is normally taken after the completion of all formal course work. Thesis students must take the examination at least one semester before the thesis is presented. Any graduate work counted toward the requirement for the M.S. degree must be completed within five (5) years after matriculation.

All thesis-based Master's Degree students must present a seminar to the Department of Biology and must be enrolled in BSC 6935, during the final semester. The seminar should be a concise summary of the research completed to satisfy the requirements for the M.S. Degree. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PHILOSOPHY PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
U.S. Students

Fall:	February 15
Spring:	October 15
Financial Assistance:	January 2

International Students

Fall:	February 15
Spring:	August 1
Financial Assistance:	January 2

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	38.0101
Dept Code:	PHI
Program (Major/College):	PHI AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Philosophy
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

Contact program for information or visit http://philosophy.usf.edu/

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Aesthetics
Analytic Philosophy
Ancient Greek Philosophy
Continental Philosophy
Epistemology
Ethics & Contemporary Moral Philosophy
Feminist Philosophy
Medieval Philosophy
Modern Philosophy
Philosophy of Mind
Philosophy and Religion
Philosophy of Science
Social & Political Philosophy
19th and 20th Century Philosophy

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Same as university plus the following documents must be submitted:

- statement of purpose
- three (3) letters of recommendation
- A ten (10) page philosophy writing sample
- In order to be competitive, applicants should submit GRE generalist test scores of 600V, 600Q, and an analytic score of 5.0

DEGREE PROGRAM REQUIREMENTS

Once admitted, students must successfully complete at least 30 credit hours in accordance with the following requirements:

1. Proseminar I (6 credit hours) and Proseminar II (6 credit hours)
2. Course in Symbolic Logic or Modal Logic (3 credit hours)
3. Coursework in the History of Philosophy from the list appearing in "Areas of Study and Coursework" (6 credit hours)
4. Coursework in Metaphysics, Epistemology, and Logic from the list appearing in "Areas of Study and Coursework" (3 credit hours)
5. Course in Value Theory from the list appearing in "Areas of Study and Coursework" (3 credit hours)
6. Coursework or an examination demonstrating reading proficiency in one of the following languages: ancient Greek, Latin, French, German, or a substitute approved by the Director of Graduate Studies and the Department Chair
7. Thesis (3 credit hours) OR A comprehensive examination on a required list of readings constructed by the candidate and a committee of examiners

Areas of Study and Coursework
Students will be required to meet the distribution of credit hours described below. While many of the courses could fall into two or more categories, the categories as stated should provide a comprehensive training in philosophy. When there is good reason to approve substitutions for the courses listed, the Director of Graduate Studies has the discretion to approve substitutions on a case-by-case basis. The Department Chair must also approve any substitutions.

History of Philosophy
(A minimum of six credit hours required for the M.A., courses must come from two different categories; a minimum of 12 credit hours required for the Ph.D. with at least one from each of the four categories)

I. Ancient and Medieval
a. Plato
b. Aristotle
c. Topics in Ancient/Medieval Philosophy

II. Early Modern Philosophy

a. Rationalists
b. Empiricists
c. Topics in Early Modern Philosophy

III. Kant

IV. 19th and 20th Century Philosophy

a. Continental I: Phenomenology to Hermeneutics
b. Continental II: Political Theory and Continental Social Theory
c. Continental III: From Structuralism to Deconstruction
d. Marxism
e. Analytic Philosophy
f. Topics in Twentieth Century Philosophy

Metaphysics, Epistemology, and Logic
(A minimum of three credit hours required for the M.A.; a minimum of nine credit hours required for the Ph.D.)

1. Seminar in Metaphysics
2. Seminar in Epistemology
3. Seminar in the Philosophy of Natural Science (including Math)
4. Seminar in the Philosophy of Social Science
5. Seminar in Logic
6. Modal Logic
7. Philosophy of Language
8. Philosophy of Mind
9. Topics in Contemporary Philosophy (if topic is in the area of metaphysics, epistemology, and logic)

Value Theory
A minimum of three (3) credit hours required for the M.A.; a minimum of nine (9) credit hours required for the Ph.D. Only one required value theory class may come from category II)

I. General Topics

a. Seminar in Ethics
b. Seminar in Social Philosophy
c. Seminar in Political Philosophy
d. Seminar in Aesthetics
e. Topics in Feminist Philosophy

II. Specific Topics

a. Seminar in the Philosophy of Religion
b. Seminar in the Philosophy of Law
c. Seminar in the Philosophy of History

Concentration in Philosophy and Religion

Once admitted, students must successfully complete at least 30 credit hours including the following requirements:

I. Nine (9) hours of core courses as follows:

PHI xxxx	Historically Oriented Pro-seminar
PHI/REL 6706	Seminar in the Philosophy of Religion
REL 6035	Theory and Methods in Religious Studies

II. One (1) course (3 hours) from each of the following five areas:

1. Philosophy and Religion in Antiquity
   - PHP 6005 Plato
   - PHP 6015 Aristotle
   - REL 6327 Seminar in Ancient Literature
   - REL xxxx Formative Christianity
   - REL xxxx Early Jewish Literature
   - REL 6285 Studies in Biblical Archaeology

2. Philosophy and Religion in the Medieval and Modern Periods
   - REL xxxx Augustine's Confessions
   - REL xxxx Medieval Christian Natural Theology
   - PHH 6938 Seminar in Medieval Philosophy
   - PHP xxxx Descartes
   - PHH xxxx Seminar in Rationalism
   - PHH xxxx Seminar in Empiricism
   - PHP 6415 Kant
   - REL xxxx Modern Jewish Thought
   - REL xxxx Hermeneutics and Epistemology in Modern Religious Thought

3. Ethics, Philosophy, and Religion
   - PHI 6605 Seminar in Ethics
   - PHI 6634 Seminar in Biomedical Ethics
   - PHI 6665 Metaethics
   - PHI xxxx Environmental Ethics
   - REL 6175 Religion, Ethics, and Public Policy
   - REL 6178 Comparative Religious Ethics
   - REL xxxx Buddhist Ethics
   - REL 6182 Faith and Reason in Western Religious Ethics
   - REL xxxx Comparative Philosophy of Religion

4. Philosophy and Religion: Politics, Culture
   - PHH 6265 Continental Phil I: Phenomenology to Hermeneutics
   - PHH 6266 Continental Phil II: Political Theory and Continental Social Theory
   - PHH 6267 Continental Phil III: From Structuralism to Postmodernism
   - PHI 6425 Seminar in the Philosophy of Social Science
   - PHI 6808 Seminar in Aesthetics
   - PHM 5125 Topics in Feminist Philosophy
   - PHM 6105 Seminar in Social Philosophy
   - PHM 6305 Seminar in Political Philosophy
   - REL 6126 Religion in America
   - REL 6143 Religion, Culture, and Society
   - REL 6175 Religion, Ethics, and Public Policy
   - REL 6195 Religion and Modernization
   - REL 6447 Liberation Theology
   - REL xxxx Buddhism and Postmodernism
   - REL xxxx Religious Issues in the Caribbean World

5. World Religions and Non-Western Philosophy
   - PHI xxxx African Philosophy
   - REL xxxx Buddhism
   - REL xxxx Comparative Philosophy of Religion
   - REL xxxx Buddhism and Postmodernism
   - REL xxxx Seminar in Confucianism
   - REL xxxx Medical Philosophy: Chinese, Greek, Indian
   - REL xxxx Comparative Mysticism

- PHM 5125 Topics in Feminist Philosophy
- PHI xxxx Latin American Thought
- REL 6178 Comparative Religious Ethics
- REL xxxx Buddhist Ethics
- REL xxxx Religious Issues in the Caribbean World

NOTE: At least two of these five courses must be taken in the Philosophy Department, and at least two must be taken in the Religious Studies Department.

III. Coursework or an examination demonstration reading proficiency in one foreign language appropriate to the student's research, with the approval of the Director of Graduate Studies.

IV. Successful completion of a thesis (including 3 credit hours) OR a comprehensive examination on a required list of readings necessary constructed by the candidate and a committee of examiners.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PHILOSOPHY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
U.S. Students
Fall: February 15
Spring: October 15
Financial Assistance: January 2

International Students
Fall: February 15
Spring: August 1
Financial Assistance: January 2

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 38.0101
Dept Code: PHI
Program (Major/College): PHI AS

Concentration: Philosophy and Religion

CONTACT INFORMATION

College: Arts and Sciences
Department: Philosophy

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

Contact program for information or visit http://www.cas.usf.edu/philosophy/index.html

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Aesthetics
Analytic Philosophy
Ancient Greek Philosophy
Continental Philosophy
Epistemology
Ethics and Contemporary Moral Philosophy
Feminist Philosophy
Medieval Philosophy
Modern Philosophy
Philosophy of Mind
Philosophy and Religion
Philosophy of Science
Social & Political Philosophy
19th and 20th Century Philosophy

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Same as university plus the following documents must be submitted:

- statement of purpose
- three (3) letters of recommendation
- A ten (10) page philosophy writing sample
- In order to be competitive, applicants should submit GRE general test scores of 600V, 600Q, and an analytic score of 5.0.

DEGREE PROGRAM REQUIREMENTS

Once admitted, students must successfully complete at least 90 credit hours in accordance with the following requirements:

1. Proseminar I (6 credit hours) and Proseminar II (6 credit hours)
2. Course in Symbolic Logic or Modal Logic (3 credit hours)
3. Coursework in the History of Philosophy from the list appearing in "Areas of Study and Coursework" (12 credit hours)
4. Coursework in Metaphysics, Epistemology, and Logic from the list appearing in "Areas of Study and Coursework" (9 credit hours)
5. Coursework in Value Theory from the list appearing in "Areas of Study and Coursework" (9 credit hours)
6. Coursework or an examination demonstrating reading proficiency in two of the following languages: ancient Greek, Latin, French, German. A substitution for one of these languages may be approved by the Director of Graduate Studies and the Department Chair
7. 12 credit hours in area(s) of doctoral research
8. A comprehensive examination on a required list of readings constructed by the candidate and a committee of examiners
9. A written prospectus for the dissertation and an oral defense of this prospectus
10. A written dissertation and an oral defense of this dissertation

Areas of Study and Coursework
Students will be required to meet the distribution of credit hours described below. While many of the courses could fall into two or more categories, the categories as stated should provide a comprehensive training in philosophy. When there is good reason to approve substitutions for the courses listed, the Director of Graduate Studies has the discretion to approve substitutions on a case-by-case basis. The Department Chair must also approve any substitutions.

History of Philosophy
(A minimum of 6 credit hours required for the M.A., courses must come from two different categories; a minimum of 12 credit hours required for the Ph.D. with at least one from each of the four categories)

I. Ancient and Medieval

a. Plato
b. Aristotle
c. Topics in Ancient/Medieval Philosophy

II. Early Modern Philosophy

a. Rationalists
b. Empiricists
c. Topics in Early Modern Philosophy

III. Kant

IV. 19th and 20th Century Philosophy

a. Continental I: Phenomenology to Hermeneutics
b. Continental II: Political Theory and Continental Social Theory
c. Continental III: From Structuralism to Deconstruction
d. Marxism
e. Analytic Philosophy
f. Topics in Twentieth Century Philosophy

Metaphysics, Epistemology, and Logic
(A minimum of three credit hours required for the M.A.; a minimum of nine credit hours required for the Ph.D.)

I. Seminar in Metaphysics
II. Seminar in Epistemology
III. Seminar in the Philosophy of Natural Science (including Math)
IV. Seminar in the Philosophy of Social Science
V. Seminar in Logic
VI. Modal Logic
VII. Philosophy of Language
VIII. Philosophy of Mind
IX. Topics in Contemporary Philosophy (if topic is in the area of metaphysics, epistemology, and logic)

Value Theory
A minimum of three credit hours required for the M.A.; a minimum of nine credit hours required for the Ph.D. Only one required value theory class may come from category II)

I. General Topics

a. Seminar in Ethics
b. Seminar in Social Philosophy
c. Seminar in Political Philosophy
d. Seminar in Aesthetics
e. Topics in Feminist Philosophy

II. Specific Topics

a. Seminar in the Philosophy of Religion
b. Seminar in the Philosophy of Law
c. Seminar in the Philosophy of History

Concentration in Philosophy and Religion

Once admitted, students must successfully complete at least 90 credit hours including the following requirements:

I. Nine (9) hours of core courses as follows:

PHI xxxx Historically Oriented Pro-seminar
PHI/REL 6706 Seminar in the Philosophy of Religion
REL 6035 Theory and Methods in Religious Studies

II. Two (2) course (6 hours) – one in Philosophy and one in Religious Studies -from each of the following five areas

A. Philosophy and Religion in Antiquity

PHP 6005	Plato
PHP 6015	Aristotle
REL 6327	Seminar in Ancient Literature
REL xxxx	Formative Christianity
REL xxxx	Early Jewish Literature
REL 6285	Studies in Biblical Archaeology

B. Philosophy and Religion in the Medieval and Modern Periods

REL xxxx	Augustine's Confessions
REL xxxx	Medieval Christian Natural Theology
PHH 6938	Seminar in Medieval Philosophy
PHP xxxx	Descartes
PHH xxxx	Seminar in Rationalism
PHH xxxx	Seminar in Empiricism
PHP 6415	Kant
REL xxxx	Modern Jewish Thought
REL xxxx	Hermeneutics and Epistemology in Modern Religious Thought

C. Ethics, Philosophy, and Religion

PHI 6605	Seminar in Ethics
PHI 6634	Seminar in Biomedical Ethics
PHI 6665	Metaethics
PHI xxxx	Environmental Ethics
REL 6175	Religion, Ethics, and Public Policy
REL 6178	Comparative Religious Ethics
REL xxxx	Buddhist Ethics
REL 6182	Faith and Reason in Western Religious Ethics
REL xxxx	Comparative Philosophy of Religion

D. Philosophy and Religion: Politics, Culture

PHH 6265	Continental Phil I: Phenomenology to Hermeneutics
PHH 6266	Continental Phil II: Political Theory and Continental Social Theory
PHH 6267	Continental Phil III: From Structuralism to Postmodernism
PHI 6425	Seminar in the Philosophy of Social Science
PHI 6808	Seminar in Aesthetics
PHM 5125	Topics in Feminist Philosophy
PHM 6105	Seminar in Social Philosophy
PHM 6305	Seminar in Political Philosophy
REL 6126	Religion in America
REL 6143	Religion, Culture, and Society
REL 6175	Religion, Ethics, and Public Policy
REL 6195	Religion and Modernization
REL 6447	Liberation Theology
REL xxxx	Buddhism and Postmodernism
REL xxxx	Religious Issues in the Caribbean World

E. World Religions and Non-Western Philosophy

PHI xxxx	African Philosophy
REL xxxx	Buddhism
REL xxxx	Comparative Philosophy of Religion
REL xxxx	Buddhism and Postmodernism
REL xxxx	Seminar in Confucianism
REL xxxx	Medical Philosophy: Chinese, Greek, Indian
REL xxxx	Comparative Mysticism
PHM 5125	Topics in Feminist Philosophy
PHI xxxx	Latin American Thought
REL 6178	Comparative Religious Ethics
REL xxxx	Buddhist Ethics
REL xxxx	Religious Issues in the Caribbean World

III. Coursework or an examination demonstrating reading proficiency in two foreign languages appropriate to the student's research, with the approval of the Director of Graduate Studies or the Chair of the student's Dissertation Committee.

IV, 12 credit hours in area(s) of doctoral research.

V. A comprehensive examination on a required list of readings constructed by the candidate and a committee of examiners.

VI. A written prospectus for the dissertation and an oral defense of the prospectus.

VII. A written dissertation and an oral defense of this dissertation. The dissertation committee will be composed of

a. Either a Major Professor appointed in both Philosophy and Religious Studies, or co-Major Professors, one of whom is appointed in Philosophy and the other of whom is appointed in Religious Studies; and

b. At least one other member from Philosophy and one from Religious Studies.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PHYSICS PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 1
Spring:	September 1
Summer:	February 1

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 40.0801
Dept Code: PHY
Program (Major/College): PHY AS

Concentrations:
Applied Physics (APM)
Atmospheric Physics (APZ)
Atomic and Molecular Physics (AMZ)
Laser Physics (LPZ)
Materials Physics (MPZ)
Medical Physics (MEZ)
Optical Physics (OPZ)
Semiconductor Physics (SCZ)
Solid State Physics (SSZ)

CONTACT INFORMATION

College: Arts and Sciences
Department: Physics

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Contact program for information.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university plus

- three letters of recommendation
- a statement of purpose
- GRE General Test scores required, GRE Physics Subject Test scores recommended.

DEGREE PROGRAM REQUIREMENTS

Students admitted to the graduate program in Physics, will consult with the Physics Director of Graduate Studies, who will be the student's course advisor and monitor the student's progress. After a decision has been made concerning the student's academic goals, the duties of graduate advising will be assumed by the major professor and the supervisory committee appointed by the department chairperson. In keeping with the student's academic goals, the supervisory committee will determine the appropriate course of study and examinations required for graduation for both the thesis and non-thesis options.

Total Minimum Hours:	30
Core Requirements	**15 credit hours**
Core courses: (all five are required)	
a) PHZ 5115 Mathematical Methods I	3
b) PHY 6346 Electricity and Magnetism I	3
c) PHY 6645 Quantum Mechanics I	3
d) PHY 6646 Quantum Mechanics II	3
e) PHY 6536 Statistical Mechanics	3

Thesis option **15 credit hours**

Three graduate-level elective classes (nine credit hours), at least two of which must be within physics, plus six credit hours of master's-thesis or directed research. PHY 6911, and PHY 6971 will not count toward the electives. In addition, the candidate must present and successfully defend a written thesis.

Non-thesis option **15 credit hours**

Five graduate-level elective classes (fifteen credit hours), at least two of which must be in physics. PHY 6911, and PHY 6971 will not count toward the electives.

Laboratory or Computing Experience

The student, as part of their elective work or thesis, or through previous course work, should demonstrate either laboratory or computational experience.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PHYSICS (APPLIED PHYSICS) PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 1
Spring:	September 1
Summer:	February 1

Minimum Total Hours:	57
Program Level:	Doctoral
CIP Code:	40.0801
Dept Code:	PHY
Program (Major/College):	APD AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Physics
Contact Information:	www.grad.usf.edu

PROGRAM INFORMATION

This program emphasizes the practical, engineering applications of theoretical and fundamental physical concepts. The program encompasses the areas of laser physics, materials physics, computational physics, environmental physics and sensors, biomedical physics and imaging science.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as University plus

- three letters of recommendation
- a statement of purpose
- GRE General Test scores required, GRE Physics Subject Test scores recommended.

DEGREE PROGRAM REQUIREMENTS

The program requires a total of 57 credit hours distributed as follows:

1. Core courses: (all 6 required)

a) PHZ 5115	Mathematical Methods I	3
b) PHY 6346	Electricity and Magnetism I	3
c) PHY 6645	Quantum Mechanics I	3
d) PHY 6646	Quantum Mechanics ~~II~~ II	3
d) PHY 6536	Statistical Mechanics	3
f)	Industrial Practicum (contact department for details)	

2. Laboratory experience: 0–1 classes:
This may be met, for example, by submitting an experimental thesis or dissertation, by taking Modern Laboratory Techniques (PHY 6846L) or Electronics for Research (PHY 5720C), or through sufficiently rigorous relevant experience (e.g., prior courses, industrial employment, etc.).

3. Computational experience: 0–1 classes
This may be met, for example, by submitting a computational thesis or dissertation or by completing Computational Physics I (PHZ 5156C), cross-listed undergraduate Computational Physics (PHZ 5151C), or Measurement and Instrumentation (PHY 6753), or through sufficiently rigorous relevant experience (e.g., prior graduate or undergraduate courses, industrial employment, etc.).

4. Electives: at least an additional 4 graduate-level classes, of which at least 2 are in Physics
Any graduate-level classes (excluding research and seminars), including any of the courses mentioned above, if they are not used to fulfill other requirements. Among the possible elective courses are Biophysics I and II, Materials I and II, Solid-State Physics I and II, Lasers and Applications, Electricity and Magnetism II, Classical Mechanics, Atomic and Molecular Spectra I and II, Physical Applications of Group Theory, Light-wave Devices, and special-topics courses.

5. Qualifying Process:
The student, in consultation with his or her research advisor, will assemble a supervisory committee that consists of the advisor and at least three other faculty members, at least two of whom are in the Physics Department. The Qualifying Process (contact department for details) is based on the student's GRE Physics Test score, graduate GPA at USF, and research accomplishments and potential. If the supervisory committee judges the qualifying process to be successfully completed, the student may proceed to the candidacy stage.

6. Admission to candidacy:
To become a Ph.D. Candidate, the student must present a dissertation proposal and successfully defend that proposal to the supervisory committee.

7. Dissertation:
The candidate will conduct original and significant research, describe that research and the results in a doctoral dissertation and defend that dissertation in an oral presentation to the supervisory committee. The defense is open to the public and must be scheduled according to the regulations of the Graduate School.

Core Requirements

Courses in theoretical and applied areas	18 hours
Lab training	3 hours
Electives	12 hours
Dissertation Research (PHY 7980)	24 hours

An important feature of this program is a course in laboratory measurement and instrumentation and a field-site industrial practicum, which comprise the six hours of lab training.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PHYSICS / ENGINEERING SCIENCE JOINT PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines: See listings for Physics and Engineering Science

Minimum Total Hours: 51
Program Level: Masters
CIP Codes: 40.0801 and 14.0101
Dept Codes: PHY and ESB
Program (Major/College): PHY AS and EGC EN

CONTACT INFORMATION

Colleges: College of Arts and Sciences
College of Engineering
Departments: Physics, Engineering Science

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Contact the program for information.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

See listings for Physics and Engineering Science.

Program Admission Deadlines

See deadlines for Physics and for Engineering Science.

DEGREE PROGRAM REQUIREMENTS

Contact the program for information.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PHYSICS / ENGINEERING SCIENCE JOINT PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines: See listings for Physics and Engineering Science

Minimum Total Hours: 90
Program Level: Doctoral
CIP Codes: 40.0801 and 14.0101
Dept Codes: PHY and ESB
Program (Major/College): PHY AS and EGC EN

CONTACT INFORMATION

Colleges: Arts and Sciences, Engineering
Departments: Physics, Engineering Science

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

Contact program for information

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
See listings for Physics and Engineering Science.

Program Admission Deadlines
See deadlines for Physics and for Engineering Science

DEGREE PROGRAM REQUIREMENTS

Contact the program for information.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PHYSIOLOGY AND MORPHOLOGY CONCENTRATION

Master of Science (M.S.) Degree in the Biology Program with a Concentration in Physiology and Morphology

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 1 for full consideration; however applications are accepted to February 15 (U.S. Applicants)
January 1 (International)

Spring: August 1 (U.S. Applicants)
July 1 (International)

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 26.0101
Dept Code: BIO
Program (Major/College): BIO AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Integrated Biology (IB)

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

For program information refer to the Biology Program (M.S.) listing.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Physiology and Morphology

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Applying to the Department of Integrative Biology
Students interested in attending graduate school within the IB Department should contact potential major professors to communicate their research ideas and establish that the professor will consider the student's application. The IB Department requires that all students admitted into the MS program have the approval of a major professor. Applicants should contact faculty conducting research in the student's area of interest well in advance of the application deadline. For all master's students, the major professor and at least two additional faculty constitute the student's supervisory committee, the major professor and at least one of the committee members must be from the Integrative Biology Department. Supervisory committees must be established within two semesters after matriculation. Failure to do so will be cause for dismissal.

The IB Graduate Director, IB Chair, and the College Associate Dean (or designee) must approve the Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a thesis, the student shall enroll for a minimum of two (2) hours of research credit each semester (other than summer semester), until eligible to enroll in thesis credits.

~~Program Admission Requirements~~

- ~~Prospective students must apply to a specific Integrative Biology MS program concentration via the online application process through the USF Graduate School.~~

- ~~Must have 3.00 GPA last 60 hours of B.S. degree~~

- ~~Must have 500V, 600Q, 4.5AW on GRE~~

- ~~All international students are required to submit the TOEFL test. Non-native English speaking graduate students must score a minimum of at least 570 on the paper based test or a minimum total score of 79 on the internet test on the TOEFL and at least 50 on the TSE to be eligible for a teaching assistantship.~~

- ~~For acceptance into the IB Department, acceptance by a faculty member in IB is MANDATORY. IB encourages applicants to contact faculty via email to indicate an interest in the research being conducted in their laboratory. IB will make every effort to pair potential graduate students with appropriate faculty, however, it is recommended that applicants make direct contact with individual faculty. The Graduate Director can assist the student in selecting a potential Major Professor.~~

- ~~It is expected that candidates for the M.S. degrees will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.~~

~~Materials necessary for a complete application are listed below:~~

~~The following items should be submitted in the envelope provided to:~~

~~Biology Graduate Office~~
~~Attention: (Integrative Biology)~~
~~University of South Florida~~
~~4202 E. Fowler Ave – SCA110~~
~~Tampa, FL 33620-5150~~

~~1) **Transcripts.** Two official transcripts in a sealed envelope from each post-secondary institution. Transcripts of work completed at USF will be secured by the Office of Admissions. Thus, applicants only to secure transcripts from other institutions for your application packet.~~

~~2) **Letters of Recommendation.** Three letters of recommendation from faculty in sealed envelopes (on their university letterhead) with the envelope seal signed by the recommender. Students shall complete a **Student Recommendation Form** that can be found on the IB website and submit it to the recommenders.~~

~~3) **Essay.** A 1-2 page essay stating your intended field of research and professional goals. Please indicate your specific research interests, in order that we may refer your application to appropriate IB faculty members. **In the** essay please list 2-3 IB faculty members that you would like to have review your file. *Acceptance into the IB graduate program requires the identification of specific faculty who are willing to direct your research.*~~

~~4) **TA Application.** Applicant must complete the Application for Teaching Assistantship (TA) Form that can be found on the IB website if they wish to be considered for a TA position. Applicants who do not return this form will not be considered for a teaching position. Applicants should attach a resume to the Application for Teaching Assistantship (TA) Form that highlights any previous teaching experience.~~

~~5) **Official GRE scores.** This exam must have been taken within the last five years. OFFICIAL test scores must be sent to USF directly from the testing agency. The University of South Florida's 4-Digit Institution Code is: 5828~~

~~DEGREE PROGRAM REQUIREMENTS~~

~~The thesis based M.S. degree requires successful completion of the following:~~

~~1. structured coursework~~
~~2. an oral qualifying exam~~
~~3. research thesis~~
~~4. defense of thesis examination~~

~~The Master's Degree Requirements should be completed in two to three years. The IB Department requires all graduate work applied toward the completion of degree requirements be completed within a five year period after matriculation. Thesis research should be publishable and students are encouraged to publish their findings. Students must choose a specific concentration in the MS degree that will be completed within either the IB Department. The specific requirements for the Master of Science (M.S.) and the specific concentrations are provided below.~~

~~1) Credit hour requirement: a total of 30 semester hour credits beyond the Baccalaureate Degree is required. *(including BSC 6910. BSC 6971, BSC 6935, and other structured and unstructured courses)*~~

~~2) Successful completion of the oral **comprehensive qualifying examination**. The exam should be taken at the end of the first year, or early in the second year of study. The examination is administered and evaluated by the student's graduate committee.~~

~~3) Submission of a **thesis proposal** and approval by the major professor, graduate committee and graduate director.~~

~~4) A minimum of eight (8) thesis research credit hours (BSC 6971).~~

~~5) Seminar requirement: one presentation, excluding the thesis seminar and defense. Students should present posters or oral presentations based on their thesis research at national/regional professional meetings. The student's graduate committee must approve the presentation.~~

~~6) Submission of an acceptable thesis.~~

~~7) Presentation of the thesis seminar (BSC 6935) and successful defense of the thesis.~~

~~Degree Progress~~
~~A student must be registered for an appropriate load (in no case fewer than two [2] graduate hours) in the college for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the advisory committee will be dropped from the program. Registration in courses entitled Directed Research, Thesis must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Thesis: Master's until a Supervisory Committee has been formed and completed the oral qualifying examination. A student who enrolls in courses entitled Thesis: Master's but does not submit a thesis will not be certified for graduation.~~

~~Core Requirements~~
~~M.S. in Biology Core (20 credit hrs)~~
~~BSC 6930 Lectures in Contemporary Biology (1) *Repeated three times for 3 credits*~~

~~Concentration Requirements (17 hrs)~~
~~A minimum 17 credit hours of course work selected from the list below for a minimum of 20 credit hours. The graduate student, major professor and graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee. Graduate students concentrating in the area of Physiology and Morphology will select from the following list of courses:~~

~~PCB 6456 – Biometry I 4~~
~~PCB 6458 – Biometry II 3~~
~~BSC 6932 – Advances in Ichthyology 1~~
~~ZOO 5463 – Herpetology 4~~
~~ZOO 5456 – Ichthyology 4~~
~~ZOO 54xx – Ornithology 3~~
~~BSC 6932 – Scientific Writing 2~~
~~PCB 5256 – Developmental Mechanisms 3~~
~~BSC 6932 – Physiological Ecology 3~~
~~BSC 6932 – Advances in Physiology 1~~
~~BSC 6932 – Ecoimmunology 3~~
~~BSC 5931 – Comparative Approaches in Evolution 3~~
~~BSC 5931 – Ecological and Functional Morphology 3~~
~~BSC 6932 – Physiology of Movement 3~~

~~**Thesis (6971) 8 hours**~~
~~A minimum of eight thesis research credit hours is required.~~

~~**Non-Thesis**~~
~~For students enrolled in the non-thesis program, a 30-hour minimum is required at the 5000-6000 level; 26 hours must be in formally structured courses, 16 hours must be at the 6000 level; 15 structured hours must be offered by IB. A review paper of a topic approved by the supervisory committee is required as well as successful completion of the comprehensive oral qualifying exam after all course work has been completed. For non-thesis master's students, this exam will occur at the end of the program of study.~~

~~**Comprehensive Oral Qualifying Examination**. A comprehensive examination is required for all master's students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two years of matriculation and the exam is normally taken after the completion of all formal course work. Thesis students must take the examination at least one semester before the thesis is presented. Any graduate work counted toward the requirement for the M.S. degree must be completed within five (5) years after matriculation.~~

~~All thesis-based Master's Degree students must present a seminar to the Department of Biology and must be enrolled in BSC 6935, during the final semester. The seminar should be a concise summary of the research completed to satisfy the requirements for the M.S. Degree. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee.~~

~~COURSES~~

~~See: http://www.ugs.usf.edu/sab/sabs.cfm~~

~~PHYSIOLOGY AND MORPHOLOGY CONCENTRATION~~

~~Doctor of Philosophy (Ph.D.) Degree in the Biology Program with a Concentration in Physiology and Morphology~~

~~DEGREE INFORMATION~~

~~**Program Admission Deadlines:**~~
~~**Fall**: January 1 for full consideration; however applications are accepted to February 15 (U.S. Applicants)~~
~~January 1 (International)~~

~~**Spring**: August 1 (U.S. Applicants)~~
~~July 1 (International)~~

~~**Minimum Total Hours:** 90~~
~~**Program Level:** Doctoral~~
~~**CIP Code:** 26.0101~~
~~**Dept Code:** BIO~~
~~**Program (Major/College):** BIO AS~~

~~CONTACT INFORMATION~~

~~**College:** Arts and Sciences~~
~~**Departments:** Integrated Biology (IB)~~

~~**Contact Information:** www.grad.usf.edu~~

~~PROGRAM INFORMATION~~

~~For program information refer to the Biology Program (Ph.D.) listing.~~

~~**Accreditation:**~~
~~Accredited by the Commission on Colleges of the Southern Association of College and Schools.~~

~~**Major Research Areas:** Physiology and Morphology~~

~~ADMISSION INFORMATION~~

~~Must meet University requirements (see Graduate Admissions) as well as requirements listed below.~~

~~***Applying to the Department of Integrative Biology***~~
~~Students interested in attending graduate school within the IB Department should contact potential major professors to communicate their research ideas and establish that the professor will consider the student's application. The IB Department requires that all students admitted into the PhD program have the approval of a major professor. Applicants should contact faculty conducting research in the student's area of interest well in advance of the application deadline. All doctoral degree seeking students must form a supervisory committee. The major professor and at least three committee members must be from the IB Department and the committee must be established within two semesters after matriculation. Failure to do so will be cause for dismissal. The IB Graduate Director, IB Chair, and the College Associate Dean (or designee) must approve the Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a dissertation, the student shall enroll for a minimum of two (2) hours of research credit each semester (other than summer), until eligible to enroll in dissertation credits.~~

~~Program Admission Requirements~~

- ~~Prospective students must apply to a specific Biology PhD program concentration via the online application process through the USF Graduate School.~~

- ~~Must have 3.00 GPA last 60 hours of B.S. degree.~~

- ~~Must have 500V, 600Q, 4.5 AW on GRE.~~

- ~~All international students are required to submit the TOEFL test. Non-native English speaking graduate students must score a minimum of at least 570 on the paper based test or a minimum total score of 79 on the internet based test on the TOEFL and at least 50 on the TSE to be eligible for a teaching assistantship.~~

- ~~For acceptance into the IB Department, acceptance by a faculty member in IB is MANDATORY. IB encourages applicants to contact faculty via email to indicate an interest in the research being conducted in their laboratory. IB will make every effort to pair potential graduate students with appropriate faculty, however it is recommended that applicants make direct contact with individual faculty. The Graduate Director is available to assist students in identifying a potential Major Professor.~~

- ~~It is expected that candidates for the PhD degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.~~

~~DEGREE PROGRAM REQUIREMENTS~~

~~The Ph.D. degree requires successful completion of:~~

1. ~~structured coursework~~
2. ~~written qualifying exam (dissertation proposal, presentation/seminar, and defense of dissertation/proposal)~~
3. ~~oral qualifying exam and Admission to Candidacy~~
4. ~~oral Defense and submission of approved Dissertation~~

~~Coursework~~

~~A total of 90 credits beyond the baccalaureate must be earned: this includes any graduate credit earned prior to admission to the doctoral program. A minimum of three years of graduate work beyond the Baccalaureate Degree is required. Twelve (12) hours of graduate work completed while a non-degree seeking student at this institution may be transferred to the doctoral program, with approval of the supervisory committee. At least one academic year of residence must be on the campus. A year of residence is enrollment in a minimum of nine (9) semester credits for two consecutive semesters. The direction and immediate supervision of graduate work for doctoral students resides with the major professor and student's graduate committee. Graduate students are not admitted unless a major professor has agreed to serve as the student's supervisor. The University imposes limitations on the time period between admission to candidacy and successful completion of degree requirements. *University policy for time limits may be viewed in the Degree Requirements Section of this catalog.*~~

~~The IB Department requires that all graduate work applied toward the completion of degree requirements be completed within a seven year period after matriculation. Doctoral students are encouraged to gain teaching experience in at least two undergraduate courses in the department. Overall degree requirements for the Doctor of Philosophy are as follows:~~

1. ~~Credit hour requirement: A total of 90 semester hour credits beyond the Baccalaureate degree is required. *(including BSC 7910, BSC 7971, BSC 7980 and other structured and unstructured courses)*~~

2. ~~A minimum of twenty-four (24) dissertation research credit hours (BSC 7980) is required.~~

3. ~~Submission of a doctoral proposal and approval by major professor, graduate committee, and graduate director~~

~~4. Successful completion of the dissertation proposal, presentation/seminar and preliminary doctoral examination. There is an oral exam.~~

~~5. Presentation requirement: two presentations, excluding the doctoral seminar and defense. Students are expected to present posters or oral presentations based on their dissertation research at national/regional professional meetings. The graduate committee must approve the presentation.~~

~~6. Publication requirement: one research paper must be submitted for publication to a refereed scientific journal by the date of the Doctoral Seminar and Defense. The paper may be sole or coauthored, but it must be based on the dissertation research. The student's supervisory committee must approve the paper prior to submission.~~

~~7. Submission of an acceptable dissertation~~

~~8. Presentation of the doctoral seminar (BSC 7936) and successful defense of the dissertation.~~

~~Degree Progress~~

~~A student must be registered for an appropriate load (in no case fewer than two [2] graduate hours) in the college for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the advisory committee will be dropped from the program. Registration in courses entitled Directed Research, or Dissertation must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Dissertation: Doctoral (BSC 7980) until a Supervisory Committee has been formed and a approved Admission to Candidacy on file with the Graduate School . A student who enrolls in courses entitled Dissertation: Doctoral but does not submit a dissertation will not be certified for graduation.~~

~~Core Requirements~~

~~PhD in Biology Core (10 credit hrs.)~~
~~BSC 6930 Lectures in Contemporary Biology (1) *Repeated four times for 4 credits plus 6 additional hours of coursework.*~~

~~Concentration Requirements~~

~~A minimum of two courses selected from the list below for a minimum of 6 credit hours. The graduate student, major professor and graduate committee will establish the specific courses for each graduate student. Other courses, not listed below, can be substituted if approved by the Graduate Committee. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.~~

~~Graduate students concentrating in the area of Physiology and Morphology will select from the following list of courses:~~

~~PCB 6456 – Biometry I 4~~
~~PCB 6458 – Biometry II 3~~
~~BSC 6932 – Advances in Ichthyology 1~~
~~ZOO 5463 – Herpetology 4~~
~~ZOO 5456 – Ichthyology 4~~
~~ZOO 54xx – Ornithology 3~~
~~BSC 6932 – Scientific Writing 2~~
~~PCB 5256 – Developmental Mechanisms 3~~
~~BSC 6932 – Physiological Ecology 3~~
~~BSC 6932 – Advances in Physiology 1~~
~~BSC 6932 – Ecoimmunology 3~~
~~BSC 5931 – Comparative Approaches in Evolution 3~~
~~BSC 5931 – Ecological and Functional Morphology 3~~
~~BSC 6932 – Physiology of Movement 3~~

~~Qualifying Examination~~

~~All students in the IB PhD degree concentration must complete a qualifying examination.~~

~~The exam consists of 3 parts:~~

~~1. Dissertation proposal~~
~~2. Seminar/presentation of proposal~~

~~3. Defense of dissertation proposal~~

~~Admission to Candidacy~~

~~The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing an oral qualifying examination and , approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Graduate School. Following admission to candidacy, a student must enroll in BSC 7980 when engaged in research, data collection, or writing activities relevant to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than 16. Students not admitted to candidacy are not eligible to enroll in BSC 7980.~~

~~Additional Requirements~~

~~Any graduate work counted toward fulfilling the requirements for the Ph.D. degree must be completed within seven (7) years after matriculation.~~

~~Doctoral Seminar and Defense.~~

~~All doctoral students must present a public seminar to the IB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the supervisory committee and submit the dissertation to the Graduate School.~~

~~COURSES~~

~~See: http://www.ugs.usf.edu/sab/sabs.cfm~~

POLITICAL SCIENCE PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 45.1001
Dept Code: GIA
Program (Major/College): POL AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Government and International Affairs
Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The graduate program leading to the M.A. in Political Science is designed to offer advanced general instruction in Political Science. It prepares its graduates for positions of responsibility in the public and private sectors, as well as in research, teaching, and study at the doctoral level. For instructional purposes, the graduate curriculum in Political Science has been divided into three fields:

Field 1 Comparative Government and Politics	(courses with a CPO prefix)
Field 2 International Relations	(courses with an INR prefix)
Field 3 Public Policy	(courses with a PUP, POS, POT, URP, or PAD prefix)

Students select one field as a major area and another field as a minor area. They must consult with the graduate coordinator to map out a course plan.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Same as university plus:

- three (3) letters of recommendation
- and a 500 word statement of purpose
- must have an undergraduate background in political science.

DEGREE PROGRAM REQUIREMENTS

A minimum of 36 hours of graduate level course work distributed according to the following five categories:

1. **Required Research Methods Sequence** (6 hours):
   POS 6735 3
   POS 6736 3

2. **Major field** (15 hours):
   Core course in major area
   Either
   CPO 6091, INR 6007, or PUP 6007
   And 4 additional courses.

3. **Minor field** (9 hours):
   Core course in major area
   Either
   CPO 6091, INR 6007, or PUP 6007
   And 2 additional courses.

4. **Thesis** (Minimum of 6 hours):
   POS 6971 6 min

To earn an MA in Political Science students are required to complete a thesis that provides new insight into a relevant topic in political science or international studies. As students approach the thesis stage, they need to compose a thesis committee consisting of a major professor, who must be a member of the Department of Government and International Affairs, and two readers. One of the two readers can be from another department, but that person must first be approved by the program director. The thesis committee must approve proposals before students embark on their projects. Students must prepare a written thesis and defend their work in a formal oral presentation before their committee.

Comprehensive Examination
After finishing course work each student must pass a written comprehensive examination covering his or her major and minor fields. These examinations must be taken before completion of the thesis and thesis defense. Students cannot enroll in thesis hours before the semester they have signed up to take their exams.

Course Listings-

CPO 5934	CPO 6036	CPO 6091
INR 5012	INR 5086	INR 6007
INR 6036	INR 6107	
PAD 6060	PAD 6275	PAD 6307
PAD 6338	PAD 6339	PAD 6355
POS 5094	POS 5155	POS 6045
POS 6095	POS 6127	POS 6157
POS 6415	POS 6427	POS 6455
POS 6607	POS 6698	
POT 5626	POT 6007	
PUP 5607	PUP 6007	
URP 6056		

Students may take a maximum of 3 hours of Independent Study (POS 6909) and 3 hours maximum of Directed Research (POS 6919)

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PSYCHOLOGY PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Students are not admitted to a terminal M.A. degree in Psychology. See deadlines for Ph.D. in Psychology

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 42.0101
Dept Code: PSY
Program (Major/College): PSY AS

Concentrations:
Clinical Psychology (PSC)
Cognition, Neuroscience, and Social Psychology (PCN)
Industrial-Organizational Psychology (PSI)

CONTACT INFORMATION

College: Arts and Sciences
Department: Psychology

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The graduate faculty of the Psychology Department is divided into three broad concentrations: Clinical, Cognition, Neuroscience, & Social Psychology, and Industrial-Organizational. Each of these areas offer Ph.D. level training in the following areas of special expertise.

Clinical –Psychopathology, Psychological Assessment and Interventions, Health Psychology, Addictive Behaviors, Clinical Child Psychology, Clinical Neuropsychology.

Cognition, Neuroscience, & Social Psychology – Behavioral Neuroscience, Cognition, Judgment and Decision Making, Development, Memory, Perception, Social. In addition, with faculty in Communication Sciences and Disorders, the Cognitive and Neural Sciences faculty offer a specialization in Speech/Language/Hearing Sciences.

Industrial-Organizational – Selection, Training and Evaluation of Organization Members, Job Analysis, Motivation and Satisfaction, Occupational Health Psychology, Organizational Theory, Leadership, Organizational Change. Methodological offerings across areas cover Psychometrics, Statistics, Factor Analysis, Structural Equation Modeling, and Research Design.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools; Clinical Program: American Psychological Association, and member of the Academy of Psychological Clinical Science.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Not a terminal MA. See Ph.D. Requirements.

DEGREE PROGRAM REQUIREMENTS

The Department of Psychology does not admit students seeking a terminal M.A. degree in Psychology. Additional information is available in the Graduate Student Handbook: http://psychology.usf.edu/policies/students.aspx

Total Minimum Hours: 30 (B- or better for each required course)

Core requirements:

PSY 6971 Master's Thesis	6
PSY 6217 Regression and Analysis of Variance	4

Two of the following:

EXP 6608 Cognitive Psychology	3
SOP 6266 Social Psychology	3
PSB 6056 Physiological Psychology	3

The remainder of the required hours are fulfilled by satisfying concentration requirements described below.

Concentration Requirements:

Clinical Psychology

Graduate Breadth Requirements: Students must take one course in each of the three Breadth areas: Biological Aspects of Behavior, Social Aspects of Behavior, and Cognitive/Affective Aspects of Behavior.

Biological aspects of behavior

PSB 6056--Physiological Psychology	3
CLP 6937--Human Neuropsychology	3
CLP 7379--Health Psychology	3
EXP 7099—Psychopharmacology	3
EDF 6938--Pediatric Psychopharmacology	3
EXP 7099—Psychophysiology	3
EXP 7099--Survey of Neuroscience	3

Social aspects of behavior

SOP 6266—Social	3
PSY 6266--Psychology of Gender	3
EXP 7099--Stress and Coping	3
INP 6935--Organizational Psychology	3
EXP 7099--Social and Personality Development	3
EXP 7099--Social Psychology of Interpersonal Relationships	3

Cognitive and affective aspects of behavior

EXP 6608—Cognitive	3
EXP 7099—Memory	3
EXP 7099—Forgetting	3
CLP 7379--Emotion and its Disorders	3
CLP 7379--Mood Disorders	3
EXP 7099--Image and Mind	3
EXP 7099--Cognitive Neuroscience of Perception	3

Graduate Research Methods Requirements
All clinical students are required to take a total of four graduate research methods courses.

PSY 6217 ANOVA/Regression plus lab	4
SOP 7265 Multivariate Statistics (or equivalent outside of department)	

PSY 6217/SOP 6266 Clinical Psychometrics (or equivalent outside of department)

Plus ONE additional research methods course (3 credits). Students may choose from the list of approved courses below. Students wishing to fulfill this methods requirement with any course not listed below must submit a request to the clinical faculty.

SOP 6266--Factor Analysis	3
SOP 6266--Structural Equation Modeling	3
SOP 6266--Meta-Analysis	3
EXP 7099--Developmental Research Methods	3
CLP 6937--Grant Writing	3
SOP 6266--Item Response Theory	3
SOP 6266--Hierarchical Linear Modeling	3

Clinical Core Requirements
Clinical Didactic Courses: Students need to take at least one "fundamental" course in each of the three areas assessment, interventions, and psychopathology.
CLP 6438--Clinical Assessment
CLP 7188--Clinical Interventions
CLP 6166--Psychopathology and its Development

Specialized Topic Course Requirements:
Students must also complete four courses in specialization topics related to psychological assessment, intervention, and psychopathology/dysfunction. The following courses would fulfill this requirement:

CLP 6937--Neuropsychological Assessment	3
CLP 6937--Prevention science	3
CLP 7379--Emotion and its disorders	3
CLP 7379--Mood disorders	3
CLP 7379--Eating disorders	3
CLP 7379—Addictions	3
CLP 7379--Health Psychology	3
CLP 7379--New Paradigms in Psychology	3
CLP 7379--Cultural Diversity	3
CLP 7379--Advanced Psychological Intervention Seminar/Specialized Treatments	3
PSY 6946--Advanced Psychological Assessment Seminar	3
CLP 7379--Clinical Science Seminar	3

Clinical Practicum
PSY 6946 (1 hour per semester beginning the second year of graduate training)

Other course requirements:

PSY 6946–Skills for Psychological Intervention	2
CLP 6937—Introduction to Clinical Psychology/Cultural Diversity Pro-Seminar	3
PSY 7931–Ethics and Professional Problems	2

Research Requirements:

PSY 6971--Thesis	6

Concentration Requirements:

Cognition, Neurosciences, & Social Psychology:

Prior to the Comprehensive Exam
Total Minimum Hours: 30

Core Requirements (16 hours)
At least a B- in a minimum of two of the following:
Cognitive Psychology (3), Physiological Psychology (3), or Social Psychology (3).
Students may be allowed to substitute an advanced three-hour course for one or both of these courses with the written permission of the CNS Area Director. (6 total hours)

Two basic methods courses with grades of at least B-: Analysis of Variance (3) and Regression (4) and ANOVA (4)/Research Design and Analysis (3). (8 total hours)
Introduction to CNS (2 semesters, 1 hour each)

Concentration Requirements (6 hours)
* A minimum of two seminars or advanced courses in cognition, neuroscience, or social psychology from CNS faculty or, with written permission of the Area Director, related disciplines with grades of at least B-.

Total Thesis Hours Required (6 hours)
Master's thesis research (minimum 6 PSY6971 Thesis: Master's or PSY6917 Directed Research credits –it is recommended that students take thesis credits in order to retain the option of applying for a master's degree).

Concentration Requirements:

Industrial-Organizational Psychology

I/O Concentration Requirements (30 hours)

EXP 6608--Cognitive Psychology	3
SOP 6669—Personality	
SOP 6058--Social Psychology	3
INP 6935--Personnel Psychology	3
INP 6935--Organizational Psychology	3
PSY 7931--Ethics and Professional Problems	3
INP 7097--Research in I/O Psychology	1 (2 times)
SOP 6669—Psychometrics	3
PSY 6217--ANOVA - Multiple Regression	4
SOP 6669--Organizational Research Methods	3
PSY6971 Thesis: Master's	6

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PSYCHOLOGY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall:
Clinical: December 1
Cognition, Neuroscience & Social Psychology: January 2
Industrial-Organizational: January 2

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 42.0101
Dept Code: PSY
Program (Major/College): PSY AS

Concentrations:
Clinical Psychology (PSC)
Cognition, Neuroscience, & Social Psychology (PCN)
Industrial-Organizational Psychology (PSI)

CONTACT INFORMATION

College: Arts and Sciences
Department: Psychology

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Psychology Department graduate program is divided into three broad concentrations: Clinical, Cognition, Neuroscience, & Social Psychology, and Industrial-Organizational. Each of these areas offer Ph.D. level training in the following areas of special expertise:

Clinical
Psychopathology, Psychological Assessment and Interventions, Health Psychology, Addictive Behaviors, Clinical Child Psychology, Clinical Neuropsychology.

Cognition, Neuroscience, & Social Psychology
Behavioral Neuroscience, Cognition, Judgment and Decision Making, Development, Memory, Perception, Social. In addition, with faculty in Communication Sciences and Disorders, the CNS faculty offer a specialization in Speech/Language/Hearing Sciences.

Industrial-Organizational
Selection, Training and Evaluation of Organization Members, Job Analysis, Motivation and Satisfaction, Occupational Health Psychology, Organizational Theory, Leadership, Organizational Change. Methodological offerings across areas cover Psychometrics, Statistics, Factor Analysis, Structural Equation Modeling, and Research Design.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools; Clinical Program: American Psychological Association, and member of the Academy of Psychological Clinical Science.

ADMISSION INFORMATION

Must meet University requirements (application, fee, transcripts, GRE/TOEFL scores , see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

University requirements plus

- a personal goals statement
- three letters of recommendation
- strong preference for GRE V and Q scores each at the 50th percentile or better
- upper division undergraduate GPA 3.4 or better.

DEGREE PROGRAM REQUIREMENTS

After completion of all M.A. requirements in Psychology or its equivalent with a minimum GPA of 3.0, the following requirements must be met:

Total Minimum Hours: 12

- Successful completion of the Ph.D. Comprehensive Qualifying Exam (CL, CNS, IO) or major area paper (CL, CNS).
- PSY 7980 Doctoral Dissertation (12)
- Successful Defense of the Doctoral Dissertation

Additional information is available in the Graduate Student Handbook:
http://psychology.usf.edu/policies/students.aspx

Concentration Requirements:

Clinical Psychology

Graduate Breadth Requirements:
Students must take one course in each of the three Breadth areas: Biological Aspects of Behavior, Social Aspects of Behavior, and Cognitive/Affective Aspects of Behavior.

Biological aspects of behavior	
PSB 6056--Physiological Psychology	3
CLP 6937--Human Neuropsychology	3
CLP 7379--Health Psychology	3
EXP 7099—Psychopharmacology	3
EDF 6938--Pediatric Psychopharmacology	3
EXP 7099—Psychophysiology	3
EXP 7099--Survey of Neuroscience	3
Social aspects of behavior	
SOP 6266—Social	3
PSY 6266--Psychology of Gender	3
EXP 7099--Stress and Coping	3
INP 6935--Organizational Psychology	3
EXP 7099--Social and Personality Development	3
EXP 7099--Social Psychology of Interpersonal Relationships	3

Cognitive and affective aspects of behavior

EXP 6608—Cognitive	3
EXP 7099—Memory	3
EXP 7099—Forgetting	3
CLP 7379--Emotion and its Disorders	3
CLP 7379--Mood Disorders	3
EXP 7099--Image and Mind	3
EXP 7099--Cognitive Neuroscience of Perception	3

Graduate Research Methods Requirements
All clinical students are required to take a total of four graduate research methods courses.

PSY 6217 ANOVA/Regression plus lab	4
SOP 7265 Multivariate Statistics (r equivalent outside of department)	
PSY 6217/SOP 6266 Clinical Psychometrics (or equivalent outside of department)	

Plus ONE additional research methods course (3 credits). Students may choose from the list of approved courses below. Students wishing to fulfill this methods requirement with any course not listed below must submit a request to the clinical faculty:

SOP 6266--Factor Analysis	3
SOP 6266--Structural Equation Modeling	3
SOP 6266--Meta-Analysis	3
EXP 7099--Developmental Research Methods	3
CLP 6937--Grant Writing	3
SOP 6266--Item Response Theory	3
SOP 6266--Hierarchical Linear Modeling	3

Clinical Core Requirements
Clinical Didactic Courses: Students need to take at least one "fundamental" course in each of the three areas (assessment, interventions, and psychopathology).

CLP 6438--Clinical Assessment	
CLP 7188--Clinical Interventions	4
CLP 6166==Psychopathology and its Development	3

Specialized Topic Course Requirements:
Students must also complete four courses in specialization topics related to psychological assessment, intervention, and psychopathology/dysfunction. The following courses would fulfill this requirement:

CLP 6937--Neuropsychological Assessment	3
CLP 6937--Prevention science	3
CLP 7379--Emotion and its disorders	3
CLP 7379--Mood disorders	3
CLP 7379--Eating disorders	3
CLP 7379—Addictions	3
CLP 7379--Health Psychology	3
CLP 7379--New Paradigms in Psychology	3
CLP 7379--Cultural Diversity	3
CLP 7379--Advanced Psychological Intervention Seminar/Specialized Treatments	3
PSY 6946--Advanced Psychological Assessment Seminar	3
CLP 7379--Clinical Science Seminar	3

Research Requirements:

PSY 6971—Thesis	6
PSY 7980—Dissertation	12

Internship Requirements:
Each student in the Clinical Program is required to complete a one-year, full-time, APA-approved (or CPA approved) internship in a training facility approved by the Program.

Comps/Major area paper

Concentration Requirements:

Cognition, Neurosciences, & Social Psychology:

Prior to the Comprehensive Exam
Total Minimum Hours: 30

Core Requirements (16 hours)
At least a B- in a minimum of two of the following:
Cognitive Psychology (3), Physiological Psychology (3), or Social Psychology (3).
Students may be allowed to substitute an advanced three-hour course for one or both of these courses with the written permission of the CNS Area Director. (6 total hours)

Two basic methods courses with grades of at least B-: Analysis of Variance (3) and Regression (4) and ANOVA (4)/Research Design and Analysis (3). (8 total hours)

Introduction to CNS (2 semesters, 1 hour each)

Concentration Requirements (6 hours)
A minimum of two seminars or advanced courses in cognition, neuroscience, or social psychology from CNS faculty or, with written permission of the Area Director, related disciplines with grades of at least B-.

Total Thesis Hours Required (6 hours)
Master's thesis research (minimum 6 PSY6971 Thesis: Master's or PSY6917 Directed Research credits –it is recommended that students take thesis credits in order to retain the option of applying for a master's degree).

Doctoral Requirements (in addition to the requirements for the M.A. degree) (33 more hours)

Elective requirements (21 hours)
Completion of at least four additional seminars or advanced courses that are relevant to the student's area of research specialization. Of the six courses that are the required minimum for the doctorate (2 before admission to doctoral candidacy), at least three must be offered in the Psychology Department. Students may substitute the third core course (Cognitive, Physiological, or Social) for one of the six with the written permission of the Area Director. At least two of the courses must be outside the student's concentration and will serve as the minor. These fulfill the minor requirement.

* Completion of at least three additional advanced methods courses. These fulfill the tools of research requirement, which must be approved by the Graduate Program Committee. Methods courses are those that deal primarily with research design, data collection techniques, quantitative or qualitative analytic methods, or instrumentation.

Comprehensive/Qualifying Exam Requirements
Students must pass a comprehensive examination or major area paper.

* Admission to doctoral candidacy.
* PSY 7980 Dissertation (minimum of 12 dissertation credits).

Concentration Requirements

Industrial-Organizational Psychology

EXP 6608--Cognitive Psychology	3
SOP 6669—Personality	3
SOP 6058--Social Psychology	3
INP 6935--Personnel Psychology	3
INP 6935--Organizational Psychology	3
PSY 7931--Ethics and Professional Problems	3
INP 7097--Research in I/O Psychology	1 (2 times)
SOP 6669—Psychometrics	3
PSY 6217--ANOVA - Multiple Regression	4
SOP 666--Organizational Research Methods	3
PSY 6971--Thesis: Master's	6

(In addition to the requirements for the M.A. degree)
2 additional elective graduate methods courses (3 hours each)
7 additional elective graduate courses (3 hours each)
2 graduate course minor (3 hours each) – work done outside of students concentration
6 month part-time, 3 month full-time internship

PSY 7980 Dissertation: Doctoral	12

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PUBLIC ADMINISTRATION PROGRAM

Master of Public Administration (M.P.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 42
Program Level: Masters
CIP Code: 44.0401
Dept Code: GIA
Program (Major/College): PAD AS

Also offered as:
A Doctoral Minor in Public Administration

CONTACT INFORMATION

College: Arts and Sciences
Department: Government and International Affairs

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Public Administration Program offers a multi-disciplinary course of study leading to the Master of Public Administration (M.P.A.). The M.P.A. degree is designed primarily to prepare students for successful leadership roles and management careers in the public (i.e., governmental and quasi-governmental organizations) and non-profit sectors. Students enrolled in the M.P.A. Program pursue careers in local, state, or federal agencies of government, non-profit organizations, and special service districts. Additionally the M.P.A. degree prepares individuals for further academic study leading to a doctorate in Public Administration, a Ph.D. in Public Policy and Administration, as well as a variety of other disciplines. Those employed in public management positions may wish to pursue the M.P.A. in order to broaden educational backgrounds to prepare for increased job responsibilities, or to change career paths. Such in-service students currently make up the majority of the M.P.A. student body.

The Public Administration Program also offers courses of study leading to a Graduate Certificate in Public Management (G.C.P.M.) and Graduate Certificate in Nonprofit Management (G.C.N.M.). These programs are designed for individuals who wish to acquire knowledge of public and nonprofit management theory and practices, but who do not find it necessary or feasible to pursue the M.P.A. degree. The M.P.A. Program also serves pre-service students who have recently completed a bachelor's degree, who wish to gain entry to a professional career track. Students admitted to the M.P.A. are not eligible for the Graduate Certificate in Public Management.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools; the National Association of Schools of Public Affairs and Administration (NASPAA).

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Admission decisions to the M.P.A. Program are based on an overall assessment of the applicant's potential for successfully completing the M.P.A. degree. General admission criteria include scores obtained on the Graduate Record Examination (GRE), performance as an undergraduate.

Specific criteria are:

- Completion of a Bachelor's degree from a regionally accredited university.
- The University of South Florida requires a 3.00 (B) grade point average (calculated using grades earned for all coursework completed during junior and senior years of undergraduate study), and GRE scores of 500V, 500Q, 4.0AW or better preferred. This provision applies to all applicants, including those who have already completed courses in the MPA curriculum. Regardless of GPA, those who score 850 or below on the GRE, are required to retake the exam.
- Two letters of recommendation, one from a faculty member familiar with the applicant's academic performance and potential. Should the applicant be unable to provide the letter from a former professor, with the director's approval, letters from other sources will be accepted.
- The submission of a one-page career statement detailing the applicant's career goals and aspirations, including ways in which the applicant believes the M.P.A. degree can help to facilitate the stated goals.
- Approval by the M.P.A. Admissions Committee and, if deemed necessary, an admissions interview. Applicants lacking the background necessary for graduate study in the M.P.A. Program may be asked to take additional undergraduate courses prior to admission.
- The GRE is a required element for MPA admission. However, at the discretion of the MPA program, it may be waived under certain conditions. Examples where GRE waivers may be waived include:
    - Applicant already possesses a graduate degree from a regionally accredited university
    - A written application by the student and a current resume indicating senior level experience
    - Five years or more of practical, professional experience at a senior level (to be determined upon review of documentation by the admissions committee)
    - Documentation of past experience through letters of recommendation from senior management, and
    - Completion of the GCPM or GCNM certificates with a grade point average of 3.5/4.0 or better and no certificate course grade less than a B-.
    - Approval of the Public Administration Admission Committee; decision to be made on a case by case basis. (Additional documentation and a personal interview may be required)

DEGREE PROGRAM REQUIREMENTS

The M.P.A. required curriculum is a minimum of 42 hours. All students must complete a core of nine courses (27 hours) and either four or six courses (15 hours) in elective coursework selected in consultation with an advisor. Students with appropriately documented administrative work experience commensurate with their career goals may not be required to complete an internship in a public or nonprofit agency. However, students without practical administrative experience in a public or nonprofit sector must complete an internship (6 hours).

The number of elective courses required depends upon the exit option selected by the student. The Problem Report exit option requires four (4) elective courses, as well as registration for PAD 6909, Problem Report for three (3) hours. The Capstone course exit option requires students take 6 elective courses, one of which will be PAD 6056, The Practice of Public Management. At least 24 credit hours must be taken at the 6000 level. A minimum of 27 credit hours must be taken in formal, regularly scheduled classes. Courses at the 5000 level are accepted for credit toward the M.P.A. degree.

Core Requirements (27 hrs)

PAD 5700 Research Methods in Public Administration	3
PAD 6060 Public Administration Theory and Practice	3
PAD 6041 Ethics and Public Service	3
PAD 6227 Public Budgeting	3
PAD 6307 Policy Analysis, Implementation, and Program Evaluation	3
PAD 6417 Human Resources Management	3
PAD 6703 Quantitative Aids for Public Managers	3
PAD 6710 Public Information Management	3
PAD 6275 Political Economy for Public Managers	3

Electives (12-15 credit hours)

Each student must take 12-15 elective credit hours depending on the exit option chosen. Students should refer to the MPA website http://www.cas.usf.edu/pad/index.html http://gia.usf.edu/pad for courses approved by the Program. Students must maintain an overall GPA of 3.00 or better in all of their coursework during the program.

Internship (6 credit hours)

Pre-service students are required to complete a supervised internship (PAD 6946. Internship in Public Administration) in a governmental or non-profit organization. Internships provide students the opportunity to gain valuable experience in the public sector, thereby enhancing the academic course of study. Internship credits must be earned while the student is in residence and before the student has completed regular course work requirements. Exceptions to this rule can only be made by the M.P.A. Director and must be made in advance. In-service students who have appropriate managerial/work experience commensurate with their career goals, may not be required to complete an internship. After consultation with the student, the M.P.A. Director may choose to waive the internship requirement.

Exit Requirements

Capstone Course (3 credit hours)

PAD 6056, The Practice of Public Management, is a final step before graduation. To be eligible to enroll in the capstone course, students must have completed a minimum of 39 credit hours (13 courses). This course is designed to provide the student with an opportunity to apply the knowledge and skills acquired during studies in the Public Administration Program. This course is designed to challenge students to test managerial proficiency, develop capabilities in synthesizing and integrating conceptual frameworks, and to relate these skills to real managerial situations. A minimum grade of "B-" must be earned in the Capstone Course.

-OR -

PAD 6909 Problem Report (3 credit hours)

The Problem Report focuses on a significant administrative/policy problem confronting a public or nonprofit manager or agency. Upon completion, the student should have demonstrated the ability to identify a problem and a set of solutions, collect and analyze relevant data, and present and defend a recommended course of action intended to solve the problem. The student is expected to present and be prepared to defend these findings (both verbally and in writing) to a committee. This option is available only after the student has obtained faculty advisors and submitted a written proposal that complies with Problem Report requirements. Copies of Problem Report, the proposal guidelines, and expectations can be obtained from the M.P.A. Program or M.P.A. website. Students selecting this exit option must complete four elective courses. This requirement is to be completed near the end of the student's course of study. In-service students must select a problem for study that lies outside their immediate work-related responsibilities. The Problem Report Committee shall consist of at least two M.P.A. faculty and, where appropriate, and with permission of the examination committee, a qualified person outside the M.P.A. Program. A minimum grade of "B" must be achieved on the Problem Report. Students must register for PAD 6909 Problem Report, (3 credit hours).

Doctoral Minor in Public Administration

Students enrolled in doctoral level courses of study in other programs (e.g., Anthropology, Psychology, Education) can, with their program's approval, complete a doctoral minor in Public Administration. Students should complete a minimum of four graduate public administration courses to be determined with the advice and consent of an M.P.A. faculty member or M.P.A. Director.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

RELIGIOUS STUDIES PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Minimum Total Hours:	36
Program Level:	Masters
CIP Code:	38.0201
Dept Code:	REL
Program (Major/College):	REL AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Religious Studies
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The M.A. degree in Religious Studies provides opportunities for students with backgrounds in the scholarly study of religion to expand their knowledge of the social, cultural, intellectual, and historical contexts of religion, to develop a greater in-depth knowledge of particular religious traditions, and to acquire proficiency with a variety of pertinent methodologies and theoretical perspectives. The degree serves the needs of students who pursue careers in health professions in education, journalism, law, business, politics, and social work. It will be of special value to those interested in pursuing a doctorate in religious studies.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

~~**Major Research Areas:**~~
Major Research Areas: Biblical Studies, Biblical Archaeology, Christianity, Judaism, Mysticism, Philosophy of Religion, Buddhism, Daoism, Confucianism, Hinduism, Chinese Medicine, Religion in Culture and Society, African Religion, African-American Religion, Afro-Caribbean Religion.

~~Hebrew Bible, New Testament, Formative Christianity, Formative Judaism, Christian Apocrypha, Gnosticism, Biblical languages, History of Judaism, Jewish Studies, the History of Christianity, Material Culture and Religion, Biblical Archaeology, Greco-Roman Religions, Buddhism, Southeast Asian Religions, Classical Islam, Islam in America, Afro-American Islam, Women in Islam, Hinduism, Chinese Religion, Post Modern Philosophy in the study of Religion, Comparative Literature and Cultural Studies in Religion, Religious Ethics, Religion, Ethics, and Society, Comparative Religion, Goddess Religion, Religion and Medicine, Religion in America, New Religions, Religion and Culture, Religion and Public Policy, Afro-American Religious History; Women and Religion; Religious Mysticism; Contemporary Religious Thought; African Religion; Liberation Theology and Religion, Religious Utopianism, post-Holocaust Jewish and Christian Thought, Religion and Modernization, Religion and Law, Biomedical Ethics, Religion and Genetic Engineering.~~

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university plus:

- Three (3) letters of recommendation, and
- A writing sample
- A personal statement (1-3 pages, double-space)
- GRE required, but no minimum specified

DEGREE PROGRAM REQUIREMENTS

Students select a major professor and develop a plan for completing a **minimum of 36 credit hours**. The thesis track requires six (6) of these credits be devoted to a thesis project. The non-thesis track requires that all 36 credits come from graduate seminars. The plan of study is subject to approval of the Graduate Committee. A majority of these courses will be in religious studies, although the plan may include approved courses in other departments. No more than 6 credit hours of 4000-level courses may be counted for graduate credit. There is no uniform language requirement; however, language skills may be required for particular areas of study. All students are required to demonstrate expertise in at least two religious traditions, as well as satisfactorily complete a written, comprehensive examination wherein they demonstrate competence in:

1) pertinent theoretical issues and research methodologies;
2) the analysis and interpretation of related texts, artifacts, and activities; and
3) social and historical contexts of the religions studied.

The Department of Religious Studies "Graduate Student Handbook" should be consulted for additional information about basic requirements and specific procedures.

Total Minimum hours	**36 hours**
Core Requirements (15 hrs)	
REL 6035 Theory and Methods in Religious Studies	3
Six (6) hours of courses in Western Religions (Christianity, Judaism, or Islam)	6
Six (6) hours of courses in Eastern Religions (Hinduism, Buddhism, Daoism, or Confucianism)	6

Electives (15-21 hrs)

No more than six (6) hours may come from independent study/directed reading.
No more than six (6) hours may come from classes below 6000-level.
No more than six (6) hours may come from departments other than Religious Studies.

Thesis/Non-Thesis

Thesis

The student wishing to receive an M.A. degree with a thesis is required to take a minimum of 36 credits. They will complete the core requirements and fifteen (15) hours of elective credits. They will also complete a minimum of six (6) credits of REL 6971. The student will pass a comprehensive exam prior to defending the master's thesis. They will research, write, and successfully defend the master's thesis before a committee of three professors.

Non-Thesis

The student wishing to receive an M.A. degree without a thesis is required to take a minimum of 36 credits. The will complete the core requirements and twenty-one (21) hours of elective credits. The student will also pass a comprehensive exam.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

RELIGIOUS STUDIES / EDUCATION PROGRAM

Dual Degree Program
Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Closed for new admissions

Minimum Total Hours:	n/a
Program Level:	Masters
CIP Codes:	38.0201
Dept Code:	REL
Program (Major/College):	REL AS

CONTACT INFORMATION

Colleges:	Arts and Sciences and Education
Departments:	Religious Studies
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

Currently, no students are being admitted to this program

SECOND LANGUAGE ACQUISITION AND INSTRUCTIONAL TECHNOLOGY (SLAIT) PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall: February 15
Fall admission only

International applicants not in the U.S.:
Fall: February 1
Fall admission only

International applicants currently in the U.S.:
Fall: February 15
Fall Admission Only

Minimum Total Hours: 74
Program Level: Doctoral
CIP Code: 13.401
Dept Code: EDI
Program (Major/College): DLT EJ

Cross-listed under the College of Arts and Sciences, the College of Education, and the Interdisciplinary Programs Sections.

CONTACT INFORMATION

Colleges: Education and Arts and Sciences
Department: Secondary Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

This is an interdisciplinary program between the College of Education and the College of Arts and Sciences and combines the expertise of both faculties to provide a curriculum in pedagogy, world language education, second language acquisition, sociolinguistics, socio-cultural theory, instructional technology, statistics, and research design. The goal of the program is to prepare students for careers in academia.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Second Language Acquisition, Instructional Technology, Foreign Language Education, ESOL, Distance Learning.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Admission Requirements

In addition to the general admission requirements under the advanced graduate education programs, applicants must:

- Submit a "Statement of Purpose" relating their career goals specifically to this doctoral program and describing their experience with instructional technology and language teaching;
- Supply a current curriculum vitae;

- Provide 3 letters of recommendation from professors or other individuals who can attest to the applicant's experience and background;
- Offer evidence of research experience or scholarly promise;
- Meet with the graduate faculty for a personal interview;
- Take a two-hour background assessment to assist faculty in planning the prospective student's program of studies.

Most students admitted to this program will:

- Possess a Master's degree (or equivalent academic level) from a regionally accredited institution or its international equivalent;
- present a minimum GPA of 3.50 (or international equivalent);
- score at or above 500 on the GRE verbal reasoning and 4 on the GRE analytical writing section;

Submit a TOEFL score of minimum 550 (paper-based), 213 (computer-based), or 80 (internet-based), if applicable.

Program evaluates each applicant's dossier based on a composite of variables and appropriateness of fit with the program

For international applicants
Applicants whose native language is not English or who have not earned a degree in the
United States must also submit TOEFL scores earned within two (2) years of the desired term of entry. A minimum total score of 79 on the internet-based test, or 550 on the paper-based test, are required. Applications submitted with TOEFL scores that do not meet the minimum requirements will be denied. The TOEFL requirement may be waived if the applicant meets one of the following conditions:

- The applicant's native language is English, or
- Has scored 500 or higher on the GRE Verbal Test, or
- Has earned a college degree at a U.S. institution of higher learning, or
- Has earned a college degree from an institution whose language of instruction is English (must be noted on the transcript), or
- Has scored 6.5 on International English Language Testing System (IELTS) http://www.ielts.org/.

In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

Prerequisites:
(The prerequisite courses are based on the needs of the individual student; they are not counted towards the 44 hours of required core course work. No minimum or maximum number of prerequisites must be taken. Their selection quantity is reviewed by the student in consultation with his/her SLA/IT supervisory committee chair prior to the student's first semester of study, and is begun during the first year. Please refer to the Program of Study at:
http://www.coedu.usf.edu/slait/programStudy.htm

Prerequisite Coursework

LIN 5700 Applied Linguistics	3
FLE 6665 Current Trends in Foreign Language Education	3
LIN 6720 Second Language Acquisition	3
LIN 6081 Introduction to Graduate Studies	3
TSL 5371 Methods of TESOL	3

TSL 5372 ESOL Curriculum and Instruction	3
EME 5403 Computers in Education	3
TSL 5471 Language Testing	3
FLE 4314/5313 ***or*** FLE 4333/5331 Methods of Teaching Foreign Languages	3

Program of Study: **74 hours minimum**

44 hours of core requirements (with suggested credit hours for different sub-categories);
12 credit hours of electives;
18 hours of dissertation work.
See each section (immediately below) for specific information and course suggestions.

Core Requirements: **44 hours**

Statistics/Measurement/Research Design:	**14 hours minimum**
EDF 6407 Statistical Analysis of Education I	4
EDF 7408 Statistical Analysis of Education II	4
and either	
EDF 7477 Qualitative Research I **and**	4
EDF 7478 Qualitative Research II	4
or	
EDF 7410 Design for Systematic Studies in Education **and**	4)
EEX 7743 Philosophies of Inquiry **or**	3
EDG 7931 Introduction to Qualitative Research	3

Second Language Acquisition:	**18 hours**
SLA 7776 Research Lab 1	2
SLA 7776 Research Lab 2	2
SLA 7776 Research Lab 3	1-4
SLA 7776 Research Lab 4	1-4
SLA 7776 Research Lab 5	1-2
SLA 7776 Research Lab 6	1-2
SLA 7938 Advanced Seminar in SLA	3
SLA 7939 Advanced Seminar in FLE	3
EDG 7931 Sociocultural Theory in SLA	3

Instructional Technology:

12 hours

EME 6936 ACET Interactive Media	3
FLE 6932 Applications of Technology to SLA/FLE	3
EDF 6284 Problems in Instructional Design (prerequisite for EME 6613)	3
EME 7938 Computer-Augmented Instructional Paradigms (Survey of research in instructional technology)	3

Electives: **12 hours**

Courses (not inclusive of these) are selected with the approval of the student's program advisor or committee. Elective coursework must be taken at the graduate and/or advanced graduate level. Select a total of 12 hours of electives from the following three groups (A, B, and C).

Group A: Second Language Acquisition (6-9 hours are required from Group A)
LIN 6018 Topics in Theoretical Linguistics 3
LIN 6117 History of Linguistic Thought 3
LIN 6601 Sociolinguistics 3
LIN 6748 Contrastive Analysis 3

LIN 6931 Writing Processes in SLA	3
EDG 6931 Heritage Language Teaching & Learning	3
LIN 6932 Discourse Analysis	3
FLE 6932 Dual Language in Education	3
EDG 7931 Advanced Seminar in Heritage Language Teaching & Learning	3

Group B: Technology

EME 6613 Development of Technology-Based Instruction	3
EME 6930 PLE: FLASH	3
EME 6930 PLE: Web Programming I	3
EME 6936 ACET: Digital Video	3
EME 6936 ACET: Instructional Graphics	3
EME 6936 ACET: Current Trends in Ed Technology	3
EME 6936 ACET: Web Design	3
EME 7939 Research Methods in Technology-Based Education (EDF 7410 as prerequisite)	3
EME 7458 Research in Distance Learning	3
EME 7631 Research in Technology Project Management	3
EME 6936 Internet in Education	3

Group C: Education, Anthropology, Psychology

EXP 6643 Psychology of Language	3
EDF 7145 Educational Psychology	3
EDF 6883 Issues in Multicultural Education	4
EDF 7586 Classics in Educational Research	4
EDF 7934 Seminar in Social Foundations of Education	4
EDF 7692 Issues in Curriculum and Instruction	3
EDG 7931 Practicum in Teacher Education	3
EDG 7931 Curriculum Frameworks in Teacher Education	3
ANG 6766 Seminar in Anthropological Linguistics	3

Dissertation: 18 hours

SLA 7980 – SLAIT Dissertation	18

Qualifying Examination:
All students will be required to pass a written qualifying examination (QE). The QE integrates work in the specialization, cognate, and foundations areas, in this case, in Second Language Acquisition, Instructional Technology, and Teacher Education.

Residency requirements:
Students must enroll in a minimum of 9 hours for each of two semesters in a 12 month period to fulfill the residency requirements. Students in the Ph.D. program should be engaged in no more than half-time employment during the residency period.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates of the Florida Department of Education program approval standards and accreditation criteria.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SOCIOLOGY PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 45.1101
Dept Code: SOC
Program (Major/College): SOC AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Sociology

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Sociology M.A. program provides a foundation in a broad range of sociological theories and research methods and an opportunity for pursuing specialized interests in elective Sociology courses, courses in other departments, and thesis research. Many of our M.A. recipients continue in sociology Ph.D. programs. Others teach in secondary schools and junior colleges, are employed in mental health services and research, in human resources management, and government organizations, or work as research consultants and market analysts.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Community and Identity Studies, Cultural Sociology, Social Psychology, Emotions, Family, Sex and Gender, Race/Ethnic/Minority Relations, Religion, Deviant Behavior/Social Disorganization, Science and Technology, Qualitative Methodology

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university plus:

- three letters of recommendation
- personal statement
- a writing sample that demonstrates strong scholarly research
- GRE required ~~500v, 500q~~ – preferred scores of 500V, 500Q
- Official Transcripts
- **TOEFL.** Applicants wh**ose fi**rst language is not English must also submit a score of at least 600 on the Tests of English as a Foreign Language (TOEFL).

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours: 36

The Sociology Department requires a thesis for the capstone course. Six of the required 36 hours are taken as thesis hours.

Core Requirements (9 hours)

SYA 6126	Contemporary Sociological Theory	3
SYA 6305	Methods of Research	3
SYA 6405	Sociological Statistics	3

Electives (2~~7~~1 hours)

The 2~~7~~1 hours of electives must include at least 12 hours ~~in scheduled~~in scheduled graduate courses in Sociology~~, no more than six (6) hours of SYA 6971 (Thesis~~thesis~~)~~.~~. With approval of the Graduate Director, a student may transfer up to six (6) hours of credit from another university or up to 12 hours of credit taken as a non-degree seeking student at USF. With Graduate Director's approval, up to nine (9) hours of elective credit may be taken in a department other than Sociology.

Thesis (6 hours)

SYA 6971~~)~~) 6 credit hours

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SOCIOLOGY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 15

Minimum Total Hours: 60 (post masters)
Program Level: Doctoral
CIP Code: 45.1101
Dept Code: SOC
Program (Major/College): SOC AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Sociology

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Note: meeting these minimum requirements does not guarantee admission into the program.
Applicants must have:

- **GRE**. A minimum score of 600 verbal and 500 quantitative
- Three letters of reference
- Personal Statement
- Example of Written Work
- GRE Required – preferred scores 600V, 500Q
- ~~**GPA.** A cumulative GPA of 3.25 at the undergraduate level and 3.50 at the Master's level from an accredited institution of higher learning.~~
- ~~**TOEFL.** Applicants whose first language is not English must also submit a score of at least 600 on the Tests of English as a Foreign Language (TOEFL).~~
- ~~**Letters of Recommendation.** At least three (3) letters of recommendation from academic faculty with Ph.D.s in the field speaking to the applicant's academic and research capabilities and potential.~~
- ~~Statement. A statement detailing the reasons for seeking a Ph.D. in Sociology at USF; future career goals, summary of scholarly and extra-curricular activities; research efforts; and past preparation for upper-level graduate work.~~
- ~~**Writing Sample.** A demonstration of evidence of scholarly/research preparation via a sample of written research to date.~~

DEGREE PROGRAM REQUIREMENTS

The **60 credit hour minimum** post-M.A. program is as follows:

Pre-Requisites/M.A. Requirement 36 hours
Research Methods

Statistics
Sociological Theory
Elective Courses (21 hours)
Thesis (6 hours)

Interdisciplinary Core 6 hours
Interdisciplinary Professional Seminar (required as a first course for all students)
Capstone Interdisciplinary Seminar (Required as a final course for all students)

Disciplinary Requirements 6~~9~~ hours*
SYA 7515 Advanced Research Methods and Study Design 3
SYA 7019 Advanced Sociological Theory 3

Specialty Research Methods course 3~~—~~
A research methods course in any discipline chosen in consultation with advisor

Electives within Sociology 9 hours
Sociology graduate courses chosen in consultation with advisor

~~Note: Students entering the Ph.D. program who have not completed Teaching Sociology (SYG 6936) will also be required to complete that course prior to full-charge classroom teaching (this is not a condition of employment, but will be a factor in TA duty assignment)~~

Interdisciplinary Electives ~~Chosen in consultation with faculty advisor~~ 12 hours
Courses in at least two departments outside Sociology. Chosen in consultation with faculty advisor

Dissertation Proposal Preparation 6 hours

Dissertation 18 hours
SYA 7980 Dissertation

Total Credit Hours (beyond the M.A.) 60 hours

Other Requirements

Comprehensive Exam
*Note: Students also are required to complete a comprehensive exam upon completion of the 9-credit core requirements. The exam will measure theoretical and methodological knowledge, preparation for further coursework, and ability to successfully defend a dissertation proposal. Dissertation proposal defense will occur after the remaining elective requirements and dissertation proposal preparation requirements have been completed.

Graduate Requirements
A minimum cumulative graduate GPA at USF of 3.00 and successful completion and defense of a Ph.D. comprehensive exam, dissertation proposal, and dissertation.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SPANISH PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 16.0905
Dept Code: WLE
Program (Major/College): SPA AS

CONTACT INFORMATION

College: Arts and Sciences
Department: World Languages

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu
www.cas.usf.edu/languages/

PROGRAM INFORMATION

The Hispanic/Latino area of the Department of World Languages supports a broad, intellectually driven approach to teaching language, culture and literature in higher education. Languages and cultures are complex, multifunctional phenomena that link an individual to other individuals, to communities and to national cultures. The graduate program in Spanish offers students academic and practical training in the languages, literatures and cultures of the Spanish-speaking communities of Spain, Latin America, and the United States. Students who receive a Masters of Arts in Spanish from the Department of World Language Education at USF become well-educated communicators with deep translingual and transcultural competence. Thus, they are exceptionally prepared to either continue studies leading to the Ph.D., or find careers in related fields such as the teaching profession, translation, government and civil service and agencies, legal and paralegal services, or foreign and domestic business enterprises.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Must have:

- undergraduate 3.0 GPA
- 2-3 letters of recommendation,
- A two-page statement of purposes in Spanish.
- an oral interview in Spanish (can be done by phone)
- If degree is from abroad student must pass TOFEL. A score of 213 for computer based test, or 79 for internet based test, or 550 for paper based test.
- Approval from the program director in case of degree from another discipline

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours 36

Core Requirements

FOW 6085, Bibliography (1 credit)

Students must have taken, or plan to take, an Introduction to Hispanic Linguistics course, or equivalent, prior to or during their MA studies in Spanish. This requirement must be fulfilled before taking the MA comprehensive exam.

Courses - 35 hours
Select courses from

SPW 5135 Colonial Spanish American Literature	3
SPW 5355 Spanish American Drama and Poetry	3
SPW 5387 Spanish American Prose	3
SPW 5388 Golden Age Poetry and Drama	3
SPW 5405 Medieval Literature	3
SPW 5465 19th Century Literature	3
SPW 5605 Cervantes	3
SPW 5725 Generation of 1898	3
SPW 5726 Vanguard Literature 1918 1936	3
SPW 5934 Selected Topics	3
SPW 6427 Golden Age Novel	3
SPW 6485 Post Civil War Literature	3
SPW 6775 Caribbean Literature	3
SPW 6910 Directed Research	1-19

Or - Students may also take 27-30 semester hours in Spanish and 6-9 semester hours in another related area, as approved by Graduate Director. Two 4000 level courses (BA) can count towards the degree provided the student is enrolled in the MA program or had a prior arrangement with the Graduate Director.

Areas of Emphasis
Select one of the areas of emphasis below:

Emphasis Option A: Languages and Cultures
Refer to core requirements above.
Non-thesis option.

Emphasis Option B: Literatures and Cultures
In addition to core requirements above:

Proficiency in a second foreign language. The second foreign language requirement can be satisfied by having completed the second semester of a language other than Spanish within the last two years, or by taking a placement test and placing into level III of that language, or by taking the second semester of another language other than Spanish while pursuing the Spanish Masters. In special cases, a translation and brief oral interview can be arranged in place of these requirements.

Thesis~~.~~ (6 hours)
SPW 6971
Students are strongly encouraged to undertake MA thesis work. If a student selects this option, he/she must complete 27 semester hours of SPN/SPW 5000-6000 level courses (or 21-24 semesters hours in Spanish and 6-9 semester hours in another related area, as approved by the Graduate Director.) Two 4000 level courses (BA) can count towards the degree, provided the student is enrolled in the MA program, or had a prior arrangement with the Graduate Director. In addition, 6 semester hours (SPW 6971), towards completion of MA thesis, must be completed

Comprehensive Exam

Successful completion of a Comprehensive Exam at the end of coursework (typically in the second semester of the second year). This exam is based on the MA reading list.

OTHER INFORMATION

Three Summer M.A. program: Students may also receive the M.A. in Spanish by enrolling in courses at the Tampa campus during the summer, whenever courses are available.. Generally the degree is received after three summers of study. Contact the Graduate Program Director for details.

Special Summer Programs Overseas

The Division of Languages and Linguistics, in cooperation with the International Affairs Center, offers several summer study programs overseas. These include study in Argentina, Spain, and Costa Rica. For complete details, contact the program advisors or the International Affairs Center.

To obtain a copy of the Masters of Arts in Spanish handbook, please visit the World Language Department in CPR 419.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

STATISTICS PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
For Teaching Assistants, International and Financial Aid Applicants:

Fall:	February 1
Spring:	August 1

For Domestic applicants (US citizens or permanent residents) without financial aid or Teaching Assistant applicants:

Fall:	February 15
Spring:	October 1

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	27.0501
Dept Code:	MTH
Program (Major/College):	STC AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Mathematics and Statistics
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: n/a

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

To be admitted for graduate study in the Statistics program, students

- Should have at least 3.50 GPA average in courses taken during the last two years of their undergraduate or graduate studies.
- Must have a BA or BS in one of the following areas: Statistics, Mathematics, Physical Sciences, Engineering, or Business.
- Students who expect to specialize in graduate work in statistics are advised to study as much mathematics as possible during their undergraduate years. Some interdisciplinary experience in natural sciences, engineering, economics, or psychology is also highly desirable. Students who do not have at least three semesters of successful course work in calculus will be required to complete additional courses in mathematics before being admitted. Prior course work in advanced calculus and in statistics is preferable, but not mandatory.
- GRE is required with a quantitative score of at least 650 required for admission. Students whose native language is not English must score at least 550 (paper based) or at least 79 (internet based) on the Test of English as a Foreign Language (TOEFL) exam. However, for students who have a BA or higher degree from an accredited U.S. institution that requirement is waived.

International students whose native language is not English must submit satisfactory scores on the Test of Spoken English (TSE) or the SPEAK test to be eligible for teaching assignments. Students who score 50 or above on the Speak Test are allowed to teach in the classroom. Those who score 45 to 50 are allowed to teach on the condition that they enroll concurrently in ENS 4502. (See the Graduate Catalog for more details.)

The University of South Florida and the Department of Mathematics and Statistics encourage applications from qualified individuals from all cultural, racial, religious, ethnic groups, gender, sex orientation, disabilities in accordance with all university regulations.

OTHER INFORMATION

The most recent supplementary document for the Statistics graduate students. "THE HANDBOOKS FOR BOTH M.A. AND Ph.D. GRADUATE STUDENTS IN STATISTICS/PROBABILITY PROGRAMS" at the Department of Mathematics and Statistics, University of South Florida, Tampa, Florida, USA, dated October 2007 (revised October 2009) are available at the following websites:

http://math.usf.edu/grad/stats/ma/
http://math.usf.edu.grad.stats.phd/

Prospective graduate students in Statistics are welcome to read the information on the Handbooks. In addition, a HARD COPY OF THESE HANDBOOKS will be provided to graduate students at the time of their FIRST time academic advisement process.

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours **30 hours**

Core Requirements

Sequences:

STA 5166 – Statistical Methods	3
STA 6167 – Statistical Methods II	3
STA 5326 – Mathematical Statistics I	3
MAT 6932 – Mathematical Statistics II	~~-~~3
STA 6208 – Linear Statistical Models	3

Electives:

STA 5446 – Probability Theory I	3
STA 6447 – Probability Theory II	3
STA 5526 – Nonparametric Statistics	3
STA 6746 – Multivariate Analysis	3
STA 6876 – Time Series Analysis	3
MAT 6932 – Survival Analysis	3
MAT 6932 – Stochastic Processes	3
MAT 6932 – Stochastic Dynamic Modeling	3
STA 6877 – Time Series Analysis II	3
MAT 6932 – Nonlinear Time Series Analysis	3
MAT 6908 – Independent Study (as indicated by professor)	
Mat 6932 – Special Topics Courses	3

A candidate must complete at least 30 credit hours for a MA. At least twenty hours must be in formal regularly scheduled course work, ten of which must be at the 6000 level. Up to 6 credit hours at the 4000 level or graduate courses from other departments at USF can be counted upon approval. A student who elects the thesis option must register for a minimum of 6 credit hours in MAT 6971, only 6 hours of which may be applied toward the 30-hour

degree requirement. The student must maintain a 3.00 average to remain a candidate for a degree. Failure to do this will result in being placed on probation. A letter from the major professor is required to remove a student from probation after he/she regains a 3.00 average.

Department may waive some of the course requirements for those students who have taken equivalent course work at another institution.

Comprehensive Examination

Graduation from the masters program also requires the completion of both written and oral examinations. For the non-thesis option, there is no language or thesis requirement for the M.A. degree.

Written Comprehensive Examination The written exam is designed to cover material presented during the first year of graduate work. The purpose of the exam is to make sure the students have reviewed their first year's work before starting the second year and to point out weaknesses which should be overcome during their second year in order to graduate. Students are expected to pass this exam in at most two attempts. More specifically, the material for the above examination will be taken primarily from the following sequences of courses Semester 1: STA 5166 Statistical Methods I and STA 5326 Mathematical Statistics I; Semester 2: STA 6167 Statistical Methods II and MAT 6326 Mathematical Statistics II, and STA 6208 Linear Statistical Models.

A. Non-thesis Option

At least 30 hours of Statistics and Mathematics graduate courses. Specifically:

(A) The Statistics and Mathematics graduate courses of 5000 level or higher, offered regularly for statistics and mathematics majors from our department are counted towards the 30 hours requirement.

(B) Up to 6 hours of 4000 level or higher courses, taken from our department or other departments at USF, may be counted towards the 30 hours requirement with approval by the Statistics Faculty.

(C) Completing at least 3 hours of Research Project work which is counted towards the 30 credit hours requirement

- Taking the course MAT 5912 – Research Project (Non-Thesis Option) and presenting a paper exemplifying the creative component of the degree program.. This may be, but is not restricted to, a literature review, a report of independent research, design and (or) analysis of a sample survey or experiment, a report on consulting with research workers outside the department, or a report on the construction of a computer program requiring statistical numerical analysis.
- Taking the sequences Statistical Methods and Mathematical Statistics with at least a “B” average for each sequence.
- Passing one Qualifying Exam on Statistical Methods or Math Statistics at master's level.

Under this degree option, the student is required to present a paper representing the creative component of the degree program. This may be, but is not restricted to, a literature review, a report of independent research, the design and (or) analysis of a sample survey or experiment, a report on consulting with research workers outside the department, or a report on the construction of a computer program requiring statistical numerical analysis.

B. Thesis Option

Student’s Graduate Committee

Students working toward a thesis degree will have the benefit of a committee of members of the graduate faculty, appointed by the program director/departmental chairperson and approved by the Dean of Graduate Studies. The committee will approve the course of study for the student and plan for research, supervise the research and any comprehensive qualifying exams, and read and approve the thesis for content and format.

- At least 30 hours of stat and math graduate courses (see above for details).
- Taking the sequences Statistics Methods and Mathematical Statistics with at least a "B" average for each sequence.
- At least 6 hours in MAT 6971, Master's Thesis, only 6 hours of which are counted in the 30 hours requirement.
- Oral Defense of the Thesis
- Final Submission of Approved Thesis.

Under this degree option 6 research credits may be applied to the total of 30 required on the student's program of study. These reductions are made to allow the student sufficient time to complete a formal master's thesis. A master's thesis is a scholarly composition that demonstrates the ability of the author to do independent and creative work. It explores in some depth a problem or issue related to the major field of study. Although considerable variations in format and style are acceptable, precise expression, logical construction, and meticulous attention to detail are essential. A thesis in statistics should deal with some aspect of statistical methodology or theory, or the development of statistical models for a class of problems related to a scientific question. While most theses will include a case study or example that involves scientific data, the analysis of a particular data set does not, alone, constitute the level of scholarly accomplishment required for a thesis.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

URBAN AND REGIONAL PLANNING PROGRAM

Master of Urban and Regional Planning (M.U.R.P.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 48
Program Level: Masters
CIP Code: 04.0301
Dept Code: GPY
Program (Major/College): URP AS

CONTACT INFORMATION

College: Arts and Sciences
Department: Geography

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The goal of the program is to train students to become planning practitioners able to work in a variety of public and private sector environments in a number of different fields. Graduates of this program will go on to play a vital role addressing the planning and public policy challenges in our region and beyond.

Effective planners must possess a wide range of cross-cutting skills; our program is therefore designed to foster strong analytical abilities; technological facility; effective communication skills; and deep knowledge in specialization areas. Our specialization areas build on the existing strengths of faculty across campus, and allow us to offer a program that will be distinctive within the state and around the country. Emphasis on environmental planning, building on faculty expertise in Geography, Geology and Environmental Sciences and Policy, gives our program a unique edge. Similarly, our courses in applied quantitative and geospatial analysis draw on the technological skills and high-quality facilities of the Geography Department; we will also have a strong program in Growth Management and Transportation Planning based on our links to the Center for Urban Transportation Research and the Florida Center for Community Design and Research. Graduates of the Masters program in Urban and Regional Planning will be able to:

1. Engage in policy-related research relevant to urban and regional issues
2. Assume positions of leadership public, private and nonprofit organizations engaged in planning, land use, and public policy
3. Further public discourse on the problems confronting cities and regions
4. Utilize communications and technical skills to become successful at all levels of the planning profession.

The program offers an MA with both a thesis and a non-thesis option. The Thesis Option Requires 42 credit hours of graduate level coursework with a six credit hour thesis. The Non-thesis option requires 48 credit hours of coursework followed by a Comprehensive Examination. Coursework includes a six course (18 credit) core; completion of a 3-6 internship credits (with students already working the field exempt upon approval). Students must maintain a 3.0 average.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Students must

- have taken the GRE exam with a minimum score of at least 500 V and 500 Q, taken within the last five years preceding the application and the score submitted regardless of the GPA.
- have a bachelor's degree with a 3.00 undergraduate GPA
- two letters of recommendation (one from a faculty member)
- a "letter of intent" explaining your background and interest in Urban and Regional Planning sent directly to the Geography Department; all other admissions material is submitted to the Graduate School.

DEGREE PROGRAM REQUIREMENTS

The program required 48 hours and will be based on satisfactory (3.0) completion of the following:

Core Requirement (18) hours:

URP 6100	Planning, Theory, and History
URP 6xxx	Politics and Policymaking for Planning
URP 6xxx	Political Economy and the Urban and Regional Environment
URP 6766	Research Methods for Urban and Regional Planning
URP 6xxx	Statistical Methods for Planners
URP 6xxx	Spatial Methods for Planners
URP 6115	Planning, Policy, and Politics

Electives: (18 hours)

Eighteen (18) hours of credit approved by the major adviser

Anthropology

ANG 5488 Quantitative Methods in Applied Anthropology (space permitting with Dept. permission)
ANG 6447 Selected Topics in urban Anthropology (as appropriate, depending on topic)
ANG 6448 Regional Problems in Urban Anthropology
ANG 6465 regional Problems in Medical Anthropology
ANG 6766 Research Methods in Applied Anthropology (space permitting, with Dept permission)

Architecture and Community Design

ARC 6397 Introduction to Urban Design
ARC 5931 The City

Economics

ECO 6505 Public Finance
ECO 6525 Public Sector Economics
ECP 6614 Urban Economics
ECP 6624 Regional Economics

Geography

GEO 5177 GIS for non-majors
GEO 6166 Perspectives on Environmental Thought
GEO 6159 GIS Seminar
GEO 6178 Environmental Applications of GIS
GEO 6345 Technological Hazards and Environmental Justice
GEO 6605 Contemporary Urban Issues
GEO 6704 Adv transportation Geography

Public Administration/Political Science

POS 5159 Urban Policy Analysis
PAD 5333 Concepts and Issues in Public Planning
PAD 5807 Urban and Local Government Administration

PAD 6336 Community Development Programs and Strategies
PAD 6338 Urban Land Use and Policy Administration
PAD 6339 Housing and Public Policy
PAD 6355 Urban Growth Management

Public Health
PHC 6120 Community Partnership Advocacy

Sociology
SYA 6475 Community Analysis
SYA 6440 SPSS and Social Research
SYA 6315 Qualitative Research
SYA 6655 Evaluation Research

Transportation Engineering
TTE 5501 Transportation Planning and Economics
TTE 6651 Public Transportation
TTE 665 Transportation and Land Use
CGN 6933 Land Use and Transportation

Comps
Students in the thesis option complete the thesis in lieu of a comprehensive exam. Students in the non-thesis option complete a comprehensive exam.

Non-thesis
Non-thesis students will complete an additional 24-30 credits, drawn from the electives listed above.

Thesis (3 to 6 hours)
Thesis students will complete an additional 18-24 credits, drawn from the electives listed above.

Internship (3-6 hours)
In addition to the required courses listed above, all students will Complete between 3-6 credits of internship (Students currently working in the field of planning can be exempt from this requirement with approval of the Program Director)

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

WOMEN'S STUDIES PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15 (February 15 for assistantship applications)
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	36
Program Level:	Masters
CIP Code:	05.0207
Dept Code:	WST
Program (Major/College):	WST AS

CONTACT INFORMATION

College:	Arts and Sciences
Department:	Women's and Gender Studies
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The M.A. in Women's Studies requires the completion of 36 credit hours. The program has two tracks: a research option that requires a thesis and an applied option that requires an internship and subsequent analytic report on the internship experience. This format was designed to serve the needs of a variety of different categories of students desiring a graduate degree in Women's Studies. The thesis option is recommended for students who intend eventually to pursue a doctoral degree. Either the thesis or the internship option is recommended for students who seek the M.A. as a terminal degree.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: n/a

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as general university requirements with the exception those applicants without training in Women's Studies are admitted on a conditional basis. In addition,

- GRE scores are required
- applicants must submit a personal narrative statement of purpose
- a writing sample (appropriate examples include a term paper or research paper)
- three letters of recommendation.

DEGREE PROGRAM REQUIREMENTS

The M.A. in Women's Studies requires the completion of thirty-six credit hours. These hours are divided as follows:

Core Requirements (12 credit hours)

WST 6001	Feminist Research and Methodology
WST 6560	Advanced Feminist Theory
WST 6003	Feminist Scholarship and Pedagogy
WST 6936	Selected Topics in Women's Studies

Electives (18 credit hrs) to be selected from

- Courses offered by the Department of Women's and Gender Studies, up to six cr. hrs. of which may be 4000-level courses;
- Graduate courses on women and issues surrounding the intersection of gender/class/race/sexuality offered by other departments;

No more than one other graduate-level course approved by the graduate director.

Comprehensive Examinations
Each student must pass a written comprehensive examination. It is expected that a student will successfully complete the comprehensive examination prior to beginning thesis or internship work.

Thesis
Six credit hours of thesis research, typically over two semesters, during which the student will develop a thesis proposal approved by the student's thesis committee and complete a Master's thesis on the approved topic. The completed Thesis must be defended at an oral defense.

Non-thesis
Six credit hours of internship experience, typically over two semesters, in a human service agency or other organization which focuses on women. The internship will be approved by the student's internship committee. The student will be required to write a narrative report describing the internship in detail and analyzing the experience in terms of appropriate theoretical frameworks. The completed narrative and experience must be defended as an oral defense.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SECTION 13

COLLEGE OF BEHAVIORAL AND COMMUNITY SCIENCES

Changes to Note

The follow curricular changes for the College of Behavioral and Community Sciences were approved by the USF-Tampa Graduate Council on the date noted.

Program changes

Communication Sciences & Disorders (Ph.D.)		3/21/11
change admissions requirements to allow application directly to Ph.D. by baccalaureate students; adjust minimum hours accordingly		
Criminal Justice Administration (CJA)		4/30/11
Confirmation of admission deadline as August 12 for new applications		
Rehabilitation and Mental Health Counseling (M.A.)		11/15/10
Marriage & Family Therapy Concentration: change course requirements		
Speech Language Pathology (MS)		11/15/10
Increase practicum hours by 1		

Programs Placed Inactive/Closed for Admission

Social Work (Ph.D.) (SOK) (Eff spring 2011)		2/21/11

Certificate changes

Addictions and Substance Abuse Couns.	change requirements	11/15/10
Behavior Health Counseling	change curriculum	5/16/11
Marriage and Family	change curriculum requirements	9/20/10
Positive Behavior Support	Remove pre-req; add elective option	9/20/10

New Courses

MHS 6XXX	Issues and Trends in Developmental Disabilities	3/21/11
SPA 6535L	Audiology Clinical Laboratory I	3/21/11
SPA 6536L	Audiology Clinical Laboratory II	3/21/11
SPA 6307	Speech Perception and Sensorineural Hearing Loss	11/15/10
SPA 6393	Audiology Practice Management	11/15/10
MHS 6601	Consultation and Collaborative Systems change	9/20/10
MHS 6410	Intensive Individualize Positive Behavior Support	9/20/10
MHS 6608	School-wide Positive Behavior Support	9/20/10
MHS 6605	Addressing Behavior Challenges in Young Children	9/20/10

Course changes

GEY 6614 - Aging and Mental Disorders- change description			7/19/11
SPA 5403	Lang Learning in the Sch Age Yrs	remove pre-req SPA 6410	4/18/11
SPA 6410	Aphasia	remove pre-req SPA 6106	4/18/11
SPA 6565	Seminar in Dysphagia	remove pre-req SPA 6410	4/18/11

University of South Florida
College of Behavioral and Community Sciences
4202 E Fowler Ave MHC 1110
Tampa, FL 33620

Web address: http://www.bcs.usf.edu
Email: See departmental listings
Phone: 813-974-2365
Fax: 813-974-4699

Interim College Dean: Catherine Batsche ~~Junius Gonzales~~
Associate Dean: Catherine Batsche
Assistant Dean: Cynthia Stark
Graduate Coordinator: Catherine Batsche

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools (SACS). Contact the College for other accreditation information.

Mission Statement:
The College of Behavioral and Community Sciences prepares students, scholars, human service providers, policy makers, and other professionals to improve the quality of life, health, and safety of diverse populations and to promote positive change in individuals, groups, communities, organizations and systems. Through multidisciplinary teaching and research, service, and engagement with community partners, the College focuses on the rigorous development, dissemination/implementation, and analysis of innovative solutions to the complex challenges that affect the behavior and well-being of individuals, families, populations, and the communities in which we live.

The College offers eight programs at the master's level and seven programs at the doctoral level. Master's programs are available in Applied Behavior Analysis, Audiology (Post-Baccalaureate), Aural Rehabilitation, Criminal Justice Administration, Criminology, Gerontology, Rehabilitation & Mental Health Counseling, Social Work, and Speech-Language Pathology. Doctoral programs are offered in Aging Studies, Audiology, Communication Sciences & Disorders, Criminology, and Social Work. Dual degrees are offered in Social Work/Public Health at the master's level and Audiology/Communication Sciences and Disorders at the doctoral level.

The College is also home to the Louis de la Parte Florida Mental Health Institute whose mission is to improve the lives of individuals with mental, addictive, and developmental disorders. Graduate studies in Behavioral Health are offered in collaboration with the College of Public Health at both the master's and doctoral levels and in collaboration with the College of Education at the doctoral level. The Institute houses a Research Library, a Behavioral Health Research Data Center, and a Survey Research Unit that can support the research theses and dissertations of graduate students.

The following are degree programs offered across programs and/or colleges.

Degrees, Programs, and Concentrations:

Master of Arts (M.A.)
- Applied Behavior Analysis (ABY)
- Criminal Justice Administration (CJA)
- Criminology (CCJ)
- Gerontology (GEY)
- Rehabilitation and Mental Health Counseling (REH)
  - Addictions and Substance Abuse Counseling (ASA)
  - Marriage and Family Therapy (MFL)

Master of Science - M.S.
- Audiology (Post-Bacc) (AUD)
- Aural (Re) Habilitation (Post Bac) (ARH)
- Speech-Language Pathology (SPP)

Master of Social Work - M.S.W.
- Social Work – (SOK)

Doctor of Audiology -Au.D.
- Audiology (AYD)

Doctor of Philosophy -Ph.D.
- Aging Studies (AGE)
- Communication Sciences and Disorders (CSD)
  - Hearing Sciences and Audiology (HAS)
  - Neurocommunicative Sciences (NSC)
  - Speech-Language Sciences (SLS)
- Criminology (CCJ)
- Social Work (SOK)

Dual Degree Programs:

Master of Social Work - M.S.W.

Social Work/Public Health Dual Degree MSW/MPH (Maternal and Child Health)(Behavioral Health)

Doctor of Audiology -Au.D.

Audiology/Communication Sciences and Disorders – (AUD/CSD) Dual Program

Doctor of Philosophy -Ph.D.

Audiology/Communication Sciences and Disorders (AUD/CSD) – Dual Program

Graduate Certificates Offered:

See Graduate Certificates Section

Interdisciplinary Opportunities

The College of Behavioral and Community Sciences (BCS) works with other colleges in interdisciplinary efforts, such as the jointly offered specialty concentration in Behavioral Health as part of the master's and doctoral programs in the Department of Community and Family Health (DCFH) in the College of Public Health (COPH). For information about this, and other opportunities, contact either BCS or COPH for information.

COLLEGE REQUIREMENTS

Thesis Enrollment

Upon successful completion of all M.A./M.S. degree requirements except for thesis, Behavioral & Community Sciences graduate students must enroll in a minimum of two (2) credit hours of Thesis each semester (except Summers) until the completion of the master's degree.

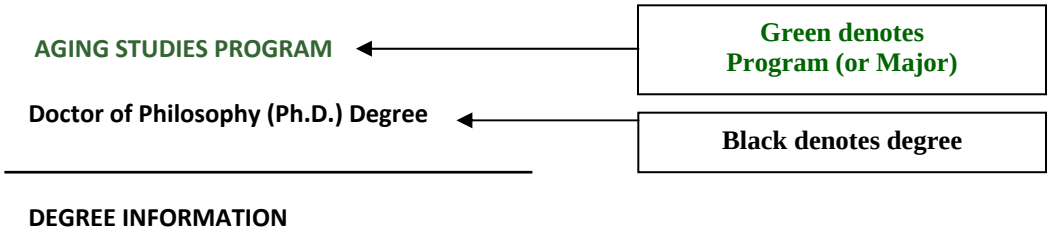
Dissertation Enrollment

Doctoral students who have been admitted to candidacy, are required to accumulate a minimum of six (6) credit hours of Dissertation during each previous 12-month period (previous three 3 terms, e.g., Fall, Spring, Summer) until the degree is granted.

About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the College that offers them. For example, the Master of Science degree with a "program" (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or "concentrations" within a degree program.

PROGRAMS



CONCENTRATIONS

Concentration Requirements are listed separately under each Program.

The Program and Concentration are listed on the official transcript. Other areas, such as application tracks, are not listed on the transcript.

Example:
Doctor of Philosophy in Communication Sciences and Disorders
with a Concentration in Speech-Language Sciences

AGING STUDIES PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 15
Fall admissions only

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 30.1101
Dept Code: GEY
Program (Major/College): AGE BC

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: School of Aging Studies

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The Interdisciplinary Ph.D. in Aging Studies is the first of its kind in the United States, and to the best of our knowledge, the world. What makes this program unique is the combined emphasis on providing a broad based foundation in the interdisciplinary aspects of aging with a focus on developing in-depth expertise in a research area. The program draws on the expertise of faculty from multiple colleges, departments, and centers at the University of South Florida to provide students with exposure to other disciplines and their different approaches to scientific and scholarly inquiry.

The Ph.D. in Aging Studies is hosted by the School of Aging Studies, which is the organizational focal point for interdisciplinary research, educational, clinical and community service activities in aging for faculty and students. An interdisciplinary committee of faculty governs the program, allowing students to develop research programs that focus on their particular interests and capitalize on the breadth of opportunities throughout the university.

The Ph.D. in Aging Studies is a research-oriented program designed to train future leaders in the field of aging. The program admits students who show exceptional promise to become strong academic, public sector, and corporate researchers. Students should expect to enroll in the program full time (9 credits in fall, 9 credits in spring, and 6 credits in summer). First year students are generally supported with an $18,000 fellowship, tuition waiver, and health insurance. Fellowship or assistantship support and tuition waivers are generally available during subsequent years of doctoral training. Students who wish to apply as part-time students must contact Dr. McEvoy before applying.

Faculty Organization

The interdisciplinary nature of the program is exemplified by the number of core faculty who teach and serve on dissertation committees in the program and the range of academic departments they represent. Over forty faculty from multiple colleges and research centers have been identified as the core faculty in the program.

Accreditation:

Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- A Bachelor's Degree
- GPA of 3.25 and
- a current GRE; to be competitive, 580V, 620Q, 5.0 A.W.
- Applicants where English is not the language of instruction must also submit a TOEFL score of at least 600.
- In addition, students must submit their best example of a single authored writing sample
- and a summary of their career goals and past preparation for a research career plus
- three letters of recommendation from individuals familiar with the student's work and/or research.

DEGREE PROGRAM REQUIREMENTS

Minimum Hours: 90 credit hours beyond the baccalaureate
Dir. Research/Dissertation: 56 credits*
*At least 2 credits of Dissertation every semester after admission to candidacy; if more than minimum of required course credit is taken, then fewer credits of Directed Research are required.

CORE REQUIREMENTS
Courses (12 hours)

GEY 7610 Psychological Aging: Interdisciplinary Perspectives	3
GEY 7604 Biomedical Aging	3
GEY 7649 Population Aging	3
GET 7623 Social and Health Aspects of Aging	3

Each core course is taught from an interdisciplinary perspective with faculty from different fields addressing issues from their disciplinary perspectives.

Methods Courses (6 hours minimum)

GEY6402 Statistical & Qualitative Methods in Aging Research	3
GEY6403 Multivariate Statistical Analysis for Aging Research	3

Students must also enroll in a sequence of at least two methods/statistics courses and are encouraged to obtain additional training in methods relevant to their dissertation.

Proseminar and Content Seminar (16 credits minimum)

GEY 7936 Aging Studies Pro-seminar	4
GEY 7602 Ph.D. Seminar in Health and Aging	3
GEY 7611 Ph.D. Seminar in Mental Health	3
GEY 7622 Ph.D. Seminar in Policy and Elderly	3
GEY 7651 Ph.D. Seminar in Cognition	3

Students are required to enroll in the GEY 7936 Aging Studies Pro-seminar (2 credits) each fall of their first 2 years in the program. They must also enroll for at least four Content Seminars (GEY 7602, GEY 7611, GEY 7622, Gey7651) (3 credits). The Pro-seminars investigate different research topics, allow students to practice presenting their research, and provide students with exposure to distinguished lecturers from throughout the U.S. The content seminars cover different topics relevant to aging each spring semester.

Elective Requirement

There are no requirements, other than the total minimum credit hours mentioned above. Each Ph.D. student, in consultation with his/her major advisor, designs an appropriate curriculum to obtain content and skills that match their research interests.

Project

All students complete a First Year Research Project, designed to be presented at a national conference in the fall of their second year. Students develop individualized courses of study, allowing specialization in a wide variety of content areas and research methods. Supervised research experience is available from a number of faculty with diverse research expertise. Students enroll for GEY 7911 (Directed Research in Aging Studies) for 1 credit hour for a grade of S/U.

Comprehensive/Qualifying exam

The qualifying examination is usually taken during the end of the second year of course work, or the following Fall semester.

Dissertation (56 hours minimum – see section Minimum Hours)

GEY 7911 Directed Research
GEY 7980 Dissertation

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

APPLIED BEHAVIOR ANALYSIS PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15

Minimum Total Hours: 44
Program Level: Masters
CIP Code: 42.9999
Dept Code: CFS
Program (Major/College): ABY BC

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: Child and Family Studies

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The master's degree program in applied behavior analysis (ABA) is designed to meet growing needs in Florida and nationally for practitioners who can work effectively in the fields of developmental disabilities, autism, education, child protective services, child behavior disorders, rehabilitation, mental health, and business and technology. ABA provides an approach for developing, implementing, and evaluating practical strategies to produce changes in socially significant behaviors of individuals in the context of community settings. Three important features characterize the scientific basis upon which ABA is built: a) it focuses upon objectively measurable behavior of individuals; b) it studies environmental influences upon the targeted behaviors; and c) it places a premium upon single-subject research designs to analyze the effects of different environmental variables.

The 44-credit-hour master's degree in ABA is in the department of Child and Family Studies in the College of Behavioral and Community Sciences. It provides coursework and practical supervision across three colleges (College of Behavioral and Community Sciences, College of Arts and Sciences, and College of Education). This interdisciplinary program links courses from a number of university departments to create a comprehensive, cohesive degree program. Students demonstrate knowledge of behavioral principles and procedures in courses that constitute a core curriculum, demonstrate applied behavior analysis skills through supervised practicum experiences, and complete a data based thesis. The master's degree program is designed to prepare students to meet the standards to be Board Certified Behavior Analysts (BCBAS). It will assist in their preparation for employment in a variety of fields where there are growing demands for competent professionals with expertise in applied behavior analysis.

Philosophy
The systematic analysis and application of behavioral principles is an extensive repertoire of professional behaviors. In the USF ABA program, these skills are acquired as students move through the sequenced curriculum of coursework and practicum experiences. The curriculum requires application of behavior analytic principles, with direct supervision by faculty and BCBA supervisors. Students participate in practicum training in community agencies under the supervision of BCBAs. In addition to the 10-25 hours of behavior analysis practice they complete in their practicum sites each week, students also participate in practicum seminars each semester. In these seminars, the Practicum Coordinator discusses important practice issues and facilitates student discussion of their applied work. The supervision of the students' research theses rests in the hands of designated core faculty members (i.e., "major professors"). Major professors serve as mentors for the students by closely supervising their research and their progress through the program. Therefore, as students are mentored by their major professors during the program, a meaningful major professor-student relationship is essential.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Three letters of reference from professors and/or employers who know the applicant well
- Current resume or curriculum vitae
- One-page narrative describing the applicant's experiences, training, and interest in Applied Behavior Analysis and in the Master's Program in Applied Behavior Analysis at USF.
- GRE Scores on the general subtests

Specific Procedures
The primary assumption underlying admission to the M.A. program is that every student accepted is capable (a) of successfully completing his or her respective program and (b) of performing competently in the field as an Applied Behavior Analyst. Applicants are selected based on their potential to benefit from the program and their potential to contribute both to the Program and the field of Applied Behavior Analysis.

Within the admissions process, a culturally diverse student body is actively recruited, and applicants of academic and professional promise are not systematically excluded on the basis of race, ethnic origin, gender, age, religion, lifestyle, sexual orientation, or physical handicap. The admissions process is selective, but flexible--all pertinent data submitted for consideration will be evaluated as an entire package. The evaluation process, however, does involve both academic and interpersonal considerations. The profession of Applied Behavior Analysis requires that the practitioner possess personal characteristics as well as academic and technical competencies, and the admissions process attempts to evaluate both these areas.

Admission to the program is based on past academic work; a resume outlining relevant work, volunteer, and extracurricular experience in applied behavior analysis; letters of recommendation; and a statement of professional goals. Students may apply, after conferral or anticipated conferral of their Bachelor's degree. Applications should be submitted by February 15 to be considered for application in the following fall term. Late applications will be considered if space in the program is available.

For further Admissions Information, please visit Graduate Admissions.

A decision about each applicant's candidacy is made by the Program Director based on the strength of the applicant's record and his/her:

- Academic record and experiences as an undergraduate
- Career goals and their compatibility with those of the program
- Potential for successful completion of the program
- Sensitivity to the needs of potential client populations
- Interpersonal skills
- Communication skills, both oral and written

NOTE: The Program Director reserves the right to contact all references identified by the candidate.

DEGREE PROGRAM REQUIREMENTS

Core requirement

EDF6215 ABA Basic Principles	4
EDF 6217 Behavior Theory	4
EDG 6931 Observational Methods and Functional Assessment	3
EDG 6931 Ethics in ABA	1
MHS 6100 ABA in Complex Community Environments	3
PSY 6217 Single-Subject Design	3

Electives

MHS 6900 (ABA Applications)	3
MHS 6900 (Behavior Analysis and Developmental Disabilities)	3

Comprehensive Exam

Practicum Seminar MHS 6940 10

Thesis

MHS 6971	10

Total minimum hours: 44

Below is the program of study for the Applied Behavior Analysis program. For more information on program requirements, contact the program.

Fall semester—year 1

EDF 6215 ABA Basic Principles	4
EDG 6931 Observational Methods and Functional Assessment	3
PSY 6217 Single-Subject Design	3
MHS 6940 ABA Practicum	2

Spring semester—year 1

EDF 6217 Behavior Theory	4
EDG 6931 Ethics in ABA	1
MHS 6100 ABA in Complex Community Environments	3
MHS 6940 ABA Practicum	2

Summer—year 1

MHS 6940 ABA Practicum	2
MHS 6971 Thesis	2

Fall semester—year 2

MHS 6900 Elective (ABA Applications)	3
MHS 6940 ABA Practicum	2
MHS 6971 Thesis	4

Spring semester—year 2

MHS6900 Elective (Behavior Anal and Developmental Disabilities)	3
MHS 6940 ABA Practicum	2
MHS 6971 Thesis	4

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

AUDIOLOGY PROGRAM (POST-BACC)

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines: Closed for new admissions

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 51.0204
Dept Code: CSD
Program (Major/College): AUD BC

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: Communication Science and Disorders

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

Currently, students are not being admitted to this program

PROGRAM INFORMATION

The Masters of Science Degree in Audiology is designed to provide students with basic academic knowledge related to hearing and Audiology.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Three 3 letters of recommendation
- A 1-2 page letter of intent
- GRE scores at or above the 33rd percentile on both Verbal and Quantitative sections.
- GRE writing score of 4.0 or better
- GPA greater than or equal to 3.0 for last 60 credit hours of baccalaureate degree
- Demonstration of competency in communication skills as determined by the chairperson or delegate.

DEGREE PROGRAM REQUIREMENTS

A minimum of 36-credits must be completed from the following:

Course		Hours
SPA 5120	Psychoacoustics	3
SPA 5132	Audiology Instrumentation	3
SPA 5303	Auditory Anatomy & Physiology	3
SPA 5506	Math & Physics for Speech & Hearing	3
SPA 5506	Clinic Lab I	3
SPA 5506	Clinic Lab II	3
SPA 5328	Rehabilitative Audiology for Adults	3
SPA 6305	Pediatric Audiology	3
SPA 6311	Medical Audiology	3

SPA 6314	Electrophysiology	3
SPA 6316	Vestibular Eval & Treatment	3
SPA 6340	Principles of Amplification I	3
SPA 6341	Principles of Amplification II	3
SPA 6571	Clinical Pract. Issues	2
SPA 6676	Speech Percep & Hearing Loss	3
SPA 6805	Research Procedures	3
SPA 6906	Independent Study	(variable)
SPA 6910	Directed Research	(variable)

See http://www.ugs.usf.edu/sab/sabs.cfm

AUDIOLOGY PROGRAM

Doctor of Audiology (Au.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 1
Fall Admission Only

Minimum Total Hours: 120
Program Level: Doctoral/Professional
CIP Code: 51.0202
Dept Code: CSD
Program (Major/College): AYD BC

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: Communication Science and Disorders

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Au.D. is a four-year post-baccalaureate professional degree. The primary objective is to produce audiologists who are competent to perform the wide array of diagnostic, remedial, and other services associated with the practice of Audiology and who meet the standards mandated by the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools; the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Three 3 letters of recommendation
- A 1-2 page letter of intent
- GRE scores at or above the 33rd percentile on both Verbal and Quantitative sections.
- GRE writing score of 4.0 or better
- GPA greater than or equal to 3.0 for last 60 credit hours of baccalaureate degree
- Demonstration of competency in communication skills as determined by the chairperson or delegate.

DEGREE PROGRAM REQUIREMENTS

General University requirements for graduate work must be fulfilled and a minimum of 120 hours of regularly scheduled academic course work and clinical practica at the graduate level designed to meet competencies set by the American Speech-Language-Hearing Association. Also required for graduation are the attainment of a "B-" or better in each graduate Audiology course, the attainment of clinical competence determined by a GPA of 3.0 in all clinical practica and academic coursework, satisfactory passage of annual comprehensive didactic and clinical oral examinations and a national examination in the speciality of Audiology, and successful completion of an audiology

doctoral project. A student with a bachelor's degree in any field may enter the four-year post-baccalaureate program. However, students who lack undergraduate coursework in Communication Sciences and Disorders may be required to

add several courses to their graduate program. A student with a master's degree and State License in Audiology or the Certificate of Clinical Competence in Audiology (CCC-A) may be admitted into an individualized program of study.

CORE REQUIREMENTS

Total Minimum Hours: **120**

Audiology Science Core (17)

SPA 6571	Profession of Audiology	2
SPA 5303	Auditory Anatomy & Physiology	3
SPA 5120	Psychoacoustics	3
SPA 5132	Audiology Instrumentation	3
SPA 5153~~C~~	Quantitative Problem Solving	3
SPA 6805	Research Procedures	3

Audiology Practice Core (48)

SPA 5328	Rehabilitative Audiology for Adults	3
SPA 6311	Medical Audiology	3
SPA 6340	Principles of Amplification I	3
SPA 6341	Principles of Amplification II	3
SPA ~~6676~~ 6307	Speech Perception & Hearing Loss	3
SPA 6305	Pediatric Audiology	3
SPA 6314	Electrophysiology	3
SPA 6316	Vestibular Eval & Treatment	3
SPA 6393~~69303~~	Audiology Practice Mngmnt	3
SPA 6354	Hearing Conservation	3
SPA 7346	Cochlear Implants	3
SPA 7931	Advanced Sensory Aids	3
SPA 7931	Advanced Electrophysiology	3
SPA 6324~~:~~	Aural Rehabilitation: Children	3
SPA 7931	Advanced Vestibular Seminar	3
SPA 7931	Seminar: Adv. Medical Audiology	3

Practical Experience (49)

SPA 6535L~~5506~~	Audiology Clinical Lab I	3
SPA 6536L~~5506~~	Audiology Clinical Lab II	3
SPA 6505	Clinic I	4
SPA 6505	Clinic II	6
SPA 6505	Clinic III	6
SPA 6505	Clerkship I	3
SPA 6505	Clerkship II	3
SPA 6505	Clerkship III	3
SPA 6505	Externship I	6
SPA 6505	Externship II	6
SPA 6505	Externship III	6

Doctoral Project (6 minimum)

SPA 6910	Directed Research	3 minimum
SPA 787~~7~~34	Audiology Doctoral Project Seminar	3 minimum

Annual Examination

Students in Audiology will be evaluated at the end of each year of coursework. The purpose of these examinations is twofold: 1) Determine eligibility for continuation in academic coursework and practical experiences; and 2) Determine areas of weakness that will require remediation. Individualized remediation programs will be designed, if needed, by the student under the supervision of the Audiology faculty and may include the completion of additional written papers, projects, and/or additional course work.

Audiology Doctoral Project

The goal of the Audiology Doctoral Project (ADP) is to provide an experience in basic or applied research or evidence-based practice. Upon completion of the ADP, students are expected to continue to be critical consumers of research and be able to apply current research findings to their practice of audiology. It is expected that all students will complete the ADP experience before the end of the third year of study. The ADP must be completed and defended prior to graduation.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

AUDIOLOGY / COMMUNICATION SCIENCES AND DISORDERS DUAL DEGREE PROGRAM

Doctor of Audiology (Au.D.) Degree
Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 1
Fall Admission Only

Minimum Total Hours: 120+
Program Level: Doctoral
CIP Code: 51.0202
Dept Code: CSD
Program (Major/College): AYD BC / CSD BC

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: Communication Science and Disorders

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Au.D./Ph.D. Program is designed to offer a path for those interested in Clinical Research to earn both doctoral degrees within approximately six years. The primary objective is to produce research audiologists competent to perform the wide array of diagnostic, remedial and other services associated with the practice of audiology as well as conduct independent research in the area of hearing and balance disorders.

Accreditation:
The Au.D./Ph.D. programs are accredited by the Commission on Colleges of the Southern Association of College and Schools. The Au.D. program is also accredited by the Council on Academic Accreditation of the American Speech-language-Hearing Association.

Major Research areas:
Audiology, Hearing and Vestibular Science, Audiological Rehabilitation, Cochlear Implants, Auditory Processing, Speech Perception

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Admission to the Au.D. program.
- Demonstration of success in the Au.D. program for a minimum of three consecutive, full-time semesters.
- One (1) letter of recommendation from a member of the USF Audiology research faculty.
- A 1-2 page letter of intent.
- Demonstration of competency in communication skills as determined by the chairperson or delegate.

DEGREE PROGRAM REQUIREMENTS

Requirements for the Au.D./Ph.D. program are the same as the requirements for the individual degree programs (Au.D. and Ph.D.) with the following exceptions:

1. The Audiology Doctoral Project (ADP) and Associated coursework (SPA ~~6930~~6910 Directed Research, SPA 7931 Audiology Doctoral Project Seminar) that are required for the Au.D. Program are waived. This requirement will be met by one of the two Research Rotations required of Ph.D. students. The first research rotation must be successfully completed prior to enrolling in the final semester of Externship (SPA 6505 Externship III).

2. The Au.D. Course focused on aspects of business related to managing a private practice (SPA 6393~~60~~ Audiology Business and Practice Management) is not required of the Au.D./Ph.D. students.

3. Physiology, and SPA 6307~~128~~ Speech Perception and Hearing Loss (Replaces SPA 7150 Advanced Speech Science)

4. The Concentration/Specialized Study Area (12 credits) and Core Content (12 credits) requirements of the Ph.D. program are met by the shared courses and coursework already required for the Au.D. program: SPA 5132 Audiology Instrumentation, SPA ~~5506 Math and Physics for Speech and Hearing~~5153 Quantitative Problem Solving in Speech and Hearing, SPA 5328 Audiological Rehabilitation, SPA 6340~~5~~ Principles of Amplification I, SPA 6314 Electrophysiology, SPA 6354 Hearing Conservation

Course Requirements

See course listings for the Doctor of Audiology (Au.D.) and Doctor of Philosophy (Ph.D.) programs offered by the Department of Communication Sciences and Disorders. The credits required for the Au.D./Ph.D. program will constitute no less than 120 hours beyond the Bachelor's Degree irrespective of waived courses or course substitutions.

Courses

See http://www.ugs.usf.edu/sab/sabs.cfm

AURAL (RE)HABILITATION PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 1

Minimum Total Hours: **44**
Program Level: Masters
CIP Code: 51.0204
Dept Code: CSD
Program (Major/College): ARH BC

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: Communication Sciences and Disorders

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

Currently, students are not being admitted to this program.

PROGRAM INFORMATION

The Masters of Science Degree in Aural Rehabilitation is designed to enable students to meet minimal requirements for certification as a Teacher of the Hearing Impaired (K-12) in the State of Florida.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Three letters of recommendation
- GRE scores of 52nd percentile in Verbal or a 52nd percentile on Writing and a 32nd percentile on quantitative.
- GPA of 3.20 or higher in the last 60 hours of undergraduate coursework
- A letter of intent, and
- Applicant must also demonstrate competency in communication skills as determined by the chairperson or delegate.

DEGREE PROGRAM REQUIREMENTS

All ARH majors must complete the following:

Course Requirements		**Hours**
SPA 5204	Phonological Development & Disorders	3
SPA 5403	Language Learning in the School Age Child	3
SPA 6324	Aural Rehabilitation: Children	3
SPA 6645	Language for Hearing Impaired	3
SPA 6674	Curriculum Procedures & Materials for Hearing Impaired	3
SPA 6675	Reading for the Hearing Impaired	3
SPA 6930	ST: Speech Perception & Production in the HI	3
SPA 6930	ST: Family Centered Deaf Education	3
SPA 6930	ST: Foundations of Deaf Education	3
SPA 6930	ST: Introduction to Cued Speech	3
SPA 6930	ST: Classroom Applications of Sign Language	3
EEX 6025	Trends & Issues in Special Education	3

Practicum Requirements

SPA 6505	Practicum: Intro to Clinical AR	1
SPA 6505	Practicum: ARH	2
SPA 6505	Practicum: Classroom	2

Electives (one 3 credit course in Special Education)

Examples:

EEC 6269	EC: Play & Learning	3
MAE 6117	Teaching Elementary Math	3

Courses

See http://www.ugs.usf.edu/sab/sabs.cfm

COMMUNICATION SCIENCES AND DISORDERS PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall: December 1 for full consideration; however applications are accepted until February 15

Spring: October 15

Minimum Total Hours: 90 (w/o master's)
53 (w master's)
~~53~~

Program Level: Doctoral
CIP Code: 51.0204
Dept Code: CSD
Program (Major/College): CSD BC

Concentrations:
Hearing Sciences and Audiology (HAS)
Neurocommunicative Sciences (NCS)
Speech-Language Sciences (SLS)

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: Communication Sciences and Disorders

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Department of Communication Sciences and Disorders provides disciplinary and interdisciplinary education to prepare research scientists capable of addressing both theoretical and applied issues in laboratory, clinical, and classroom settings. Academic preparation emphasizes basic and advanced study in the communicative sciences, interdisciplinary study, and extensive research preparation. The program of study is tailored to meet individual interest areas. The overall aim of the doctoral program is to produce graduates who excel in meeting the rigorous demands of an academic/research career.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:

Speech-Language Sciences*:*
Speech perception and production processes, speech perception by normal hearing listeners and listeners with hearing loss, non-native speech, language development in at-risk populations, linguistic and discourse correlates for reading, writing, and spelling, second language learning and literacy learning, and language variation and multiculturalism;

Hearing Sciences and Audiology:
Aural rehabilitation, psychoacoustics, aging, temporal processing, speech perception by impaired listeners, auditory evoked potentials, and otoacoustic emissions;

Neurocommunicative Sciences*:*
Aphasia, cognitive/linguistic processing in normal aging and adults with neurological disorders, cognitive neuroscience.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- three letters of recommendation
- a letter of intent
- A bachelor's degree from a regionally accredited institution and a GPA of at least 3.00; or a master's degree from a regionally accredited institution and a GPA of at least 3.00 or better (on a 4.00 scale) during graduate
- Study. ~~Master's degree in Communication Sciences and Disorders, Speech and Hearing Sciences or a related field (e.g. Linguistics, Psychology, Education).~~ Students with a non-CSD background may be required to take pre-requisite coursework in the basic speech, language, and hearing sciences depending on career plans and desired area of focus.
- GPA of 3.0 or above from previous graduate study.
- GRE scores at the 33rd percentile for Verbal, Quantitative and Writing subtests, taken within 5 years preceding the application. Students with lower scores may be offered admission on a conditional basis if the letter of intent and letters of recommendation are particularly strong. The GRE requirement may be waived for students with demonstrated research experience (e.g. previous publications).

DEGREE PROGRAM REQUIREMENTS

The specific coursework to be completed for research and tools of research, core content, and concentration/specialized study are determined individually to create a course of study appropriate to the student's desired specialization. The core content normally consists of four advanced seminars (SPA 7931) covering the four major content areas of the field (speech, language, hearing, and neurocommunicative science). In certain cases, with approval of the Major Advisor and Program Director, previously completed graduate level coursework may be applied towards requirements in the Core content or Specialized Study areas. Completion of the Ph.D. in Communication Sciences and Disorders after the Master's normally requires a minimum of four years of study; a minimum of five years after the bachelor's.

All Students must complete the following requirements

CORE REQUIREMENTS

Foundational knowledge minimum of 36 credit hours

Master's level students will be credited with 36 hours from their previous degree. Bachelor's level students, in consultation with their major advisor, will design an appropriate curriculum to obtain content and skills that match their research interests and will prepare them for coursework in the Core Content.

Research and tools of research minimum of 13 credit hours

Two course sequence in statistical analysis (6 credits min)

EDF 6407 Statistical Analysis for Ed. Research I	4
EDF 7408 Statistical Analysis for Ed. Research II	4
OR	
GEY 6934 Research Methods I	3
GEY 6934 Research Methods II	3

Tools of research (3 credits min)

In consultation with an academic advisor, the student selects a course that facilitates development of a research tool or methodology, either within the department or in related departments.

Research rotation (4 credits min)

Two one-semester research rotations, as described below.

Core Content minimum of 12 credit hours

SPA 7931	3

CONCENTRATION REQUIREMENTS minimum of 12 credit hours

In consultation with an academic advisor, the student selects coursework in support of the specialization, either within the department or in related departments.

Seminar minimum of 4 credit hours

SPA 5506 Doctoral seminar

Dissertation minimum of 12 credits min

SPA 7980 Dissertation

Other

In addition to specific degree requirements, a student must complete the following to qualify for graduation:

1. Satisfactory completion of two one-semester research rotations with one rotation in the student's primary area of interest and a second rotation in a different research area.

2. With the supervision of a qualifying committee, pass a written qualifying examination that evaluates the student's speciality knowledge and methodological competence.At the discretion of the qualifying committee an oral examination may follow the written examination.

3. Establish a doctoral committee prior to admission into doctoral candidacy.

4. Prepare and defend a dissertation proposal.

5. Following completion of the dissertation research, successfully defend the work before the dissertation committeee.

6. Departmental policy specifies that any student earning a C+ or below in two courses will be recommended for dismissal from the Ph.D. program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CRIMINAL JUSTICE ADMINISTRATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines: open
Fall: August 12
Rolling Admissions

*rolling admissions; applications continually accepted for Fall cohort program

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 43.0103
Dept Code: CJP
Program (Major/College): CJA BC

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: Criminology

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The M.A. in Criminal Justice Administration is a specialized and concentrated program of study designed specifically for practitioners and those whose desire is to complete an M.A. with a special emphasis on administration and management within the criminal justice system. Generally it targets individuals who do not anticipate continuing on to the doctoral studies. It is a concentrated weekend, cohort-based program leading to the M.A. in five consecutive semesters. Up to two classes may be offered via the internet. Classes are held on weekends, meet for one day, and run seven weeks back-to-back. The program is modeled after a typical executive MBA program for working professionals.

This is a cohort based model. This degree concentrates on issues related to the organization and operation of criminal justice agencies and related organizations.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: n/a

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Students are required to have:

- A bachelor's degree from a regionally accredited university or college
- A minimum undergraduate GPA of 3.00
- Two letters of recommendation attesting to the applicant's abilities to succeed at the graduate level
- A statement of purpose addressing the motivations to attain a graduate diploma and the intention to apply the diploma to a specific set of purposes

DEGREE PROGRAM REQUIREMENTS

CORE REQUIREMENTS
Coursework Requirements (33 hrs. total)

CCJ 6936	Current Issues in Law Enforcement	3
CCJ 6605	Theoretical Approaches to Criminal Behavior	4
CCJ 6705	Research Methods in Criminology	4
CCJ 6935	Topics in Criminology and Criminal Justice	9
CCJ 6706	Quantitative Analysis I	4
CCJ6406	Theory, Practice, and Research in Law Enforcement	3

Additionally two courses in public administration at the 6000 level are required. 6
The department recommends PAD 6041 (3), PAD 6934 (3) or similar courses in PAD approved by the CJA Program Director in coordination with the Public Administration Program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CRIMINOLOGY PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 15
Spring: September 30

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 45.0401
Dept Code: CJP
Program (Major/College): CCJ BC

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: Criminology

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The M.A. in Criminology is a two-year program designed to provide the student with an in depth understanding of the major ideas, issues, theories, and research comprising the field of Criminology and Criminal Justice.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: n/a

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- A bachelor's degree from a regionally accredited university or college
- An upper division GPA of 3.00 or scores of 500V, 500Q, 4.0 A.W. or higher on the Graduate Record Exam (GRE). All applicants must submit GRE scores.
- Statement of purpose detailing reasons for seeking a graduate degree in Criminology, future career plans, and research interests
- A writing sample providing evidence of candidate's scholarly abilities

Three letters of reference speaking to the applicant's academic capabilities

DEGREE PROGRAM REQUIREMENTS

All course work counted toward the degree must have the prior approval of the Graduate Program Director of the Department of Criminology. Such work may include up to six (6) hours outside the department.

CORE REQUIREMENTS
Thesis Option
33 hours of CCJ course work, which must include:

CCJ 6605 Theoretical Approaches to Criminal Behavior	4
CCJ 6705 Research Methods in Criminology	4
CCJ 6706 Quantitative Analysis I	4
CCJ 6707 Quantitative Analysis II	4
CCJ 6050 ProSeminar in Criminology (taken twice for 1 hour each during the first two semesters)	2
Electives	9
Thesis	6
CCJ 6971 Thesis Hours	6

The thesis will consist of research that makes an original contribution to the scholarly literature and may be of either a quantitative or qualitative nature. An oral defense of the thesis is required after the final draft of the thesis has been accepted by the candidate's supervisory committee.

Non-ThesisOption

33 hours of course work, which must include:

CCJ 6605 Theoretical Approaches to Criminal Behavior	4
CCJ 6705 Research Methods in Criminology	4
CCJ 6706 Quantitative Analysis I	4
CCJ 6707 Quantitative Analysis II	4
CCJ 6050 ProSeminar in Criminology (taken twice for 1 hour each during the first two semesters)	2
CCJ 6905 Directed Independent Study	3
Electives	12

A non-thesis comprehensive examination option is available and intended primarily for students who do not intend to continue their graduate education beyond the M.A. degree.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm
See http://criminology.cbcs.usf.edu/masterCriminology/

CRIMINOLOGY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 15

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 45.0401
Dept Code: CJP
Program (Major/College): CCJ BC

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: Criminology

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Ph.D. is a research degree granted in recognition of high achievement in criminology. This achievement requires accomplishments beyond the completion of coursework that demonstrate the ability to work independently and contribute to criminological knowledge.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- A bachelor's degree from a regionally accredited institution and a GPA of at least 3.00; or a master's degree from a regionally accredited institution and a GPA of at least 3.40 or better (on a 4.00 scale) during graduate study.
- A score of 500V, 500Q, 4.0 A.W. or higher on the Graduate Record Exam (GRE) within the preceding five (5) years
- Three 3 letters of recommendation speaking to the applicants academic capabilities
- A candidate's statement detailing
  - reasons for seeking a Ph.D. degree in criminology
  - future career plans and
  - research interests
- A writing sample providing evidence of the candidate's scholarly abilities.
- Students are admitted to the Ph.D. program once each year and begin their course of study with the start of the regular academic year each August (fall semester).

DEGREE PROGRAM REQUIREMENTS

A total of 90 hours beyond the B.A./B.S., of which a minimum of 57* hours must be completed at USF. The 90 hours required for the Ph.D. are as follows:

Core Requirements (18 Hours)

CCJ 6050 Pro Seminar in Criminology	2
CCJ 6605 Theoretical Approaches to Criminal Behavior	4
CCJ 6705 Research Methods in Criminology	4
CCJ 6706 Quantitative Analysis in Criminology I	4
CCJ 6707 Quantitative Analysis in Criminology II	4

Electives (9-12 hours)

9 to 12 elective hours, 9 of which may be in an area outside the department

Tools of Research (6 hours)

CCJ 6708 Quantitative Analysis in Criminology III	3
CCJ 6709 Qualitative Research Methods in Criminology, or	3
CCJ 6716 Evaluation Methods in Criminology	3

Dissertation (24 hours)

CCJ 7980	24

Master's Degree (30 or 33 hours are transferred from M.A./M.S.)

*The Graduate Program Director can determine the minimum number of hours needed by each student.

In addition to successfully completing these requirements, students are required to pass a doctoral comprehensive examination, complete residency requirements (nine [9] hours each in the fall and spring), and write and defend a dissertation prospectus and dissertation.

Comprehensive Examinations
The take-home comprehensive examination assesses the student's ability to employ theory, research methods, and statistical analysis.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

GERONTOLOGY PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	36
Program Level:	Masters
CIP Code:	30.1101
Dept Code:	GEY
Program (Major/College):	GEY BC

CONTACT INFORMATION

College:	Behavioral & Community Sciences
Department:	School of Aging Studies
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

Gerontology is the study of the process of human aging in all its aspects: physical, psychological, and social. In the School of Aging Studies, particular emphasis is placed on educating Gerontology students who, in their professional careers, will work to sustain or improve the quality of life of older people. Many of our program graduates are employed in agencies providing services for older adults. For information about the interdisciplinary Ph.D., see the separate listing for Aging Studies Ph.D.

The School offers the M.A. in Gerontology, with either a thesis or non-thesis option. In addition to completing a required core curriculum, students may select gerontology courses suited to their particular career goals. These include courses focused on such diverse concentrations as research, program administration, direct service, and case management. While the M.A. program does not have separate tracks, students are advised to select courses in the concentration(s) that match their intended career. Students should meet with their advisors to select concentrations appropriate to their professional goals.

Internships are recommended and available for students who need practical experience in the field of aging. Students interested in internships should see the school's internship director. Following completion of the necessary coursework there is a comprehensive examination designed to test the student's knowledge of, and ability to integrate, key concepts and information in the field of gerontology. This examination must be taken and passed by all students in the M.A. program. Students electing the thesis option must successfully pass an oral examination on the thesis. There are no language requirements.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

University requirements with the exception of

- a GPA of 3.00 or greater and
- a GRE score of at least 430V, 470Q, 4.0A.W.

DEGREE PROGRAM REQUIREMENTS

The M.A. degree requires 36 credits of graduate study.

CORE REQUIREMENTS
Required courses (15 credits) include:

GEY 5620 Sociological Aspects of Aging	3
GEY 5630 Economics and Aging	3
GEY 6600 Human Development	3
GEY 6613 Physical Change and Aging	3
GEY 6450 Gerontological Research and Planning	3

Comprehensive exam

Following completion of the required 15-credit coursework, there is a comprehensive examination designed to test the student's knowledge of, and ability to integrate, key concepts and information in the field of gerontology. This examination must be taken and passed by all students in the M.A. program requirements.

Internship

Internships are available for students who need practical experience in the field of aging.

Thesis

Students electing the thesis option must successfully pass an oral examination on the thesis. There are no language requirements

Electives (21 credits)

The remaining 21 hours of coursework must be selected from other graduate courses in gerontology. The following courses are suggested for four areas of study:

Further Educational/Research Goals

GEY 6402 Statistical Methods in Aging Research	3
GEY 6403 Multivariate Statistical Analysis for Aging Research	3
GEY 6901 Directed Reading in Gerontology	3
GEY 6910 Directed Research in Gerontology	3
GEY 6971 Thesis: Master's	2-19

Administrative Goals

GEY 4327 Understanding Principles and Practices in Long Term Care	3
GEY 4328 Health Care Operations	3
GEY 6325 Social Policy and Planning for Gerontologists	3
GEY 6500 Seminar in Principles of Administation	3
GEY 6626 Health, Ethnicity, and Aging	3
GEY 6647 Ethical and Legal Issues in Aging	3

Clinical Services Goals

GEY 6607 Alzheimer's Disease Management	3
GEY 6614 Aging and Mental Disorders	3
GEY 6615 Topics in Psychopathology and Aging	3
GEY 6616 Mental Health Assissment of Older Adults	3
GEY 6617 Gerontological Counseling Theory and Practice	3
GEY 6618 Gerontological Group & Family Counseling	3

Case Management Goals

GEY 6206 Family Cargiving in Aging and Chronic Illness	3
GEY 6321 Gerontological Case management	3
GEY 6326 Geriatric Interdisciplinary Team Training	3
GEY 6614 Aging and Mental Disorders	3
GEY 6616 Mental Health Assessment of Older Adults	3
GEY 6617 Gerontological Counseling Theory and Practice	3

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

REHABILITATION AND MENTAL HEALTH COUNSELING (POST-BACC) PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15

Minimum Total Hours: 60
Program Level: Masters
CIP Code: 51.2310
Dept Code: REH
Program (Major/College): REH BC

Concentrations:
Addictions and Substance Abuse Counseling (ASA)
Marriage and Family Therapy (MFL)

Also offered as a 5-year program:
5-year program **is currently under administrative review; no new applications are being accepted at this time.**

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: Rehabilitation and Mental Health Counseling

Contact Information www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The Department of Rehabilitation and Mental Health Counseling trains counselors to work with physically, mentally, emotionally, and chemically disabled individuals. Training emphasizes psychological, social, medical, and vocational aspects of disability, and also the development and refinement of personal adjustment counseling skills. Graduates with this M.A. are prepared for careers as both rehabilitation specialists and mental health counselors.

The Department offers only the M.A. degree. Most students are admitted after earning a baccalaureate degree in one of the behavioral, social, health-related, or educational disciplines (REH). A Five-Year Program (REF)Five-Year Program (REF) is available to undergraduates with strong academic credentials, and undergraduates interested in this program should contact the department during their sophomore year. The Department offers two areas of concentration that may also lead to a certificate: (1) Addictions and Substance Abuse Counseling; (2) Marriage and Family Therapy. Each student may elect to pursue a program of specialization in any of these areas. The Addictions and Substance Abuse counseling program is approved by the Certification Board for Addictions Professionals of Florida (CBAPF Approved Provider #179A).

Upon completion of at least 75% of the program, students are eligible to sit for the national examination to become a Certified Rehabilitation Counselor (CRC). Upon graduation, individuals are also eligible to take the examination for the state licensure as a Mental Health Counselor. Upon completion of 1500 hours of post-graduate clinical supervision graduates receive their state license as a Mental Health Counselor. For a complete description of the department and its program, visit the department's Web page at:
http://rmhc.bcs.usf.edu

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools, and the Commission on Rehabilitation Education (CORE).

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university requirements plus:

- Three letters of recommendation
- Online department application (which includes a personal statement of intent)
- GRE
- Interview (on campus)
- Undergraduate statistics or research methods course

DEGREE PROGRAM REQUIREMENTS

The department offers both a thesis and a non-thesis program. There is no language requirement; however, a comprehensive examination is required of all students. The following 54-hour core curriculum is consistent with national certification standards for rehabilitation counselors and must be taken by all students (post-baccalaureate, thesis, and non-thesis).

Core Requirements			**54 hours**
MHS 5020	Foundations of Mental Health Counseling	3	
MHS 5480	Human Growth & Development	3	
RCS 5780	Legal & Ethical Issues & Professional Standards	3	
RCS 5035	Rehabilitation Counseling: Concepts & Applications	3	
RCS 5080	Medical Aspects of Disability	3	
RCS 5450	Fundamentals of Substance Abuse Counseling	3	
RCS 6220	Individual Evaluation & Assessment	3	
RCS 6476	Human Sexuality	3	
RCS 6301	Career & Lifestyle Assessment	3	
RCS 6408	Diagnosis & Treatment Psychopathology	3	
RCS 6409	Counseling & Community Settings	3	
RCS 6440	Social & Cultural Foundations	3	
RCS 6510	Group Theories and Practice	3	
RCS 6407	Counseling Theories and Practice	3	
RCS 6740	Research & Program Evaluation	3	
RCS 6803	Practicum In Counseling	6	
RCS 6825	Internship	3	

Concentration Requirements:			**15 hours**
Addictions and Substance Abuse Counseling			**15 credit hours**
RCS 5450	Fundamentals of Substance Abuse Counseling	3	
RCS 6459	Professional Skills for Addictions Counselors	3	
RCS 6930	ST: Employee Assistance Programs 3 or approved elective	3	
RCS 6803	Practicum (Substance Abuse)	3	
RCS 6456	Counseling Approaches for Substance Abusers	3	

Marriage and Family Therapy -			**(15 hours~~credit hours)~~**
~~MHS 5020~~	~~Foundations of Mental Health Counseling~~	~~3~~	
RCS 6476	Human Sexuality	3	
RCS 6930	Seminar: Dynamics of Marriage and Family Therapy	3	
RCS 6930	Seminar: Marital Therapy, Theory, and Techniques	3	
RCS 6930	Seminar: Family Therapy, Theory, and Techniques	3	
RCS 6803	Practicum in Marriage and Family Therapy	3	

Non-Thesis **6 hours**

Students in the non-thesis program must complete a minimum of 60 hours in the Post-Baccalaureate Program (REH). Two electives (6 credits) may be taken from Rehabilitation and Mental Health Counseling offerings or from offerings outside the department with the consent of an advisor.

Thesis **3 hours**

All students are initially admitted to the non-thesis program. Admitted students may subsequently apply to the faculty for a thesis program. Students in a thesis program must complete a minimum of 60 hours in the Post-Baccalaureate Program (54-hr.) core curriculum plus a minimum of three 3 hours of RCS 6970. An oral defense of the thesis is required.

Five-Year Program (including 54-hour core curriculum).
Additional hours to complete the minimum of 150 hours for students in the Five-Year Program may be elected from other Rehabilitation and Mental Health Counseling offerings or from related programs with the consent of the advisor.

Comprehensive Examination
The written comprehensive examination assesses the student's understanding of the significant content and process areas of the program curriculum.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SOCIAL WORK PROGRAM

Master of Social Work (M.S.W.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Full-time two-year program: February 15

Full-time Adv Standing
Program Deadlines:
*Summer February 15
*Spring: October 15

Part-time program: Contact School for further information. Please call 813-974-2063 regarding deadlines

Minimum Total Hours: 48 (with B.S.W.)
60 (without .B.S.W.)
Program Level: Masters
CIP Code: 44.0701
Dept Code: SOK
Program (Major/College): SOK BC

Also offered as: Dual Degree – M.S.W./M.P.H.

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: School of Social Work

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The School of Social Work offers a program leading to a Master of Social Work (M.S.W.) degree. The program is fully accredited by the Council on Social Work Education. A dual-degree program is available with Public Health/Maternal and Child Health or Behavioral Health. The primary objective of the program is preparation of the graduate for professional social work practice through acquisition of specialized knowledge and skills necessary for clinical practice with individuals, families, and groups. The secondary objectives of the M.S.W. program are:

1. to prepare students academically for pursuit of doctoral education in social work or related human service disciplines or professions;

2. to contribute to the needed supply of professionally educated clinical social workers in the Tampa Bay area, the state, the region, and the nation.

The M.S.W. program offers a specialized course of study in direct clinical practice. The program offers students a core curriculum, plus electives, and a supervised field experience designed to produce professionals with individual, family, and group practice skills. The M.S.W. program is designed to produce specific competencies for clinical practice. Graduates of the M.S.W. program should demonstrate:

1. practice competency in relationship skills;

2. knowledge of the interrelationships in the biological, psychological, and sociocultural factors in human life, including the impact of disease, injury, and emotional distress and their implications for social work practice;

3. skill in methods of scientific inquiry for the purpose of advancing professional knowledge and practice;

4. basic skill in the application of a range of social work treatment methodologies for the purpose of differential diagnosis and intervention;

5. practice competency in applying a biopsychosocial approach to the assessment of human problems;

6. practice competency in applying a biopsychosocial approach to treatment of human problems through individual, family, and group modalities;

7. a basic knowledge of managerial processes in social services, including program planning, personnel management, finance, and evaluation.

The M.S.W. program places great emphasis on standards of professional behavior and ethics in the practice of social work. Entrance into the M.S.W. program does not guarantee graduation from the program. Students admitted to the M.S.W. program must maintain a minimum GPA of 3.0, in all social work courses, with no grade below "C" counting toward graduation. Failure to maintain the specified GPA or to exhibit responsible professional behavior determined by the School may result in suspension or dismissal from the program. Courses with grades below "C" must be repeated before progressing to the next sequence. Students must pass the comprehensive paper during the last semester in order to graduate from the program.

Students may pursue the M.S.W. program on either a full- or part-time basis. Both programs consist of 60 semester hours of study. Students should check directly with the School of Social Work for applications and timelines. The full-time program takes four semesters to complete; the part-time program lasts for 7 consecutive semesters. Students with recently earned B.S.W. degrees from programs accredited by the Council on Social Work Education may apply for advanced standing and be exempt from up to 12 hours of foundation coursework, thus enabling them to graduate with 48 credit hours. Both the full- and part-time programs are heavily sequenced and students must stay in sequence. All students must obtain professional liability insurance prior to enrollment in field

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools and Council of Social Work Education.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- School of Social Work Application
- Three letters of recommendation
- 750 word biographical sketch
- Liberal arts pre-requisites
- Interview may be required; experience in the field preferred.
- GRE required

DEGREE PROGRAM REQUIREMENTS

Program Requirements (non-B.S.W. students) 60 hours minimum

Summary

Foundations Courses	12 hours
(ex: SOW 6105, SOW 6305, SOW 6235, SOW 6405)	
Advanced Courses	30 hours
Field Courses	12 hours
Electives	6 hours
Total	60 hours

Core Requirements

A. Human Behavior and Social Environment Courses – (11 hours)

SOW 6105 Foundations of Human Behavior	3
SOW 6114 Individual Growth and Development Theory	3
SOW 6124 Theoretical Perspectives on Mental Dysfunctioning	3
SOW 6126 Theoretical Perspectives on Physical Dysfunctioning	2

B. Social Work Practice Courses – (19 hours)

SOW 6342 Individual, Family and Group Treatment I	3
SOW 6305 Fundamentals of Social Work Practice	3
SOW 6348 Clinical Practice Perspectives on Race and Culture	3
SOW 6362 Individual, Family and Group Treatment II	4
SOW 6368 Individual, Family and Group Treatment III	3
SOW 6375 Macro Practice Seminar	3

C. Policy and Services Courses – (6 Hours)

SOW 6235 Foundations of Social Welfare Policy	3
SOW 6236 Social Welfare Policy Analysis and Design	3

D. Social Work Research Courses – (6 hours)

SOW 6405 Foundations of Social Work Research and Statistics	3
SOW 6438 Evaluation of Clinical Practice in Dirverse Setting	3

E. Supervised Field Experience (12 hours)

For full-time students:

SOW 6534 Field Instruction I	4
SOW 6535 Field Instruction II	4
SOW 6536 Field Instruction III	4

For part-time students:

SOW 6553 Field Instruction Sequence IA:Part-Time	1
SOW 6555 Field Instruction Sequence IIA:Part-time	2
SOW 6557 Field Instruction Sequence IIC:Part-Time	2
SOW 6559 Field Instruction Sequence IIIB:Part-Time	2
SOW 6554 Field Instruction Sequence IB:Part-Time	1
SOW 6556 Field Instruction Sequence IIB:Part-Time	2
SOW 6558 Field Instruction Sequence IIIA:Part-Time	2

F. Additional Requirements: Social Work Elective hours **6**

All electives outside of program must be approved.

G. Comprehensive Exam

A comprehensive examination involving the content from across the curriculum is administered in the SOW 6126 Theoretical Perspectives of Physical Dysfunctioning course during the final semester. It is called the Capstone Paper.

Program Requirements (B.S.W. students eligible for Advanced Standing) 48 hours minimum

As space is available, students qualifying for admission with advanced standing can elect to begin coursework in either spring or summer semester.

Summary

Advanced Courses	30 hours **(from sections A, B, C, and D above)**
Field Courses	12 hours
Electives	6 hours
Total	48 hours

Core requirements

A. Human Behavior and Social Environment Courses – (8 hours)

SOW 6114 Individual Growth and Development Theory	3
SOW 6124 Theoretical Perspectives on Mental Dysfunctioning	3
SOW 6126 Theoretical Perspectives on Physical Dysfunctioning	2

B. Social Work Practice Courses – (16 hours)

SOW 6342 Individual, Family and Group Treatment I	3
SOW 6348 Clinical Practice Perspectives on Race and Culture	3
SOW 6362 Individual, Family and Group Treatment II	4
SOW 6368 Individual, Family and Group Treatment III	3
SOW 6375 Macro Practice Seminar	3

C. Policy and Service Courses – (3 hours)

SOW 6236 Social Welfare Policy Analysis and Design	3

D. Social Work Research Courses – (3 hours)

SOW 6438 Evaluation of Clinical Practice in Dirverse Setting	3

E. Supervised Field Experience

For full-time students (12 hours):

SOW 6534 Field Instruction I	4
SOW 6535 Field Instruction II	4
SOW 6536 Field Instruction III	4

For part-time students (12 hours)

SOW 6553 Field Instruction Sequence IA:Part-Time	1
SOW 6555 Field Instruction Sequence IIA:Part-Time	2
SOW 6557 Field Instruction Sequence IIC:Part-Time	2
SOW 6559 Field Instruction Sequence IIIB:Part-Time	2
SOW 6554 Field Instruction Sequence IB:Part-Time	1
SOW 6556 Field Instruction Sequence IIB:Part-Time	2
SOW 6558 Field Instruction Sequence IIIA:Part-Time	2

F. Additional Requirements: Social Work Elective hours (6)

All electives outside of program must be approved.

G. Comprehensive Exam

A comprehensive examination involving the content from across the curriculum is administered in the SOW 6126 Theoretical Perspectives of Physical Dysfunctioning course during the final semester. It is called the Capstone Paper.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SOCIAL WORK AND PUBLIC HEALTH DUAL DEGREE PROGRAMS

Dual Degree Program
Master of Social Work (M.S.W.) /Master of Public Health (M.P.H.) Degrees

---

DEGREE INFORMATION

Program Admission Deadlines:
Refer to individual program listings

Minimum Total Hours:	Social Work - 48 (for advanced standing) Public Health - 42
Program Level:	Masters
CIP Code:	Social Work: 44.0701 Public Health: 51.2201
Dept Codes:	SOK, DEA
Program (Major/College):	SOK BC / MPH PH
Concentrations:	Maternal and Child Health Behavioral Health

CONTACT INFORMATION

Colleges:	Behavioral and Community Sciences Public Health
Contact:	www.grad.usf.edu

PROGRAM INFORMATION

School of Social Work and the College of Public Health offer a dual-degree program with MPH concentrations in either Maternal and Child Health or Behavioral Health.

For social work students seeking the dual-degree, expanded study in public health encourages a well-balanced macro-micro orientation to clinical practice. Such expansion can provide the social work student with specific skills that result in comprehensive and effective client interventions in health care settings. The fundamental methodological tools of public health, such as biostatistics, epidemiology, and health management and evaluation, further assist the social worker in targeting the needs of individuals and communities. The MSW/MPH dual-degree program is a two to three year full-time course of study.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools

ADMISSION INFORMATION

Students may apply either simultaneously for the Dual Master's Degree Students (indicating this intention on their application forms) or may add Social Work after admission to the Public Health Program, or add Public Health after admission to the Social Work Program. Applications for the Dual Master's Degree may be obtained from the Admissions Office at the School of Social Work or at the College of Public Health. The application should be signed by the Chair of the Social Work Graduate School and then returned the College of Public Health. Admissions are conducted independently and admission to one program in no way guarantees admission in a different program.

DEGREE PROGRAM REQUIREMENTS

Refer to the requirements for each degree.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SOCIAL WORK PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Currently not open for admission
Cyclical admissions. Contact School of Social Work for further information.

Minimum Total Hours: 60
Program Level: Doctoral
CIP Code: 44.0701
Dept Code: SOK
Program (Major/College): SOK BC

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: School of Social Work

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The School of Social Work offers a program leading to a Ph.D. in Social Work. The Ph.D. program provides a course of study to prepare graduates for academic and research careers, to provide leadership in research and education committed to excellence in social work clinical practice and to provide leadership in the development of clinical services for diverse, vulnerable and underserved populations.

The Ph.D. program, requiring 60 hours of study, is offered via a nontraditional model of delivery. During the first three years, students complete thirty-six hours of course work in nine semesters. These courses are offered in intensive weekend sessions during the fall and spring semesters and in concentrated three-week summer sessions. Dissertation work (24 hours) is taken during the course of years four and five.

This doctoral program allows students to attend course work while maintaining full-time employment commitments.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Same as university plus:

- Bachelor's degree from an accredited university or college; undergraduate G.P.A. of 3.0 in last two (2) years of undergraduate work;
- Master's degree from CSWE accredited social work program; G.P.A. of at least 3.5 (on a 4.0 scale);
- GRE required, 500V, 500Q.
- School of Social Work Application
- Three recommendations addressing applicant's academic and professional capabilities;

- Candidate's statement that describes reasons for seeking admission to the Ph.D. in Social Work program, career goals, and research interests;

- Professional or academic writing sample providing evidence of scholarly abilities such as single-authored journal article, book chapter, technical report, thesis, grant application, or other comparable work.

- Interview

DEGREE PROGRAM REQUIREMENTS

Thirty-six hours (36) of course work

Core Requirements

SOW 7491	Theoretical Perspectives in Social Work Research	3
SOW 7490	Foundations of Social Work Research Methods	3
SOW 7496	Qualitative Methods In Social Work Research	3
SOW 7497	Quantitative Methods in Social Work Research	3
SOW 7417	Advanced Statistics in Social Work Research	3
SOW 7616	Advanced Clinical Practice With Complex Problems	3
SOW 7446	Evaluation of Social Work Practice/Program Evaluation	3
SOW 7776	The Social Work Educator in the University	3
SOW 7xxx	Critical Issues in Social work	3
SOW 7919	Directed Studies in Social work Research	3
SOW 7981	Proposal Writing I	3
SOW 7982	Proposal Writing II	3

Qualifying Exam

Successful completion of **qualifying examinations** at the end of Semeter seven prepares the student for Candidacy.

Other Requirements

Completion of remaining course work in semesters eight and nine, and successful defense of a dissertation proposal admits the student for Candidacy

Dissertation

Successful defense of a dissertation consisting of original Social Work research

SOW 7980	Dissertation Hours	24

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SPEECH-LANGUAGE PATHOLOGY (POST-BACC) PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 1

Minimum Total Hours: 62~~1~~
Program Level: Masters
CIP Code: 51.0204
Dept Code: CSD
Program (Major/College): SPP BC

CONTACT INFORMATION

College: Behavioral & Community Sciences
Department: Communication Sciences and Disorders

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The Department of Communication Sciences and Disorders is devoted to the study of normal and disordered human communication. Courses and clinical practice provide the student with principles, research methods and application of knowledge about the spectrum of verbal and non-verbal communication skills. Diagnosis and remediation of communicative problems dominate the clinical component of this course of study.

The Master of Science in Speech Language Pathology is structured to meet the preparation requirements of the American Speech-Language-Hearing Association for the Certificate of Clinical Competence.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools. Council of Academic Accreditation of the American Speech-Language-Hearing Association.

Major Research Areas: n/a

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- completion of a set of pre-requisite courses, also required for state licensure and national certification in speech-language pathology,
- at least a 3.20 average on a 4.00 scale in all work attempted while registered as a upper division student working for a baccalaureate degree,
- minimum GRE scores: 52nd percentile (approx. 460) on the verbal portion OR the 52nd percentile (approx. 4) on the writing section AND the 32nd percentile (approx. 470) on the quantitative section, taken within five years preceding application
- three letters of recommendation
- a letter of intent and resume, and
- applicant must also demonstrate competency in communication skills as determined by the chairperson or delegate.

DEGREE PROGRAM REQUIREMENTS

Total Minimum hours: 62

All speech-language pathology majors must complete the following:

Core Requirements		**29 hours**
SPA 5204	Advanced Clinical Phonology	3
SPA 5403	Language Learning in the School-Age years	3
SPA 5552	Diagnostic Principles and Practices	3
SPA 6211	Advanced Vocal Disorders	3
SPA 6225	Advanced Fluency Disorders	3
SPA 6410	Aphasia	3
SPA 6559	Augmentative and Alternative Communication	3
SPA 6571	Ethical Practice Issues in Comm. Disorders	2
SPA 6805	Research Procedures in Comm. Sci. & Disorders	3
SPA 6565	Seminar in Dysphagia	3

Practicum **24~~3~~ hours**

Also, students will enroll in sufficient graduate clinical practicum (24~~3~~ credits) to meet a minimum of 400 clock hours to fulfill the requirements of the American Speech-Language-Hearing Association. Of these hours, 25 hours must be in observation and at least 250 clock hours must be in speech-language pathology.

Thesis option **~~12~~ 9 hours**

SPA 6910 Directed Research (1 hr minimum)
SPA 6971 Thesis (8 hrs minimum)

The number of practicum hours is adjusted from 24 hours to 21 hours to allow the thesis student to take one elective. This elective will be selected with the assistance of the thesis advisor.

~~SPA 6506 Practicum (3 hrs minimum)~~
~~One Elective (3 hrs minimum) –selected with the assistance of an advisor~~
~~Each student must complete at least 1 hour of SPA 6910 (Directed Research) and a minimum of 8 hours of SPA 6971 (Thesis) and submit an approved thesis.~~

Non-thesis option

Each student must complete an additional nine (9) hours of coursework selected with the assistance of an advisor from the electives list.

Electives

SPA 5133C	Speech Science Instrumentation	(3)
SPA 6232	Neuromotor Disorders of Speech	(3)
SPA 6245	Craniofacial Communication Disorders	(3)
SPA 6324	Aural Rehabilitation: Children*	(3)
SPA 6401	Pediatric Language Disorders	(3)
SPA 6404	Language Learning Disabilities	(3)
SPA 6417	Communication & Cognition in Traumatic Brain Injury	(3)
SPA 6473	Multicultural Differences in Language Use	(3)
SPA 6564	Seminar in Aging, Cognition, and Communication	(3)
SPA 6910	Directed Research	(var)

*required for students who have not had a course in aural rehabilitation at the undergraduate level

GPA and Comprehensive Exam Requirements

Also required for graduation are the attainment of a 'B' or better in each graduate Speech-Language Pathology course, the attainment of clinical competence and a GPA of 3.0 in all coursework and clinical practica, and satisfactory passage of a comprehensive examination.

Online Option

For individuals who have a bachelor's degree in speech-language pathology and are currently working in the public school system as a speech-language pathology assistant, we offer a part-time online graduate program, which can be completed in 9 semesters. The admission and degree requirements are the same as those listed for the residential program. All academic coursework is offered online. The three electives for the non-thesis option are selected by the program and are designed to meet the unique needs of the clinician practicing in a school setting. The thesis option is not available for this track. Out of the six required clinical practicum (a total of 24 credits), four are completed on the job during the school year, one is completed on the Tampa campus during the second summer, and the third summer is devoted to accruing clinical hours at a local externship site.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

Section 14

COLLEGE OF BUSINESS

Changes to Note

The follow curricular changes for the College of Business were approved by the USF-Tampa Graduate Council on the date noted.

Program changes

Accountancy (M.Acc.)	**new concentrations**: Audit/Systems; Tax	9/20/10
Business Administration (M.B.A.)	change adm deadlines, term ECN conc	7/19/11
Business Economics (Ph.D.)	moved to College of Arts & Sciences	7/20/11
Entreprenshp in Appl Technol (M.S.)	change adm deadlines	7/19/11
Finance (M.S.)	change adm deadlines	7/19/11
Management (M.S.)	change adm deadlines	7/19/11
Management (M.S.)	Close for Admission: Conc- Leading Sust Ent. (LSE)	1/11/11
Management Info Sys (M.S.)	change adm deadlines	7/19/11
Management Info Sys (M.S.)	change adm req and IMS courses	5/16/11
Marketing (M.S.M.)	change adm deadlines	7/19/11
Real Estate (M.S.R.E.)	change adm deadlines	7/19/11
Real Estate (M.S.R.E.)	change curriculum	1/11/11

New Accelerated Degree Programs

Management Information Systems (B.S./M.S.)	5/16/11

New Courses

ISM 6156	Enterprise Resource Planning & Business Process Management	6/6/11
ISM 6xxx	Operations & Supply Chain Processes	7/5/11
ISM 6xxx	Information Security & Risk Management	7/5/11
FIN 6465	Financial Statement Analysis	1/11/11
FIN 6537	Financial Options & Futures	1/11/11
REE 6938	Selected Topics in Real Estate	1/11/11
REE 6305	Real Estate Investment	7/5/11
REE 6737	Real Estate Development	7/5/11
REE 6207	Real Estate Finance	7/5/11
REE 6045	Real Estate Decisions	7/5/11

Course changes

FIN 6406	Financial Management	11/15/10

University of South Florida
College of Business
4202 E. Fowler Ave., BSN 3403 (loc BSN 103)
Tampa, FL 33620

Web address: http://www.coba.usf.edu/
Email: mba@coba.usf.edu
Phone: 813-974-3335
Fax: 813-974-4518

College Dean: Robert Forsythe
Associate Dean: Charles Kroncke
Graduate Coordinator: ~~Wendy Sage Baker~~[c1] Irene Hurst

Accreditation:
The Ph.D., M.B.A., M.S. in Management Information Systems, M.S. in Management: Leading Sustainable Enterprises, M.S. in Finance, Master of Accountancy, M.S. in Marketing, M.S. in Entrepreneurship, and M.S. in Real Estate~~, and M.A. in Economics~~ programs in the College of Business are accredited by the AACSB International – The Association to Advance Collegiate Schools of Business. The College also is a member of the Graduate Management Admission Council (GMAC).

Mission Statement:
The USF College of Business will provide a high-quality, diverse learning environment preparing students to contribute to and take leading positions in business and society. Our teaching, scholarship, and service will link theory and practice to benefit the University and the communities it serves.

Degrees, Programs, and Concentrations:

Master of Accountancy (M.Acc.)
- Accountancy

~~Master of Arts (M.A.)~~

Master of Business Administration (M.B.A.)
- Business Administration (full-time or part-time) (BUS)
- Executive M.B.A. (MBA)

Master of Science (M.S.)
- Entrepreneurship in Applied Technologies (EAT)
- ~~Biomedical Engineering (MSBE) / Entrepreneurship in Applied Technologies (M.S.) (Dual Degree Program)~~
- Finance (FIN)
- Management (MAN)
  - ~~Leading Sustainable Enterprises (LSE))(M.S. in Management)~~
- Management Information Systems ~~(ISM)~~(MIF)

Master of Science in Marketing (M.S.M.)
- Marketing (MKT)

Master of Science in Real Estate (M.S.R.E.)
- Real Estate (RST)

Doctor of Philosophy (Ph.D.)
- Business Administration (BUD)
  - Accounting
  - Finance
  - Information Systems

Marketing
Also see application areas in program descriptions.

Dual Degree Programs
Biomedical Engineering (MSBE) / Entrepreneurship in Applied Technologies (M.S.)

Graduate Certificates Offered:
see Graduate Certificate website http://www.outreach.usf.edu/gradcerts/

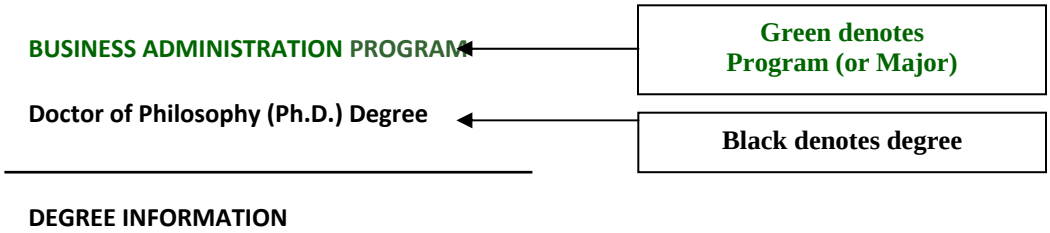
COLLEGE REQUIREMENTS

Non-Degree Seeking Students
The College of Business will approve, on a space available basis, non-degree seeking student status for transient students (degree-seeking students at another AACSB accredited institution) or for students with valid reasons to register in this status and who meet all admission requirements. Contact the college for additional requirements.

About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the College that offers them. For example, the Master of Science degree with a "program" (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or "concentrations" within a degree program.

PROGRAMS



CONCENTRATIONS

Concentration Requirements are listed separately under each Program.

The Program and Concentration are listed on the official transcript. Other areas, such as application tracks, are not listed on the transcript.

Example:
Doctor of Philosophy in Business Administration
with a Concentration in Finance

ACCOUNTANCY PROGRAM

Master of Accountancy (M.Acc.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	March 1
Spring:	October 1
Summer:	March 1

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 52.0301
Dept Code: ACC
Program (Major/College): MAC BA
Concentrations:
Audit/Systems (AUS)
Tax (TAX)
Also offered as:
Track under Business Administration (Ph.D.)

CONTACT INFORMATION

College: Business
Department: School of Accountancy

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The objective of the Master of Accountancy (M.Acc.) Program is to provide candidates with greater breadth and depth of knowledge in accountancy than is possible in the baccalaureate program. The program is designed to meet the increasing needs of business, government, and public accounting. Students entering The M.Acc. Program must already have the equivalent of an undergraduate degree in accounting from an AACSB accredited school. The program may also be structured to satisfy the requirements to sit for the CPA Examination in Florida.

Accreditation:

Accredited by both the Commission on Colleges of the Southern Association of College and Schools (SACS) and AACSB International (The Association to Advance Collegiate Schools of Business).

Major Research Areas:

Contact department.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- At least a 3.00 upper-level accounting GPA (minimum of 21 hours at a U.S. AACSB- accredited program within the past 5 years
- a 3.00 overall upper-level GPA
- a 500 or higher GMAT score

International applicants from non English-speaking countries must also have a TOEFL score of 550 or higher on the written version, a minimum score of 213 on the computer-based test or a 79 on the internet-based test.

Admission to the M.Acc. program is competitive. For full consideration, please submit your application by the deadlines shown above.

DEGREE PROGRAM REQUIREMENTS

For the student who has the equivalent of an undergraduate major in accounting at USF (including 21-24 hours of upper-level accounting coursework taken within the last 5 years), the program consists of 30 hours. Most (~~21~~ 24 hours) of the program is devoted to the study of accounting. The remaining ~~nine~~ six (~~9~~6) hours consist of study in other business areas including economics, entrepreneurship, finance, and information systems/decision sciences. These ~~nine~~ six (~~9~~6) hours are elected by the student in consultation with the M.Acc. Advisor. At least 70% of the coursework must be at the 6000 level.

The M.Acc. curriculum has a set of three required common core accounting courses. Students may elect a concentration (12 hours) in either T~~t~~ax or A~~a~~udit/systems. If a student does not wish to elect a concentration, a student may follow the "Generalist Track" below. ~~The student may emphasize a particular specialty through a choice of accounting electives.~~ The sequencing of courses will be determined in consultation with the M.Acc. Advisor.

Total Minimum hours: 30
At least 21 hours must be in 6000-level courses

Core Requirements

Required Core Accounting Courses		**6 hours**
ACG 6875	Financial Reporting and Professional Issues	3
ACG 6932	Integrative Accounting Seminar	3

GENERALIST TRACK

Accounting Electives		**18 hours**
Select from:		
ACG 6476	Contemporary Issues in Accounting Information Systems	3
ACG 6636	Contemporary Issues in Auditing	3
TAX 6065	Contemporary Issues in Taxation	3
ACG 6346	Contemporary Issues in Managerial Accounting	3
ACG 6936	Selected Topics in Accounting	3
TAX 6445	Estate Planning	3
ACG 5205	Advanced Financial Accounting	3
ACG 5675	Internal and Operational Auditing	3
ACG 5505	Governmental / Not-for-Profit Accounting	3
TAX 5015	Federal Taxation for Business Entities	3
ACG 6457	Accounting Systems Audit, Control & Security	3
TAX 6134	Advanced Corporate Taxation	3
TAX 6005	Advanced Partnership Taxation	3

Non-accounting Electives	**6 hours**
Electives must be approved in advance by M.Acc. Advisor	6

TAX CONCENTRATION

Tax Courses		**12 hours**
Select from:		
TAX 5015	Taxation of Business Entities*	3
TAX 6134	Advanced Corporate Taxation	3
TAX 6005	Advanced Partnership Taxation	3
TAX 6445	Estate Planning	3
TAX 6065	Contemporary Issues in Taxation	3

(*Note: TAX 5015 may count in the M.Acc. program only if it is not counted towards the Bachelor's Degree)

Accounting Electives **6 hours**

Select from:

ACG 6476	Contemporary Issues in Accounting Information Systems	3
ACG 6636	Contemporary Issues in Auditing	3
TAX 6065	Contemporary Issues in Taxation	3
ACG 6346	Contemporary Issues in Managerial Accounting	3
ACG 6936	Selected Topics in Accounting	3
TAX 6445	Estate Planning	3
ACG 5205	Advanced Financial Accounting	3
ACG 5675	Internal and Operational Auditing	3
ACG 5505	Governmental / Not-for-Profit Accounting	3
TAX 5015	Federal Taxation for Business Entities	3
ACG 6457	Accounting Systems Audit, Control & Security	3
TAX 6134	Advanced Corporate Taxation	3
TAX 6005	Advanced Partnership Taxation	3

Non-accounting Electives **6 hours**

Electives must be approved in advance by M.Acc. Advisor 6

AUDIT/SYSTEMS CONCENTRATION

Audit/Systems Courses **12 hours**

Select two (2) courses from:

ACG 6405	Advanced Accounting Information Systems	3
OR		
ACG 6457	Accounting Systems Audit, Control & Security	3
ACG 6636	Contemporary Issues in Audit	3
OR		
ACG 5675	Internal and Operational Audit	3

The remaining two (2) courses should be selected from:

ACG 6405	Advanced Accounting Information Systems	3
ACG 6457	Accounting Systems Audit, Control & Security	3
ACG 6636	Contemporary Issues in Audit	3
ACG 5675	Internal and Operational Audit	3
ISM 6930	Enterprise Resource Planning & Business Proc.Mgmt.	3
ISM 6930	Information Security & Risk Management	3

Accounting Electives **6 hours**

Select from:

ACG 6476	Contemporary Issues in Accounting Information Systems	3
ACG 6636	Contemporary Issues in Auditing	3
TAX 6065	Contemporary Issues in Taxation	3
ACG 6346	Contemporary Issues in Managerial Accounting	3
ACG 6936	Selected Topics in Accounting	3
TAX 6445	Estate Planning	3
ACG 5205	Advanced Financial Accounting	3
ACG 5675	Internal and Operational Auditing	3
ACG 5505	Governmental / Not-for-Profit Accounting	3
TAX 5015	Federal Taxation for Business Entities	3
ACG 6457	Accounting Systems Audit, Control & Security	3
TAX 6134	Advanced Corporate Taxation	3
TAX 6005	Advanced Partnership Taxation	3

Non-accounting Electives **6 hours**

Electives must be approved in advance by M.Acc. Advisor 6

~~**Required Accounting Courses** **3 courses/9 hours**~~

~~ACG 6875 Financial Reporting and Professional Issues 3~~
~~ACG 6405 Advanced Accounting Information Systems 3~~
~~ACG 6932 Integrative Accounting Seminar 3~~

~~**Accounting Electives** **3 courses / 9 hours**~~
~~ACG 6476 Contemporary Issues in Accounting Information Systems 3~~
~~ACG 6636 Contemporary Issues in Auditing 3~~
~~TAX 6065 Contemporary Issues in Taxation 3~~
~~ACG 6346 Contemporary Issues in Managerial Accounting 3~~
~~ACG 6936 Selected Topics in Accounting 3~~
~~TAX 6445 Estate Planning 3~~
~~ACG 5205 Advanced Financial Accounting 3~~
~~ACG 5675 Internal and Operational Auditing 3~~
~~ACG 5501 Governmental / Not-for-Profit Accounting 3~~
~~TAX 5015 Federal Taxation for Business Entities 3~~

~~**Non-accounting Electives** **3 courses/ 9 hours**~~
~~Electives must be approved in advance by M.Acc. Advisor 9~~

~~Open Elective~~
~~One 6000 level accounting or non-accounting elective 3~~

~~**Total Semester Hours:** **30**~~
~~At least 21 hours must be in 6000-level courses~~

Total Minimum Hours: 30
At least 21 hours must be in 6000-level courses

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

BUSINESS ADMINISTRATION PROGRAM

Master of Business Administration (M.B.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	~~June~~ July 1
Spring:	~~October~~ November 1~~5~~
Summer:	No Admit

International:

Fall:	February 1
Spring:	July 1
Summer:	No Admit

Minimum Total Hours: 37
Program Level: Masters
CIP Code: 52.0101
Dept Code: DEA
Program (Major/College): BUS BA

Application Tracks/Areas of Study:
Building Sustainable Enterprise
Entrepreneurship
Finance
Advanced Financial Management
Advanced International Business
International Business
Management
Advanced Management
Management Information Systems
Advanced Management Information Systems
Marketing Strategy
Advanced Marketing

Also offered as:
Executive M.B.A.

CONTACT INFORMATION

College: Business

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The Master of Business Administration (M.B.A.) is a professional degree designed to prepare graduates for managerial roles in business and not-for-profit organizations. Graduates will develop the necessary skills and problem-solving techniques that will permit them to make an early contribution to management and eventually to move into broad, general management responsibilities at the executive level. The program is designed to meet the needs of qualified men and women with undergraduate degrees from accredited universities.. The work experience requirement provides meaningful background that will enhance the student's understanding and learning experience.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools (SACS); AACSB International – The Association to Advance Collegiate Schools of Business

Major Research Areas:
Contact Coordinator for department

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Upper-level GPA 3.0 or higher
- minimum of 500 on GMAT
- International applicants from non English-speaking countries must also have a TOEFL score of 550 or higher on the written version, a minimum score of 213 on the computer-based test or a 79 on the internet-based test.
- Two years of significant, professional work experience prior to enrollment.
- Resume, statement of purpose, and recommendations.
- ~~The admissions committee carefully considers each completed application, with particular attention to work history, undergraduate performance, recommendations and test scores.~~ The USF MBA program will consider the strength of each applicant based on the entire completed application. Outstanding qualities in one area may compensate for a weakness in another. The Admission Committee will consider: prior college-level academic performance (bachelor's degree from regionally accredited institution required), GMAT (preferred) or GRE scores, professional work experience, recommendation letters, a statement of purpose, community or volunteer service, and any other information that might help convince the committee that the applicant is a good fit for this program.

DEGREE PROGRAM REQUIREMENTS

The M.B.A. degree is a 37-48 hour program. All M.B.A. candidates must complete all degree requirements within five years of beginning the program. The full-time student without course waivers generally will need 6 semesters to complete the program. Part-time students can complete all work within a reasonable time--approximately three years without course waivers. Part-time students are encouraged to take two courses per semester and must complete 12 hours per calendar year to remain on active status as a degree-seeking student. Students who have completed undergraduate or graduate courses in business and economics from an AACSB accredited school may receive course waivers and reduce their course loads from the maximum requirement. Courses are scheduled to accommodate both full-time and part-time students. All courses are at the graduate level. Students entering the program are expected to have sufficient competency in mathematics (College Algebra), communication skills (written and verbal), basic computer skills, high-speed internet acccess, and two years of relevant work experience.. The curriculum consists of:

The Common Body of Knowledge
Common Body of Knowledge: (CBK) courses, also known as the "TOOL" Area courses, are designed to provide basic background in the several functional areas in order to prepare for more advanced studies. The courses assume little or no prior knowledge in the field. Students having undergraduate degrees in Business Administration may be eligible for waivers, subject to standards set by the faculty. The conditions for waivers are explained more fully below. Students who waive the tool courses are required to take a Business Skills Review course (non-credit) in the first semester of enrollment.

Application Areas (tracks):
The application areas encourage the development of market driven competencies and provide students with distinctive sets of knowledge and skills. Each grouping of courses allows students to position themselves in the marketplace by choosing applications that match their career goals. Students will select 2-3 areas of competency, each with 9 credit hours (advanced tracks are 6 credit hours). Students who do not waive the tool courses are required to take only two specialization tracks (18 hours). Students who waive the tool courses are required to take 3 specialization tracks (27 credit hours).

Certificate of Achievement:
Students will receive a certificate of achievement for the successful completion of each application sequence. Application area courses also include the opportunity to sharpen skills in writing, presentation, teamwork, technology applications, global applications, and communication.

Integrated Business Applications:
Integrated Business Applications is a six credit, two consecutive semester course sequence which emphasizes the integration and utilization of techniques and methods taught in the Tool and Application areas. The sequence involves working in both group and individual projects, with "live" as well as published cases. It utilizes a variety of computer applications, and includes the development of detailed business plans

M.B.A. Course Structure
Core Requirements

Common Body of Knowledge, "Tool" courses		**20 credits**
ACG 6025	Financial Accounting for Managers	2
ACG 6075	Management Accounting & Control	2
MAN 6055	Human Behavior and Organization	2
ECP 6702	Managerial Economics	2
QMB 6305	Managerial Decision Analysis	2
ECO 6708	Global Econ. Environment of Bus.	2
MAR 6815	Marketing Management	2
FIN 6406~~934~~	Financial Management	2
ISM 6021	Management Information Systems	2
QMB 6603	Operations Management & Quality Enhancement	2

Application Areas (Required Electives)	**18 credits**
Application Track #1	9
Application Track #2	9
Application Track #3	9

Note: Some Application Tracks may not be offered each year. Additional applications tracks may be developed based on students interests and needs.

Required Courses		**10 credits**
GEB 6445	Social, Ethical, Legal Systems	2
MAN 6147	Leadership Concepts	2
GEB 6895	Integrated Business Applications I	3
GEB 6896	Integrated Business Applications II	3

Total Semester Credits Required	**37-48**

Constraints
1. The maximum credits required is forty-eight (48).
2. Students with an undergraduate degree in Business who are eligible to waive the tool area courses must complete an advanced course in four of the ~~seven~~ ten areas ~~waived~~of recognized business disciplined. Students do not need an advanced course in their area of undergraduate major. Students who waive the tool courses are required to take Business Skills Review exams (non-credit) in the first semester of enrollment.
3. Students who are required to take the tool courses are required to take only two specialization tracks (18 hours). Students who waive the tool courses are required to take 3 specialization tracks (27 credit hours).

Note: Tool/core courses may not be counted as electives.

Thesis
Students may elect a 6 hour thesis in any of the areas of concentration of the college, subject to departmental approval.

~~**Non-Tampa Campus Offerings**~~
~~The full-time and part-time MBA programs are offered on the Tampa campus and the USF Downtown Center (part-time only).~~

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

BUSINESS ADMINISTRATION PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 2
Fall admission only

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 52.0201
Dept Code: DEA
Program (Major/College): BUD BA

Concentrations: :
Accounting
~~Economics~~
Finance
Information Systems
Marketing

CONTACT INFORMATION

College: Business

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Ph.D. program offered by the College of Business provides its graduates with preparation for careers as college and university professors and as research and staff personnel in industry and government. The doctoral program provides for intellectual growth as students work closely with faculty in seminars, research projects, and other assignments which develop their teaching and research skills. The curriculum offers breadth of understanding of the integral components of business administration as well as depth of field specialization sufficient to permit the student to make a meaningful contribution to their discipline. The program is sufficiently flexible to allow each student to build upon his or her strengths and to accommodate students with various levels of preparation in a wide variety of fields, and in areas outside the college. However, the degree conferred is PhD in Business with a concentration in one of the departmental areas.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools; AACSB International – The Association to Advance Collegiate Schools of Business.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Competitive based on GPA, GMAT or GRE
- personal statement
- recommendations
- interview
- International applicants from non English-speaking countries must also have a TOEFL score of 550 or higher on the written version, a minimum score of 213 on the computer-based test or a 79 on the internet-based test.

DEGREE PROGRAM REQUIREMENTS

A minimum of 90 semester hours beyond the bachelor's degree is required. This includes 21 hours of dissertation. A minimum of 45 hours of coursework must be completed at the University of South Florida.

Foundation Courses
These courses are designed to develop an appreciation of the institution of business and to help students see how their areas of specialization fit into this general picture. With the approval of the student's program committee, a student may satisfy these requirements in any of the following ways:

A. By completing an undergraduate degree in business at an AACSB accredited institution, with an average of "B" or better in the last 60 hours, no more than 5 years prior to admission to the Ph.D. program.

B. By completing an M.B.A. degree at an AACSB accredited institution, no more than 5 years prior to admission to the Ph.D. program

C. By completing one approved course with a grade of "B" or better in each of the functional areas: Accounting, Finance, Information Systems, Management, and Marketing. ~~(Economics requirements are described under core requirements.)~~ All graduate-level courses at the 6000 level or above, with the exception of specific "tool" courses (e.g. statistics), will count toward this requirement.

D. By successfully petitioning the doctoral Program Committee to accept previous academic work (e.g., specialized Masters programs in business, degrees granted more than 5 years ago, etc.) in fulfillment of all or part of this requirement. Such a petition must be initiated during the first semester of the program.

CORE REQUIREMENTS
The core courses are designed to provide a strong background in Economics and to develop the student's quantitative and statistical research skills. These courses are required of all students in the program. The College will waive a course only if the student has passed the same or equivalent course with a grade of "B" or better within the preceding five years.

The Economics requirement can be met by completing two graduate level courses, one in microeconomics and one in macroeconomics, with a grade of "B" or better. The courses which satisfy this requirement are:

ECP 6702	Managerial Economics	2
ECO 6708	Global Economic Env. of Business	2
ECO 6115	Microeconomics I*	3
ECO 6206	Aggregate Economics*	3
ECP 6408	Economics of Organization*	3

*At least one course must be taken from among those listed above with an asterisk (*).

The quantitative and statistical coursework is to be determined by the student's program committee in consultation with the student. A three course series is required. An appropriate sequence should be chosen from the following:

ECO 6424	Econometrics I	3
ECO 6425	Econometrics II	3
ECO 7426	Econometrics III	3
ECO 7427	Econometrics IV	3
QMB 6375	Applied Linear Statistical Models	3
QMB 7565	Introduction to Research Methods	3
QMB 7566	Applied Multivariate Statistical Methods	3

Any substitution of appropriate mathematics, statistical and quantitative coursework must be approved by the Doctoral Program Committee, preferably at the time of acceptance, or definitely before the student takes a substitute course. In addition, students are required to take an additional research elective approved by their advisory committee. Should a student earn a grade of "C" or lower in the core courses, the case will be brought before the Doctoral Program Committee for review. After reviewing the case, the Committee will take one of the following steps:

a. Require the student to pass an examination that covers the material relevant to the subject. A student who fails the exam on the first attempt may retake it within one year. A student who fails the exam on the second attempt will be subject to dismissal.
b. Require the student to retake the course. If the student retakes the course and fails to receive a grade of "B" or better, the student is subject to dismissal.

Concentration Field

All students will take at least five (5) courses at the 6000 or 7000 level in an area designated as the student's Concentration . Students are encouraged to identify courses in the concentration field that will provide experience in applying current research techniques to problems in that field. To accomplish this, the student may propose a combination of formal classroom courses and independent directed-research courses. This combination may include a year-long research seminar in which the groundwork is laid for the student's dissertation. The specific agenda of courses will be determined by the student's program committee. The following fields are offered: Accounting, Economics, Finance, Information Systems, Management (inactive) and Marketing. Courses taken as part of the Foundation or Core sections may not be counted as part of the hours required for a concentration field.

Support Field (9 hours)

The support area will consist of a minimum of three courses (9 hours) from one or more of the fields listed under the concentration field, or elsewhere in the university. The support field and the concentration field cannot be taken in the same department. Courses within the support field can be selected to complement the concentration field and in special cases may include courses outside the College of Business. The nature and number of the support area courses will be determined by the Student's Program Committee in consultation with the Ph.D. coordinator of the support field department. Courses taken as part of the Foundation or Core courses may not be counted as part of the 9 hours required for support fields.

CONCENTRATIONS

Students select one of the following concentrations:

Accounting Concentration Requirements

The Accounting concentration emphasizes:

The mastery of one or more specialized areas of accounting, such as accounting information systems, auditing, or financial accounting

- The development of requisite skills to engage in respected applied, practical and scholarly research
- The development of effective teaching skills

The concentration requires meeting the College of Business foundation course requirements and completing 41 hours of coursework. The 41 hours of coursework include:

- 17 credit hours of core requirements related to economics and research methods
- 15 credit hours of accounting courses
- 9 credit hours in a support field

~~**Economics Concentration Requirements**~~

~~Concentration Admission Requirements~~

~~In addition to the general program admission requirements listed above, the Economics Concentration also requires that applicants have:~~

- ~~A GRE score of at least 500 (V) and 660 (Q) or a GMAT score of at least 575~~
- ~~A strong background in mathematics, statistics, and economic theory~~

~~**Required Coursework (27 hours)**~~

~~In addition to any Foundation Courses that may be required and the Support Field, the Economics Concentration consists of:~~

~~ECO 6115 Microeconomics I (3)~~
~~ECO 6206 Aggregate Economics (3)~~
~~ECO 6305 History of Economic Thought (3)~~
~~ECO 6405 Mathematical Economics I (3)~~
~~ECO 6424 Econometrics I (3)~~
~~ECO 6425 Econometrics II 3)~~

~~ECO 7116 Microeconomics II (3)~~
~~ECO 7406 Mathematical Economics II (3)~~
~~ECO 7426 Econometrics III (3)~~

~~**Fields (12 hours)**~~
~~Select two of the groupings below:~~
~~ECP 6536 Economics of Health Care I (3)~~
~~ECP 7537 Economics of Health Care II (3)~~

~~ECS 6015 Economic Development (3)~~
~~ECO 6706 International Trade: Theory and Policy (3)~~

~~ECP 6405 Industrial Organization I (3)~~
~~ECP 7406 Industrial Organization II (3)~~

~~ECO 6505 Public Finance (3)~~
~~ECO 6525 Public Sector Economics (3)~~

~~ECP 6614 Urban Economics (3)~~
~~ECP 6624 Regional Economics (3)~~

~~ECP 6205 Labor Economics I (3)~~
~~ECP 7207 Labor Economics II (3)~~

~~**Comprehensive Qualifying Examination for the Economics Concentration**~~
~~The Comprehensive Qualifying Examination for the Economics Concentration is given in two parts. The first examination covers mathematical economics and microeconomics and the second examination covers econometrics. Students are permitted two attempts to pass each examination. A second failure on either examination disqualifies the student from continuing in the PhD program.~~

Finance Concentration Requirements

~~I~~n addition to the required core and foundation courses, the curriculum will normally include the following courses:

FIN 680 4	Theory of Finance	3
FIN 7808	Advanced Micro Finance	3
FIN 7817	Financial Markets	~~-~~3
FIN 7930	Selected Topics in Finance	~~(~~3, 3~~)~~ (Two Semesters)
FIN 7935	Finance Research Seminar	3

Courses taken as part of the Foundation or Core sections may not be counted as part of the hours required for the concentration.

Support Field (9 hours)
Those who elect Finance as a support field will establish their support field curriculum in consultation with their major advisors and a representative from the Finance department. Normally, a support field in Finance would require the following three courses:

FIN 6804 Theory of Finance	3
FIN 7817 Financial Markets	3
FIN 7808 Advanced Micro Finance	3

Comprehensive Qualifying Exam:
Upon completion of all coursework, students must pass a comprehensive written examination. The student's performance on this exam should reflect familiarity with the literature, current issues and problems related to these fields. A student who fails the field exam may retake it within one year. A second failure disqualifies the student from continuing in the Ph.D. program. If the degree is not conferred within 5 calendar years of the comprehensive qualifying examination, a second and different examination must be taken. Students passing the comprehensive qualifying examination are eligible for admission to candidacy for the Ph.D. program.

Dissertation:
21 credit hours of dissertation are required for the degree.

Residency Requirements:
Ph.D. students in the College are required to complete a minimum of 15 credit hours per calendar year. Failure to meet this requirement will result in the student being placed on conditional status.

Information Systems Concentration Requirements

ISM 6124 Advanced Systems Analysis and Design*
ISM 6218 Advanced Databases Management*
ISM 6225 Distributed Information Systems*
ISM 6930 Computational Methods in Business
ISM 7910 MIS Research Seminar I
ISM 7911 Seminar in Technical IS Research
ISM 7912 Seminar in MIS Organizational Research
One additional ISM course at the 6000 level or higher. **

**Note: This requirement can be waived if a student has taken these or equivalent graduate courses in a prior program and earned a B or higher. Waiver requests for any of the courses listed above should include a copy of the course syllabus and should be submitted to the department's Ph.D. Coordinator.*

***Note that any of the three courses taken to satisfy the foundational course requirement in Information Systems can also satisfy this requirement.*

Support Field (9 hours):
Students take 3 graduate courses outside of the concentration area. Courses may be taken outside of the College of Business, but should complement the concentration subject area.

Comprehensive Qualifying Exam:
Upon completion of all coursework, students must pass a comprehensive examination in the concentration area. The student's performance on this exam should reflect familiarity with the literature, current issues, and problems related to these fields.

There are two parts to the comprehensive examinations following the completion of coursework:
(i) A written examination and
(ii) An oral presentation and successful defense of the student's "second year research paper."
Students will be considered to have passed the comprehensive exam if they pass the written exam and successfully present and defend the "second year research paper."

Marketing Concentration Requirements

Students will be required to successfully complete a minimum of 6 doctoral-level Marketing seminars. Typically, one doctoral seminar will be offered in the Fall semester and two seminars will be offered in the Spring semester. The six required courses may be selected from the following list:

MAR 7555 Consumer Behavior Theory
MAR 7635 Advanced Marketing Research: Design and Technique
MAR 7667 Marketing Models and Strategy Applications
MAR 7787 Marketing Theory and History
MAR 7910 Independent Study in Marketing (S/U only)
MAR 7930 Advanced Seminar in Marketing
MAR 7931 Seminar in Selected Marketing Topics including:
- Buyer-Seller Interaction

- Marketing Channels, Logistics and Supply Chain Management
- Marketing Management
- Marketing Strategy
- Readings in Marketing
- Sales Management

MAR 7980 Dissertation Research (S/U only)

In addition, students will complete a "Pro-Seminar" every Fall semester for the first two years of study.
Note: The Professional Seminars do not count as one of the six required Ph. D. seminars.

Comprehensive Qualifying Examinations
Upon completion of all coursework, students must pass the equivalent of a comprehensive examination in the concentration area. The student's performance on these "exams" should reflect familiarity with the literature, as well as with current issues and problems related to these fields. A student who fails either of the examss may retake it within one year. A second failure disqualifies the student from continuing the Ph.D. program. If the degree is not conferred within 5 calendar years of the comprehensive qualifying examination, a second and different examination must be taken. Students passing the qualifying examination are eligible for admission to candidacy for the Ph.D. program.

The decision to administer a separate comprehensive exam for a support area will be made by the department in which the support area is taken. In the event that an interdisciplinary support area is selected, any department represented by six (6) or more semester hours may require a qualifying examination. In the event that no single department represents six semester hours or more, the student's program committee will solicit input from the faculty teaching the courses in the support area. If a majority of those polled take the position that a separate comprehensive examination in the support area is not appropriate, the exam will not be administered. If a separate comprehensive examination is not administered in a support area, material from the support area will be integrated into the comprehensive exam in the concentration area.

Dissertation- 21 hours of dissertation are required for the degree.

Residency Requirement - Ph.D. students in the College are required to complete a minimum of 15 hours per calendar year. Failure to meet this requirement will result in the student being placed on conditional status.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

BUSINESS ADMINISTRATION (SATURDAY MBA) PROGRAM

Master of Business Administration (M.B.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
~~Closed for new~~
admissions

Minimum Total Hours: 48
Program Level: Masters
CIP Code: 52.0201
Dept Code: DEA
Program (Major/College): MBS BA

Also offered as: See listing under MBA Program

CONTACT INFORMATION

College: Business

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

THIS PROGRAM IS BEING DISCONTINUED

ENTREPRENEURSHIP IN APPLIED TECHNOLOGIES PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	October July 1 1
Spring:	June November 1

International Admission Deadlines:

Fall:	February 1
Spring:	July 1
Summer:	No Admit

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	51.0701
Dept Code:	DEA
Program (Major/College):	EAT BA

CONTACT INFORMATION

College:	Business
Department:	Center for Entrepreneurship

Contact Information:
Other Resources:

PROGRAM INFORMATION

The Center for Entrepreneurship at the University of South Florida, in conjunction with the Colleges of Business Administration, Engineering, and Medicine and the Graduate School, has established a novel, innovative, and unique program in interdisciplinary Entrepreneurship in Applied Technologies. The Master's of Science Degree Program in Entrepreneurship in Applied Technologies is a 30 credit-hour program and consistes of ten (10) courses which will consolidate the Entrepreneurship education and training for successful opportunity recognition and development, technology and market assessment, technology commercialization, new venture formation, and new venture financing into a single inter-disciplinary program curriculum utilizing faculty and courses in the Colleges of Business Administration, Engineering, and Medicine under the auspices of the Graduate School. The program is designed such that a student may complete it in a concentrated 12-month period of studey or in an 18-month period. In addition, the Masters of Science Degree in Entrepreneurship is designed so that it can be completed as part of a dual-degree program in conjunction with a traditional M.A., M.S., M.B.A., M.D.., or Ph.D. program. Dual degrees include: Biotechnology (M.S.), Information Systems (M.S.), Public Health (MPH), Environmental Science (M.S.), Civil Engineering (M.S.and Ph.D.) and Biomedical Engineering (Ph.D). The program must be completed by the student within a 5-year period following initiation.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Bachelor's degree or equivalent from a regionally accredited university
"B" (3.0 on a 4.0 scale) average in all upper division work
Two (2) letters of recommendation
Letter of interest
Statement of purpose
Personal interview

GRE, GMAT may be required on individual basis; MCAT or LSAT may be substituted
Competence in Statistics, Accounting, and Finance must be demonstrated

DEGREE PROGRAM REQUIREMENTS

Program of Study
Course Requirements – Graduation will require successful completion of the 30 hour curriculum, with a minimum GPA of 3.00 (no grades below "C"), within a five (5) year period.

Stipends – N/A

Required Entrepreneurship Courses

ENT 6016	New Venture Formation (3)	or	EIN 6935	Technology Venture Strategies (3)
ENT 6116	Business Plan Development (3)	or	EIN 6324	Technical Entrepreneurship (3)
ENT 6126	Strategic Entrepreneurship (3)	or	EIN 6936	Strategies in Entrepreneurship Tech (3)
GMS 6095	Principles of Intellectual Property (1-3)			
GMS 6094	Bio-medical Ethics in Tech. Entrepreneurship (3)			
EIN 6430	Overview of Regulated Industries (3)			
ENT 6186	Strategic Market Assessment (3)	or	EIN 6935	Strategic Market Assessments (3)
GMS 7930	Medical Ethics & Humanities (1-3)			
ENT 6947	Advanced Topics in Entrepreneurship (3)			
ENT 6606	Product Development (3)	or	EIN 6934	New Product Development (3)
ENT 6415	Venture Capital & Private Equity (3)	or	EIN 6934	Venture Capital & Private Equity (3)

Total Hours: 30

*numbers updated to reflect SCNS assignment

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm or http://ce.usf.edu or http://www.entrepreneurship.usf.edu

ENTREPRENEURSHIP IN APPLIED TECHNOLOGIES AND BIOMEDICAL ENGINEERING DUAL DEGREE PROGRAM

Master of Science (M.S.) and
Master of Science in Biomedical Engineering (M.S.B.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	October 15
Spring:	June 1
Summer:	February 15

Minimum Total Hours:	30/33
Program Level:	Masters
CIP Code:	14.0501 / 51.0701
Dept Codes:	ECH / DEA
Program (Major/College):	EBI EN / EAT BA

CONTACT INFORMATION

Colleges:	Engineering and Business
Departments:	Chemical Engineering Center for Entrepreneurship

Contact Information:
Other Resources:

PROGRAM INFORMATION

The M.S. Biomedical Engineering (BME) And M.S. Entrepreneurship In Applied Technologies (EAT) Dual Degree Program is designed to prepare students who can effectively function in the complex world of Biotechnology companies ("Biotechs"). The program's objectives are to provide a strong Bme foundation for technical product development and research and development along with the skill set to effectively participate in the entrepreneurship, venture capital, business and financial aspects of Biotechs. students would pursue appropriate coursework within both The College of Engineering and The Center For Entrepreneurship, double counting a total of nine credit hours.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements for each program.
Students must satisfy the requirements for the two degrees separately. No Letters Of Recommendation are required.
Refer to the individual program listings for the specific requirements for each degree.

DEGREE PROGRAM REQUIREMENTS

Course requirements:

Common Courses (counted towards both the BME and EAT degrees)

BME 6000	Biomedical Engineering	(3)
GMS 7930	Principles of Intellectual Property	(3)
EIN 6934	New Product Development	(3)
		9 hrs total

Biomedical Engineering (30 hrs required)

GMS 7930	Anatomy & Physiology for Bioengineers	(3)
PHC 6051	Biostatistics II	(3)
ECH 6971	Master's Thesis	(6)

Approved BME electives		(9)
Common BME/EAT courses		(9)
	30 hours total	

Entrepreneurship in Applied Technologies (30 hrs required)

EIN 6154	Technical Entrepreneurship	(3)
EIN 6934	Technology Venture Strategies	(3)
EIN 6935	Strategic Marketing Assessments	(3)
EIN 6936	Venture Cap & Private Equity	(3)
GMS 7930	Bio Medical Ethics	(3)
EIN 6430	Overview of Regulated Industries	(3)
EIN 6936	Strategies in Entrep Technology	(3)
Common BME/EAT courses		(9)
	30 hrs total	

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm or http://ce.usf.edu or http://www.entrepreneurship.usf.edu

ENTREPRENEURSHIP IN APPLIED TECHNOLOGIES AND BIOTECHNOLOGY DUAL DEGREE PROGRAM

Master of Science (M.S.) Degree and
Master of Science in Biotechology (M.S.)

DEGREE INFORMATION

Program Admission Deadlines:
Refer to individual program listings for deadlines

Minimum Total Hours:	30/33
Program Level:	Masters
CIP Code:	14.0501 / 52.0701
Dept Codes:	ECH / DEA
Program (Major/College):	EBI EN / EAT BA

CONTACT INFORMATION

Colleges: ~~Engineering~~ Medicine and Business
Department: Biotechnology
Center for Entrepreneurship

Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

Contact Program for information

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements for each program.
Students must satisfy the requirements for the two degrees separately. Refer to the individual program listings for the specific requirements for each degree.

DEGREE PROGRAM REQUIREMENTS

Refer to the individual program listings for the specific requirements for each degree.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm or http://ce.usf.edu or http://www.entrepreneurship.usf.edu

EXECUTIVE M.B.A. PROGRAM

Master of Business Administration (M.B.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: June 1

Minimum Total Hours: 48
Program Level: Masters
CIP Code: 52.0201
Dept Code: DEA
Program (Major/College): MBA BA
Application tracks: Management
Finance

Also offered as:
Business Administration (M.B.A.)

CONTACT INFORMATION

College: Business

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The weekend Executive M.B.A. is a lock-step, 20-month, AACSB accredited program designed to meet the unique needs of both mid-career managers who have demonstrated the potential to reach senior management positions, and senior managers who desire to significantly increase their personal and organizational effectiveness. The program provides an opportunity to broaden and enrich management skills, to extend knowledge of modern business techniques, and to further develop understanding of the social, political, and economic forces that shape the business environment and influence decision making. Classes are scheduled all day on two Saturdays and one Friday a month for four semesters. The weekend format allows participants to continue carrying their careers while they master a range of managerial skills.

Accreditation:
The Commission on Colleges of the Southern Association of College and Schools (SACS), AACSB International –The Association to Advance Collegiate Schools of Business.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below. The weekend Executive MBA Program requires the submission of a preliminary application and personal interview prior to official graduate school application. Please see the program website for application forms or contact the program office.

Program Admission Requirements

- Must have a 3.0 upper-level GPA
- GMAT (may be waived)
- 5 years of management/professional experience
- Interview
- Statement of corporate approval
- International applicants from non English-speaking countries must also have a TOEFL score of 550 or higher on the written version, a minimum score of 213 on the computer-based test or a 79 on the internet-based test.

DEGREE PROGRAM REQUIREMENTS

Executive MBA Program Curriculum *

ACG 6025	Financial Accounting for Managers	2
MAN 6055	Human Behavior and Organization	2
GEB 6445	Social, Ethical, Legal Systems	2
QMB 6305	Managerial Decision Analysis	2
ECP 6702	Managerial Economics	2
ACG 6075	Managerial Accounting & Control	2
ECO 6708	Global Economic Environment of Business	2
FIN ~~6934~~6406	Financial Management	2
MAR 6158	International Marketing	3
MAR 6815	Marketing Management	2
MAN 6911	Direct Research	2
FIN 6605	International Financial Management	3
GEB 6930	Elective (chosen by program)	1-3 varies
MAN 6448	Negotiating Agreement and Resolving Conflict	3
QMB 6603	Operations Management	2
ISM 6021	Management Information Systems	2
FIN 6515	Investments	3
MAN 6930	Business Problems Analysis	3
MAN 6305	Human Resource Management	3
MAN 6930	Executive Leadership	3

*Specific courses subject to change

Total hours: 48

During the interim summer session, each student participates in the annual ten-day Overseas Study Module, which involves on-site study of international business practices. A different country/region is selected each year. Past modules have included visits to such cities as Moscow, London, Zurich, Geneva, Brussels, Tokyo, Beijing, Shanghai, Mexico City, Buenos Aires, Rio de Janeiro, Hong Kong, Milan, and Paris.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

FINANCE PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall: July 1
Spring: November 1
Summer: March 1

International:
Fall: February 1
Spring: July 1
Summer: January 1

~~Fall Deadline: June 1~~
~~Spring Deadline: October 15~~
~~Summer Deadline: n/a~~

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 52.0801
Dept Code: FIN
Program (Major/College): FIN BA

CONTACT INFORMATION

College: Business

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

M.S. in Finance
The M.S. in Finance offers a curriculum that concentrates on both finance and economics concepts. Students who complete the M.S. in Finance will be better prepared to succeed in careers in the financial world, especially in positions that require specialized knowledge about various finance topics.

Accreditation
Accredited by the Commission on Colleges of the Southern Association of College and Schools (SACS). AACSB International -The Association to Advance Collegiate Schools of Business.

Major Research Areas
Finance

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- GMAT score of 550 or higher
- Undergraduate upper-level GPA of 3.00 or higher
- International applicants from non English-speaking countries must also have a TOEFL score of 550 or higher on the written version, a minimum score of 213 on the computer-based test or a 79 on the internet-based test.

DEGREE PROGRAM REQUIREMENTS

Course Requirements:

Prerequisites – a A student who does not have an undergraduate degree in business will havemust to complete the following tools courses before taking courses in the MSF program for which the are rprerequisites (Semester hours are showin in the right columnin parentheses):

Principles of Finance	3
Microeconomics	3
Macroeconomics	3
Financial Accounting	3
Managerial Accounting	3
Statistics I	3
Statistics II	3

Students must successfully (a grade of A or B) complete equivalent courses in each of these areas prior to taking MSF courses. Tools course can be waived, with the permission of the program director, if the student earned an A or B in Tthese courses or equivalent courses should have been completed in an AACSB accredited program at an AACSB accredited institution within five years of entering the MSF program

Core Economics and Statistics (69 hours)

ECO 6115 Microeconomics	3
ECO 6205 Macroeconomics 3 or ECO 6206 Aggregate Economics 3	
ECO 6936 Mathematical Economics	3
ECO 6424 Econometrics I	3

Core Finance (1512 hours)

FIN 6416 Advanced Financial Mgmt	3
FIN 6465 Financial Statement Analysis	3
FIN 6515 Investments	3
FIN 6804 Theory of Finance	3
FIN 6445 Financial Policy	3*

*must be taken at the end of the program after the other core courses are completed.

Core finance courses may be waived for students who graduated with finance majors from AACSB accredited programs within five years of entering the M.S. in Finance program. Only courses with the same content as the core finance courses can be used to satisfy the M.S. in Finance course requirements, and students must have earned grades of A or B to have such courses waived. Advanced finance courses must be substituted for waived courses.

Finance Electives (6 hours)

Students can select any two of the following courses:

FIN 6246 Advanced Money and Capital Markets	3
FIN 6326 Bank Management 3	3
FIN 6418 Working Capital Management	3
FIN 6605 International Finance	3
FIN 6465 Financial Statement Analysis	3
FIN 6537 Financial Options and Futures	3
FIN 6934 Selected Topics in Finance	3

Additional Information Regarding Curriculum

Leadership, teamwork, communication skills and organizational change are emphasized. Much of the curriculum is delivered through case studies, class discussion, exercises, group projects, video taped role-playing, simulations, and prominent guest speakers from the local business and non-profit community. Emphasis is placed on student participation and teamwork. All courses include writing, presentation, and critical thinking skills.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MANAGEMENT PROGRAM

Master of Science (M.S.) Degree in the Management Program
With a concentration in Leading Sustainable Enterprises*

DEGREE INFORMATION

Program Admission Deadlines:
Fall Deadline: ~~June~~ July 1
~~Fall admission only~~
Spring Deadline: November 1

International Deadlines:
Fall: February 1
Spring: July 1

Minimum Total Hours: **32**
Program Level: Masters
CIP Code: 52.0101
Dept Code: MAN
Program (Major/College): MAN BA
Concentration Code: ~~LOE~~LSE

Concentrations:
*~~Leading Sustainable Enterprises~~Leading Sustainable Enterprises ~~(~~**~~Inactive~~**~~)~~

Also offered as:
under Master of Business Administration – as an application area (Management and Advanced Management)

CONTACT INFORMATION

College: Business

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

M.S. in Management: Leading Sustainable Enterprises
For updated details, please consult our website at www.coba.usf.edu. This program develops the skill to lead 21st century organizations. It is targeted for experienced, successful working managers - people who are already good at their jobs and who can be promoted to higher leadership and executive positions within or outside their present organizations. It is not intended for recent graduates seeking entry-level managerial positions. The future requires a very different type of leader than the past. The hierarchical model of scientific management is no longer widely accepted. The leaders of the future must be able to empower others and to facilitate teamwork in diverse groups, to recognize and adapt to the constraints and opportunities of a global economy, and to accommodate the ethical and societal needs of the environment within which the organization functions. The program focuses on the triple bottom line of sustainable economic performance, corporate social responsibility, and concern for the natural environment.

Both the profit and not-for-profit communities have recognized these changes and have demanded that business schools provide a modified and improved manager for the future - a manager who succeeds by facilitating the performance of others. This manager must be successful in leadership and organizational effectiveness. Ethical and virtuous behavior as well as technical skills are promoted. These values lead to organizational behavior that is both effective and ethical. Intrapersonal, interpersonal, and organizational competencies are enhanced. The M.S.M. faculty members blend scholarly activity and applied skills. It is the goal of the faculty to prepare graduates for successful careers as leaders in the real world.

This is an extremely progressive, dynamic, well-focused program. It is designed to help you reach career goals. The M.S.M. is a 32 credit hour program offered in cohort format. The program is designed around the needs of working managers. Classes meet Monday and Tuesday evenings for twenty-one months. All students begin in the fall semester. The curriculum proceeds from encompassing perspective to skills development through understanding of interpersonal and organizational dynamics, to planned change and implementation. Sections are limited to thirty students. Course offerings and section availability are guaranteed to cohort members. All majors are eligible and welcome.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools (SACS). AACSB International -The Association to Advance Collegiate Schools of Business.

Major Research Areas:
Leadership, Organizational Effectiveness, Strategic Management

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Must have a 3.00 or higher upper-level GPA and a GMAT score of 500 or higher GMAT; lower totals may be offset by score of 28 or higher on V and 4.0 on analytical writing on the GMAT;
- Leadership ability, five years of managerial experience, and personal statement.
- International applicants from non English-speaking countries must also have a TOEFL score of 550 or higher on the written version, a minimum score of 213 on the computer-based test or a 79 on the internet-based test.
- Competitive based on GMAT and personal statement.

DEGREE PROGRAM REQUIREMENTS

Students take the same twelve required courses. The cohort format is structured as follows:

GEB 6445	Social, Ethical, Legal Systems	2
MAN 6147	Leadership Concepts	2
MAN 6107	Leading Sustainable Enterprises: Goals and Processes	2
MAN 6748	Assessing Performance in Sustainable Organizations	3
MAN 6055	Human Behavior and Organizations	2
MAN 6448	Negotiating Agreement and Resolving Conflict	3
MAN 6746	Designing Sustainable Enterprise	3
MAN 6116	Diversity and Organizational Justice	3
MAN 6256	Politics and Control in Organization	3
MAN 6950	Capstone Experience in Leading Sustainble Enterprises	3
MAN 6518	Sustainable Production Systems	3
GEB 6457	Ethics, Law, and Sustainable Business Practices	3
Program Total:		32 credits minimum

Additional Information Regarding Curriculum
Leadership, teamwork, communication skills and organizational change are emphasized. Much of the curriculum is delivered through case studies, class discussion, exercises, group projects, video taped role-playing, simulations, and prominent guest speakers from the local business and non-profit community. Emphasis is placed on student participation and teamwork. All courses include writing, presentation, and critical thinking skills. Leadership, teamwork, communication skills, and organizational change to promote sustainable organizational performance are emphasized.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MANAGEMENT INFORMATION SYSTEMS PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	July 1
Spring:	November 1
Summer:	No Admit

International:

Fall:	February 1
Spring:	July 1
Summer:	No Admit

~~**Fall:** June 1~~
~~**Spring** October 30~~

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 11.0501
Dept Code: QMB
Program (Major/College): ~~ISM~~ MIF BA

Also offered as:
Track under Business Administration (Ph.D.) and
application area in Business Administration (M.B.A.)

CONTACT INFORMATION

College: Business
Department: Information Systems/Decision Sciences

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Management Information Systems (M.S./M.I.S.)
The Master of Science in Management Information Systems (M.S./M.I.S.) meets the needs of the marketplace for expertise in both information technology and management. Highly qualified individuals with motivation for leadership in information technology fields are encouraged to apply for admission to this program. Graduates of the program are in great demand by firms in the information services sector of the economy, software development organizations, management consultants, and M.I.S. departments in industry. An Advisory Board consisting of senior information systems executives and consultants works closely with the department to ensure that the program maintains high standards.

The MS/M.I.S. program is designed for individuals who are challenged by applications of Information Systems and Information technology and who are willing to undertake a career that demands a broad rather than narrow range of skills. Students who already have considerable background either in information systems or in business coursework will make use of the built-in flexibility of the program, designing programs of study that will provide them with the best background for their careers. A faculty advisor will work closely with each student to design and monitor the most effective course sequence and optional thesis/practicum work.

Accreditation
Accredited by the Commission on Colleges of the Southern Association of College and Schools, and AACSB International - The Association to Advance Collegiate Schools of Business.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Students are admitted to the M.S./MIS program based on the evaluation of their application in its entirety, including prior college level academic grades earned, GMAT or GRE scores, TOEFL scores (for international students only), letters of recommendations, statement of purpose, and relevant work experience.

- A 3.00 upper-level GPA
- A score of 500 or higher on the GMAT *or a score of 25 percentile or higher in the verbal section of GRE or GMAT, and a 40 percentile or higher in the quantitative section of GRE or GMAT and*
- Work experience preferred.
- In addition, a TOEFL score of 550 or higher (213 or higher on the computerized test) may be required for international students applying to the program.

DEGREE PROGRAM REQUIREMENTS

The program requires 33 hours of coursework and may be taken either full-time or part-time. Full-time students with appropriate prerequisites may be able to complete the program in one full year (3 semesters) of study. Part-time students and full-time students who need prerequisites will typically need from 1 1/2 to 3 years to complete the degree. Early in the first semester, a student and the program advisor will work together to complete a formal Program of Study that will define a coherent sequence of courses to satisfy the student's objectives. A student may have the option to complete a master's thesis or a Practicum project, depending upon the availability and approval of a faculty sponsor.

Prerequisites

Incoming students are expected to have the following as prerequisites:*

1) One semester of a high-level, object oriented programming language (e.g., C#, C++, Java) or substantial programming experience;
2) One semester of *Information Systems Analysis and Design* or equivalent experience;
3) One semester of *Database* Systems or equivalent experience;
4) A course in Statistics
5) A course in economics, and
6) A course in financial accounting.

These required prerequistie courses may be taken concurrently with courses in the M.S./M.I.S. program. Prerequisitie courses do not count toward the 33 credit hours of course requiremetns in the M.S./M.I.S. program.

Technical Core (12 credits)

The following three four courses provide a solid understanding of state-of-the-art research and practice in technical areas of Information Systems Management.

1. **ISM 6124 (3 credits) - Advanced Systems Analysis and Design**
   Students learn to manage and perform activities throughout an information systems development life cycle, from the analysis of system requirements through system design to system implementation and operation. Advanced system development processes, methods, and tools are presented. This course is continually revised to include the latest theories and tools. A group project using advanced CASE tools is an integral portion of the course.

2. **ISM 6218 (3 credits) - Advanced Database Administration**
   Advanced practice and research in database systems, to include entity-relationship modeling, relational databases, object-oriented databases, performance issues, and management of the database administration (DBA) function. State-of-the-art database systems will be used for individual and group projects.

3. **ISM 6225 (3 credits) - Distributed Information Systems**
   Students learn technological as well as managerial aspects of telecommunication systems and distributed systems. Important topics covered include telecommunications fundamentals, voice and data communications, local and wide area networks, Internet, wireless technologies, and distributed systems.

4. ISM 6436xxx (3 credits) – Operations and Supply Chain Processes
   Students learn several aspects of Operations management, a discipline in business concerned with managing the transformation of inputs into outputs, with a special emphasis on business processes and business process improvement.

Capstone Course (3 credits)

ISM 6155 (3 credits) - Enterprise Information Systems Management

An advanced study of information system management to include system planning, project selection, project management, and organizational information management policies. This course is considered to be the capstone of the M.S./MIS program and as such it must be taken during one of the last two semesters of the student's program.

Electives (21 18 credits)

Seven Up to six elective courses may be selected from additional Information Systems courses or (with prior approval by the academic advisor) other areas of specialization such as areas of Management, Decision Sciences, Computer Science, Logistics, etc. Existing Course Offerings:

ISM 6124	Adv Systems Analysis and Design	3
ISM 6125	Software Architecture	3
ISM 6145	Seminar on Software Testing	3
ISM 6155	Capstone Course	3
ISM 6218	Adv Database Management	3
ISM 6225	Distributed Information Systems	3
ISM 6305	Managing the Info Sys Function	3
ISM 6382	International Aspects of Info Systems	3
ISM 6405	Decision Support Syst Applications	3
ISM 6480	Electronic Commerce	3
ISM 6905	Independent Study	1-6
ISM 6930	Selected Topics in MIS	1-6
ISM 6971	Thesis: Masters	2-6
ISM 6316	Project Management	3
ISM 6136	Data Mining	3
ISM 6208	Data Warehousing	3
ISM 6056	Web Application Development	3
ISM 6156	Enterprise Resource Planning & Bus Process Mgmt	3
ISM 6328	Information Security and Risk Management	3

~~In addition to the courses listed above the folowing courses have been offered and are in the process of being formalized as regular course offerings:~~

~~ISM 6316 Project Management~~
~~ISM 6930 Web Based Applications~~
~~ISM 6136 Data Mining~~
~~ISM 6208 Data Warehousing~~

In addition, the following Special Topics are being offered:

~~ISM 6930 Information Securiety and Risk Management~~
~~ISM 6930 Enterprise Resource Planning and Business Process Management~~
ISM 6930 Multimedia Applications
ISM 6930 Mainframe Technologies
ISM 6930 Statistical Data Mining

Thesis Option

The master's thesis option requires six credits of ISM 6971, which count as six of the 21 18 MIS elective credits. The thesis must make a well-defined contribution to the research and development in an area of Information Systems.

Practicum Option

The practicum option requires an investigation of a new information technology artifact. The project typically occurs in the student's place of employment and is jointly supervised by a faculty member and a manager in the company. Based upon the magnitude of the project, either three or six hours of credit in ISM 6905 would be taken. The practicum would count for three or six hours of the 21 18 hours of MIS electives.

Accelerated BS/MS Program

The goal of the USF College of Business integrated undergraduate-graduate program in MIS is to provide outstanding undergraduate students an option to complete the B.S. undergraduate degree in MIS and the M.S. graduate degree in MIS in **five years** (141 total hours).

The integrated B.S./M.S. program is a 141-hour undergraduate-graduate option that allows eligible students to work towards the M.S. in MIS degree requirements while completing their undergraduate B.S. degree. Students interested in this option will work closely with an advisor and a faculty member to develop an integrated plan of study.

General Guidelines

- **Time of admission to the program:** Students will be eligible for admission to the integrated degree program at the beginning of their Senior year in MIS. Students must apply for admission consideration during their Junior year. Students will start taking courses in the graduate program in their Senior year.
- **Joint admission:** Students must apply to and meet admission requirements of the M.S. in MIS graduate program.
- **Plan of study:** In consultation with an advisor and a faculty member, students will be required to prepare a **Graduate Degree Action Plan**. The plan will cover the entire time period of the program and it will be periodically reviewed with an advisor.
- **Advising:** Students will present their portfolio (see below for details and a plan of study in person to the integrated program committee prior to being admitted to the program.
- **Tuition charges:** Students will be required to pay graduate tuition rates when taking graduate courses.

Admission Requirements

1. Students with at least a Junior standing in their undergraduate degree program may apply for admission consideration into the integrated B.S./M.S. undergraduate/graduate program Students will submit an **Accelerated Program Interest Form** that must be signed by the Graduate Program.
2. Students must have a minimum 3.25 GPA.
3. Interested students will be required to present a "portfolio" of the following credentials:
    a. Three letters of recommendation, at least two from faculty
    b. Statement of intent—a personal statement about why hwy the student wishes to apply for the integrated program.
    c. Undergraduate transcripts.
    d. Other supporting documents (e.g., projects and papers, software, work experience, internships, etc.) should be included where possible.
4. The GMAT or GRE should be taken sometime before or during the Fall semester of the Junior year of study.
5. All applicants will need to meet **any other admission requirements established** for the M.S. in MIS program.
6. The application to the integrated program will be considered as a complete package and therefore obtaining a high undergraduate GPA is not a guarantee of admission. Grades in the undergraduate MIS core courses will be taken in consideration and will have a significant impact on the M.S./MIS acceptance decision.

Degree Requirements

5-Year Plan of Study for Integrated B.S./M.S. Undergraduate-Graduate Program

With appropriate planning, a total of 12 hours of graduate credit may be taken that can be applied to both the B.S. and M.S. degrees. This will reduce the minimum total credits required for both programs from 153 (120 for B.S., 33 for M.S.) to 141 credits. Specifically:

- 9 hours of graduate credit can be taken in place of the 9 hours of elective undergraduate credits. The student must earn a minimum grade of B in each graduate course that is to be counted for both degrees.
- The graduate level Operations and Supply Chain Processes course ISM 6436 xxx can be taken in place of the comparable undergraduate course ISM 3431.

A comprehensive plan of study to complete the integrated B.S./M.S. program will be developed with the guidance of an advisor and a faculty member. A possible plan of study could be as follows. Summer sessions may also be included in the study plan.

First Year and Second Year
Courses and credits as designated for Freshman and Sophomore years.

Third Year (Apply for Admission to Integrated B.S./M.S. Program)

ISM 3232	3
ISM 3113	3
Additional UG Courses	9
ISM 4212	3
ISM 4220	3
Additional UG Courses	9

Fourth Year (Student accepted in M.S./MIS Program)

~~ISM 6124~~	~~3~~
ISM 6436	3
UG Courses	12
ISM 4300 (B.S. Capstone)	3
~~ISM 6218~~	~~3~~
ISM 6124	3
UG Courses or Graduate Electives	6 hrs

Fifth Year

ISM 6225	3
~~ISM 6xxx~~	~~3~~
ISM 6218	3
Graduate Electives	6
ISM 6155 (M.S. Capstone)	3
Graduate Electives	12

The following courses are suggested specialization elective courses, cross-listed between the graduate and undergraduate catalog:

ISM 6145/4930	Software Testing
ISM 6156~~930~~/4153	Enterprise Resource Planning
ISM 6328~~930~~/4323	Information Security and Risk Management
ISM 6930/4930	Mainframe Technologies

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MARKETING PROGRAM

Master of Science in Marketing (M.S.M) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	July 1
Spring:	November 1
Summer:	No Admit

International:

Fall:	February 1
Spring:	July 1
Summer:	No Admit

~~**Fall:** June 1~~
~~**Spring** October 30~~
~~**Fall:** June 1~~
~~**Spring:** October 15~~

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 51.1401
Dept Code: MKT
Program (Major/College): MKT BA

Also offered as:
Concentration under Business Administration (Ph.D.)

CONTACT INFORMATION

College: Business
Department: Marketing

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Contact program for information

Accreditation
Accredited by the Commission on Colleges of the Southern Association of College and Schools. AACSB International - The Association to Advance Collegiate Schools of Business.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

To be admitted to the MS in marketing program, an applicant must

- take the GMAT (Graduate Management Admission Test) and score a minimum of 500 (under special circumstances a GRE score may be considered in lieu of the GMAT) and
- have a 3.0 or higher upper level undergraduate GPA from an accredited university
- submit two letters of recommendation from either industry or academic sources
- Work experience is desirable.
- To be granted an MS in Marketing degree, a student must have completed all of the required and elective courses with a GPA of 3.0 or higher.

DEGREE PROGRAM REQUIREMENTS

Prerequisites
During the first year of the program, students who are unable to waive the prerequisites will be required to take:

MAR 6815 Marketing Management (2)
QMB 6305 Managerial Decision Analysis (2)

These courses may be waived if taken within the last five years from an AACSB accredited program (two undergraduate marketing courses are required to subsitute for MAR 6815).

Core Marketing Classes (21 hours)

MAR 6816	Marketing Strategy		3
MAR 6216	Logistics and Physical Distribution Management	**or**	3
MAR 6936	Supply Chain Management		3
MAR 6158	International Marketing Management		3
MAR 6936	Consumer Behavior		3
MAR 6336	Promotional Management **or**		3
MAR 6936	Brand Management		3
MAR 6646	Research for Managers		3
MAR 6916	Directed Research **or**		3
MAR 6907	Independent Study		3

Electives (12 hours)
Electives will be a set of coordinated courses in areas such as supply chain management, marketing communications, social marketing, marketing research or others. The specific courses will be chosen based on mutual agreement by the Director and the student. These courses will form a unified set, and will be designed to maximize the student's objectives. These courses may be a combination of COBA courses and courses outside the College.

Total Program (33 hours)

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

REAL ESTATE PROGRAM

Master of Science in Real Estate (M.S.R.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	July 1
Spring:	November 1
Summer:	**March 1**

International:

Fall:	February 1
Spring:	July 1
Summer:	January 2
~~**Fall:**~~	~~June 1~~
~~**Spring:**~~	~~October 15~~

Minimum Total Hours:	34
Program Level:	Masters
CIP Code:	51.1401
Dept Code:	FIN
Program (Major/College):	RST BA

CONTACT INFORMATION

College:	Business
Department:	Finance
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

Contact program for information

Accreditation
Accredited by the Commission on Colleges of the Southern Association of College and Schools. AACSB International - The Association to Advance Collegiate Schools of Business.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as program's requirements.

DEGREE PROGRAM REQUIREMENTS

Prerequisites/Tools Courses ~~(~~12 hours~~)~~
A student who does not have an undergraduate degree in business will have to complete the following courses before taking courses in the MSRE program (semester credit hours are in parentheses):

ACG 6025	Financial Accounting	~~(~~2~~)~~
ACG 6075	Managerial Accounting and Control	~~(~~2~~)~~
ECP 6702	Managerial Economics	~~(~~2~~)~~
ECO 6708	Global Economic Environment of Business	~~(~~2~~)~~
FIN ~~6934~~ 6406	Financial Management	~~(~~2~~)~~
QMB 6305	Managerial Decision Analysis	~~(~~2~~)~~

Students must successfully (a grade of A or B) complete equivalent courses in each of these areas prior to taking M.S.R.E. courses. These courses should have been completed in an AACSB accredited program within five years of entering the M.S.R.E. program.

Required Core/Courses~~-~~ **~~(~~25 hours~~)~~**

FIN 6416	Advanced Financial Management	~~(~~3~~)~~
REE 6045*	Real Estate Decisions	~~(~~2~~)~~
REE ~~6XXX~~6207*	~~-~~ Real Estate Finance ~~ing and Investment~~	~~(~~3~~)~~2~~)~~
REE ~~6XXX~~6737*	Real Estate Development	~~(~~2~~)~~3~~)~~
~~ECP 6614~~REE 6305	~~Urban Economics~~Real Estate Investment	~~(~~2 3~~)~~
GIS 5049	~~GIs~~ GIS for Non-Majors	~~(~~3~~)~~
CGN 6933	Green Infrastructure and Sustainable Community	~~(~~3~~)~~
URP 6232~~XXX~~	~~-~~Research Methods for Urban & Regional Planning	~~(~~3~~)~~
ARC 5931	The City	~~(~~3~~)~~

Core finance and real estate courses may be waived for students who graduated from AACSB accredited programs within five years of entering the M.S.R.E. program and took courses with substantively the same content. Only courses with the same content as the core finance courses can be used to satisfy the M.S.R.E. course requirements, and students must have earned a grade of A or B to have such courses waived. Advanced finance elective courses with the same total credit hours must be substituted for waived courses.

Advance Elective Courses **~~(~~9 hours~~)~~**

Students can select any three (a minimum of nine hours) of the following courses:

FIN 6515	Investments	~~(~~3~~)~~
FIN 6246	Advanced Money and Capital Markets	~~(~~3~~)~~
FIN 6418	Working Capital Management	~~(~~3~~)~~
FIN 6605	International Finance	~~(~~3~~)~~
REE 69384	Selected Topics in Real Estate	~~(~~2-43~~)~~
ECP ~~6456~~ 6614	~~Law and~~ Urban Economics	3
CGN 6933	Global Warming	1-4
TTE 5501	Transportation Planning and Economics	3
PAD 6336	Community Development Programs	~~(~~3~~)~~
GEO 6627	Site Feasibility Analysis	~~(~~3~~)~~
GEO 6605	Contemporary Urban Issues	~~(~~3~~)~~
EVR 6934	Management of Florida Landforms	
GEO 6116	Perspectives of Environmental Thought	3
GEO 6209C	Global Sustainability Development	3
ARC 6397	Introduction to Urban Design Theory, Methods & Processes	3
ARC 5931	Special Studies in Architecture	1-5

Total program~~-~~ **~~(~~34 hours~~)~~**

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

COLLEGE OF EDUCATION

Changes to Note

The follow curricular changes for the College of Education were approved by the USF-Tampa Graduate Council on the date noted.

Format Updates

The Concentrations, previously listed as individual pages, have been moved and placed under their corresponding program page.

New Program

Autism Spectrum Disorder and Intellectual Disabilities (M.A.)	10/18/10

Program Changes

Counselor Education (M.A.)	
Change Career Counseling Concentration – reduce hrs	1/11/11
Curriculum & Instruction (M.Ed.)	
Change core requirements	1/24/11
Change Measurement and Evaluation Conc. hours from 42 to 37 hours	2/21/11
Change hours, Curriculum for these concentrations:	4/18/11
Biology Education	
Chemistry Education	
English Education	
Foreign Language Education	
Information Technology Education	
Mathematics Education	
Physics Education	
Social Science Education	
Add New Concentration: **Secondary Education: TESOL**	6/6/11
Curriculum & Instruction (Ph.D.)	
Change core requirements	1/24/11
Change concentration requirements:	5/16/11
Early Childhood Concentration Curr.	
Elementary Ed Concentration Curr.	
Instr. Tech Concentration curriculum*	
Reading/Lang Arts curr and title to **Literacy Studies**	
Math Education Concentration curriculum	
Teaching and Learning in Soc Sci Ed curriculum – Change title to **SS ED**	
Changes to Sec Ed: English Education concentration (**also title change**)	6/6/11
Changes to Sec Ed: Science Education concentration (**also title change**)	6/6/11
New Concentration: **Educational Psychology**	6/6/11

Educational Leadership (Ed.D.)	change admission requirements	3/21/11
Educational Leadership (Ed.S.)	change admission requirements	3/21/11
Educational Leadership (M.Ed.)	change admission requirements	3/21/11
Elementary Education (MA)	change curriculum	3/21/11
Foreign Language Education (M.A.T.)	New Conc. M.A.T. With No ESOL Endorsement	6/6/11

Program Terminations

Art Teacher Education (masters)	2/24/11
College Teaching (M.A.) (Higher Education/Higher Education Administration)	2/24/11

Programs, Concentrations, and Accelerated Programs Placed Inactive

Curriculum & Instruction (M.Ed.): College Student Affairs	3/21/11
Early Childhood Education (M.A.) (ANK)	1/24/11

Foreign Language – Latin (B.A.)/Foreign Language Education (M.A.T.)	10/18/10
Foreign Language –French (B.A.)/Foreign Language Education (M.A.T.)	10/18/10
Foreign Language-Spanish (B.A.)/Foreign Language Education (M.A.T.)	10/18/10
Interdisciplinary Social Natural Science (B.A.)/Science Education (M.A.T.)	10/18/10
Interdisciplinary Social Science (B.A.)/Social Science Education (M.A.T.)	10/18/10

Programs/Concentrations Re-activated

Curriculum & Instruction (M.Ed.) - Open College Student Affairs Conc. Eff. fall 2011	7/19/11
Curriculum and Instruction (Ph.D.): Elementary Education Concentration (eff Fall 2011)	11/15/10

New Certificates

College Student Affairs	1/11/11
Evaluation	1/11/11
Student Affairs	1/11/11

Certificate Changes

Florida Digital Educator	*change course requirements (2 separate requests)*	10/18/10
Leadership in Developing HR	*change to courses – resubmitted*	9/20/10
Web Design	*add elective*	10/18/10

New Courses

EDE 7206	Critical Analysis of Curriculum in Elementary Schools	7/5/11
EDE 7326	Differentiated Supervision & Teacher Professional Development	7/5/11
EDE 7481	Research in Teaching and Learning in Elementary Schools	6/6/11
EDF 6461	Foundations of Applied Evaluation	2/21/11
EDF 7409	Analysis for Single-Case Experiments	1/11/11
EDF 7462	Metaevaluation	2/21/11
EDF 7465	Theory and Practice of Personnel Evaluation	2/21/11
EDF 7474	Applied Multilevel Modeling in Education	7/5/11
EDF 7491	Consulting and Project Mgmt Skills for Evaluators	2/21/11
EDG 6970	Project: Masters/Specialist	6/6/11
EDG 7046	Trends and Issues in Educational Policy: Literacy and Teacher	7/5/11
EDG 7575	Qualitative Case Methods in Educ Leadership	8/18/10
EDG 7938	Advanced Graduate Seminar: Introduction to Research	7/5/11
EDG 7939	Advanced Graduate Seminar: Research in Progress	7/5/11
EDH 7325	Supervised Teaching in Childhood Education & Literacy Studies	7/19/11
EDH 7326	Supervised Teaching in Childhood Education & Literacy Studies	7/19/11
EEC 7307	ICT In the Early Years	6/6/11
EEC 7404	Family Literacy	8/18/10
EEC 7624	Arts & Aesthetics in Early Childhood Education	6/6/11
EEX 7342	Making Your Research Accessible	3/21/11
EEX 7754	Language and Learning Variability in Urban Schools	2/21/11
FLE 7362	Sociocultural Theory in Second Language Acquisition	8/18/10
LAE 6749	Composition and the Arts in Literacy Education	8/18/10
LAE 7712	Symbolic Processes of Multimedia Literacies	8/18/10
LAE 7718	Linguistic Foundations in Literacy	7/19/11
LAE 7735	Advanced Seminar in English Education	1/11/11
LAE 7747	Literary Theory and Research in Children's Literature	7/5/11
MAE 6947	Internship in Secondary Education for Mathematics	6/6/11
PET 6083	Psychology of Exercise	7/19/11
PET 6091	Topics in Strength and Conditioning	3/21/11
PET 6256	Sport in Society: Contemporary Issues	3/21/11
PET 6339	Neuromuscular Aspects of Exercise Physiology	3/21/11
PET 6352	Cardiorespiratory Aspects of Exercise Physiology	3/21/11
PET 6472	Legal Aspects of Physical Activity	3/21/11
PET 6536	Research Methods in Exercise Science	3/21/11
PET 6947	Internship in Exercise Science	7/5/11
PET 7937	Graduate Seminar	7/5/11

RED 7315	Survey of Literacy Research Methods	8/18/10
TSL 5932	L2 Reading for ESOL Students across Content Areas	6/6/11

Changed Course:

EEC 7416	Ecological Approaches to work with Children, Family, Community change title to: Sociocultural Approaches to Working with Children and Families	7/5/11
EDF 7485	Theory and Practice of Educational Evaluation change objective	2/21/11
EDF 7485	Theory and Practice of Ed Evaluation change title to Theory and Practice of Prog Eval. change pre-reqs	6/6/11
EDE 6458i	Reflection on Instructional Decision Making 1 change objective	1/11/11
EDF 7484	Statistical Analysis for Educational Research III change descr	1/11/11
FLE 6947	Internship for Secondary Education in Foreign Language change: information needs to be added to OASIS	7/5/11
LAE 6947	Internship in Secondary Education for English change: information needs to be added to OASIS	7/5/11
SCE 6947	Internship in Secondary Education for Social Sciences change: information needs to be added to OASIS	7/5/11
SSE 6947	Internship in Secondary Education for Science change: information needs to be added to OASIS	7/5/11

University of South Florida
College of Education
4202 E. Fowler Ave, EDU162
Tampa, FL 33620

Web address: http://www.coedu.usf.edu/college/
Email: briscoe@coedu.usf.edu
Phone: 813-974-3406
Fax: 813-974-3391

College Dean: Colleen Kennedy
Associate Dean: Harold Keller
Graduate Coordinator: Diane Briscoe

Accreditation:
In addition to the University's regional accreditation by the Commission on Colleges of the Southern Association of Colleges and Schools (SACS), the College is accredited by the National Council for the Accreditation of Teacher Education (NCATE) for the preparation of P-12 educators. Its initial certification programs are approved by the Florida Department of Education.

Vision/Mission Statement:
The USF College of Education envisions itself as a leader in regional, national and international education. Leadership in Education encompasses:

1) academic excellence,
2) research, scholarship and inquiry that renews the educational process,
3) collaboration that serves communities, institutions and individuals,
4) educator preparation that builds on academic excellence, scholarship, and clinical practice, and
5) collaboration that contributes to a just and productive society.

The College of Education fulfills this vision by: offering challenging learning opportunities in a supportive and diverse environment; creating and supporting research, scholarship, and inquiry in education; preparing the next generation of educators, scholars, and leaders for P-12 and the professoriate through exemplary undergraduate and graduate degree programs; serving the community through collaborative relationships; and, working with schools, agencies, and communities to offer educator preparation programs that prepare professionals who work competently, collaboratively, and ethically to improve educational outcomes for all.

Many concentrations are offered under the umbrella of "Curriculum and Instruction." Graduate Certificates are also offered in a number of areas. For information about the different degree programs refer to program section of the Graduate Catalog. Students seeking initial certification must be admitted to one of the degree programs offered in the College. Individuals seeking additional information should contact the College of Education Graduate Studies Office at 813-974-3406, or http://www.coedu.usf.edu Students who have identified a degree program should contact directly the advisor for that program. Please be advised that program and/or course requirements are subject to change per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria. In instances where college or program requirements exceed university minimum requirements, students must meet the highest order of requirements presented. Always check with the advisor in your program of interest to determine whether or not there are programmatic variations. Please note also that COEDU college and program requirements are stated always as minimum requirements.

Degree, Programs, Concentrations:

Master of Arts (M.A.)

Adult Education (AAE)
- Human Resource Development (HRD)

Autism Spectrum Disorder and Intellectual Disabilities (ASD)

Career and Technical Education (ACT)

~~College Teaching .~~

Counselor Education (AGC)
- Career Counseling (CRC)
- Clinical Mental Health Counseling (CMH)
- School Counseling (SCL)

Early Childhood Education (ANK)

Elementary Education (AEE)
- Early Childhood (MEA)
- Elementary Curricuum (MEL)
- Langauge Arts (MLG)
- Science & Mathematics (MSM)

English Education (AEN)

Exceptional Student Education (AVE)

Foreign Language Education (FLE)
- French (AFF)
- German (AFG)
- Spanish (AFS)

Mathematics Education (AMA)

Music Education (offered through the College of The Arts)

Physical Education (APH)
- Exercise Science (EXS)

Reading Education (ARD)

School Psychology (ASP) *M.A. only available when combined with the Ed.S. or Ph.D. degree*

Science Education (SCE)
- Biology (ASB)
- Chemistry (ASC)
- Physics (ASY)

Social Science Education (ASO)

Special Education, Behavior Disorders (ABD)

Special Education, Gifted Education (AGI)

Special Education, Intellectual Disabilities (AMR)

Special Education, Motor Disabilities (AMD)

Special Education, Specific Learning Disabilities (ALD)

Master of Arts in Teaching (M.A.T.)

Elementary Education (TEE)

Exceptional Student Education (TVE)

English Education (TEN)

Foreign Language Education (TFL)

Mathematics Education (6-12) (TSM)

Middle Grades Math (TMA)

Science Education (TSC)

Social Science Education (TSS)

Master of Education (M.Ed.)

Curriculum and Instruction (CUR)
- Adult Education (CAE)
- College Student Affairs (CSA)
- Early Childhood Education (CNK)
- Elementary Education (CEE)
- Interdisciplinary Education (CIE)
- Measurement and Evaluation (CME)
- Middle School Education (General) (CMG)
- Middle School Education, Mathematics (CJM)
- Mddle School Education, Science (CJS)
- Middle School Education, English (CJE)
- Middle School Education, Social Studies (CJH)
- Reading Education (CRD)
- Secondary Education (CES)
- Secondary Education: Biology (CBI)
- Secondary Education: Chemistry (CCH)
- Secondary Education: English (CEN)
- Secondary Education: Foreign Langauge (CFE)
- Secondary Education: Instructional Technology (CCO)
- Secondary Education: Mathematics (CMA)
- Secondary Education: Physics (CPY)
- Secondary Education: Social Science (CSO)
- Secondary Education: TESOL (CTL)
- Special Education, Behavior Disorders (CBD)
- Special Education, Gifted (CGI)
- Special Education, Mental Retardation (CMR)
- Special Education, Motor Disabilities (CMD)
- Special Education, Specific Learning Disabilities (CLD)

Educational Leadership (CAS)

Educational Specialist (Ed.S.)

Educational Leadership (EAS)

Curriculum & Instruction (CUR)
- Adult Education (SAE)
- Counselor Education (SGC)
- Early Childhood Education (SNK)
- Elementary Education (SEE)
- Higher Education, Administration (SHA)
- Higher Education, Community College Teaching (SCT)
- Instructional Technology (SIT)
- Interdisciplinary Education (SIE)
- Mathematics Education (SMA)
- Measurement and Evaluation (SME)
- Reading-Language Arts Education (SRD)
- School Psychology (SSP)
- Science Education (SSC)
- Special Education (SSE)
- Vocational Education (SVO)

Doctor of Education (Ed.D.)

Educational Leadership (EAS)
College Leadership (EHI)
Educational Program Development (EPD)
Administration of Special Education (ESE)
Adult Education (EAE)
Elementary Education (EEE)
Vocational Education (EVO)

Doctor of Philosophy (Ph.D.)

Curriculum and Instruction (CUR)
Adult Education (DAE)
Career and Workforce Education (DVO)
Counselor Education (DGC)
Early Childhood Education (DNK)
Educational Psychology (EPC)
Elementary Education (DEE)
~~Teaching & Learning in~~ English Education(DCE)
Higer Education, Community College Teaching (DCC)
Instructional Technology (DIT)
Interdisciplinary Education (DIE)
Literacy Studies ~~Reading/Language Arts Ed~~ (DRD)
Mathematics Education (DMA)
Measurement and Evaluation (DME)
~~Teaching &Learning in~~ Science Education (DSC)
Secondary Education (DSD)
~~Teaching & Learning in~~ Social Science (DSO)
Special Education (DSE)
Student Affairs Administration (DSA)
~~Teaching & Learning in Mathematics (DMA)~~
Teaching & Learning in the Content Area; General Education (DTL)
School Psychology (DSG)
Second Language Acquisition and Instructional Technology (SLAIT) (DLT)*
**joint program with the College of Arts & Sciences*

Accelerated Degree Programs

B.A./B.S. to M.A.T. Degree Program **(Inactive)**
Foreign Languages – French, Latin, Spanish
Interdisciplinary Natural Sciences
Interdisciplinary Social Sciences – History/Geography, History/Politics, History/Psychology, Geography/Politics, Geography/Psychology, Social Science

Graduate Certificates Offered:

Autism Spectrum Disorder (XAU)
Career Counseling* (XCC)
College Student Affairs
College Teaching* (SCT)
Disabilities Education: Severe and/or Profound (XDI)
Diversity (XDV)
English Education (XEE)
ESOL** (XES)
Evaluation

Foreign Language Education:Culture and Content (XFL)
Foreign Language Education: Professional (XFP)
Gifted Education** (XGF)
Informal Science Institutions: Enviornmental Education (XEV)
Instructional Technology: Distance Education** (XDD)
Instructional Technology: Florida Digital Educator (XFD)
Instructional Technology: Instructional Design* (XID)
Instructional Technology: Multimedia Design (XMM)
Instructional Technology: Web Design** (XWD)
Leadership in Developing Human Resources* (XHR)
Mathematics Education (XMC)
Mental Health Counseling (XMH)
~~Play Therapy (XPT)~~
Post-Master's Educational Leadership (K-12) (XEL)
Post-Master's in Higher Education Leadership
Reading Certificate and Endorsement Program (XRC)
Research Methods ((XRM)
School Counseling Post-Masters (XSO)
Science Education ~~(~~(XSE)
Social Science Education (XSS)
Student Affairs
Teacher Education (XTE)
Web Design
*Partially online curriculum
**Fully online curriculum

For all certificates; access www.usf.edu; click on Academics; click on Graduate Certificates; click on Education.

College of Education Minimum Requirements

All degree requirements are stated below as college minimums. Please consult the program section of the catalog for variations.

Master's Degree Programs and Requirements
The master's programs offered in the College of Education lead to a Master of Arts degree (M.A.), a Master of Arts in Teaching degree (M.A.T.), or a Master of Education (M.Ed.) degree. Students pursuing a Master's degree must have an earned baccalaureate degree from a regionally accredited institution, or an equivalent foreign degree as determined by an evaluation conducted by an agency approved for foreign credential evaluation. Most programs offer through their M.A.T. degrees, a plan of study that leads to initial teacher certification for holders of a non-education baccalaureate degree. The M.A. degree is primarily designed to increase competence in a teaching specialization or to provide professional preparation in one of the service areas of education. For most programs, two plans of study are available depending on the student's background and professional goals.

College of Education Requirements for the Master of Arts (M.A.) Degree
A minimum of 30 semester hours is required for the master's degree, at least 16 hours of which must be at the 6000 level. Courses at the 7000 level are advanced graduate level courses and thus are not approved to be part of the master's degree program.

The M.A., **Plan I**

Program of graduate study is for those with a degree or appropriate initial teacher certification in the area of concentration who desire to increase their competence in a subject specialization or to receive additional professional preparation in an educational service area. The Plan I program is not available in all concentration areas. Contact the desired degree program for information.

Plan I Degree Requirements
Plan I students must take a minimum of one of the following Process Core (Foundation) courses. Additional requirements are described under the Program descriptions.

Process Core 3hours minimum
EDF 6211, Psychological Foundations of Ed. OR EDF 6215, Learning Principles Applied to Instruction
EDF 6481, Foundations of Educational Research
EDF 6432, Foundations of Measurement

EDF 6517, Historical Foundations of American Education, or
EDF 6544, Philosophical Foundations of American Education, or
EDF 6606, Socio-Economic Foundations of American Education

Current Trends in Teaching Specialization – 3 hours
Concentration - 18 hours
Comprehensive Examination – Students must be registered for at least 2 graduate hours in the semester during which this exam is taken.
Thesis (Some programs have a Thesis option available)

Note: Check with the program of interest for programmatic variations.

The M.A., **Plan III** (not available in all areas)
This is a program of graduate study for the holder of a non-education baccalaureate degree who does not desire to meet initial certification requirements in the State of Florida. This plan is not available in all concentration areas. Please contact the program for information.

Plan III Minimum Program Requirements:
Undergraduate Pre-requisites as necessary

Process Core 12 hours
EDF 6432, Foundations of Measurement
EDF 6481, Foundations of Educational Research
EDF 6211, Psychological Foundations of Education or EDF 6215, Learning Principles Applied to Instruction

EDF 6517, Historical Foundations of American Education or EDF 6544, Philosophical Foundations of American Education, or EDF 6606, Socio-Economic Foundations of American Education

Current Trends Course in Teaching Specialization – 3 hrs.
Concentration– 18 graduate hrs. Minimum
Comprehensive Examination

Note: Check with the program of interest for programmatic variations.

M.A.T. Degree

The M.A.T. degree is designed for holders of a non-education baccalaureate degree who desire to meet initial teacher certification requirements as part of a graduate program. The baccalaureate degree must be appropriate (as deemed by program faculty) for the teaching field in which certification is sought. Hours in the M.A.T. degree vary by discipline. Reference the program section of the Graduate Catalog for specific M.A.T. degree requirements.

M.Ed. Degree

The M.Ed. degree is designed for individuals who have a minimum of two years of relevant educational or professional experience in the concentration selected, as judged and with written academic justification by the program faculty. This degree option is offered to students pursuing graduate study in educational leadership or curriculum and instruction with an associated specialization/concentration.

College of Education Requirements for the Master of Education degree (M.Ed.)

Two degree ~~tracks~~ programs are offered.

1. **Educational Leadership** The M.Ed. in Educational Leadership is designed to improve performance in K-12 school leadership. The degree provides coursework that meets Florida Educational Leadership Core Curriculum requirements in public school curriculum and instruction, organizational management and development, human resource management and development, leadership skills, communication skills, technology, educational law, and educational finance. Successful completion of the program fulfills degree and core curriculum requirements for Florida certification in Level I, K-12 Educational Leadership-Administrative Class. The M.Ed. degree in Educational Leadership requires a minimum of 36 semester hours with 60 percent or more of the courses at the 6000 level. Courses at the 7000 level are advanced graduate level courses and thus are not approved to be part of the master's degree program.

2. **Curriculum and Instruction** The M.Ed. degree in Curriculum and Instruction, with a concentration (specialization) area – This degree is designed for the individual who has a minimum of two years of relevant educational or professional experience (as judged by program faculty) in a specialization area who wishes to pursue advanced study in that area. The primary objective is to prepare instructional leaders through courses in curriculum, methods, supervision, learning principles, human interaction, and areas of concentration/ specialization. The foundation areas (professional studies) receive greater emphasis in the M.Ed. programs than the M.A. programs. Coursework in the concentration/specialization may include courses in colleges other than the College of Education.

   The M.Ed. degree in Curriculum and Instruction requires a minimum of 33 semester hours with 60 percent or more of the courses at the 6000 level. Courses at the 7000 level are advanced graduate level courses and thus are not approved to be part of the master's degree program.

Master of Education (M.Ed.) Degree Requirements:

Program of Study

~~Process Core 12 hours minimum~~

Foundations and Curriculum Core (9 hours minimum[HK1])

EDF 6432~~,~~	Foundations of Measurement	3
Or		
EDF 6481~~,~~	Foundations of Educational Research	3
EDG 6627	Foundations of Curriculum & Instruction	3
Psychological/Social Foundations (Choice from list below)		3
EDF 6211~~,~~	Psychological Foundations of Education	

~~,~~ ~~or~~
EDF 6215~~,~~ Learning Principles Applied to Instruction
EDF 6217 Behavior Theory and Classroom Learning
EDF 6354 Human Development and Personality Theory
EDF 6165 Group Processes (available only to students in College Student Affairs)
EDF 6517~~,~~ Historical Foundations of American Education
~~or~~
EDF 6544~~,~~ Philosophical Foundations of American Education~~, or~~
EDF 6606~~,~~ Socio-Economic Foundations of American Education
EDF 6520 Education in Western Civilization

~~Curriculum and Instruction 3 hours min.~~
~~EDG 6627 (a prerequisite course may be required at the undergraduate level)~~

Concentration~~—~~ 18 ~~graduate~~ hours minimum
S~~s~~ee Curriculum and Instruction Program listing and specific individual concentration areas for specific requirements

Electives 6 hours

Comprehensive Examination

Total 33 hours minimum

Note: More credit hours may be required for a concentration in the Foundations & Curriculum Core, which may be substituted for electives or concentration hours. Foundations and Curriculum core for the College Student Affairs concentration is 6 hours minimum (EDF 6481 and EDF 6165), additional hours in the concentration required.

See individual program descriptions and contact the program of interest for programmatic variations within the concentration area.

~~**Additional Listing of Pre-Approved Master's level process core courses:**~~
~~**Psychological Foundations**~~
~~EDF 6217 – Behavior Theory and Classroom Learning – 4 hrs.~~
~~EDF 6354 – Human Development and Personality Theory – 4 hrs.~~
~~EDF 6120 –Child Development – 4 hrs.~~
~~**Social Foundations**~~
~~EDF 6520 – Education in Western Civilization – 4 hrs.~~
~~**See individual program descriptions and contact the program of interest for programmatic variations.**~~

Advanced Graduate Degree Programs
The advanced graduate degree programs lead to the **Education Specialist (Ed.S.)** degree, the **Doctor of Education (Ed.D.)** degree, and the **Doctor of Philosophy (Ph.D.) degree**. To be considered for admission to any advanced graduate degree program, students must have earned degrees from regionally accredited institutions, or hold equivalent foreign degrees as determined by an evaluation conducted by an agency approved for foreign credential evaluation, meet the program and/or college-specified minimum GRE and/or GPA-requirements and be favorably recommended also by program faculty or a program admissions committee. Additionally, students must comply with any other college or program requirements specified for the prospective degree program. **Note: Please check with the program of interest for programmatic variations.** The Ed.S. and Ph.D. degrees in Curriculum

and Instruction with a concentration in Interdisciplinary Education are administered by the Interdisciplinary Education Program Coordinator., ~~Dr. E.V. Johanningmeier, EDU 380-S, (813) 974-9495~~.

Education Specialist Degree Program (Ed.S.)

This degree is offered in the areas of **Educational Leadership** and in **Curriculum and Instruction** with a concentration area.

College of Education Requirements for the Education Specialist Degree (Ed. S.)

The Ed. S. degree consists of a minimum of 36 hours beyond the master's degree and is flexible in its requirements. The degree is designed to provide professional educators with an opportunity to develop competencies in areas of special needs and interests. Consequently, the degree program has few required courses, and each student's program is individually planned in consultation with a faculty program committee. Courses at the 5000 level are inappropriate; and a minimum of 15 hours should be taken at the 7000 level.

Program of Study

Concentration coursework - 27 hours minimum.
Thesis (Project) - 9 hours minimum
Comprehensive Examination (oral and/or written)
Oral defense of the project/thesis

Thesis/Project – Ed.S. Degree. The student is required to plan and successfully complete an individual thesis or project. The purpose is to provide an opportunity for the student to apply knowledge gained in the program to the resolution of significant needs arising from professional practice. A minimum of 9 semester hours of thesis enrollment is required in the Ed.S. degree program. Students are required to enroll for a minimum of 2 semester hours in the 6971 thesis course each semester while working on the Ed.S. project and for 2 graduate semester thesis hours in the semester during which the student plans to graduate. Students who have not completed the project after enrolling in the required 9 hours must continue to enroll in a minimum of 2 graduate credit hours each semester, including the semester in which the project is submitted to the College Associate Dean for Academic Affairs or the University Graduate Studies Office (School Psychology students). Students must have an oral defense of the project/thesis with their project/thesis supervisory committee.

Doctor of Education Degree Program (Ed. D.)

The Doctor of Education degree is available in Educational Leadership and in Educational Program Development with concentrations/ specializations in Adult Education, Educational Leadership (K-12 and College Leadership), Elementary Education, and Special Education Administration and Supervision. The focus of this degree program is on the improvement of educational practice. Although research skills are recognized as being the basis of any doctoral program, the Ed.D. is considered more a practitioner's than a research degree. Currently, the degree in Special Education with a concentration in Administration and Supervision is closed to new admissions.

College of Education Minimum Requirements for the Doctor of Education Degree (Ed. D.)

Program of Study

The Ed. D. requires a minimum of 76 hours beyond the master's degree.
Concentration - 24 hours minimum
Curriculum and Instruction - 6 hours minimum
Statistics/Measurement/ Research Design - 11hours minimum
Psychological and Social Foundations- 11 hours minimum
Dissertation - 24 hours min.

Dissertation

Beginning with the semester immediately following admission to candidacy, students must be enrolled ~~for a minimum of 50% of the required dissertation credit hours in each 12-month period for the first two years after being admitted to candidacy. Students may complete these hours in either two or three semesters but must be enrolled for dissertation hours in the Fall and Spring semesters of each year during the two year (24-month) period. Students may elect not to register for dissertation hours during the summer semester if in this two-year period they are not using university facilities or other USF resources, including faculty and staff time.~~

~~If such resources are being used, then enrollment in a minimum of two dissertation hours during the summer semester is required. If the dissertation is not completed by the time the required hours of dissertation credit have been accrued, students must enroll continuously thereafter, including summer semester, for a minimum of two dissertation hours per semester until graduation. (This includes the semester during which the dissertation is defended and the semester in which final submission of the dissertation is made to the Graduate School).~~

continuously for a minimum of 2 credit hours of dissertation per semester including summers until degree completion. Exceptions to the continuous enrollment policy may be approved if the major professor writes a letter of petition to the Associate Dean for Academic Affairs, indicating specifically the nature and duration of the exception and the justification. Unless an exception has been approved, failure to enroll as specified may result in dismissal of the student from the program. To be readmitted, the student must secure permission from the major professor and write a letter of request, co-signed by the major professor, to the Associate

Dean for Academic Affairs, outlining in detail a timeline for completing the dissertation. The Associate Dean for Academic Affairs will approve or deny the request. This process will be independent of, and will not replace, any procedures required for readmission by the University Office of Graduate Studies, or the department.

Residency

~~Ed.D. students must enroll for at least nine hours of graduate work in each of two semesters in a 12-month period. Individual programs may have additional residency requirements.~~There is no residency requirement for doctoral students in the College of Education.

Doctoral Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination, and have completed all required coursework with satisfactory grades prior to admission to candidacy.

Doctor of Philosophy Degree Program (Ph.D.)

The Doctor of Philosophy degree is available in Curriculum and Instruction with concentrations in the following areas: Adult Education, Career and Workforce Education, College Student Affairs ~~(inactive)~~, Counselor Education, Early Childhood Education, Educational Psychology, Elementary Education, English Education, Higher Education (Administration), Higher Education (Community College Teaching), Instructional Technology, Interdisciplinary Education, ~~Mathematics Education~~, Measurement and Evaluation, ~~Reading/Language Arts Education~~, ~~Science Education,~~ Secondary Education ~~(Social Science Concentration~~), Social Science, Special Education , Student Affairs Administration, and Teaching and Learning in ~~–~~, Teaching and Learning in Mathematics, Teaching and Learning in Science, Teaching and Learning in the Content Area: General Education. Contact the College of Visual and Performing Arts for information on the Ph.D. in Music Education.

The Ph.D. degree is also available in School Psychology, and Second Language Acquisition and Instructional Technology (a joint program with the College of Arts and Sciences).

College of Education Minimum Requirements for the Doctor of Philosophy Degree Program (Ph.D.) in Curriculum and Instruction.

The Curriculum and Instruction program is only offered in conjunction with a concentration area. Please see the area of concentration listed alphabetically under the program entry in the catalog) to determine whether or not the Curriculum and Instruction program is available in the area of interest.

Refer to the Program listing for the Ph.D. in Curriculum and Instruction and to the specific Concentration for information.

Refer to the program sections for Ph.D. requirements for School Psychology and Second Language Acquisition/Instructional Technology (SLAIT).

Program of Study

~~The Ph.D. program in Curriculum and Instruction requires a minimum of 75 credit hours beyond the master's degree~~[HK2]

~~**Concentration - 18 graduate hours minimum**~~
~~**Curriculum & Instruction – 3 hours minimum**~~
~~**Cognate Area – 12 hours min.**~~
~~**Statistics/Measurement/Research Design – 11hours minimum**~~
~~**Psychological and Social Foundations - 7 hours min.**~~
~~**Dissertation – 24 hours minimum**~~

Common Core

EEX 7743 Philosophies of Inquiry 3

Research Methods & Tools – refer to the concentration for minimum hours and specific requirements

Concentration – refer to the concentration for minimum hours and specific requirements
Subspecialty within Concentration – optional requirement in some concentrations
Cognate – optional requirement in some concentrations
Interdisciplinary Focus – optional requirement in some concentrations

Dissertation – refer to the concentration for specific minimum hours required

Residency
~~In addition to registering for nine graduate hours per semester, two semesters in a 12 month period, Ph.D. students should be engaged in no more than half time employment during the residency period~~There is no residency requirement for doctoral students in the College of Education..

Doctoral Qualifying Examination
Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination, and have completed all required coursework with satisfactory grades prior to admission to candidacy.

Note: Effective fall 2011,until revised concentrations are approved, EEX must be taken and may be used as a substitute for one of the courses in ~~Psychologial~~Psychological and Social Foundations.

International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

Listing of College Pre-Approved Courses that fulfill the Doctoral Level, ~~Process Core~~ Requirements[HK3] for those concentrations requiring Process Core:

Social Foundations

EDF 6531	History of Childhood: Disability and Deviance	3
EDF 6705	Gender and the Educational Process	3
EDF 6736	Education, Community and Change	3
EDF 7649	Analysis of Educational Issues	3
EDF 6883	Issues in Multicultural Education	4
EDF 7530	History of Higher Education	4
EDF 6765	Schools and the Future	4
EDF 7586	Classics in Educational Research	4
EDF 7682	Education in Metropolitan Areas	4
EDF 7934	Seminar in Social Foundations of Educational	4
EDF 6938	Special Topics may be taken with program, committee and college approval.	4

Psychological Foundations

EDG 7931	Resilience in Human Development	4
EDF 7145	Cognitive Issues in Instruction	4
EDG 7931	Psychology of Language Development	4
EDG 7931	Developmental Theory	4
EDF 7133	Adolescent Development	4
EDF 7265	Psychology of Oral and Written Language Development	4

Measurement/Statistics/Research Design

EDF 6407	Statistical Analysis Education I	4
EDF 7408	Statistical Analysis Education II	4
EDF 7410	Design of Systematic Studies in Ed	4
EDF 7437	Adv Educational Measurement I	3
EDF 7484	Statistical Analysis of Educ. Research III	4
EDF 7493	Systems Approaches for Progr Planning, Evaluation and Development	4
EDF 7477	Qualitative Research in Education I	4
EDF 7478	Qualitative Research in Education II	4

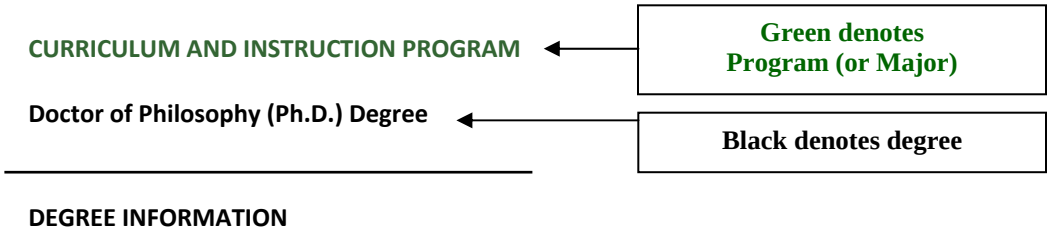
Curriculum

EDG 7667	Analysis of Curriculum and Instruction	3
EDG 7692	Issues in Curriculum and Instruction	3
EDH 7225	Curriculum Development in Higher Education	3

About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the College that offers them. For example, the Master of Science degree with a "program" (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or "concentrations" within a degree program.

PROGRAMS



CONCENTRATIONS

Concentration Requirements are listed separately under each Program.

The Program and Concentration are listed on the official transcript. Other areas, such as application tracks, are not listed on the transcript.

Example:
Doctor of Philosophy in Curriculum and Instruction
with a Concentration in Adult Education

ADULT EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 13.1201
Dept Code: LEA
Program (Major/College): AAE ED

Concentrations:
Human Resource Development (HRD)

CONTACT INFORMATION

College: Education
Department: Adult, Career & Higher Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
The Adult Education program provides professional development opportunities to individuals concerned with the learning of adults. It includes courses and experiences for persons employed in or intending to enter the field of adult education. This degree is intended to help individuals work with adult learners in a wide variety of school and non-school settings. It is intended for holders of a non-education baccalaureate degree who do not wish to meet teacher certification requirements in the State of Florida. This Adult Education degree is a Plan III, non-certification option.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Admission to the M.A. program in Adult Education is based on a holistic evaluation of the applicants' demonstrated potential to complete successfully all of the course and research requirements specific to the degree. Applications are considered on a continuous basis throughout the year. Success in the program requires excellent presentation and high quality writing skills, scholarship, and a commitment to systematic inquiry. The admissions committee will consider each applicant in light of his or her qualifications and likelihood of success. The faculty takes into account all of the information, and balances previous grade point averages, test scores, previous success in graduate course work, recommendations, and professional goals.

Admission Process

For consideration for admission, students must submit:

- A clear and detailed statement of professional and personal goals describing the reasons that earning the degree is important to those goals;
- Two letters of recommendation, preferably at least one from a current or former professor who will attest to the applicant's likelihood of success in a graduate program;
- A grade point average while classified as an upper division student in a baccalaureate degree at a regionally accredited university of 3.0 on a 4.0 scale; or a Master's degree in a related field from a regionally accredited institution with an overall GPA of at least 3.5 on a 4.0 scale; or if the upper division undergraduate GPA is less than 3.0, the applicant must also have GRE Scores;
- have proof of educational or professional experience;
- obtain favorable recommendations for admission at the department and college levels and;
- satisfy any additional academic requirements or prerequisites identified by the program.

~~Coursework may be allowed in lieu of the GPA or GRE requirement~~. In exceptional cases, students not meeting the above criteria may be considered for admisson by successfully completing at least 6 graduate semester hours of coursework taught by an adult education program faculty member. Students may additionally submit documentation of their potential for success with inclusion of the following;

- Successful professional experiences related to the academic program and professional goals of the applicant;
- Demonstrated commitment to personal and professoial growth and development and to the completion of the coursework and project demands of the program;
- Excellent communication skills.

International Students:

All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. GRE scores, etc.)

DEGREE PROGRAM REQUIREMENTS

A minimum of 36 semester hours is required for the master's degree, at least 16 hours of which must be at the 6000 level. Courses at the 7000 level are advanced graduate level courses and thus are inappropriate for the master's degree program. This program is available as a Plan III non-certification option.

Total Minimum Hours (non-thesis option)		**36 hours**
Core Requirements		**6 hours**
EDF6481 Foundations of Educational Research	3	
or EDF6432 Foundations of Measurement	3	
and one approved Psychological or Social Foundations course	3	
General Adult Education Requirements		**11 hours**
ADE 6080: Foundations of Adult Education	4	
ADE 6385: The Adult Learner	3	
ADE 6966: Final Master's Seminar (prior approval needed)	4	
Concentration Requirements		**18 hours**

HUMAN RESOURCE DEVELOPMENT (HRD)

Offered from the Department of Educational Measurement and Research

Description

The Adult Education program provides professional development opportunities to individuals concerned with the learning of adults. It includes courses and experiences for persons employed in or intending to enter adult education as a field of study. This degree is intended to help individuals work with adult learners in a wide variety of school and non-school settings. It is intended for holders of a non-education baccalaureate degree who do not wish to meet teacher certification requirements in the State of Florida. This Adult Education degree is a Plan III, non-certification option. A concentration in Human Resource Development (HRD) is available to currently enrolled students in the Master of Arts Adult Education degree. The HRD concentration specializes in Business and Industry learning and organizational development.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Concentration Requirements –13 hours minimum

In addition to the Program requirements, students must complete the following concentration requirements:

Remaining hours to be selected from among:

ADE6160	Program Management in Adult Education	3
ADE6197	Adult Basic Education	4
ADE6280	Administration in Local Adult Education Programs	4
ADE6287	Supervision of Local Adult Education Programs	4
ADE6370	Human Resource Development	3
ADE6946	Practicum in Adult Education	2-6
ADE6161	Curriculum Construction in Adult Education	4
ADE6360	Methods of Teaching Adult Education	3
ADE6906	Independent Study	2-19
ADE6198	Effective Continuing Education for Professional Groups	3

Requirements Outside the Concentration (12 hours)

At least one course (3 credits minimum)must be taken outside the adult, career and higher education department. Other courses may be selected as part of the remaining hours needed for degree completion based upon the student's selection and program advisor's approval, and may be selected from coursework throughout the university.

Comprehensive Examination

Written Exam Required

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards and accreditation criteria.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

AUTISM SPECTRUM DISORDER AND INTELLECTUAL DISABILITIES PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: October 15
Spring: March 15
Summer: March 1

Minimum Total Hours: 36
Program Level: Masters
CIP Code: **13.1013**
Dept Code: **EDS**
Program (Major/College): **ASD/ED**

CONTACT INFORMATION

College: Education
Department: Special Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
The purpose of this Master's program is to prepare teachers to be highly qualified and provide access to the general curriculum in least restrictive school environments to students with Autism Spectrum Disorder (ASD) and Intellectual Disabilities (InD).

Accreditation:
The Master of Arts in ASD and InD meets the accreditation standards required by the College of Education, University of South Florida. The proposed curriculum in the program is aligned with the conceptual framework of the College of Education and will meet the specific standards of the Naitonal Council for the Accreditation of Teacher Education (NCATE) and the Southern Association of Colleges and Schools (SACS).

Major Research Areas
The program benefit to the university, local community and the state can be summarized in two ways. In a **quantitative** way, the program meets the need of preparing effective teachers to work with the growing number of students in general and special education who are identified as having ASD labels. This is demonstrated through the critical shortage of data at a national and state level and also in the surveys of local school districts to USF. In a **qualitative** way, the program meets the need to prepare effective teachers to work with this group of students that represents a paradigmatic shift in where and how these students learn. Students with ASD and InD labels need meaningful access to general education currciulum and their typically developing peers and this program meets this need.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- An earned baccalaureate degree in special education or a related field that has a relationship with autism and/or intellectual disabilities from a regionally accredited college of university.
- Scholastic evidence to successfully perform in the academic program, as indicated by one of the following:
  - An earned graduate degree from a regionally accredited college or university, or
  - An undergraduate GPA of 3.00 or higher in all work attempted while registered as an upper division student working for a baccalaureate degree, or

- A GRE Verbal score of 520 or higher and Quantitative score of 480 or higher, and an Analytical Writing score of 3.5 or higher, or
- Completion of 9 hours of specified graduate course work in special education with a GPA of 3.00 or higher, and the endorsement of a Special Education faculty member.

- A letter of application that addresses why the candidate desires to pursue a master's degree in ASD and InD
- At least two (2) letters of recommendation from persons who have seen the candidate teach and/or work with children and youth who have labels of ASD and/or InD.

Graduation Requirements: Portfolio System

The Master's Portfolio System is a means through which each master's level student demonstrates his/her competency in the "best practices" of special education. Commensurate with the belief that the merging of research and practice is desirable and beneficial, the Department of Special Education has identified eight areas in which students are required to demonstrate their competency:

- Professional and personal self-awareness
- Assessment of exception students
- Behavior management
- Classroom instruction
- Collaboration
- Knowledge of the professional literature
- Research in critical areas such as child development, learning and teaching
- Professional development

The department has also developed a list of suggested artifacts through which students can document their competency in each area.

Students should meet with their advisor to discuss and plan their individualized portfolio. A copy of the Master's Portfolio System complete with policies and procedures, as well as suggested artifacts, is available with the Program Coordinator.

Each student will be required to present his/her individualized portfolio to the Portfolio Review Committee in the Department of Special Education upon completion of their program. This presentation will be the master's comprehensive exam. A comprehensive exam is required of all master's level students in the College of Education.

DEGREE PROGRAM REQUIREMENTS

Core Requirements (required courses; electives; Comps; thesis/dissertation, etc.)
Required Courses

Process Core Requirement

EDF 6481	Foundations of Educational Research	3

Concentration Requirements

EEX 6731	Consultation and Collaboration	3
EEX 6234	Identification & Assessment	3
EEX 6065	Collaborative Transitions	3
EEX 5752	Working with Families	3
EEX 6476	Curriculum & Instruction	3
EEX 6939	Advanced Seminar	3
EEX 6943	Practicum	3

Content Specialization* (18 hours minimum)

*(*Note: A Practicum/Field Experience (1-2 hours) is to be included as part of the Content Specialization coursework.)*

EBD 6246	Educating Students with Autism	3
EEX 6619	Positive Behavior Support	3
EEX 6767	Assistive Technology	3
EMR 6052	Adv. Theories & Practices InD	3

Total Credit Hours **36**

Plan III Co/Prerequisite Requirements

EEX 6025 Trends and Issues in Special Education	3
EDF 64232 Foundations of Measurement	3
EDF 6211 or EDF 6215 Psychological Foundations	(3-4)
EDF 6606 or EDF 6517 or EDF 6544 Sodial/Hist/Philosophical	4

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CAREER AND TECHNICAL EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15
Fall admission only

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 13.1320
Dept Code: LEA
Program (Major/College): ACT ED

CONTACT INFORMATION

College: Education
Department: Adult, Career & Higher Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Program Admission Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent. Must meet University requirements (see Graduate Admissions), College of Education minimum requirements, as well as requirements listed below.

Faculty in the CTE program use a process for consideration of admission that encompasses the following items:

- B.A.
- Relevant experience in the field of Career & Technical Education (or closely related field):
- Certification in a CTE program area or closely related area (a statement of current certification status in letter of application is sufficient documentation). Certification is not required for admission to Plan III;
- A grade point average in upper division undergraduate coursework from a regionally accredited university (or international equivalent) of 3.0 on a 4.0 scale:
- In exceptional cases, a student with an upper-level undergraduate GPA of 2.50-2.99 may be considered for admission (based on age of the degree, discipline, institution and other considerations). In each of those cases, the student must earn a 3.5 GPA in the first two courses in the program to be permitted to continue:
- A letter of application containing a statement of professional goals
- A current resume or vita.

Special Instructions for International Students:
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

(Plan I, 30 hours minimum; Plan III, 30 hours minimum)

Core Requirements:

Plan I: Psychological or Social Foundations course – 3 hrs. min. from the college's approved course listing or ADE 6385

Plan III: Psychological or Social Foundations courses – 6 hrs. min. from the college's approved course listing or ADE 6385. (Selection may also include MHS 6340 Career Development)
Research – Improving CTE Programs, EDG 6931 or EDF 6481 Foundations of Educational Research – 3 hrs.

Concentration Requirements: 18 SH in Career & Technical Education (15 SH for those holding National Board Certification) Proof of National Board Certification must be provided.

Students must select concentration coursework from the courses below.
ECT5386 Preparation & Development For Teaching
ECT6661 Trends and Issues in CTE, 3 SH Trends
EVT6665 School & Community Relations (formerly 6664)
ECT6167 Enhancing CTE Curriculum
ECW6264 Administration of Vocational Programs
ECW6696 Equity and Access in The New Economy
ECW6265 Supervision Of Vocational Programs
ECT6948 Practicum
ADE6360 Methods of Teaching Adult Education

Electives: Electives may be substituted for selected concentration courses with the advisor's approval.

Field Experience: 3 hrs. minimum.
ECT6766 Emerging Workplace Competencies.
Another course may be considered for substitution if the student has recent experience in their occupational field. The substitution requires approvals at the program and the college levels.

Comprehensive Examination:
Students will maintain a comprehensive portfolio and submit it at the end their program.

Thesis: there is no thesis option in this program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

COLLEGE TEACHING PROGRAM

Master of Arts (M.A.) Degree in the College Teaching Program
With Concentrations in Biology, Business, Chemistry, Economics, Engineering, English, French, Geography, Geology, History, Mathematics, Physics, Political Science, Sociology, Spanish, and Speech Communication

DEGREE INFORMATION

Program Admission Deadlines:
Closed for new admissions*

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 13.0406
Dept Code: LEA
Program (Major/College): JCT EJ
Concentration Code: JBI

CONTACT INFORMATION

College: Education
Department: Adult, Career & Higher Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

*Currently, students are not being admitted to this program.

COUNSELOR EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 7
Fall admission only

Minimum Total Hours: ~~63~~52
Program Level: Masters
CIP Code: 13.1101
Dept Code: EDF
Program (Major/College): AGC ED

Concentrations:
Career Counseling (CRC)
Clinical Mental Health Counseling (CMH)
School Counseling (SCL)

CONTACT INFORMATION

College: Education
Department: Psychological and Social Foundations

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
This is a limited access program with internal deadlines. Please check with he program prior to applying. The Counselor Education program provides students with the general counseling skills needed to become professional counselors. Graduates are trained to assess problems, counsel clients, select appropriate intervention strategies and consult with other professionals and administrators. All students complete a common core of courses plus additional courses appropriate to their chosen program. Included are courses in communication skills, counseling theory, research, practicum, and internship. In addition to the Master's degree, the Educational Specialist degree, and the Doctoral degree**,** the program offers Graduate Certificates in Career Counseling, Mental Health Counseling, Play Therapy, andSchool Counseling (post masters). The program offers three plans for a Master of Arts degree.

School Counseling (Plan II)
A concentration in School Counseling is available to currently enrolled students in the Master of Arts Counselor Education program. The School Counseling concentration is CACREP-accredited, and offers specialized coursework in school counseling. Graduate students pursuing a concentration in School Counseling must take the core course requirements of their graduate program

Plan III--Community Counseling
Plan III programs are for students who prefer to work in community based counseling positions rather than in elementary or secondary schools. There are two Plan III program options: (a) Mental Health Counseling and (b) Career Counseling.

Clinical Mental Health Counseling
A concentration in Clinical Mental Health Counseling is available to currently enrolled students in the Master of Arts Counselor Education program.. The Clinical Mental Health Counseling concentration is CACREP-accredited, and offers specialized coursework in mental health counseling. Graduate students pursuing a concentration in Clinical Mental Health Counseling must take the core course requirements of their graduate program.

A concentration in Career Counseling is available to currently enrolled students in the Master of Arts Counselor Education oProgram. The Career Counseling concentration is CACREP-accredited, and specializes in career counseling with a cognate

in sgudent affairs. Graduate students pursuing a concentration in Career Counseling must take the core course requriemetns of their graduate program.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools, and Council for the Accreditation of Counseling and Other Educational Related Programs (CACREP).

Major Research Areas:
Multicultural counseling and development, career development, play therapy, cognitive-behavioral interventions, community mental health, and counselor education and supervision

ADMISSIONS INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent.

Requirements also include:

- A Graduate Record Examination (GRE) Score of at least the 50th percentile Verbal and the 50th percentile Quantitative (writing not required) **Or** A Miller's Analogy Test (MAT) score of at least 50
- GPA of at least 3.0 on a 4.0 scale for work done while an upper division student in a Baccalaureate degree. Students who have GRE subtest scores of less than the 50th percentile or MAT scores of less than 50 must have GPAs above 3.2 in order to be considered for admission.
- CLAST/GKT Required (School Track only)
- Proof of educational or professional experience
- Three Letters of recommendation
- Personal Statement
- Interview
- Resume

International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. GRE scores, etc.)

DEGREE PROGRAM REQUIREMENTS

Contact the program assistant for detailed information prior to applying.

Total Minimum Program Hours: **~~63~~52 hours minimum**

Core Requirements – **36 hours minimum**

Process Core – 7 hours

EDF6354 Human Development and Personality Theories	4
EDF6481 Foundations of Educational Research	3

Other Core Courses: 29 hours minimum

MHS6006 Trends and Principles of the Counseling Profession	4
MHS6420 Multicultural Counseling with Diverse Populations	3
MHS6200 Assessment and Appraisal Procedures	4
MHS6340 Career Development	4
MHS6400 Counseling Theories and Practices	4
MHS6311 Online Services in Counseling and Helping Professions	3
MHS6509 Group Counseling Theories and Practices	4
MHS6700 Legal and Ethical Issues in the Counseling Profession	3

CONCENTRATION REQUIREMENTS

Career Counseling Concentration **(~~25~~ 16 hours minimum)**

MHS6800 Practicum in Counseling Adolscents and Adults	4
MHS6601 Consultation for the Counseling Profession	3
MHS6341 Career Program Design and Evaluation	3
MHS6887 Internship in Career and College Counseling	6
~~SDS6645 Student Development Theory~~	~~3~~
~~SDS6042 Introduction of Student Affairs~~	~~3~~
~~SDS6624 Ecology of Campus Life~~	~~3~~

Comprehensive Examination
Students must successfully pass a comprehensive examination prior to graduation.

School Counseling Concentration (Plan II) **(38 hours minimum)**

EDF6217 Behavior Theory and Classroom Learning	4
MHS6450 Counseling Substance Abuse in School and Community	4
MHC6470 Human Sexuality Issues for Counselors	4
MHS6800 Practicum in Counseling Adolescents and Adults	4
OR	
SDS6801 Practicum in Counseling Children	4
MHS6413 School Counseling Accountability	3
MHS6601 Consultation for the Counseling Profession	3
MHS6417 Human Sexuality Issues	4
EDG6931 Reading and Research Methods 3	
EDF6217 Behavior Theory and Classroom Learning	3
SDS6820 Internship in School Counseling 6	
RED6786 Research & Methods in Reading 3	
TSL6700 ESOL for School Counselors and Psychologists	3

Comprehensive Examination
Students must successfully pass a comprehensive examination prior to graduation.

Students must also present official passing scores on the following examinations prior to graduation:

- Florida Professional Education Exam
- Florida Subject Area Examination in Guidance and Counseling

Clinical Mental Health Counseling Concentration **(25 hours minimum)**

MHS6800 Practicum in Counseling Adolescents and Adults	4
MHS6620 Counseling in Community Setting	3
MHS6070 Study of Mental Disorders for Counselors	3

MHS6450	Counseling Substance Abuse in School and Community	3
MHS6470	Human Sexuality Issues for Counselors	3
MHS6885	Internship in Community Agency Counseling	9

Comprehensive Examination
Students must successfully pass a comprehensive examination prior to graduation.

OTHER INFORMATION

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards, and accreditation criteria. Graduate Certificates are also available in several areas.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CURRICULUM AND INSTRUCTION PROGRAM

Master of Education (M.Ed.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Refer to individual concentration areas for information on deadlines that may be earlier than the University deadlines of:

Fall	February 15
Spring	October 15
Summer	February 15

Minimum Total Hours: 33
CIP Code: 13.0301
Dept Code: CNI
Program (Major/College): CUR ED
Concentrations:

- Adult Education (CAE) *
- College Student Affairs (CSA)
- Early Childhood Education (CNK) *
- Elementary Education (CEE)
- Interdisciplinary Education (CIE) *
- Measurement & Evaluation (CME)
- Middle School Education (General) (CMG) *
- Middle School Education, Mathematics (CJM) *
- Middle School Education, Science (CJS) *
- Middle School Education, English (CJE) *
- Middle School Education, Social Studies (CJH) *
- Reading Education (CRD) *
- Secondary Education (CES)
- Secondary Education: Biology (CBI)
- Secondary Education: Chemistry (CCH)
- Secondary Education: English (CEN)
- Secondary Education: Foreign Language (CFE)
- Secondary Education: Instructional Technology (CCO)
- Secondary Education: Mathematics (CMA)
- Secondary Education: Physics (CPY)
- Secondary Education: Social Science (CSO)
- Secondary Education: TESOL (CTL)
- Special Education, Behavior Disorders (CBD) *
- Special Education, Gifted (CGI) *
- Special Education, Mental Retardation (CMR) *
- Special Education, Motor Disabilities (CMD) *
- Special Education, Specific Learning Disabilities (CLD) *

*Currently not open for admissions

CONTACT INFORMATION

College: Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The Curriculum and Instruction degree is only offered in conjunction with a concentration area. Please see the area of concentration (listed alphabetically in the catalog) to determine whether or not the Curriculum and Instruction degree is available in your area of interest.

Program Description
This degree is designed for the professional educator who wishes to pursue advanced study. The primary objective is to prepare instructional leaders through courses in curriculum, methods, supervision, learning principles, human interaction, and areas of specialization. The foundation areas (professional studies) receive greater emphasis in the M.Ed. programs than the M.A. programs. Coursework in the concentration may include courses in colleges other than the College of Education. The Curriculum and Instruction program is offered with concentration areas. General program requirements are listed below. For specific specialization requirements, contact the appropriate department.

Accreditation: Programs in the College are accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below. Refer to each area of concentration for additional admission requirements or contact the program for assistance.

For International applicants: Applicants whose native language is not English or who have not earned a degree in the U.S. must, according to university policy, submit a TOEFL score (minimum of 550 paper-based, 213 computer-based, or 80 internet-based test). See http://web.usf.edu/iac/admissions/language.html for further clarification and possible exemptions. Please check with program regarding the policy on evaluation of transcripts. For more information, please visit http://admissions.grad.usf.edu/international.html

DEGREE PROGRAM REQUIREMENTS

College of Education Program Requirements for the Master of Education degree (M.Ed.)

The M.Ed. degree in Curriculum and Instruction normally requires a minimum of 33 semester hours with 60 percent or more of the courses at the 6000 level. Courses at the 7000 level are advanced graduate level courses and thus are not approved to be part of the master's degree program.

Program of Study Degree Requirements **33 hours minimum**

CORE PROGRAM REQUIREMENTS
Program of Study **9 hours minimum**
~~Process Core 12 hours minimum~~

EDF 6432 ~~,~~ Foundations of Measurement 3
OR
EDF 6481~~,~~ Foundations of Educational Research 3

EDG 6627 Foundations of Curriculum & Instruction 3

Psychological/Social Foundations (Choose from list below) 3
EDF 6211~~,~~ Psychological Foundations of Educations 3
~~, or~~ EDF 6215~~,~~ Learning Principles Applied to Instruction 3
EDF 6217 Behavior Theory and Classroom Learning 3
EDF 6534 Human Development and Personality Theory 3
EDF 6165 Group Processes (available only to students in College Student Affairs) 3

EDF 6517, Historical Foundations of American Education	3
~~or~~	
EDF 6544, Philosophical Foundations of American Education~~, or~~	3
EDF 6606, Socio-Economic Foundations of American Education	3
EDF 6520 Education in Western Civilization	3

~~Curriculum and Instruction 3 hours min.~~
~~EDG 6627 (a prerequisite course may be required at the undergraduate level)~~
~~**Process Core12 hours minimum**~~
~~EDF 6432 EDF 6481 EDF 6211 or EDF 6215 or equivalent~~
~~EDF 6517 or EDF 6544 or EDF 6606 or equivalent~~
~~Curriculum and Instruction (EDG 6627) - 3 hours minimum; a prerequisite may be required at the undergraduate level~~

Concentration Requirements **18 hours minimum**
Refer to specific concentration for requirements

Comprehensive Exam
Comprehensive exam required. Refer to specific concentration for requirements

Electives **6 hours minimum**
5000 or 6000 level coursework subject to area advisor approval. These courses are intended to complement the specialization. (Note: Secondary Education: Social Science (CSO) requires 15 hours of electives minimum)

Notes:

- *More credit hours may be required for a concentration in the Foundations & Curriculum Core, which may be substituted for electives or concentration hours*
- *Foundations and Curriculum core for the College Student Affairs concentration is 6 hours minimum (EDF 6481 and EDF 6165), additional hours in the concentration required.*

CONCENTRATION REQUIREMENTS

In addition to completing the required Program Requirements, students select one of the following concentrations. Minimum hours noted are for the concentration requirements only and do not reflect the total program hours that result.

ADULT EDUCATION (CAE) **Currently not open for admissions.**

Offered from the Department of Adult, Career & Higher Education

This concentration is designed for the professional educator who wishes to pursue advanced study. The primary objective is to prepare instructional leaders through courses in curriculum, methods, supervision, learning principles, human interaction, and areas of specialization. The foundation areas (professional studies) receive greater emphasis in the M.Ed. programs than the M.A. programs. Coursework in the concentration may include courses in colleges other than the College of Education. The Curriculum and Instruction program is offered with concentration areas. General program requirements are listed below. For specific specialization requirements, contact the appropriate department.

Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

COLLEGE STUDENT AFFAIRS (CSA)

Offered from the Department of Psychological and Social Foundations

The CSA Concentration at the University of South Florida emphasizes three major components: Foundational Studies, Professional Studies, and Supervised Practice, as recommended by the Council for the Advancement of Standards in Higher Education. The curriculum includes theories of human growth and development, environmental influences, and social science based interventions as applied to student affairs practice. The instructional method of relating theory-to-practice is accomplished by involving students in rigorous classroom activity along with internships in specialized areas of student affairs work.

Total Program requirements with this concentration:	33 hours minimum
Concentration Requirements	18 hours minimum
SDS6042 Introduction to Student Affairs	3
SDS6624 Ecology of Campus Life	3
SDS6645 Student Development Theory	3
SDS6701 Issues in Diversity	3
SDS6703 The Law & Student Affairs	3
EDF6935 Wellness Seminar	3

EARLY CHILDHOOD EDUCATION (CNK) Currently not open for admissions.

Offered from the Department of Childhood Education and Literacy Studies

The M.Ed. Degree in Curriculum and Instruction with a concentration in Early Childhood Education is designed for those students who hold a degree in early childhood education or a related field and wish to improve their skills in teaching young children, and prepare to take leadership roles in the field of early childhood education. When previous academic preparation is not in the field of early childhood education, prospective students will be expected to complete undergraduate courses as determined through conference with a faculty advisor upon admission to the program. This program is not a teacher certification preparation program.

Total Program requirements with this concentration:	33 hours minimum
Concentration Requirements –	21 hours minimum
EEC 6678 Research Seminar: Issues, Trends and Advocacy in EC.Ed.	3 min
EEC 6415 EC: Diversity in Home and School	3
EEC 6055 Advocacy and Leadership in ECE	3
EEC 6205 EC: Curriculum and Authentic Assessment	3
EEC 6626 EC Play and Learning	3
EEC 6525 EC Program Development and Administration	3
EEC6265 EC Programs and Adv Curriculum	3
EEC6517 Social Justice in Early Childhood Ed	3

ELEMENTARY EDUCATION (CEE)

Offered from the Department of Childhood Education and Literacy Studies

Total Program requirements with this concentration:	33 hours minimum
Concentration Requirements	18 hours minimum

INTERDISCIPLINARY EDUCATION (CIE) Currently not open for admissions.

Offered from the Department of Interdisciplinary Education

Total Program requirements with this concentration:	33 hours minimum
Concentration Requirements	18 hours minimum

MEASUREMENT & EVALUATION (CME)

Offered from the Department of Educational Measurement and Research

This degree program is designed to prepare mid-level testing and evaluation personnel for employment in school districts, government agencies, commercial test development companies, and program research and evaluation enterprises. The program prepares personnel with specialized skills in test construction, data analysis, program evaluation, and research design.

Total Program requirements with this concentration: ~~42~~ 37 hours minimum
Program Core – see Program Degree Requirements above 9 hours minimum
Students are required to take both EDF 6481 and EDF 6432 from the Program Core

Concentration Requirements 22 hours minimum
Note: Both EDF 6432 and EDF 6481 from the Program Core must be taken, one of which fulfills a Core requirement and the other fulfills a Concentration requirement.

EDF 6461 Foundations of Applied Evaluation	3
EDF 6407 Statistical Analysis for Educational Research I	4
EDF 7408 Statistical Analysis for Educational Research II	4
EDF 6491 Practicum in Measurement, Evaluation and Research	3
EDF 7488 Problems in Educational Data Analysis	2
EDG 6931 Special Topics: Introduction to Qualitative Methods	3

Elective in Instructional Technology selected from the following:

EME 6613 Development of Technology-Based Instruction	3
EDF 6284 Problems in Instructional Design for Computers	3
EME 6930 PLE: Web Programming	3
EME 6936 Web Page Design	3

OR a course recommended by the academic advisor

Electives – see Program Degree Requirements above 6 minimum
~~EME 6930 (3) Programming Languages for Education~~
~~EDF 6446 (3) Development and Validation of Tests in Education~~
~~EDF 6492 (3) Applied Educational Program Evaluation~~
~~EDF 6288 (3) Instructional Design I~~

Comprehensive Exam: Students must perform satisfactorily on a written comprehensive examination taken on completion of coursework or during the last semester of enrollment in the program. Students must be enrolled for a minimum of two graduate hours during the semester in which this examination is taken.

MIDDLE SCHOOL EDUCATION (GENERAL) (CMG) Currently not open for admissions

Offered from the Department of
Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

MIDDLE SCHOOL EDUCATION, ENGLISH (CJE) Currently not open for admissions

Offered from the Department of
Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

MIDDLE SCHOOL EDUCATION, MATHEMATICS (CJM) Currently not open for admissions

Offered from the Department of Secondary Education
Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

MIDDLE SCHOOL EDUCATION, SCIENCE (CJS) Currently not open for admissions

Offered from the Department of
Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

MIDDLE SCHOOL EDUCATION, SOCIAL STUDIES (CJH) Currently not open for admissions

Offered from the Department of Secondary Education
Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

READING EDUCATION (CRD) Currently not open for admissions

Offered from the Department of Childhood Education and Literacy Studies
This concentration is replaced by the M.A. in Curriculum & Instruction with a Concentration in Reading Education
Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

SECONDARY EDUCATION (CES) Currently not open for admissions

Offered from the Department of Secondary Education

This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by the Commission on Colleges of the Southern Association of College and Schools and NCATE.

Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum
18 hours in the area of emphasis, to include courses in the content and/or teaching of this content~~, one of which must be: SCE 6634 Current Trends in Secondary Science 3~~

SECONDARY EDUCATION: BIOLOGY (CBI)

Offered from the Department of Secondary Education

This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by the Commission on Colleges of the Southern Association of College and Schools and NCATE.

Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum
18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

SCE 6634 Current Trends in Secondary Science 3

SECONDARY EDUCATION: CHEMISTRY (CCH)

Offered from the Department of Secondary Education

This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by the Commission on Colleges of the Southern Association of College and School and NCATE.

Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum
18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

SCE 6634 Current Trends in Secondary Science 3

SECONDARY EDUCATION: ENGLISH (CEN)

Offered from the Department of Secondary Education

This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by the Commission on Colleges of the Southern Association of College and Schools and NCATE.

Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum
18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

LAE 6637 Current Trends in Secondary English Ed 3

SECONDARY EDUCATION: FOREIGN LANGUAGE (CFE)

Offered from the Department of Secondary Education

This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by the Commission on Colleges of the Southern Association of College and Schools and NCATE.

Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum
18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

FLE 6665 Current Trends in Foreign Language Ed 3

SECONDARY EDUCATION: INSTRUCTIONAL TECHNOLOGY (CCO)

Offered from the Department of Secondary Education

The Concentration in Secondary Education in Instructional Technology is intended for students interested in working as instructional designers/developers in industry or academic environments. Accredited by the Commission on Colleges of the Southern Association of College and Schools and the National Association for the Accreditation of Teacher Education.

Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum
18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

EME 6936 Current Trends in Educational Technology 3

SECONDARY EDUCATION: MATHEMATICS (CMA)

Offered from the Department of Secondary Education

The Concentration in Secondary Education in Math is a flexible program intended to improve the skills of the classroom teacher. The program will be planned with the student's advisor. At least 60 percent of the program hours must be at the 6000 level. Accredited by the Commission on Colleges of the Southern Association of College and Schools and NCATE.

Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum
18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

MAE 6136 Current Trends in Secondary Math 3

SECONDARY EDUCATION: PHYSICS (CPY)

Offered from the Department of Secondary Education

The Concentration in Secondary Education in Physics is a flexible program intended to improve the skills of the classroom teacher. The program will be planned with the student's advisor. At least 60 percent of the program hours must be at the 6000 level. Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum
18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

SCE 6634 Current Trends in Secondary Science Ed 3

SECONDARY EDUCATION: SOCIAL SCIENCE (CSO)

Offered from the Department of Secondary Education

This Concentration does not include teaching certification. Individuals interested in certification should consult the Master of Arts in Teaching in Social Science Education. This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by the Commission on Colleges of the Southern Association of College and Schools, ~~and~~ the National Council for the Social Studies, and NCATE.

Total Program requirements with this concentration:	36 hours minimum
Concentration Requirements	21 hours minimum
SSE 5946 Practicum Social Science Education	3
SSE 6932 Special Topics	3
SSE 6932 Special Topics	3
SSE 6636 Current Trends	3
Electives:	
Taken in COEDU and/or CAS at the 5000 or 6000 level	15

Comprehensive Exam

The Comprehensive exam is taken while enrolled in SSE 6636 Trends and Issues. Consult the Program website, http://www.coedu.usf.edu/main/departments/seced/SSE/SSE_HomePage.html, or the program's coordinator for specific requirements.

SECONDARY EDUCATION: TESOL (CTL)

Offered from the Department of Secondary Education

This concentration is designed for professionals who have at least two years of relevant experience in the field, typically, teachers certified in social science education with a baccalaureate degree from a College of Education. Within the M.Ed. framework, the degree is an individually planned program based on the student's background and professional goals. Accredited by the Commission on Colleges of the Southern Association of College and Schools and the National Council for the Social Studies.

Concentration Admission Requirements

Requirements for all applicants include:

- Minimum GPA of 3.0 upper division undergraduate coursework
- Proof of 2 years of relevant educational or professional experience as judged by program faculty
- Proof of teaching certification

Total Program requirements with this concentration:	33 hours minimum
Concentration Requirements	18 hours minimum

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content

Comprehensive Exam

A comprehensive exam must be taken in the College of Education at the completion

SPECIAL EDUCATION, BEHAVIOR DISORDERS (CBD)

Currently not open for admissions.

Offered from the Department of

Description:
Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

SPECIAL EDUCATION, GIFTED (CGI) Currently not open for admissions.

Offered from the Department of
Description:
Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

SPECIAL EDUCATION, MENTAL RETARDATION (CMR) Currently not open for admissions.

Offered from the Department of
Description:
Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

SPECIAL EDUCATION, MOTOR DISABILITIES (CMD) Currently not open for admissions.

Offered from the Department of
Description:
Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

SPECIAL EDUCATION, SPECIFIC LEARNING DISABILITIES (CLD) Currently not open for admissions.

Offered from the Department of
Description:
Total Program requirements with this concentration: 33 hours minimum
Concentration Requirements 18 hours minimum

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CURRICULUM AND INSTRUCTION PROGRAM

Education Specialist (Ed.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Refer to individual concentration areas for information on deadlines that may be earlier than the University deadlines of:

Fall	February 15
Spring	October 15
Summer	February 15

Minimum Total Hours: 36
Program Level: Specialist
CIP Code: 13.0301
Dept Code: CNI

Program (Major/College): CUR ED

Concentrations:
Adult Education (SAE)
Counselor Education (SGC)
Early Childhood Education (SNK)*
Elementary Education (SEE)
Higher Education, Administration (SHA)*
Higher Education, Community College Teaching (SCT)*
Instructional Technology (SIT)
Interdisciplinary Education (SIE)
Mathematics Education (SMA)
Measurement and Evaluation (SME)
Reading-Language Arts Education (SRD)
School Psychology (SSP)
Science Education (SSC)*
Special Education (SSE)*
Vocational Education (SVO)
*Currently not open for admissions

CONTACT INFORMATION

College: **Education**

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The Curriculum and Instruction degree is only offered in conjunction with a concentration area. Please see the area of concentration (listed alphabetically in the catalog) to determine whether or not the Curriculum and Instruction degree is available in your area of interest.

Program Description
The Ed.S. degree consists of a minimum of 36 hours beyond the master's degree and is flexible in its requirements. The degree is designed to provide professional educators with an opportunity to develop competencies in areas of special needs and interests. Consequently, the degree program has few required courses, and each student's program is individually planned in consultation with a faculty program committee. Courses at the 5000 level are inappropriate; and a minimum of 15 hours should be taken at the 7000 level.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below. Refer to each area of concentration for program admission requirements or contact the program for assistance.

For International applicants: Applicants whose native language is not English or who have not earned a degree in the U.S. must, according to university policy, submit a TOEFL score (minimum of 550 paper-based, 213 computer-based, or 80 internet-based test). See http://web.usf.edu/iac/admissions/language.html for further clarification and possible exemptions. Please check with program regarding the policy on evaluation of transcripts. For more information, please visit http://admissions.grad.usf.edu/international.html.

DEGREE PROGRAM REQUIREMENTS

Minimums **36 hours minimum**

CORE REQUIREMENTS

Concentration Requirements **27 hours minimum**
See concentrations below

Comprehensive Exam (Oral and/or written)

Thesis/Project **9 hours minimum**
The student is required to plan and successfully complete an individual thesis or project. The purpose is to provide an opportunity for the student to apply knowledge gained in the program to the resolution of significant needs arising from professional practice. A minimum of nine (9) semester hours of thesis enrollment is required in the Ed.S. degree program. Students are required to enroll for a minimum of 2 semester hours in the 6971 thesis course each semester while working on the Ed.S. project and for 2 semester hours in the semester in which the student plans to graduate. Students who have not completed the project after enrolling in the required 9 hours must continue to enroll in a minimum of two (2) credit hours of 6971 Thesis each semester, including the semester in which the project is submitted to the College Associate Dean for Academic Affairs or the Graduate School (School Psychology students). Students must have an oral defense of the project/thesis with their project/thesis supervisory committee.Individual areas of specialization may have additional requirements. For information contact the department/program offering the concentration.

Oral defense of the thesis/project

CONCENTRATION REQUIREMENTS **27 hours minimum**

ADULT EDUCATION (SAE) – 36 HOURS

Offered from the Department of Adult, Career & Higher Education

Description:

This Ed.S. program prepares practitioners and teachers for the broad field of Adult Education. This includes public and proprietary schools, and non-school based settings such as business and industry, the professional associations, community agencies, and governmental units.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools**.**

Concentration Requirements –18 hours minimum

ADE7388 Adult Development and Learning	3
ADE7947 Advanced Internship	2-4
ADE7910 Directed Research	1-4

ADE7076 Continuing Education in the Community College and Higher Education	3
ADE7281 Organization and Management of Adult and Continuing Education and HRD	3
ADE7169 Instructional Development using Adult Education Principles and Practices (If not used for the Curriculum Course Requirement)	4
ADE7261 Leadership in Adult and Continuing Education and HRD	3
ADE7676 HRD Policy Seminar	3
ADE7931 Issues and Trends: Critical Race Theory	3
ADE6931 Adult Learning and Cognitive Styles	3
ADE6931 Learning and Change	3
ADE6906 Independent Study	1-19 (Var.)
ADE6931 Participatory Action Research for Educators	3
ADE6931 International Adult Education	3
ADE6198 Effective Continuing Education for Professional Groups	3

Elective Courses (9 hours)

Elective courses (9) are chosen based upon the student's individual needs and are approved by the program advisor.

COUNSELOR EDUCATION (SGC) – 39 HOURS

Offered from the Department of Psychological and Social Foundations

Description:

The Ed.S. Degree in Curriculum and Instruction with concentration in Guidance and Counseling is designed to provide professional counselors with an opportunity to develop competencies in areas of special needs and interests. Consequently, each student's program is individually planned in consultation with a faculty advisor.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools**.**

Concentration Requirements –18 hours minimum

MHS 7401 Adv. Counseling Theories	4
MHS 7610 Consultation and Supervision Theory	4
MHS 7930 Adv Seminar in Counseling	4
EDG 7931 Adv. Practicum in Counseling	4
SDS 7830 Adv. Internship in Counseling	3 min
EDG 7931 Cognitive Behavioral Res. Seminar	3
EDF 6407 Statistical Analysis I	4
EDF 7408 Statistical Analysis II	4

EARLY CHILDHOOD EDUCATION (SNK) – Currently not open for admissions

Offered from the Department of Childhood Education and Literacy Studies

Concentration Requirements

ELEMENTARY EDUCATION (SEE) – 36 HOURS

Offered from the Department of Childhood Education and Literacy Studies

Prepares in-school leaders with expertise in instruction and program development in a variety of educational settings. Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools**.**

Concentration Requirements –27 hours minimum

HIGHER EDUCATION, ADMINISTRATION (SHA) – Currently not open for admissions

Offered from the Department of Adult, Career & Higher Education

Concentration Requirements

HIGHER EDUCATION, COMMUNITY COLLEGE TEACHING (SCT) – 36 HOURS

Offered from the Department of Adult, Career & Higher Education

Concentration Requirements

INSTRUCTIONAL TECHNOLOGY (SIT) – 36 HOURS

Offered from the Department of Secondary Education

This concentration is designed to prepare students for leadership in technology related positions. Courses include an array of topics including instructional design, distance learning, authoring, instructional graphics, and project management.

Concentration Requirements –27 hours minimum

EDF 6284 - Problems in Instructional Design for Computers	3
EME 7631 - Research in Technology Project Management	3
EME 6613 - Development of Technology-Based Instruction	3
EME 7938 - Computer-Augmented Instructional Paradigms in Education	3
EME 7910 - Independent Study	3
EME 7458 - Research in Distance Education	3

Electives: (9 appropriate hours)

From among:

CGS 6210 - Computer Hardware	3
EME 6930 - PLE: Flash	3
EME 6930 - PLE: Web Programming 1	3
EME 6930 - PLE: Web Programming 2	3
EME 6936 - ACET: Interactive Media	3
EME 6936 - ACET: Web Design	3
EME 6936 - ACET: Instructional Graphics	3
EME 6936 - ACET: Digital Video	3
EME 6936-ACET: Current Trends	3

Other appropriate course(s) as approved by the student's program committee

INTERDISCIPLINARY EDUCATION (SIE) – 36 HOURS

Offered from the Department of Interdisciplinary Education

The purpose of the Interdisciplinary concentration in the Ed.S. degree is to provide opportunities for those students who have educational backgrounds and interests that span a variety of disciplines that may include work outside as well as inside the College of Education. Students who have the ability and desire to integrate study and research among several departments/programs are encouraged to apply to the Interdisciplinary track. Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools**.**

Concentration Requirements –18 hours minimum

At least 15 semester hours must be at the 7000 level, or 6000 level courses requiring advanced graduate standing. 5000 level courses are not acceptable. Note: Due to the variability of program goals in the Interdisciplinary Program, students should select their coursework in consultation with the major professor.

MATHEMATICS EDUCATION (SMA) – 36 HOURS

Offered from the Department of Secondary Education

The Ed.S. Degree in Curriculum and Instruction with concentration in Mathematics Education prepares specialists for classroom instruction or leadership/supervisory roles. Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools**.**

Concentration Requirements –18 hours minimum

MEASUREMENT AND EVALUATION (SME) – 36 HOURS

Offered from the Department of Adult, Career & Higher Education

This Ed.S. program prepares practitioners and teachers for the broad field of Adult Education. This includes public and proprietary schools, and non-school based settings such as business and industry, the professional associations, community agencies, and governmental units.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools**.**

Concentration Requirements –27 hours minimum

The Concentration is individually planned with an advisor to include coursework in systematic planning, test development, program evaluation, research design, and statistical analysis

READING-LANGUAGE ARTS EDUCATION (SRD) – 36 HOURS

Offered from the Department of Adult, Career & Higher Education

This concentration prepares leaders in the field of literacy. The program is designed to promote expertise in literacy research, theory, and practice. An Ed.S. degree in Reading/Language Arts emphasizes a critical analysis of reading policy and the need for applied, community-based research. The Ed.S. program extends students' research and analysis skills so they may conduct program evaluations to guide classroom practice and school-based reform.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools**.**

Concentration Requirements –27 hours minimum

SCHOOL PSYCHOLOGY (SSP) – 82 HOURS

Offered from the Department of Adult, Career & Higher Education

This Ed.S. program concentration prepares practitioners and teachers for the broad field of Adult Education. This includes public and proprietary schools, and non-school based settings such as business and industry, the professional associations, community agencies, and governmental units. Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools**.**

Concentration Requirements –18 hours minimum

School Psychology is offered as a concentration under the Ed.S. Curriculum and Instruction degree program. The Educational Specialist (Ed.S.) degree consists of approximately 82 graduate semester hours beyond the bachelor's degree, and includes two years of practica experiences and a full year, 1,500 clock hour internship, and a thesis or research project. Completion of the Ed.S. degree requires three 3 years of full-time study, including summer semesters beyond the bachelors degree. A Master of Arts (M.A.) degree is earned by most students during the first year of their Ed.S. program. However, the M.A. is not considered a terminal degree and is not sufficient for state certification in school psychology.

SPS 6700 Psychoed Interventions I	4
SPS 6701 Psychoed Interventions I	4
SPS 6702 Psychoed Interventions III	4
SPS 6940 Psychoed Interv Pract I	2
SPS 6941 Psychoed Interv Pract II	2
SPS 6196 Personality Assessment	4
EDF 6213 Biological Bases	3
EDF 6938 Social Psych Apld to Ed	3
SPS 6101 Behavior Disorders in Child	3
EDF 6883 Multicultural Education	4
TSL 6700 ESOL for School Psychologists and Guidance Counselors	3
SPS 6947 Internship	12

Note: Students may be required to take additional hours depending on the course of study and or academic deficiencies.

SCIENCE EDUCATION (SSC) – Currently not open for admissions

Offered from the Department of Secondary Education

Concentration Requirements

SPECIAL EDUCATION (SSE) – Currently not open for admissions

Offered from the Department of Adult, Career & Higher Education

Concentration Requirements

VOCATIONAL EDUCATION (SVO) – 36 HOURS

Offered from the Department of Adult, Career & Higher Education

Students are considered for this degree on a case by case basis. Please contact the Program Coordinator prior to applying.

Concentration Requirements

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CURRICULUM AND INSTRUCTION PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Refer to individual concentration areas for information on deadlines that may differ than the Program deadlines of:

Fall	February 15
Spring	October 15
Summer	February 15

Minimum Total Hours: ~~75~~ 59*
**minimum hours vary with each concentration*
Program Level: Doctoral
CIP Code: 13.0301
Dept Code: CNI
Program (Major/College): CUR ED

Concentrations:

Adult Education (DAE)
Career and Workforce Education (DVO)
Counselor Education (DGC)
Early Childhood Education (DNK)
Educational Psychology (EPC)
Elementary Education (DEE)
~~Teaching and Learning in~~ English Education(DCE)
Higher Education, Administration (DHA)
Higher Education, Community College Teaching (DCC)
Instructional Technology (DIT)
Interdisciplinary Education (DIE)
Literacy Studies (DRD)
~~Teaching and Learning in~~ Mathematics Education(DMA)
Measurement & Evaluation (DME)
~~Reading and Language Arts Education (DRD)~~
~~Teaching and Learning in~~ Science Education (DSC)
Secondary Education (DSD) *
~~Teaching and Learning in~~ Social Science (DSO)
Special Education (DSE)
Student Affairs Administration (DSA) *
Teaching and Learning in the Content Area: General Education (DTL) *

*Currently not open for admissions

CONTACT INFORMATION

College: Education

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Curriculum and Instruction degree is only offered in conjunction with a concentration area. Please see the area of concentration (listed alphabetically) to determine whether or not the Curriculum and Instruction degree is available in your area of interest.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Information available by accessing the concentration areas, listed alphabetically in the catalog.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below. Refer to each area of concentration for program admission requirements or contact the program for assistance.

PROGRAM DEGREE REQUIREMENTS

General Program Requirements for the C&I degree, (minimum requirements):

~~Program of Study – 75 hours minimum~~

~~**Core requirements**~~

~~Concentration Requirements 18 hours minimum~~
~~Curriculum and Instruction 3 hours~~
~~Cognate Area 12 hours minimum~~
~~Statistics/Measurement/Research Design 11 hours minimum~~
~~Psychological and Social Foundations 7 hours minimum~~
~~Dissertation 24 hours minimum~~

Program of Study

Common Core

EEX 7743 Philosophies of Inquiry 3

Research Methods & Tools *(refer to the concentration for specific requirements)*

Concentration

- Subspecialty within Concentration (Optional requirements in some Concentrations)
- Cognate (Optional requuirement in some Concentrations)
- Indisciplinary Focus (Optional requirement in some Concentrations)

Note: Effective Fall 2011, all concentrations must take EEX 7743 and may be used as a substitute for one of the courses in Psychological & Social Foundations for those concentrations requiring foundations courses.

Dissertation

Refer to the concentration area for specific dissertation requiremetns.

~~Beginning with the semester immediately following admission to candidacy, the student must be enrolled for a minimum of 12 dissertation credit hours in each 12-month period for the first two years after being admitted to candidacy. Students may complete the 12 hours in either two or three semesters but must be enrolled for dissertation hours in the Fall and Spring semesters of each year during the two year (24-month) period. Students may elect not to register for dissertation hours during the summer semester if in this two-year period they are not using university facilities or other USF resources, including faculty and staff time. If such resources are being used, then enrollment in a minimum of two dissertation hours during the Summer semester is required. If the dissertation is not completed by the time the 24 hours of dissertation credit have been accrued, students must enroll continuously, including Summer semester, for a minimum of two dissertation hours per semester until graduation. (This includes the semester during which the dissertation is defended and the semester in which final submission of the dissertation is made to the Graduate School).~~

~~Exceptions to the continuous enrollment policy may be approved if the major professor writes a letter of petition to the Associate Dean for Academic Affairs, indicating specifically the nature and duration of the exception and the justification. Unless an exception has been approved, failure to enroll as specified may result in dismissal of the student from the program. To be readmitted, the student must secure permission from the major professor and write a letter of petition,~~

~~co-signed by the major professor, to the Associate Dean for Academic Affairs, outlining in detail a timeline for completing the dissertation. The Associate Dean for Academic Affairs will approve or deny the petition. This process will be independent of, and will not replace, any procedures required by the University or the Graduate School~~.

Residency

Consistent with the Graduate School there is no residency requirement ~~Students must enroll for at least nine hours in each of two semesters in a 12 month period. The Ph.D. program requires that during the residency period, students may be employed no more than half-time. Individual programs may have additional residency requirements.~~

Doctoral Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy. (See current College of Education Graduate Handbook, www.coedu.usf.edu, click on information; also consult Faculty Program contact).

Individual areas of concentration may have variations in the requirements. For information contact the department/program offering the specialization of interest. Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

CONCENTRATIONS

Students select one of the following concentrations. Concentration requirements are listed on the subsequent pages, in alphabetical order~~.~~

ADULT EDUCATION (DAE)

Offered from the Department of Adult, Career & Higher Education

Prepares leaders, researachers, university faculty, and related personnel to serve in the broad field of adult education. Programs in the College are accredited by the Commission on Colleges of the Southern Association of College and Schools.

Total Program requirements with this concentration: 80 hours minimum

Program Core Requirement:
EEX 7743 Philosophies of Inquiry 3

Research Methods & Tools

Cognate Requirement: 12 hours
Students should take twelve (12) credits in a cognate area outside of their major field of study. These courses must be taken at the graduate level, and should be selected in consultation with their major professor.

Measurement/Statistics/Research Design Required Core: 11 hours
EDF6407 Statistical Analysis for Educational Research I 4
EDF7408 Statistical Analysis for Educational Research 4
EDF7410 Design of Systematic Studies in Education 4
Or other approved course by major professor and/or program committee

Psychological and Social Foundations Required Core: 7 hours minimum
Students must take one Psychological Foundations Course and one Social Foundations Course. Recommended courses are:

Psychological Foundations Course:
EDF7145 Cognitive Issues in Instruction 4

Social Foundations Courses:
EDF6883 Issues in Multicultural Education **OR** 4
EDF7682 Education in Metropolitan Areas **OR** 4
EDF7934 Seminar in Social Foundations of Education 4

Curriculum Course Requirement: 3 hours minimum
Choose one course from the following:
ADE7169 Instructional Development using Adult Education Principles and Practices 3
EDH7225 Curriculum Development in Higher Education 3
EDG7667 Analysis of Curriculum and Instruction 3
EDG7692 Issues in Curriculum and Instruction 3

Concentration Requirements 18 hours minimum
Required Concentration Courses:
ADE7388 Adult Development and Learning 3
ADE7930 Beginning Doctoral Seminar 4

Elective Concentration Courses
ADE7947 Advanced Internship 2-4
ADE7910 Directed Research 1-4
ADE7076 Continuing Education in the Community College and Higher Education 3
ADE7269 Organization and Administration of Adult and Continuing Ed and HRD 3
ADE7169 Instructional Development using Adult Ed Principles and Practices 3
(If not used for the Curriculum Course Requirement)
EVT7761 Research Seminar 3
ADE7268 Leadership in Adult Continuing Education and HRD 3

ADE7676 HRD Policy Seminar	3
ADE7931 Issues and Trends: Critical Race Theory	3
ADE6389 Adult Learning and Cognitive Styles	3
ADE7931 Learning and Change	3
ADE6906 Independent Study	1-19
ADE6931 Participatory Action Research for Educators	3
ADE6570 International Adult Education	3
ADE6198 Effective Continuing Education for Professional Groups	3

Dissertation Requirement: 24 hours minimum
ADE7980 Dissertation (2-24)

Please be advised that programs of study are designed by the program faculty in concert with each individual student and the program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria

CAREER AND WORKFORCE EDUCATION (DVO)

Offered from the Department of Adult, Career and Higher Education

Prepares leaders, researchers, university faculty and related personnel to serve in the broad field of Career and Workforce Education. Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Total Program requirements with this concentration: 76 hours minimum

Program Core Requirement:

EEX 7743 Philosophies of Inquiry	3

Cognate: 12 hours

To be determined by students depending upon individual goals and with approval of their major professor.

Research Core: **12 hours**

EDF6407 Statistical analysis in Education I	4
EDF7408 Statistical analysis in Education II	4
EDF7410 Design of Systematic Studies in Education	4

Foundations: 7 hours

Courses to be determined with at least one course in Educational Psychology and one in Social Foundations of Education.

Concentration Requirements 18 hours minimum

ECT7066 Foundations of Career and Workforce Education	3
EVT7761 Research Seminar	3
EVT7168 Principles of Contextual Teaching and Learning	3
ECW7105 Program Plan and Implementation	3
EVTTBD Comparative study of CWE systems	3
ADE7169 Instructional Development	3
EDG6931 Equity and Access in the New Economy	3

Electives:

Selected courses may be substituted with elective courses with the approval of the major professor.

Doctoral Qualifying Exam:

Students must take and successfully complete a qualifying examination prior to becoming a candidate for a doctoral degree:

Doctoral Candidacy:

Students must be admitted to candidacy before they are permitted to enroll in dissertation hours.

Dissertation: 24 hours

ECT7980 Dissertation

COUNSELOR EDUCATION (DGC)

Offered from the Department of Psychological and Social Foundations

The Ph.D. Degree in Curriculum and Instruction with Concentration in Counselor Education is a research and theory intensive experience designed to provide a balance of intellectual and experiential learning resulting in professional educators who have multiple competencies as researchers, theorists, and problem-solvers in human growth and development. The doctoral program emphasizes research and theory as opposed to clinical skill development and is designed primarily for students who wish to pursue careers in academic institutions. Accredited by the Commission on Colleges of the Southern Association of College and Schools. Major Research Areas include: Career development, clinical supervision, mental health counseling, and multicultural counseling~~, and play therapy~~.

Total Program requirements with this concentration: **95** hours minimum

Core Requirement:

EEX 7743 Philosophies of Inquiry	3

Cognate: 12 hrs min

Courses in cognate are planned in consultation with the major professor and doctoral committee. Courses in the cognate must be taken at the graduate and/or advanced graduate level.

Measurement/Statistics/Research Design:	11 hrs minimum
EDF 6407 Statistical Analysis I	4
EDF 7408 Statistical Analysis II	4
Plus (select one from the listing below)	
EDF 7484 Statistical Analysis III	4
EDF 7437 Advanced Educ. Measurement	3
EDG 7931 Qualitative Res., Des., & Data Coll.	3

Foundations:	7 hrs minimum
Philosophical/Social Foundations (select one)	
EDF 6705 Gender and the Ed. Process	3
ESF 7586 Classics in Ed. Research	4
ESF 7682 Ed. In Metropolitan. Areas	4
Psychological Foundations (select one)	
EDF 7145 Cognitive Issues in Instruction **OR**	4
EDG 7931 (Seminar of choice)	4

Requires the approval of the major professor and the college.

Concentration Requirements	38 hours minimum
EDF 7946 Supervised Exp. In College Teaching	1
MHS 6311 On-line Services in Counseling	2
MHS 7740 Planning, Eval., & Accountability **OR**	3
EDF 7493 Sys. Approaches for Prog. Plan & Eval.	4
MHS 7401 Adv. Counseling Theories	4
MHS 7610 Consultation and Supervision Theory	4
MHS 7930 Adv Seminar in Counseling	4
EDG 7931 Adv. Practicum in Counseling	4
SDS 7830 Adv. Internship in Counseling	3
EDG 7931 Cognitive Behavioral Research. Seminar	3
EDG 7931 Practicum in Supervision of Counseling	3
EDG 7931 Proposal Preparation	3
EDG 7910 Directed Research	3

Dissertation:	
MHS 7980 Dissertation	24

EARLY CHILDHOOD EDUCATION (DNK)

Offered from the Department of Childhood Education and Literacy Studies

This concentration promotes scholarly and multidisciplinary inquiry that further empowers advanced graduate students through the development of knowledge, skills, and dispositions to assume roles as leaders, advocates, and scholars in the development and implementation of high quality and innovative early childhood practices. The program provides a sound theoretical background that is integrally linked to the practice of Early Childhood Education in a diverse, global community with an emphasis on child advocacy and social justice. Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Total Program requirements with this concentration: **66~~78~~** hours minimum **(post-master's)**

Core Requirement:

EEX 7743 Philosophies of Inquiry 3

~~**Process Core:**~~

Research Methods and Tools **20 hours minimum**

EDF 7408 Statistical Analysis Education II 4
EDF 7410 Design of Systematic Studies in Education 4
EDF 7437 Advanced Measurement or EDF 7484 Statistical Anal Education III or equivalent
Course in Statistics/Measurement/Research Design 3
EDF 7477 Qualitative Research in Education I or introductory equivalent selected 3-4
In conjunction with program committee
EDF 7478 Qualitative Research in Education II or equivalent qualitative course selected
With approval from program committee 3-4
Specialized Research Methods Course determined in conjunction with program committee
Based on the student's research agenda and prior presentation 3-4

~~**Curriculum:** 3 hours~~
~~EDG 7667 Anal of Curr & Instruction **OR** 3~~
~~EDG 7692 Issues of Curr Instruction **OR** 3~~
~~EDH 7225 Curr Dev in Higher Ed 3~~
~~**Measurement/Statistics/Research Design:** 11 Hours minimum~~
~~EDF 6407 Stat Anal Educ I 4~~
~~EDF 7408 Stat Anal Educ II 4~~
~~PLUS: Select one from the following: EDF 7410 Des Sys Stud in Educ 4~~
~~EDF 7437 Adv Educ Meas I 3~~
~~EDF 7484 Stat Anal Educ Res III 4~~
~~EDF 7493 Sys Approaches for Prog Plng, Eval & Dev 4~~
~~EDF 7477 Qual Res in Educ. I 4~~
~~**Foundations:** 7 Hours minimum~~
~~At least one appropriate 7000 level course (or other doctoral level course) required in each of the following areas:~~
~~Philosophical/Historical/Social Foundations~~
~~Educational Psychology~~

Concentration Requirements 39~~18~~ hours minimum

Required Concentration Courses (18 hours minimum)

EEC 7056 Leadership and Advocacy Concerning Issues Affecting Young Children 3
EEC 7057 Critical Perspectives in Early Childhood Education 3
~~EEC 7615 Trends and Issues in Early Childhood Education 3~~
~~EEC 7617 Assessment in Early Childhood Education 3~~
EEC 7306 Teaching and Learning in Early Childhood 3
EEC 7416 Sociocultural Approaches to Working with Children and Families 3
EEC 7317 ICT in the Early Years 3
EEC 7627 Arts & Aesthetics in Early Childhood Ed: Curriculum in Context 3

CELS Professional Development Courses (12 hours minimum)

EDG 7938 Adv Grad Seminar; Intro to Research in Childhood Ed & Lit Studies	3
EDG 7939 Adv Grad ~~Sminar~~Seminar: Research in Progress	3
EDH 7325 Supervised Teaching in Childhood Ed & Lit Studies I	3
EDH 7326 Supervised Teaching in Childhood Ed & Lit Studies II	3

Cognate: 9~~12~~ hours min

The cognate can be described as a secondary concentration or sub-specialization area. Coursework must be taken at the graduate level, and is developed in consultation with the major professor and the doctoral committee. The coursework in the cognate is ~~normally~~ developed in support of the student's research objectives.

Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy. (See current College of Education Graduate Handbook, http://www.coedu.usf.edu/main/gradhandbook/advhandbook/Adv_QualExam.html Also consult doctoral program major advisor).

Dissertation: ~~2~~4 hours minimum

~~Beginning with the semester immediately following admission to candidacy, the student must be enrolled for a minimum of 12 dissertation credit hours in each 12-month period for the first two years after being admitted to candidacy. Students may complete the 12 hours in either two or three semesters but must be enrolled for dissertation hours in the Fall and Spring semesters of each year during the two year (24-month) period. Students may elect not to register for dissertation hours during the summer semester if in this two-year period they are not using university facilities or other USF resources, including faculty and staff time. If such resources are being used, then enrollment in a minimum of two dissertation hours during the Summer semester is required. If the dissertation is not completed by the time the 24 hours of dissertation credit have been accrued, students must enroll continuously, including Summer semester, for a minimum of two dissertation hours per semester until graduation. (This includes the semester during which the dissertation is defended and the semester in which final submission of the dissertation is made to the Graduate School).~~

~~Exceptions to the continuous enrollment policy may be approved if the major professor writes a letter of petition to the Associate Dean for Academic Affairs, indicating specifically the nature and duration of the exception and the justification. Unless an exception has been approved, failure to enroll as specified may result in dismissal of the student from the program. To be readmitted, the student must secure permission from the major professor and write a letter of petition, co-signed by the major professor, to the Associate Dean for Academic Affairs, outlining in detail a timeline for completing the dissertation. The Associate Dean for Academic Affairs will approve or deny the petition. This process will be independent of, and will not replace, any procedures required by the University or the Graduate School.~~

EDUCATIONAL PSYCHOLOGY (EPC)

Offered from the Department of Psychological and Social Foundations

The Concentration in Educational Psychology is within the College of Education's Ph.D. program in Curriculum and Instruction at the University of South Florida. This concentration will prepare graduates to be conscientious researchers who apply the scientific method specifically to real-world educational problems. Primary concentration goals are: (1) to engage students in cutting-edge collaborative research; (2) to provide a solid foundation that enables students to integrate theory, research, and practice and fosters a commitment to excellence in research and scholarship; and (3) to help students acquire a deep understanding of human development and learning for the preparation of future educators and educational professionals in all contexts.

Concentration Admission Deadline: **Fall:** **February 1**

Concentration Admission Requirements:

- A completed application to graduate studies (see admissions at: http://www.grad.usf.edu/graduate-admissions-checklist.asp
- The application fee ($30)
- Preferred GRE scores: verbal minimum of 400, quantitative minimum of 400
- GPA minimum 3.00 on a 4.00 grading score in master's program
- Two official transcripts from the master's program and baccalaureate program
- Master's degree from an accredited institution
- Current resume or vita
- Personal statement: in a 2-3 page statement, please describe why you want to pursue this degree, why you feel USF would be a good fit, which Educational Psychology faculty you would seek to work with and why, and your long term goals.
- Preference to students with psychology background
- Preference to students with some research experience
- Official TOEFL results are required of all international applicants whose native language is not English and who have not studied in an English speaking country for at least one academic year.
- Three letters of recommendation. The letters should be written by persons who are in a position to comment on the likelihood of success within the department and who are not related to the applicant.
- Phone or personal interviews will be conducted in order to determine the level of fit between the concentration, faculty, and students, but will not be required initially.

Total Program requirements with this concentration: **71** hours minimum

Core Requirement:

EEX 7743 Philosophies of Inquiry	3

Concentration Requirements 30 hours minimum

Specialization Coursework: *(At least 12 hours must be at the 7000 level or 6000 level courses requiring advanced graduate standing)*

EDF 7357 Applications of Developmental Theories*	4
EDF 7138 Adolescent Development*	4
EDF 7145 Cognitive Issues in Instruction*	4
EDF 7265 Psychology of Oral and Written Language Development	4
EDF 7359 Resilience in Human Development	4
EDF 7482 Research Practicum (1 hour, taken 4 times)	4
EDF 7930 Professional Seminar (1 hour, taken 4 times	4
EDG 7239 Super. Experience in College Teaching	2

Cognate Area 12 hours minimum

Measurement/Statistics/Research Design: 11 hours minimum

EDF 7408 Statistical Analysis in Education II	4
EDF 7410 Design of Systematic Studies in Education	4

Select at least **one** of the following courses:

EDF 7437 Advanced Educational Measurement I	3
EDF 7484 Statistical Analysis in Education III	4
EDF 7493 Systems Approaches for Prog Planning, Evaluation & Development	4
EDF 7477 Qualitative Research in Education I **AND**	4
EDF 7478 Qualitative Research in Education II	4

Foundations: 3 hours

Any graduate level course taught by Philosophical/Social/Historical Fdns	3

Comprehensive / Qualifying Exam Requirements

Up to half of credits from EDF 7910 can be converted to dissertation requirements

Dissertation: 12 hours minimum

ELEMENTARY EDUCATION (DEE)

Offered from the Department of Childhood Education and Literacy

The doctoral program in Curriculum and Instruction with a Concentration in Elementary Education prepares scholars to understand elementary practice through research and innovation that unites community engagement and rigorous intellectual inquiry.

The program features opportunities to:

- Participate in engaged scholarship through collaborative work focused on current educational problems with partner schools and community centers.
- Develop integrated and interdisciplinary perspectives on elementary educational practice with a commitment to diversity and exploring global perspectives.
- Explore issues of equity both locally and globally
- Work both independently and in collaboration with faculty to pursue rigorous research agendas, publish in scholarly journals, and present widely at state, national and international conferences.
- Engage in learning experiences that ensure the candidate possesses an innovative response to key issues in the field.

Total Program requirements with this concentration: **75** hours minimum

Core Requirement:

EEX 7743 Philosophies of Inquiry 3

Research Methods and Tools **20 hours minimum**

EDF 7408 Statistical Analysis Education II 4
EDF 7410 Design of Systematic Studies in Education 4
EDF 7437 Advanced Measurement or EDF 7484 Statistical Anal Education III or equivalent
Course in Statistics/Measurement/Research Design 3
EDF 7477 Qualitative Research in Education I or introductory equivalent selected 3-4
In conjunction with program committee
EDF 7478 Qualitative Research in Education II or equivalent qualitative course selected
With approval from program committee 3-4
Specialized Research Methods Course determined in conjunction with program committee
Based on the student's research agenda and prior presentation 3-4

Concentration Requirements ~~18~~ 42 hours minimum

Required Courses
EDE 7206 Critical Analysis of Curriculum in Elementary Schools (NEW) 3
~~ECE 7317 ICT in the Early Years 3~~
EDE 7481 Research in Teaching and Learning in Elementary Schools 3
EDG 7046 Trends & Issues Ed Policy: Lit & T Ed 3~~EEC 7627 Arts & Aesthetics in Early Childhood Education 3~~

Select 4 courses from the following:
ECE 7317 ICT in the Early Years 3
EEC 7627 Arts & Aesthetics in Early Childhood Education 3
EEC 7416 Socio-Cultural App to Working w Child 3
EEC 7056 Ldshp & Advoc Issues Affecting Yng Ch 3
EDG 7931 Working in Schools 3
EDG 7201 Differentiated Supn & Prof Dev 3

CELS Professional Development Courses (12 hours minimum)

EDG 7938 Adv Grad Seminar; Intro to Research in Childhood Ed & Lit Studies 3
EDG 7939 Adv Grad ~~Sminar~~Seminar: Research in Progress 3
EDH 7325 Supervised Teaching in Childhood Ed & Lit Studies I 3
EDH 7326 Supervised Teaching in Childhood Ed & Lit Studies II 3

Cognate: 9 hours min

The cognate can be described as a secondary concentration or sub-specialization area. Coursework must be taken at the graduate level, and is developed in consultation with the major professor and the doctoral committee. The coursework in the cognate is normally developed in support of the student's research objectives.

Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy. (See current College of Education Graduate Handbook, http://www.coedu.usf.edu/main/gradhandbook/advhandbook/Adv_QualExam.html Also consult doctoral program major advisor).

Dissertation: 4 hours minimum

~~**TEACHING & LEARNING IN**~~

ENGLISH EDUCATION (DCE) – ~~74 HOURS~~

Offered from the Department of Secondary Education

The Curriculum and Instruction degree is offered with a concentration area in English Education. ~~Each program is highly individualized.~~ Candidates' programs are planned with the approval of a faculty committee based upon previous experience and future goals. **This Program is a**~~A~~ccredited by the Commission on Colleges of the Southern Association of College and Schools.

Concentration Admission Information

To be admitted to the English Education Concentration of the doctoral program prospective students must meet the university's minimum admissions requirements which include presenting an earned Bachelor's and Master's degree. A 3.0 grade point average is required for all work completed as an upper division student in the Bachelor's degree, OR a 3.5 grade point average for any work completed in the Master's degree. Additionally, students must provide the following documents to the doctoral program coordinator:

- A current curriculum vitae
- Three letters of recommendation from people who can attest to the candidate's capacity to do doctoral work and/or excellence as a classroom teacher
- A written statement of professional goals
- Transcripts from previous academic work
- A writing sample. This could be a published article or a scholarly paper prepared for a previous class that demonstrates capacity as a thinker and writer
- Official scores from the Graduate Record Exam.

Formal application to the Graduate School must also be made at the time the above documents are submitted. Following a review of the written documentation, prospective students are expected to participate in an interview with the program faculty.

Admission Criteria

The admissions committee will consider each candidate in light of his or her unique submission and qualifications. The expectations used by the faculty are:

- 3.5 GPA on a 4.0 scale for all graduate work and 3.0 for the last 60 hours of undergraduate studies,
- An undergraduate major in the ~~social sciences~~English, ~~or~~ humanities, English~~social sciences~~ education or a closely related field from a regionally accredited institution,
- A master's degree in ~~social sciences~~ English education or closely related field from a regionally accredited institution,
- Successful teaching experience in a K-12 setting,

- Demonstrated commitment to personal professional growth and development,
- Strong academic, analytic and communications skills.

International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

Total Program requirements with this concentration: 59 ~~74~~ hours minimum

Core Requirement:
EEX 7743 Philosophies of Inquiry 3

Secondary Education Core: 9 hours minimum
ESE 7343 Teaching and Learning in the Content Areas 3
ESE 7xxx College Teaching 3
ESE 7937 Advanced Seminar in Secondary education 3-6
LAE 6906 Independent Study **(optional and may be substituted for one of above with approval of Doctoral Committee))** 3

Statistics/Measurement/Research Design: 16 hours minimum
EDF 7408 Statistical Analysis II 4
Note: EDF 6407 pre-req for this course
EDF 7410 Design of Systematic Studies in Education 4
EDF 7477 Qualitative Research in Education I 4
EDF 7478 Qualitative Research in Education II 4
Additional courses to be determined by the program faculty based on the orientation of the student's research agenda and prior preparation.

Cognate: **~~12~~3-9** hours minimum
LAE students may complete a cognate or a set of electives. These ~~Courses~~courses must be consistent with the student's program of study and ~~student~~ selected with the approval of a program committee. Courses in the Cognate must be taken at the graduate level.

Concentration Requirements **~~18~~24-30** hours minimum
The following four seminars are required:
LAE 7735 Advanced Seminar in English Education: Language and Literacy 3
LAE 7735 Advanced Seminar in English Education: Teacher Education 3
LAE 7735 Advanced Seminar in English Education: Writing 3
LAE 7735 Advanced Seminar in English Education: Research 3
LAE 7910 Directed Research in LAE 12*
*3 hours repeated with LAE 7735 each semester. This course engages students in establishing a current active research/scholarly agenda that leads toward independent scholarship and successful, timely completion of the doctoral degree.
Additional courses in this area will be determined by the student's research interests.

Doctoral Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy. *English Education* uses the College of Education Qualifying Exam Option. Consult Faculty Program contact for specific information.

~~**Residency**~~
~~Students must be registered for nine (9) hours of coursework, two semesters~~

Dissertation ~~18~~4 hours minimum

HIGHER EDUCATION, ADMINISTRATION (DHA) ~~– 81 hours minimum~~

Offered from the Department of Educational Measurement and Research

The Higher Education Administration program is a research degree that prepares individuals interested in teaching, research, and policy positions in both community colleges and universities.Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Total Program requirements with this concentration: 81 hours minimum

Core Requirements: 9 hours minimum

EEX 7743 Philosophies of Inquiry	3
EDH 6081 The Community College in America **OR**	3
EDH 6051 Higher Education in America	3
AND	
EDH 7225 Curriculum Development in Higher Education	3
EDH 7636 Organizational Theory in Higher Education	3

Concentration Requirements 18 hours minimum

Specialization courses to be chosen and approved with the student's program committee; recommended courses are:

EDH 7505 Higher Education Finance	3
EDH 7632 Leadership in Higher Education	3
EDH 7633 Governing Colleges and Universities	3
EDH 7635 Organization and Administration in Higher Education	3

Cognate: 12 hours minimum

Depending on individual interests,each student selects 3-4 courses in an area that complements the concentration requirements and is relevant to his/her career goals.

Measurement/Statistics/Research Design: 12 hours minimum

Recommended courses but other courses possible with committee approval:

EDF 6407 Statistical Analysis I	4
EDF 7408 Statistical Analysis II	4
EDF 7410 Design of Systematic Studies	4

Psychological and Social Foundations: 7 hours minimum

Students must take:
one Psychological Foundations course
one Social Foundations course.

Dissertation:

EDH 7980 Dissertation	24

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria

HIGHER EDUCATION, COMMUNITY COLLEGE TEACHING (DCC)

Offered from the Department of Adult, Career & Higher Education

The Higher Education Administration program is a research degree that prepares individuals interested in teaching, research, and policy positions in both community colleges and universities. Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Total Program requirements with this concentration: **81** hours minimum

Core Requirements:	9 hours minimum
EEX 7743 Philosophies of Inquiry	3
EDH 6081 The Community College in America **OR**	3
EDH 6051 Higher Education in America	3
AND	
EDH 7225 Curriculum Development in Higher Education	3
EDH 7636 Organizational Theory in Higher Education	3
Concentration Requirements	18 hours minimum
Select from the following courses:	
ADE 6385 The Adult Learner	3
EDG 6938 Seminar in College Teaching	3
EDG 7931 Special Topics	3
EDH 6947 Internship	1-6
EDH 7505 Higher Education Finance	3
EDH 7632 Leadership in Higher Education	3
EDH 7633 Governing Colleges & Universities	3
EDH 7635 Organization & Administration of Higher Education	3
EDH 7935 Higher Education Capstone Course	3
Cognate:	12 hours minimum
Depending on individual interests,each student selects 3-4 courses in the student's teaching area or another area approved by the program committee.	
Measurement/Statistics/Research Design:	12 hours minimum
Recommended courses but other courses possible with committee approval:	
EDF 6407 Statistical Analysis I	4
EDF 7408 Statistical Analysis II	4
EDF 7410 Design of Systematic Studies	4
Psychological and Social Foundations:	7-8 hrs minimum
Students must take	
one Psychological Foundations course	
one Social Foundations course	
Dissertation:	
EDH 7980 Dissertation	24

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria

INSTRUCTIONAL TECHNOLOGY (DIT)

Offered from the Department of Secondary Education

Instructional Technology is the theory and practice of design, development, utilization, management and evaluation processes and resources for learning." (Seels &Richey, 1994, p.9). The USF Ph.D. in Curriculum and Instructon with a Concentration in Instructional Technology is designed to prepare scholars for leadership roles in colleges, universities, corporations, the military, and other venues where research, development, and implementation of technology-based instructional methods and materials take place.

Seels, B. Richey, R. (1994). *Instructional Technology: The definition and domains of the field.* Washington DC: Association for Educational Communications & Technology (AECT).

Total Program requirements with this concentration: **66** hours minimum

Core Requirement:

EEX 7743 Philosophies of Inquiry 3

~~**Process Core:**~~

~~*Psychological and Social Foundations of Education:* 7 hours minimum~~

~~At least one course from each of the above areas. The courses should be consistent with the student's program of study and selected from the College's pre-approved listing (refer to College of Education section of the Graduate Catalog) with the approval of a program committee~~.

Interdisciplinary Professional Core 8 hours minimum

Choice of ONE of the following adult education or foundation courses (3) (required)

ADE 6385 The Adult Learning 3
EDG 7931 Globalization and Higher Education 3
ADE 6070 International Adult Education 3
EDF 7357 Applications of Developmental Theories 3
EDF 7486 Classics in Ed Research 4
EDF 6736 Education Communication and Change 3
EDF 6745 Schools and the Future 4
EDF d6883 Issues in Multicultural Education 4
EDF 6217 Behav. Theory/Class learning 3
EDF 7530 History of Higher Ed in the U.S. 3
EDH 7225 Curr Dev in Higher Ed 3

Students may substitute an alternative 6000/7000 level course with approval of their major professor.

The Following course is required:

EDF 7145 Cognitivie issues in Instruction 4

However, with major professor approval, a substitution can be made to another ed psych course

College Teaching Internship:

ESE College Teaching Internship (Required) 3

One to three credits of directed research (EME 7910) may be substituted for doctoral students with documented substantial teaching experience with adult learners, as determined by the student's major professor

Statistics/Measurement/Research Design: ~~11~~16 hours minimum

EDF 6407 Statistical Analysis I 4
~~*And*~~
EDF 7408 Statistical Analysis II 4

~~Select one of the following courses:~~

EDF 7410 Design of Systematic Studies in Education 4
~~EDF 7437 Advanced Educ Measurement I 3~~
~~EDF 7484 Stat Anal Educ III 4~~
~~EDF 7493 Sys Approaches for Program Planning, Evaluation, and Dev 4~~

EDF 7477 Qual Res in Educ I ~~(4) AND~~ 4

OR EDF 7478 Qual Res in Educ II (Required) 4

~~*Curriculum and Instruction:* 3 hours~~
~~One of the following:~~
~~EDH 7225 Curriculum Development in Higher Ed 3~~
~~EDG 7667 Analysis of Curriculum and Instruction 3~~
~~EDG 7692 Issues in Curriculum and Instruction 3~~

Program Specialization~~Concentration Requirements~~ 21~~18~~ hours minimum
EME 6613 Development Of Technology-Based Instruction 3
EME 7938 Computer-Augmented Instructional Paradigms in Education 3
EME 7939 Research In Technology-Based Education 3

Electives: 12 ~~appropriate~~ hours
Choice of FOUR electives from among appropriate IT course offerings below (Required)
~~from among~~:
EME 7910 Directed Research 3
EME 7458 Research in Distance Learning 3
EME 7631 Research in Technology Project Management 3
EME 6936 Prototype Game Research 3
EME 6936 Virtual Worlds Research Seminar 3
EME 6936 Digital Video 3
EME 6930 Web programming 3
EME 6930 Flash 3
EME 6936 Instructional Graphics 3
EME 6936 Web page Design 3
Or other doctoral courses as determined by the program faculty to be appropriate
~~EME 6930 Programming Languages for Education 3~~
~~EME 6936 Applications of Computers as Educational Tools 3~~
~~EME 7458 Research in Distance Learning 3~~
~~EME 7631 Research in Technology Project Management 3~~
~~EME 7910 Directed Research 3~~
~~Other appropriate course(s) as approved by the student's program committee~~

Cognate: 12 graduate hours
Courses selected are consistent with the student's program of study and selected with the approval of a program committee and should be coursework other than in the concentration area. Courses in the cognate area must be taken at the graduate level.

Qualifying Examinations
All students will be required to pass a written qualifying examination of twelve hours duration (three successive four-hour days) that integrates work in the specialization area, cognate area and foundations area.

Dissertation: 6~~24~~ hours minimum
EME 7980 – Dissertation

INTERDISCIPLINARY EDUCATION (DIE)

Offered from the Department of Interdisciplinary Education

The purpose of the Interdisciplinary track in the Ph.D. degree is to provide opportunities for those students who have educational backgrounds and interests that span a variety of disciplines that may include work outside as well as inside the College of Education. Students who have the ability and desire to integrate study and research among several departments/programs are encouraged to apply to the Interdisciplinary track. Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Total Program requirements with this concentration: **75** hours minimum

Core Requirements:

EEX 7743 Philosophies of Inquiry	3

Courses:

One of the following three-credit hour courses:

EDG 7667 Analysis of Curriculum and Instruction	3
EDG 7692 Issues in Curriculum and Instruction	3
EDH 7225 Curriculum Development in Higher Education	3

Concentration Requirements 18 hours minimum

Note: *At least 12 semester hours must be at 7000 level, or 6000 level courses requiring advanced graduate standing.* Given the variability of students' goals, the Interdisciplinary concentration coursework should be selected in consultation with the major professor.

Cognate: 12 hours minimum

Measurement, Statistics, and Research Design: 11 hours minimum

The following four-credit hour courses are required:

-EDF 6407 Statistical Analysis of Education I	4
EDF 7408 Statistical Analysis of Education II.	4

PLUS

One of the following courses:

EDF 7410 Design of Systematic Studies in Education	4
EDF 7437 Advanced Educational Measurement	3
EDF 7484 Statistical Analysis of Education III	4
EDF 7493 Systems Approaches for Program Planning, Evaluation, and Development	4

OR

Both of the following four-credit hour courses:

EDF 7477 Qualitative Research in Education I	4
And	
EDF 7478 Qualitative Research in Education II	4

Foundations: 7 hours minimum

Philosophical, Social, Historical Foundations

One of the following courses satisfies this requirement:

EDF 6531 History of Childhood: Disability and Deviance	3
EDF 6705 Gender and the Educational Process	3
EDF 6736 Education, Communication, and Change	3
EDF 6765 Schools and the Future	4
EDF 6883 Issues in Multicultural Education	4
EDF 7586 Classics in Educational Research	4
EDF 7682 Education in Metropolitan Areas	4
EDF 7934 Seminar in Social Foundations	4

Educational Psychology
Prospective students need to consult with Program Coordinator for Educational Psychology in the Psychological and Social Foundations Department for appropriate courses, or consult the listing in the general College of Education section of the graduate catalog.

Doctoral Dissertation **24 hours minimum**

~~READING AND LANGUAGE ARTS EDUCATION~~

LITERACY STUDIES (DRD)

Offered from the Department of Childhood Education and Literacy Studies

~~The concentration program has been designed primarily to prepare professionals in the area of literacy who will work as teacher educators and researchers at the university level, and leaders and researchers at the district level. The philosophical underpinnings of the program lie in the identification of the roles of teacher educators working in the university settings.~~ The doctoral program in Curriculum and Instruction with a Concentration in Literacy Studies ~~Reading/Language Arts~~ prepares research scholars with expertise in literacy processes, literacy instruction, and literacy teacher education.

The program features in-depth exploration of literacy theories and research, the broad study of systematic inquiry skills, apprenticeship learning of various research methodologies, the development of personalized strands of research, and a mentored residency experience in literacy teacher education.

The program features:

- Research based on the highest standards of discovery, creativity, and intellectual attainment.
- Teaching as a process of interactivity and community involvement in which literacies are viewed as mediated competencies within a participatory culture.
- Service to the Community to enrich the lives of students and teachers by promoting the importance of advocacy and autonomy through the development of literacies in the lives of children, adolescents, and adults.
- Global Perspectives broadened through partnerships in diverse communities that embrace multiple perspectives and transmediated literacy practices.
- Technology as a tool for playing, performing, simulating, appropriating, multitasking, distributing cognition, collecting intelligence, judging, networking, navigating, and visualizing. In other words, technology as new media literacies. www.newmedialiteracies.org
- Student Success as a shared responsibility and mutual goal of the doctoral student, faculty, and program.

~~The program features an in-depth focus on literacy theoretical models and processes, research on struggling and under-performing students (K through adult), literature and content texts, critical literacy, multi-media literacies, literacy within and across the content areas, and literacy teacher education. The program features a broad study of systematic inquiry skills essential to the study of literacy. The program also guides students through an apprenticeship experience as they learn various research methodologies and establish lines of research.~~

Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Total Program requirements with this concentration: 69 hours minimum

Core Requirement:

EEX 7743 Philosophies of Inquiry 3

Research Methods and Tools 20 hours minimum

EDF 7408 Statistical Analysis for Educational Research II 4
EDF 7410 Design of Systematic Studies in Ed 4

EDF 7437 Adv Measurement 1 3
OR
EDF 7484 Statistical Analysis for Ed Research III 4
OR an equivalent course in statistics/measurement/research design

EDF 7477 Qualitative Research in ED 1 4
OR introductory equivalent selected in consultation with program committee 3-4

EDF 7478 Qualitative Research in Ed II 4

OR introductory equivalent selected in consultation with program committee 3-4

Specialized Research Methods Course selected in conjunction with program committee 3

Concentration Requirements 42~~18~~ hours minimum

~~To be determined with program director~~

Literacy Studies Courses (21 hours minimum: students select 7 courses)

RED 7745 Research in Reading Instruction	3
LAE 7868 Symbolic Processes of Multimedia Literacy	3
LAE 7794 Survey of Research on Writing Development and Instruction	3
RED 7640 Research in Trans-disciplinary Texts and Teaching	3
LAE 7718 Linguistic Foundations in Literacy	3
EDG 7046 Trends and Issues in Ed Policy: Literacy and Teacher ED	3
LAE 7745 Literary Theory and Research in Children's Literature	3
RED 7931 Special Topics in Reading	3

CELS Professional Development Courses 12 hours minimum

EDG 7938 Adv Graduate Seminar; Intro to Research	3
EDG 7939 Adv Grad Seminar: Research in Progress	3
EDH 7325 Supervised Teaching in Childhood Ed and Literacy Studies	3
EDH 7326 Supervised Teaching in Childhood Ed and Literacy Studies	3

Cognate: 9~~12~~ **hours**

Recognizing the social, cultural, and developmental factors that affect literacy teaching and learning, we encourage doctoral students to explore fields of study that broaden their knowledge of other disciplines and that offer a different lens through which students may understand and explore literacy studies. We ask students to identify a minimum of three courses to form a cognate.~~To be determined with program director~~

~~The cognate can be described as a secondary concentration or sub-specialization area.~~ Coursework must be taken at the graduate level, and the cognate is developed in consultation with the major professor and the doctoral committee. The coursework in the cognate is developed in support of the student's research objectives.

~~To be determined with program director~~

~~**Measurement/Statistics/Research/Design:** 9 hours~~

~~EDF 6407 Statistical Analysis for Educational Research I **AND**~~	~~4~~
~~EDF 7408 Statistical Analysis for Educational Research II~~	~~4~~
~~**AND**~~	
~~EDF 7410 Design of Systematic Studies in Education **OR**~~	~~4~~
~~EDF 7437 Advanced Educational Measurement I **OR**~~	~~3~~
~~EDF 7484 Statistical Analysis for Educational Research III **OR**~~	~~4~~
~~EDF 7493 Systems Approaches for Program Planning, Evaluation and Development **OR**~~	~~4~~
~~EDF 7477 Qualitative Research in Education I **OR**~~	~~4~~
~~EDF 7478 Qualitative Research in Education II~~	~~4~~

~~**Foundations:** 7 hours minimum~~

~~Electives in Psychological and Social foundations, Philosophical or Historical foundations.~~

Dissertation: ~~2~~4 hours

This concentration includes 20 hours of coursework in research methods and tools as well as 6 hours of seminar courses that specifically apprentice students into the research role. In addition, our annual review process ensures that students engage in research throughout their programs and they receive mentorship from faculty. As a result, we have set the dissertation hours to reflect the minimum needed for enrollment during one academic year.

~~TEACHING AND LEARNING IN~~ MATHEMATICS EDUCATION (DMA)

Offered from the Department of Secondary Education

Each program is highly individualized. Candidates' programs are planned with the approval of a faculty committee based upon previous experience and future goals.

Concentration Admission Information

The admissions committee will consider each candidate in light of his or her unique submission and qualifications. The expectations used by the faculty are:

- An earned master's degree from regionally accredited institutions or an international equivalent
- Undergraduate or master's degree should be in an appropriate education or mathematics related field
- Official GRE scores within the last 5 years with Preferred scores of 600 on the quantitative portion and at least 475 on the verbal portion are expected
- "B" (3.00 on a 4.00 scale) average or higher in all work attempted while registered as an upper division student in the Baccalaureate degree or minimum of 3.0~~5~~ grade point at the master's level
- Successful teaching experience in a K-12 or college level setting preferred
- Demonstrated commitment to personal professional growth and development
- Strong academic, analytic and communications skills
- Statement of purpose
- Three letters of recommendation

Total Program requirements with this concentration:	**65~~74~~** hours minimum
College Core	
EEX 7743 Philosophy of Scholarly Inquiry	3
Secondary Education Core	**9 hours minimum**
ESE 7415 Teaching and Learning in Content Areas (required)	3
ESE 7937 Adv Seminar in Sec Ed (required)	3
ESE 7xxx College Teaching (Required)	3
Statistics/Measurement/Research Design	**16 hours minimum**
~~EDF 6407 Stat Analysis I~~	
EDF 7408 Statistical Analysis II	4
Note; EDF 6407 is a pre-req to enroll in this course	
EDF 7410 Design of Systematic Studies in Ed	4
EDF 7477 Qual Res in Ed I	4
Additional research methodology course to be determined by the program faculty ~~base don~~based on the orientation of the student's research agenda and prior preparation	
Concentration Requirements	**24~~18~~** hours minimum
MAE 7655 Research Issues in Technology	3
~~MAE 7146 Curr History and Res~~	~~3~~
MAE 7xxx Curr History and Policy	3*
MAE 7xxx Curr Design and Research	3*
MAE 7794 Preparing K-12 Math teachers	3
MAE 7796 Research Issues	3
MAE 7138 Assessment Issues	3
MAE 7xxx Learning Theories in Math Ed	3
MAE 7945 Practicum	3
OR MAE 7910 Directed Research	3

Cognate or Electives 9 hours minimum

MAE students are required to complete a cognate or a set of electives. Courses consistent with the student's program of study selected with the approval of a program committee. Courses in the Electives or Cognate must be taken at the graduate level.

[HK4].~~Students must be registered for nine (9) hours of coursework, two semesters in a twelve month period. The expectation is that students will work no more than half time employment during the residency period.~~

Doctoral Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy. The Exam is composed of three distinct sections that represent expected areas of student competency (Synthesis of Math Education Research, Utilization of Professional Expertise, and Evaluation and Design of Research Studies). A student's cognate area is viewed as connected to his or her math experiences, rather than a separate and unrelated area. As such, the cognate will be embedded into the QE as appropriate.

Dissertation 4~~18~~ hours

MEASUREMENT AND EVALUATION (DME)

Offered from the Department of Educational Measurement and Research

The Ph.D. in Curriculum and Instruction with a concentration in Measurement and Evaluation focuses on the development of systematic inquiry skills essential to the study and evaluation of education processes and outcomes. The intent of the program is to develop personnel to work in universities, school districts, government agencies, commercial test publishing and program evaluation enterprises. The doctoral program emphasizes research in inquiry methodology and applied problems in education and the behavioral sciences. A supervised practicum provides opportunities to apply methods in systematic inquiry or evaluation in various settings. In sum, methodological skills are developed within a programmatic context that encourages growth of knowledge about education, considers important principles of research, and provides a clinical setting in which these elements can be fused into professional applications.

Emphasis is placed on those aspects of research and evaluation design, measurement, statistical analysis, and systems approaches that are relevant to both decision-oriented and conclusion-oriented research. Inquiry methods include traditional experimental and quasi-experimental designs as well as survey, policy analysis, historical, ethnographic, case study, naturalistic and mixed methods approaches. The intent of the program is to develop instructional and research personnel who can strengthen the training, research and development capabilities of agencies and institutions concerned with education. While the doctoral program in measurement, research, and evaluation emphasizes methodology, concentration in substantive disciplines within education and/or the social sciences is possible. Concentration in a cognate provides a context within which the methods of systematic inquiry may be applied. Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Total Program requirements with this concentration: **93** hours minimum

Core Requirements:

EEX 7743 Philosophies of Inquiry 3

Process Core

Psychological and Social Foundations of Education 7 hours minimum

Students must take at least one course from each of the following areas:

Psychological Foundations of Education

Social Foundations of Education

Statistics/Measurement/Research Design: 19 hours minimum

EDF 6407 Statistical Analysis for Educational Research	4
EDF 7408 Statistical Analysis for Educational Research II	4
EDF 7484 Statistical Analysis for Educational Research III	4
EDF 7437 Advanced Educational Measurement I	3
EDF 7438 Advanced Educational Measurement II	4
EDF 7410 Design of Systematic Studies in Education	4

Curriculum and Instruction: 3 hours

EDG 7667 Analysis of Curriculum and Instruction	3
EDG 7692 Issues in Curriculum and Instruction	3
EDH 7225 Curriculum Development in Higher Education	3

Concentration Requirements 28 hours minimum

EDF 7484 Statistical Analysis for Educational Research III	4
EDF 7485 Theory and Practice of ~~Educational~~ Program Evaluation	3
EDF 7488 Problems in Educational Data Analysis	2
EDF 7493 Systems Approaches for Program Planning, Evaluation and Development	4
EDF 7655 Organization Development in Educational Institutions **OR** course recommended by doctoral committee	4
EDG 79l0 Directed Research	3

EDF 7940 Practicum In Educational Planning , Evaluation, and Development 8

Cognate: 12 hours minimum

Coursework to be selected from area other than concentration area based on student's professional interests with approval of the doctoral supervisory committee

Qualifying Examination:

The student will be required to take the doctoral comprehensive qualifying examination on completion of formal coursework as outlined on the approved program of study(or in the semester in which all formal coursework will be completed). The student in consultation with his/her major professor and/or doctoral committee will select one of the two options for the qualifying examinations: a) a 12-hour written examination administered over a 3-day period that will integrate the work in the student's area of concentration, cognate area and educational foundations area, or b) the development of a comprehensive scholarly paper that requires the student to demonstrate a depth of understanding and appropriate application of principles in the areas of measurement, evaluation, research design, statistical analyses, and educational foundations **.**

Dissertation: 24 hours minimum

Students may be required to take additional hours depending on the course of study and or academic deficiencies. Please check with the program before applying.

~~TEACHING & LEARNING IN~~ SCIENCE EDUCATION (DSC)

Offered from the Department of Secondary Education

The Curriculum and Instruction degree is offered with a concentration area in Science Education. Each program is highly individualized. Candidates' programs are planned with the approval of a faculty committee based upon previous experience and future goals. Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Concentration Admission Requirements

- Earned degrees from regionally accredited institutions or an international equivalent
- Submit official GRE scores. Scores of 600 on the quantitative portion and 475 on the verbal portion are expected
- ~~A "B" (3.00 on a 4.00 scale) average or higher in all work attempted while registered as an upper division student in the Baccalaureate degree, or a 3.5 grade point at the Master's level.~~
- ~~Proof of educational or professional experience~~
- Three letters of recommendation
- Interview (preferably in person or in some cases, conducted over the phone)
- Personal Statement of goals and philosophy related to science education
- Recommendations from Program Faculty
- 3.50 GPA on a 4.00 scale for all graduate work and 3.00 for the last 60 hours of undergraduate studies,
- An undergraduate major in the ~~social sciences or humanities, social sciences~~ STEM fields (science, Technology, engineering or mathematics) or science education or a closely related field form a regionally accredited institution,
- A master's degree in ~~social~~ science education or closely related field form a regionally accredited institution
- Successful teaching experience in a formal or informal education K-12 setting,
- Demonstrated commitment to personal professional growth and development

International Students

All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, **etc.).**

Total Program requirements with this concentration: ~~74~~**60** hours minimum

Core Requirement:

EEX 7743 Philosophies of Inquiry	3

Secondary Education Core:	9 hours minimum
ESE 7343 Teaching and Learning in the Content Areas **AND**	3
ESE 7937 Advanced Seminar in Secondary education	3-6
ESE 7XXX College Teaching	3

In extenuating circumstances, program may substitute an independent study course if needed by a student. However no more than 3 credit hours in this category can be independent study hours.

Statistics/Measurement/Research Design:	~~16~~ 14 hours minimum
EDF 6407 Statistical Analysis I	4

EDF 7408 Statistical Analysis II 4
Selection of one qualitative course with approval from prog committee 3-4
Selection of additional 7000 level quantitative, qualitative and/or methodological course approved by prog committee 3-4

Concentration Requirements 24~~18~~ hours minimum

Courses may include, but not be limited to:

SCE 7XXX Adv Seminar in Science Education: Philosophy and Nature of Science 3
SCE 7XXX Adv Seminar in Science Education: Curriculum, Instruction & Assess 3
SCE 7XXX Adv Seminar in Science Education: Historical, Social & Epistemological Foundations of Science Education 3
SCE 7XXX Adv Seminar in Science Education: Theories and Practice of Science Teaching and Learning 3
SCE 7XXX Adv Seminar in Science Education: Adv Trends & Res in Sci Ed 3
SCE 7910 Directed Research 9-15

Courses from related program areas may be used in this area with permission of the individual's ~~program coordinator~~ doctoral program committee.

Cognate: 9~~12~~ hours

SCE students may complete a cognate or a set of science education electives.
Science Education electives include:

SCE 6634 Current Trends in Science Education 3
SCE 7697 Socioscientific Issues in Science Education 3
SCE 7931 Community Building in Science Education 3
SCE 6645 Mathematics and Science Educ Policy, Change & Sch Improvements 3

Courses consistent with the student's program of study selected with approval of the individual's doctoral program committee. Courses in the Cognate must be taken at the graduate level.

Doctoral Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy.

Dissertation 4~~18~~ hours minimum

SECONDARY EDUCATION (DSD) – Currently not open for admissions

Offered from the Department of Secondary Education

The department of Secondary Education offers this program with a concentration entitled Teaching and Learning in the Content Area: General Education. A minimum of 75 hours beyond the Master's degree is required. This program is highly individualized. Candidates' programs are planned (with approval by a faculty committee) based upon previous experience and future goals.~~For information in this catalog, refer to "Teaching and Learning in the Content Area: General Education Concentration."~~

Total Program requirements with this concentration:	75 hours minimum
Concentration Requirements	18 hours minimum

~~TEACHING AND LEARNING IN~~ SOCIAL SCIENCE (DSO) – ~~74 HOURS~~

Offered from the Department of Secondary Education

The Curriculum and Instruction degree is offered with a concentration area in ~~Teaching and Learning in the Content Area:~~ Social Science Education. Each program is highly individualized. Candidates' programs are planned with the approval of a faculty committee based upon a student's previous experience and future goals.

Concentration Admission Deadline: **Fall: February 15**

Concentration Admission Requirements

For consideration for admission, students must submit:

- Official GRE scores (dating back no longer than five years)
- Official transcripts from regionally accredited institutions
- A statement of professional goals
- 3 letters of recommendation from prior professors, and/or school administrators and
- Complete an interview with the doctoral program coordinator.

Admission Criteria

The admissions committee will consider each candidate in light of his or her unique submission and qualifications. The expectations used by the faculty are:

- 3.50 GPA on a 4.00 scale for all graduate work and 3.00 for the last 60 hours of Undergraduate
- An undergraduate major in the social sciences or humanities, social sciences education or a closely related field from a regionally accredited institution,
- A master's degree in social sciences education or closely related field from a regionally accredited institution,
- Successful teaching experience in a K-12 setting,
- Demonstrated commitment to personal professional growth and development,
- Strong academic, analytic and communications skills.

Total Program requirements with this concentration: **64** hours minimum

Core Requirements:

College Core **3 hours minimum**

EEX 7743 Phil. Of Scholarly Inquiry (3)

Secondary Education Core **6 hours minimum**

ESE 7343 Tching & Lrning in Content Area (Required)	3
ESE 7937 Advanced Seminar in Secondary Education (Required)	3
ESE College Teaching (Optional)	3
SSE 7910 Independent Study (Optional)	3

Note: Under special circumstances, program may substitute an independent study course if needed by a student. However, no more than 3 credit hours in this category can be independent study hours.

Statistics/Measurement/Research Design **1~~4~~6 hours minimum**

~~EDF 6407 Statistical Analysis I (4)~~	
EDF 7408 Statistical Analysis II	4
Note: EDF 6407 is a prerequisite to enrolling in EDF 7408	
EDF 7410 Design of Systematic Studies in Education	4
~~EDF 7477 Qual Res in Educ I (4)~~	
Selection of one qualitative course with approval from program committee.	3-4

Selection of additional 7000 level quantitative, qualitative and/or methodological course approved by program committee. 3-4

Or courses to be determined by the program faculty based on the orientation of the student's research agenda and prior preparation.

~~Psychological and Social Foundations 7 hours~~
~~EEX 7743 Phil. of Scholarly Inquiry (3)~~
~~EDF 7145 Cogn. Issues in Instruction (4)~~

Concentration: **~~18~~ 28 hours minimum**

Social Science Education:
The requirements are as follows or as recommended by the doctoral coordinator, program faculty, or doctoral committee, and approved by the college and/or Graduate School.

SSE 7700 Social Science Curriculum and Instruction Issues	4
SSE 7710 Research in Social Science Education	4
SSE 7720 Social Science Education Technological Innovations	4
SSE 7730 Philosophy of Social Science Education	4
SSE 7740 History of Social Studies Education	4
SSE 7945 Appld Rsch Soc Sc Ed – SSE	8*

*(2 hours repeated with SSE 7730, SSE7720, SSE7700 and SSE 7710 This course engages SSE students in establishing an active research/scholarly agenda that leads toward independent scholarship and successful, timely completion of the doctoral degree.)

Cognate:

~~12~~ 9 hours

SSE students are required to complete a cognate or a set of electives. Courses consistent with the student's program of study are selected with the approval of the student's program committee. Courses in the Cognate must be taken at the graduate level. Although it is expected that all SSE Ph.D. students will satisfy the "teaching in higher education" requirement through direct experience teaching courses in the program, they may opt to take the proposed "college teaching" course under consideration by the department as an elective or part of their Cognate. ~~Courses consistent with the student's program of study selected with the approval of a program committee. Courses in the Cognate must be taken at the graduate level.~~

Doctoral Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy.

Dissertation: **~~18~~ 4hours minimum**

SSE 7980 Dissertation Research
~~The Graduate School policy is that after the qualifying exam, the student must register for two hours of SSE 7980 Dissertation Research each semester until they graduate~~[c5].

SPECIAL EDUCATION (DSE)

Offered from the Department of Special Education

The doctoral program in Curriculum and Instruction with a Concentration in Special Education focuses on urban special education and university-school partnerships in preparing researchers, teacher educators, and school leaders. Graduates of the program will have an informed perspective on ethical issues in the interactions of race, ethnicity, social class, gender, and disability; and the impact of these issues on special education policies, research, teacher education and services. Program graduates will demonstrate knowledge and skills in the design, implementation and maintenance of university-school partnerships; an interdisciplinary grounding in and respect for multiple genres and methods of inquiry; the ability to conceptualize, plan and conduct research; and the ability to value the conceptual and analytical skills of a scholar. The Department emphasizes interdisciplinary research and development. Faculty members in several departments have joint appointments in special education. After admission to a program, the student will be assigned a doctoral program advisor who will assist in identifying a major professor. Accredited by the Commission on Colleges of the Southern Association of College and Schools

Concentration Admission Requirements:
Requirements for all applicants:

- Have a master's or educational specialist's degree, or equivalent, from a regionally accredited college or university (or international equivalent).
- Have earned a GPA of at least 3.0 on a 4.0 scale in upper division undergraduate coursework, or a minimum GPA of 3.5 on a 4.0 scale in graduate coursework.
- Have submitted official Graduate Record Examination (GRE) scores.
- Provide three letters of recommendation from professionals who are familiar with their scholarship and work history.
- Provide evidence of at least three years of successful work experience in relevant professional roles.
- Present self professionally in an oral interview with two or more faculty members.
- Demonstrate the ability to write professionally by submitting a spontaneous writing sample at the time of the interview.
- Provide a statement of professional goals (immediate, intermediate, and long term) and research interests. Professional goals and research interests should be compatible with the opportunities provided through a doctoral degree in special education.
- Receive endorsement by the majority of tenured and tenure-earning faculty members in the department.

For international applicants: Applicants whose native language is not English or who have ~~not~~ earned a degree ~~in~~ outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores). In addition to these university requirements, applicants to the college of Education must provide the following: 1) An external, courses by course evaluation of the foreign degree by an approved external agency, and based on official transcripts; 2) A social security number in degree programs requiring practica or internships; 3) Other information as required of all other applicants to the Ph.D. Program in Special Education.

Total Program requirements with this concentration: 84 hours minimum

Concentration Requirements **24 hrs**

EEX 7743 Philosophies of Inquiry (3 hrs)

EEX 7744 C&I Issues in Urban Spec Ed (3 hrs)
EEX 7815 Research Seminar (7 hrs)
EEX 7939 Teacher Education in Special Education (8 hrs)
EDF 7230 Special Education Law (3 hrs)
EEX 7911 Special Ed Leadership Seminar (3 hrs)

Measurement/Statistics/Research Design: **18 hrs**

In addition to the specialization requirements, all students must complete at least 18 hours of coursework in Measurement/Statistics/Research Design, including:

EDF 6407: Stat Anal Educ I (4 hrs)
EDF 7408: Stat Anal Educ II (4 hrs)
And,
Two qualitative research methods courses (6 hrs. minimum).
And,
EDF 7410 Design of Systematic Studies in Education (4 hrs.)

Foundations **6 hrs**

EEX 7745: Historical, Ethical, & Disciplinary Foundations of Special Education (3 hrs.)
EDG ____ (Students may select from the College of Education approved listing of courses in Educational Psychology Foundations) (3 hrs.)

Doctoral Program Cognate **12 hrs**

The cognate consists of an organized course of study consisting of at least 12 hours in an area of interest to the student, and as approved by the Major Professor. Students in special education complete cognates in areas such as:

Teacher Education
Education Policy and Leadership
History, culture, families, and politics in urban settings
Positive behavior supports
Philosophy, ethics, and disability
Gifted education and talent development
Low incidence disabilities and autism

Doctoral Qualifying Examination:

All students must perform successfully on a doctoral qualifying examination as part of the criteria for admission to candidacy.

Dissertation

EEX 7980: Dissertation: Doctoral **24 hrs**

STUDENT AFFAIRS ADMINISTRATION (DSA) – Currently not open for admissions

Offered from the Department of Secondary Education

This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Total Program requirements with this concentration: **75** hours minimum

Concentration Requirements 18 hours minimum

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content

Electives: **6 hours**

5000 or 6000 level coursework subject to area advisor approval.
These courses are intended to complement the specialization.

TEACHING AND LEARNING IN THE CONTENT AREA: GENERAL EDUCATION (DTL) - Currently not open for admissions

Offered from the Department of Secondary Education

A minimum of 75 hours beyond the Master's degree is required. This program is highly individualized. Candidates' programs are planned (with approval by a faculty committee) based upon previous experience and future goals.

~~The M.Ed. degree in Curriculum and Instruction is a flexible program intended to improve the skills of the classroom teacher. The program will be planned with the student's advisor. At least 60 percent of the program hours must be at the 6000 level. Accredited by the Commission on Colleges of the Southern Association of College and Schools.~~

Total Program requirements with this concentration: **75** hours minimum

Concentration Requirements 18 hours minimum

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content

Electives: **6 hours**

5000 or 6000 level coursework subject to area advisor approval.
These courses are intended to complement the specialization.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

EARLY CHILDHOOD EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
This degree program is open only to students who are part of the Jamaica program cohort.
Not currently open for admissions

Minimum Total Hours: 38 hours minimum
Program Level: Masters
CIP Code: 13.1210
Dept Code: EDR
Program (Major/College): ANK ED

CONTACT INFORMATION

College: Education
Department: Childhood Education and Literacy Studies

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
The M.A. program is designed for students with a bachelor's degree in Early Childhood Education with appropriate initial certification. It is for students who desire to expand expertise in the field and hold leadership positions.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent.

Requirements for applicants include:

- Minimum upper division GPA of 3.0 on a 4.0 scale in an upper division baccalaureate degree, or a first or second-class honors.
- GRE is required for applicants with an upper-division baccalaureate GPA below 3.0 on a 4.0 scale.

For International applicants: Applicants whose native language is not English or who have not earned a degree in the U.S. must, according to university policy, submit a TOEFL score (minimum of 550 paper-based, 213 computer-based, or 80 internet-based test). In addition to these university requirements, applicants to the College of Education must provide an external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts.

DEGREE PROGRAM REQUIREMENTS

38 hours minimum

Core Requirements

EEC 6931	Ch Dev Issues of Teaching and Learning	3
EDG 6481	Fdns of Ed Research	3

Program Core

EDF 6938	Issues, Trends, and Dev in ECE in Jamaica	3
EDG 6931	Intro to Statistics	3

Trends

EEC 6672	Research Seminar: Issues, Trends and Advocacy in ECE	3

Concentration Requirements

EEC 6931	Special Topics/Intro to Technology	~~(~~2~~)~~
EEC 6265	EC Programs and Adv Curriculum	3
EEC 6626	EC Play and Learning	3
EEEC 6525	EC Program Dev and Admin	3
EDG 6935	Seminar in Curriculum Research	3
EDG 6931	Supervising Interns and Student Teachers	3
EEC 6205	Curriculum and Authentic Assessment	3
EEC 6055	Advocacy and Leadership in ECE	3

Comprehensive Exam

Students need to be registered for at least two graduate credit hours during their final semester in order to take the exam.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

EDUCATIONAL LEADERSHIP PROGRAM

Master of Education (M.Ed.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	~~February~~ March 15
~~**Spring:**~~	~~October 15~~

Minimum Total Hours:	36
Program Level:	Masters
CIP Code:	13.0401
Dept Code:	LEA
Program (Major/College):	CAS ED

CONTACT INFORMATION

College:	Education
Department:	Educational Leadership and Policy Studies
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

Program Description

The M.Ed. educational leadership prepares school leaders to perform their designated task in an effective, ethical and efficient manner. The degree provides coursework that meets the Florida Principal Leadership Standards for K-12 schools in instructional leadership, operational leadership and school leadership. Successful completion of the program fulfills degree and core curriculum requirements for Florida certification in Level I K-12 Educational Leadership – Administrative Class. If you require further information, please contact the M.Ed. Program Coordinator.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (SACS); The National Council for the Accreditation of Teacher Education (NCATE); and the Florida Department of Education.

ADMISSION INFORMATION

Applicants must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Admission to the Master of Educational Leadership (M.Ed.) program in Educational Leadership occurs each spring. Admission to the M.Ed. program is based on a holistic evaluation of each applicants' demonstrated academic potential to complete all of the degree requirements successfully. Success in the M.Ed. program requires a commitment to utilizing rigorous inquiry, applying excellence in research methods, and to developing exceptional policy writing skills. The program faculty will consider each applicant within the context defined by her or his personal and professional qualifications.

Program Admission Requirements

- An earned bachelor's degree from a regionally accredited institution of higher education or an international equivalent.
- A minimum 3.00 GPA on a 4.00 scale in upper division undergraduate coursework.
- A valid Florida Professional Educator's Certificate (please provide a clear copy showing border and State seal with your application).
- Two years of teaching experience

- Proof of English for Speakers of Other Languages (ESOL) training (e.g. ESOL endorsement; completion of ESOL certification exam plus 120 hours of ESOL district in-service training; or, completion TSL 5085; ESOL 1 or equivalent)
- ~~Teaching under a full-time contract for a minimum of two years. Confirmation may be required.~~
- Proof of English for Speakers of Other Languages (ESOL) training (e.g., ESOL endorsement; completion of ESOL certification exam plus 120 hours of ESOL district ~~in-service~~in-service training; or, completion TSL 5085: ESOL 1 or equivalent);~~Proof of English for Speakers of Other Languages (ESOL) training (3-hour course or 60 hours of district in-service education; applicants who do not possess this training will be required to complete TSL 5085).~~
- A letter of intent (brief statement outlining experience and goals for the degree).
-
- Three letters of professional recommendation from persons knowledgeable about the applicant's academic and professional competence.

Note: Contact the department if you do not meet the above criteria. Non-degree seeking coursework or the Graduate Record Examination may be required if an applicant's GPA is below 3.00.

International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours	**36 hours**
Core Requirements	
Process Core	**(9 hours)**
EDF 6492 Applied Educational Program Evaluation	3
EDG 6627 Foundations of Curriculum and Instruction	3
EME 6425 Technology for School Management	3
TSL 5085 ESOL	1 3
[waived with documentation of 3-hour course or 60 hours of district in-service education]	
~~Concentration~~ Course **Requirements**	**(24 hours)**
EDA 6061 Principles of Educational Administration	3
EDA 6106 Administrative Analysis and Change	3
EDA 6192 Educational Leadership	3
EDA 6232 School Law	3
EDA 6242 School Finance	3
EDA 6503 The Principalship	3
EDG 6285 School Curriculum Improvement	3
EDA 6194 Educational Leadership II: Building Capacity	3
Practicum	**(3 hours)**
EDA 6945 Administrative Practicum (last semester)	3
Comprehensive Exam	
Portfolio (last semester with Practicum)	

Graduation Requirement

The Florida Educational Leadership Exam (FELE) must be passed prior to graduation.
Official score report submission required.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Modified Educational Leadership Program

Program Description

The modified program in educational leadership is for those persons with an earned master's degree in a field other than educational leadership and who wish to add educational leadership to their Florida Professional Educator's Certificate. The modified program is a non-degree program consisting of approximately 24-30 hours of coursework that meets Florida Principal Leadership Standards for K-12 schools in instructional leadership, operational leadership and school leadership. Successful completion fulfills program and core curriculum requirements for Florida certification in Level I K-12 Educational Leadership–Administrative Class. The number of courses required will vary, depending upon the student's master's degree coursework.
Information: http://www.coedu.usf.edu/main/departments/edlead/certification.html

Once certified in Educational Leadership by the Florida Department of Education, students who wish to pursue a higher degree may be able to have some eligible credits earned in the modified program considered for transfer to a Specialist (Ed. S.) program.

Modified Educational Leadership Program continued

Admission Information:

Admission requirements:

- A Master's degree from a regionally accredited institution with a minimum 3.0 GPA
- Official (original & sealed) Master's and Bachelor's transcripts. (Degrees earned from USF do not require transcripts.)
- A valid Florida Professional Educator's Certificate (please provide a copy clearly showing border and seal).
- Proof of English for Speakers of Other Languages (ESOL) training (3 hour course or 60 hours of district in-service education)
- Three letters of professional recommendation
- A letter of intent (brief statement outlining experience and goals).
- Evidence of teaching under a full-time contract for a minimum of two years.

Minimum Total Hours: **30 hours**

Program requirements: Those completing the certification program are required to complete an ESOL training requirement. If you have not completed a 3-credit-hour course in ESOL or do not have documentation of the completion of sixty (60) hours of ESOL district in-service education, you will be required to complete TSL 5085**.** You should include documentation with your application if the requirement has already been met. In addition to coursework, successful completion of the Florida Educational Leadership Exam (FELE) is required for certification. Upon successful completion of the necessary courses, students will receive a stamp on their transcript indicating completion of a modified educational leadership program; however**, the student must apply to the FLDOE for state certification.**

Courses: Please see the Educational Leadership M.Ed. course listing. The number of courses required will vary depending upon the student's master's degree coursework. Applicants wanting consideration of previous Master's coursework must supply a university catalog course description for each course they want reviewed and indicate which USF course may be comparable. The faculty program coordinator will evaluate coursework to determine acceptability and applicants will be provided with a list of recommended courses for completion of the Modified Program.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

EDUCATIONAL LEADERSHIP PROGRAM

Education Specialist (Ed.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Summer~~Fall~~: ~~February~~ March 15

Minimum Total Hours: 36
Program Level: Specialist
CIP Code: 13.0401
Dept Code: LEA
Program (Major/College): SAS ED

CONTACT INFORMATION

College: Education
Department: Educational Leadership and Policy Studies

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The Ed.S. degree is an advanced graduate degree beyond the master's degree but below the doctorate. The Ed.S. provides professional educators who already possess certification in educational leadership (K-12) with an opportunity to develop competencies in areas of special needs and interests. The degree is flexible, and each student's program is individually planned in consultation with a 3-member faculty program committee. The Ed.S. program requires 15 semester hours of major coursework at the doctoral level, 9 semester hours at the master's or advanced graduate level, and 3 semester hours in the area of research methods. A thesis/project is also required (9 semester hours) for a minimum total of 36 semester hours. There is also a comprehensive examination required. The student must have a supervisory committee consisting of three faculty members credentialed for advanced graduate committee work.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools (SACS); the National Council for the Accreditation of Teacher Education (NCATE).

ADMISSION INFORMATION

Applicants should contact the Program Advisor prior to applying to Graduate Admissions. Admissions for the Specialist program occur each fall. Applicants must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Admission Requirements

Admission to the Education Specialist (Ed.S.) program in Educational Leadership occurs each spring. Admission to the Ed.S. program is based on a holistic evaluation of each applicants demonstrated academic potential to complete all ~~fo~~of the degree requirements successfully. Success in the Ed.S. program requires a commitment to utilizing rigorous inquiry, ~~applying~~applying excellence in research methods, and to developing ~~e~~exceptional~~e~~exceptional policy writing skills. The program faculty will consider each applicant within the context defined by her or his personal and professional qualifications. Applicants meeting a set of initial criteria will be asked to submit a writing ~~smaple~~sample and complete an oral interview.

Preferred Applicants should have~~must~~:

- An earned master's degree from an accredit institution of higher education
- An earned grade point average of 3.50 in their master's degree and an earned undergraduate GPA of 3.00 in the last ~~hal~~half of the baccalaureate

- ~~Submit a~~An official Graduate Record Examination score taken within the last five years [verbal, quantitative, and analytical writing] with no Quantitative or Verbal sub-test score below 500;

- A statement of purpose~~Hold a Master's degree from a regionally accredited institution with an earned GPA of at least 3.5 on a 4.0 scale;~~

- A current resume or CV

- Writing sample based on a DELPs ~~promp~~prompt

- Three letters of recommendation from persons knowledgeable about the applicant's academic and professional competence

- ~~Hold a valid Florida Professional Educator's Certificate in Educational Leadership (K-12); (please provide a clear copy showing border and State seal);~~

- ~~Submit three letters of recommendation from persons knowledgeable about the applicant's academic and professional competence;~~

- ~~Complete writing sample on site;~~

International Students

All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours **36 hours**

Concentration Requirements: **15 hours**

EDA 7222 Administration Of School Personnel Policies and Practices	3
EDA 7233 Legal Dimensions Of School Administration	3
EDA 7247 Advanced School Finance	3
EDS 7130 Teacher Evaluation: Process and Instruments	3
EDG 7667 Analysis of Curriculum and Instruction	3
OR	
EDG 7692 Issues in Curriculum and Instruction	3

Concentration Electives **9 hours**

May be taken at the Master's and/or Advanced Graduate (6000 or 7000) levels from the areas of Educational Leadership, K-12; Higher Education-Community College, Adult or Vocational Education; or Instructional Technology

Core Elective **3 hours**

Taken from the Department of Educational Measurement/Research at the graduate level.

Comprehensive Exam

EDA 6971 Thesis/Project **9 hours**

Includes written comprehensive examination and oral defense of thesis/project.

Residency Requirement

There is no residency requirement for the Ed.S. program.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

EDUCATIONAL LEADERSHIP PROGRAM

Doctor of Education (Ed.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Summer~~Fall~~: ~~February~~ March 15
~~Spring: October 15~~

Minimum Total Hours 76
Program Level: Doctoral
CIP Code: 13.0401
Dept Code: LEA
Program (Major/College): EAS ED

Concentration:
College Leadership –
~~C~~oncentration is currently not open for admissions

CONTACT INFORMATION

College: Education
Department: Educational Leadership and Policy Studies

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Ed.D. degree improves professional practice by enhancing the ability of professional educators to obtain, analyze, and synthesize information at an advanced level for effective education decision making. The doctorate program seeks to develop effective, ethical, and diverse leaders who maximize improvement and achievement in schools and other organziations. Skill application serve as the connection between knowledge and inquiry skills developed in the core curriculum, interdisciplinary electives, and research courses leading to restructured practice and school or organizational improvement.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools (SACS)), and the National Council for the Accreditation of Teacher Education (NCATE).

ADMISSION INFORMATION

Admission to the Doctor of Education (Ed.D) program in Educational Leadership occurs each spring. Admission to the Ed.D. program is based on a holistic evaluation of each applicants' demonstrated academic potential to complete all of the degree requirements successfully. Success in the Ed.D. program requires a commitment to utilizing rigorous inquiry, applying excellence in research methods, and to developing exceptional policy writing skills. The program faculty will consider each applicant within the context defined by her or his personal and professional qualifications. Applicants meeting a set of initial criteria will be asked to complete an oral interview.~~Contact the Program Advisor prior to applying to Graduate Admissions. Admission to the Ed.D. occur each fall and spring. Applicants must meet University requirements (see Graduate Admissions) as well as requirements listed below. Admission to the Ed. D. program is based on a holistic evaluation of the applicants' demonstrated potential to successfully complete all of the course and research requirements of the program. Success in the program requires excellent skills of scholarship in writing and research and a commitment to high quality and systematic inquiry. The program faculty will consider each applicant in light of his or her qualifications and likelihood of success. Applicants meeting these criteria will be asked to complete an oral interview and onsite writing sample.~~

PROGRAM ADMISSION REQUIREMENTS

Preferred Applicants should have~~must~~:

- An earned Master's degree from an accredited institution of higher education
- Have an earned an undergraduate grade point average of 3.00 (B) in the last half of the baccalaureate or a grade point average of 3.50 in the master's degree;
- ~~Submit~~ an official Graduate Record Examination score taken within the last five years [verbal, quantitative, and analytical writing] with no Quantitative or Verbal sub-test score below 500;
- A statement of purpose
- A current resume or CV
- Writing sample based on a DELPS prompt
- ~~Hold a Florida Professional Educator's Certificate in Educational Leadership (K-12); (please submit a clear copy showing border and State seal);~~
- ~~Submit T~~three letters of recommendation from persons knowledgeable about the applicant's academic and professional competence;
- ~~Complete writing sample on site;~~
- ~~Present self professionally in an oral interview with two or more faculty members.~~
-

International Students

All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours: 76 hours

Core Requirements 6 hours

EDG 7667	Analysis of Curriculum & Instruction	3
EDG 7692	Issues in Curriculum & Instruction	3

College Leadership Concentration – Currently not open for admissions

Concentration Requirements 24 hours

EDA 7222	Administration of School Personnel Policies	3
EDA 7233	Legal Dimensions of School Administration	3
EDA 7247	Advanced School Finance	3
EDS 7130	Teacher Evaluation	3
Specialization Electives		9
Computer course		3

Note : At least 16 hours must be at 7000-level, or 6000-level courses requiring advanced graduate standing. Must also include a 6000-level (or above) computer course (EME prefix). This course may be waived and another concentration elective taken if the student shows proof of 600-level computer course.

Required Measurement/Statistics/Research Design 11 hours

EDF 6407	Statistical Analysis Education I	4
EDF 7408	Statistical Analysis Education II	4

Select one of the following courses:

EDF 7410	Design of System Study in Education	4
EDF 7437	Advanced Education Measurement I	3
EDF 7484	Statistical Analysis Education III	4
EDF 7493	System Approaches for Prog. Planning	4
EDF 7477	Qualitative Research in Education I	4
EDF 7478	Qualitative Research in Education II	4

Required Foundations Courses **11 hours**

Choose three 3 7000-level courses (or other doctoral level courses) from the areas below. All required hours may not be taken in one area; at least one 7000-level course (or other doctoral level course) is required in each area.

1. Philosophical/Social/Historical

EDF 6531	History of Childhood: Disability and Deviance	3
EDF 6705	Gender and the Educational Process	3
EDF 6736	Education, Community and Change	3
EDF 6765	Schools and the Future	4
EDF 6883	Issues in Multicultural Education	4
EDF 6938	Special Topics, with program, committee and college approval	
EDF 7530	History of Higher Education	3
EDF 7586	Classics in Educational Research	4
EDF 7649	Analysis of Educational Issues	4
EDF 7682	Education in Metropolitan Areas	4
EDF 7934	Seminar in Social Foundations of Education	4

2. Educational Psychology

EDF 7145	Cognitive Issues in Instruction	4
EDF 7359	Resilience in Human Development	4
EDG 7931	Psychology of Language Development	4
EDG 7931	Adolescent Development	4
EDG 7931	Developmental Theory	4

Dissertation **24 hours**

EDG 7980 Dissertation: Doctoral

Required Examinations

Qualifying Examination is required prior to admission to candidacy and is taken after candidate has completed all required coursework.

Residency

There is no on-campus residency requirement for the Ed.D.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

EDUCATIONAL PROGRAM DEVELOPMENT PROGRAM

Doctor of Education (Ed.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 76
Program Level: Doctoral
CIP Code: 13.0301
Dept Code: CNI
Program (Major/College): EPD ED

Concentrations:
Administration of Special Education (ESE)
Adult Education (EAE)
Elementary Education (EEE)
Vocational Education (EVO)

CONTACT INFORMATION

College: Education

Contact Information: www.grad.usf.edu
Refer to individual concentrations for Contact Information.

PROGRAM INFORMATION

Refer to individual areas of concentration for information.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below. Refer to each area of concentration for program admission requirements or contact department.

For international applicants
Applicants whose native language is not English or who have not earned a degree in the U.S. must, according to university policy, submit a TOEFL score (minimum of 550 paper-based, 213 computer-based, or 80 internet-based test). See the Graduate School website for further clarification and possible exemptions. Please check with program regarding the policy on evaluation of transcripts. For more information, please visit http://www.grad.usf.edu/graduate-admissions-checklist.asp.

DEGREE PROGRAM REQUIREMENTS

Pre-Requisites:
Students may be required to take any or all of the following pre-requisites:

ADE6080	Foundations of Adult Learning	4
ADE6385	The Adult Learner	3
EDF6407	Statistical Analysis for Educational Research I	4

Core Requirements **13 hours**

ADE7930 Doctoral Seminar in Adult Education	4
ADE7388 Adult Development and Learning	3
EVT7761 Research Seminar in Vocational, Technical and Adult Education	3
ADE7947 Advanced Internship:Adult Education	2-4

Curriculum and Instruction **3 hours**

Select one of the following:

EDG7667 Analysis of Curriculum	3
EDG7692 Issues in Curricululm and Instruction	3
EDH7225 Curriculum Development in Higher Education	3
EVT7169 Instructional Development for Vocational, Technical and Adult Education	3

Research And Measurement Requirement **7 hours**

EDF7408 Statistical Analysis for Educational Research II	4
and	
Select one of the following:	
EDF7410 Design of Systematic Studies in Education	4
EDF7438 Advanced Educational Measurement I	4
EDF7484 Statistical Analysis for Educational Research III	4
EDF7493 Systems Approaches for Program Planning, Evaluation and Development	4
EDF7477 Qualitative Research in Education Part I	4
and	
EDF7478 Qualitatiave Research in Education Part II	4

Psychological and Social Foundations Requirement **6 hours**

Select one course from each Foundation area.

Psychological Foundations (Suggested Courses)	
EDF7145 Cognitivie Issues in Instruction	4
EDF7655 Organization Development in Educational Institutions	4
Social Foundations (Suggested Courses)	
EDF6883 Issues in Multicultural Education	4
EDF7934 Seminar in Social Foundations of Education	4
EDF6938 History of Higher Education in the United States	3

Dissertation **24 hours**

Concentration Requirements:

ADMINISTRATION OF SPECIAL EDUCATION (ESE) – Currently not open for admissions.

ADULT EDUCATION (EAE) – 62 HOURS

Offered from the Department of Adult, Career & Higher Education

Description:

Prepares leaders for adult, continuing education, and human resource development positions in a variety of employment settings. The program is designed to develop the competencies of educational practitioners and to obtain and synthesize knowledge for the solution of educational problems and practices.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools

Concentration Requirements

In addition to the Program requirements, students must complete the following concentration requirements:

Students must take the courses listed under the specialization of choice or receive approval from their program of study committee to take other courses. For those who have not earned a

master's degree in adult education, the continuing education and human resource development specialization is the only specialization choice available.

Continuing Education and Human Resource Development Specialization

ADE6198 Effective Continuing Education for Professional Groups	3
ADE7076 Continuing Education in the Community College and Higher Education	3
ADE7676 Human Resource Development Policy Seminar	3

OR

Career and Workforce Development Specialization

ECT7066 Foundations and Philosophy of Vocational-Technical Education	3
ECW7105 Vocational and Adult Education Program Planning and Implementation-	3
ECT6661 Trends and Issues in Career and Technical Education	3

OR

Community College and Higher Education Specialization

EDH6051 Higher Education in America **or**	3
EDH6061 The Community College in America	3
EDH7225 Curriculum Development in Higher Education	3
EDH7636 Organizational Theory and Practice in Higher Education	3
EDH6081 The Community College in Higher Education	3

ELEMENTARY EDUCATION (EEE) – Currently not open for admissions.

Offered from the Department of Childhood Education and Literacy

VOCATIONAL EDUCATION (EVO)

Offered from the Department of Childhood Education and Literacy

Description:

The Ed.D. in Vocational Education is designed to develop the competencies of career and workforce education practitioners in a variety of employment settings. Practitioners will also obtain and synthesize knowledge for the solution of education problems and practices in the field.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools

Concentration Requirements –24 hours minimum

In addition to the Program requirements, students must complete the following concentration requirements:

ECW 7066 Foundations And Philosophy Of Vocational, Technical And Adult Education	3
ECW 7168 Instructional Development For Vocational, Technical And Adult Education	4
ECW 7105 Vocational And Adult Education Program Planning And Implementation	3
ECT 7791 Research Seminar In Vocational, Technical And Adult Education	3
EDG 7931 Comparative Study Of Career And Workforce Education Systems	1-4
EDG 6931 Equity And Access In The New Economy	1-4

Other coursework needed to complete the 24 hours in concentration should be selected in consultation with the major professor and doctoral committee.

Electives

Selected specialization courses may be substituted with elective courses with the approval of the major professor.

Dissertation **24 hours minimum**

Students must be admitted to candidacy before they are permitted to enroll in dissertation hours.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ELEMENTARY EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 13.1202
Dept Code: EDR
Program (Major/College): AEE ED

Concentrations:
Early Childhood (MEA) (Inactive)
Elementary Curriculum (MEL)
Language Arts (MLG) (Inactive)
Science & Mathematics (MSM)

The M.A.T. degree in Elementary Education is available for students seeking initial teacher certification.

CONTACT INFORMATION

College: Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description (Plan I Option)
A program of study designed for those with a bachelor's degree and certification in the discipline who desire to increase their competence in elementary education curriculum. This program is not designed for those seeking initial certification. The Plan III non-certification option is not available in this degree program.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent
In order to be considered for admission, first-time or transferring graduate applicants must:

- Have an earned bachelor's degree or equivalent from a regionally accredited university.
- Have earned a "B" (GPA of 3.0 on a 4.0 scale) average or higher in all work attempted while registered as an upper division student working in a baccalaureate degree in a regionally accredited institution, or GRE score of 540 for math and 460 for verbal if the GPA is between 2.5 and 2.999.
- Have an earned, valid, professional teaching certificate OR
- Be eligible for professional certification through the completion of a Bachelor's Degree (state-approved program) in Elementary Education.

Exceptions to minimum requirements will be considered for applicants who have earned National Board Certification and who have maintained an outstanding professional record.

For international applicants: All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. GRE scores, etc.)

DEGREE PROGRAM REQUIREMENTS

A minimum of 33 hours including 6 hours of process core, 6 hours of program core, and 21 hours of emphasis area courses. National Board Certified Teachers will be permitted to substitute 3 hours from NBC studies for one elective course with receipt of transcript from National Board Program. Please contact program coordinator for more information.

Program of Study **33 hours**

Core Requirements

Process Core: ~~6~~ **hours**

EDF 6215 Learning Principles Applied to Instruction or EDF 6120 Child Development
EDF 6481 Foundations of Educational Research
LAE 6315 Writers and Writing
RED 6449 Literacy and Technology
RED 6748 Teacher Researcher Methods in Reading
Elective Trends Course in area of focus

Concentration Requirements **6 hours**

Students select from one of the following concentration areas:

EARLY CHILDHOOD (MEA) – Currently not open for admissions.

ELEMENTARY CURRICULUM (MEL)

Offered from the Department of Childhood Education and Literacy

Concentration Requirements

RED 6748 Teacher Research **or** EDG 6935 Seminar in Curriculum Research
LAE 6316 Trends in Literacy in a Diverse Society **or** LAE 6415 Literature and the Learner

LANGUAGE ARTS (MLG) – Currently not open for admissions.

SCIENCE & MATHEMATICS (MSM)

Offered from the Department of

Concentration Requirements

Electives **21 hours**

Elective courses may be chosen from a variety of Departments. Possibilities are 6000 level courses in math, science, social studies, ESOL, and technology (all located in Secondary Education Department). Students may also choose from Early Childhood (EEC) courses located in the Childhood Education and Literacy Studies Department.

Comprehensive Examination: Transition Point Projects

Students must successfully complete a Transition Point Project after each block of courses, culminating in an action research project.

Program and/or course requirements are subject to change, per state legislative mandates, and Florida State Department of Education program approval standards. Please contact Program for more information.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ELEMENTARY EDUCATION PROGRAM

Master of Arts in Teaching (M.A.T.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	53
Program Level:	Masters
CIP Code:	13.1202
Dept Code:	EDR
Program (Major/College):	TEE ED

CONTACT INFORMATION

College:	Education
Department:	Childhood Education and Literacy Studies
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

Program Description
This program is designed for students who have a non-elementary bachelor's degree and who wish to become elementary teachers for grades K-6. Students earn an ESOL endorsement at the same time as a Master's degree in Elementary Education.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent.

Requirements for applicants include:

- Have one of the following
  - bachelor's degree or equivalent from a regionally accredited university, and have earned a "B" (3.0 on a 4.0 scale) average or higher in all work attempted cumulatively or as an upper division student.
  - A graduate degree from a regionally accredited institution with at least a 3.0 GPA for the preceding baccalaureate, or a 3.5 GPA for the graduate degree.
- Passing the General Knowledge Test of the Florida Teacher Certification Exam (preferred option), or Praxis I, or CLAST.
- A personal statement indicating reasons for applying to the program, pertinent personal and professional dispositions, and experiences and/or credentials relevant to teaching.

For international applicants:
Applicants whose native language is not English or who have not earned a degree in the U.S. must, according to university policy, submit a TOEFL score (minimum of 550 paper-based, 213 computer-based, or 80 internet-based test) with the admissions application. See the Graduate Admission website for further clarification and exemptions. Please check with program regarding the policy on evaluation of transcripts. For more information, please visit http://www.grad.usf.edu/graduate-admissions-checklist.asp

International students entering this degree program must obtain a social security number for purposes of practicum, internship and certification testing. An external course by course evaluation of the foreign degree is required with the admissions application

DEGREE PROGRAM REQUIREMENTS

A minimum of 53 hours of coursework (including internships). Students are expected to meet State of Florida testing requirements and Florida State Department of Education program approval standards, and accreditation criteria.

Program of Study: **53 hours**

Core Requirements: **9 hours**
LAE 6415 Literature and the Learner
RED 6514 Reading Process in Elementary Grades
EDE 6326 (or EDE 6804 or EDG 6931) Planning and Organizing: Instructional Strategies for Diverse Learners

Process Core: **6 hours**
EDF 6211 Psychological Foundations or EDF 6120 Child Development
EDF 6432 Measurement for Teachers

Concentration Requirements: **11 hours**
EDE 6946 Practicum in the Elementary School
EDG 6947 Internship
EDE 6458 I and EDE 6458 II Selected Topics: Reflect. on Inst. Decision Making (I and II)

Content Specialization: **27 hours**
TSL 5085 ESOL I: Theory and Practice for Teaching English Language Learners
TSL 5086 ESOL II: Second Language and Literacy Acquisition in Children and Adolescents.
TSL 5242 ESOL III: Language Principles, Acquisition, and Assessment for Teaching English Language Learners
MAE 6117 Teaching Elementary Math
SCE 4310 Teaching Elementary School Science
SSE 6617 Trends in Elementary Social Studies*
RED 6540 Assessment in Literacy
LAE 6315 Writers and Writing
EDE 6506 Classroom Management, School Safety, Ethics, and Law
*students at USF-SM may substitute SSE 4313 Trends in Elementary Social Studies with Program Advisor Approval

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Practicum and Internship
All students are required to complete a two-day a week practicum during their program and a final full-time internship in their last semester. Placements are made for students in local school districts

Comprehensive Examination
Students are required to pass a comprehensive exam to be taken during their final internship semester or in the semester immediately prior to internship.

Tests or Examinations
Students must pass all sections of the Florida Teacher Certification Exam and have an original copy of the results sent to the department prior to internship.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ENGLISH EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Currently Closed for New Admissions

Minimum Total Hours:	33
Program Level:	Masters
CIP Code:	13.1305
Dept Code:	EDI
Program (Major/College):	AEN EJ

CONTACT INFORMATION

College:	Education
Department:	Secondary Education
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

Program Description
A program of study designed for those with a bachelor's degree in the field of English and/or a related appropriate initial certification who desire to increase their competence in this subject specialization or to receive additional professional preparation in an educational service area.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions), including an earned degree from regionally accredited institutions or an international equivalent as well as requirements listed below.

Program Admission Requirements

- Minimum GPA of 3.0 in upper division coursework in the baccalaureate degree
- Proof of educational or professional experience

International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. GRE scores, etc.)

DEGREE PROGRAM REQUIREMENTS

Plan I - Program of Study (min 16 hrs at 6000 level) **33 hours mininum**

Core Requirements **3 hours minimum**
Select one course from the following:

EDF 6211 Psychological Foundations of Education	3
EDF 6215 Learning Principles Applied to Instruction	4

EDF 6517 Historical Foundations of American Educ	4
EDF 6544 Philosophical Foundations of American Education	3
EDF 6606 Socio-Economic Foundations of American Education	4
EDF 6432 Foundations of Measurement	3
EDF 6481 Foundations of Educational Research	3
EDG 6627 Foundations of Curriculum and Instruction	3
Current Trends in Teaching Concentratio	**3 hours minimum**
LAE 6637 Current Trends in Sec English Educ	3

Concentration Requirements **18 hours minimum**

Courses selected with an academic advisor from among the following: English (LAE, ENC, LIT, AML), and English Education (LAE).

Electives: **9 hours minimim**

Courses may be selected from either English or Education in consultation with the program advisor.

Comprehensive Examination:

Candidates must take and successfully pass two Master's Comprehensive Examinations: one in English (content) and the other in English Education (methods). Students must be registered for at least two graduate hours during the semester in which the examinations are taken.

Plan III programs are also available for those who do not hold teaching certification but have a baccalaureate degree in English or a substantial number of hours in English content.

Plan III - Program of Study (min 16 hrs at 6000 level) 33 hours min

Core Requirements: **3 hours minimum**

Select one course from the following:

EDF 6211 Psychological Foundations of Education	3
EDF 6215 Learning Principles Applied to Instruction	4
EDF 6517 Historical Foundations of American Educ	4
EDF 6544 Philosophical Foundations of American Education	3
EDF 6606 Socio-Economic Foundations of American Education	4
EDF 6432 Foundations of Measurement	3
EDF 6481 Foundations of Educational Research	3
EDG 6627 Foundations of Curriculum and Instruction	3
Current Trends in Teaching Concentration	**3 hours minimum**
LAE 6637 Current Trends in Sec English Educ	3

Concentration Requirements **18 hours minimum**

Courses selected with an academic advisor from among the following: English (LAE, ENC, LIT, AML), and English Education (LAE).

Electives **9 hours minimim**

Courses may be selected from either English or Education

Comprehensive Examination:

Candidates must take and successfully pass two Master's Comprehensive Examinations: one in English (content) and the other in English Education (methods). Students must be registered in a course during the semester in which the examinations are taken.

COURSES

See http://www.coedu.usf.edu/main/departments/seced/English/Engma_courswk.htm

ENGLISH EDUCATION PROGRAM

Master of Arts in Teaching (M.A.T.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 41
Program Level: Masters
CIP Code: 13.1305
Dept Code: EDI
Program (Major/College): TEN ED

CONTACT INFORMATION

College: Education
Department: Secondary Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

A program of study designed to prepare students for initial certification in English education.

Program Description
The M.A.T. in English Education is designed to include initial certification to teach English, grades 6-12 with ESOL Endorsement while working towards a masters degree. It is planed for graduates of B.A. Liberal Arts English programs or for graduates of other programs who have completed the following within their programs of study: grammer/language development, adolescent literature, American literature, British literature, female/minority literature, expostory writing, and creative writing. All students must make an appointment with an advisor to ensure that all certification requirements either within the degree itself or in addition to it have been met, and to develop a Graduate Planned Program.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools. Includes the state of Florida Accomplished Practices as well as NCATE/NCTE accreditation standards, and program approval by the Department of Education.

ADMISSION INFORMATION

Must meet University requirements (se Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Requirements for all applicants include:

- Minimum GPA of 3.0 in upper division work completed while in the Baccalaureate degree. OR
- An earned graduate degree with a minimum GPA of 3.5 in coursework for that degree.
- General Knowledge Test (GKT) of the Florida Teacher Certification Exam

International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;

- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

The courses required for the M.A.T. in English Education are listed below. Please check with the program for other program requirements.

Core Requirements	**18 hours minimum**
EDF 6432 Measurement for Teachers	3
ESE 5342 Teaching the Adolescent Learner	3
ESE 5344 Classroom Management for a Diverse School and Society	3
including ESOL Endorsement:	
TSL 5430 ESOL I – Theory and Practice of Teaching English Language Learners	3
TSL 5086 ESOL II Secondary Language and Literacy Acquisition	3
TSL 5241 ESOL III Language Principles, Acquisition & Assessment for English Language Learners	3
Current Trends in Teaching Concentration	**3 hours**
LAE 6637 Current Trends in English Education	3
Concentration Requirements	**14 hours minimum**
LAE 6738 Teaching Reading in English Curriculum	3
LAE 5862 Classroom Communication	3
LAE 6325 Methods of Teaching Middle School Language Arts	4
LAE 6339 Methods of Teaching Secondary Language Arts	4
Practicum, Internship, Field Work, etc.	**6 hours**
LAE 6947 Internship: English Education (6) (PR: CI and passing scores on FTCE)	

Comprehensive Examination:

All candidates must take and successfully pass a Master's Comprehensive Examination in English Education the last spring semester of their program.

Completion of State of Florida Tests is also a requirement.

Please be advised that program and/or course requirements are subject to change per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

COURSES

See http://www.coedu.usf.edu/main/departments/seced/English/Engma_courswk.htm

EXCEPTIONAL STUDENT EDUCATION (ESE) PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 13.1001
Dept Code: EDS
Program (Major/College): AVE ED

CONTACT INFORMATION

College: Education
Department: Special Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
The Master's Programs in the Department of Special Education prepare special education teacher leaders for work in public and private schools and in state, federal, or community settings. Specific areas of education and training include behavior disorders, mental retardation, specific learning disabilities, and varying exceptionalities (exceptional student education). The program is designed to ensure that all graduates are prepared to be reflective practitioners, able to evaluate and continuously learn from their own teaching; collaborative professionals who affirm diversity; knowledgeable of theory and research; and skilled in the best practices of special education. Graduates of this program will have advanced clinical and pedagogical skills in working with children with disabilities and their families. The program is structured so that students can maintain full-time employment while pursuing their degrees through traditional, web-enhanced and on-line course delivery. After admission to a program, the candidate and the department advisor together chart a program of study incorporating both core requirements and courses of specific interest to the student. All programs stress field application.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent. Other requirements include:

- An earned baccalaureate degree or its equivalent from a regionally accredited college or university, or its international equivalent.
- Scholastic evidence to successfully perform in the academic program, as indicated by one of the following:
  - An earned graduate degree from a regionally accredited college or university.
  - A minimum GPA of 3.0 on a 4.0 scale in upper division undergraduate coursework.
  - The following minimum GRE scores:
    1. Verbal 430
    2. Quantitative 470
    3. Analytical Writing 4
- A Professional Goals Statement that addresses why the candidate desires to pursue an MA degree in special education.

- At least two (2) letters of recommendation from persons who have observed the candidate teach and/or work with children and youth.
- Interview with the MA program faculty.

For international applicants
Applicants whose native language is not English or who have not earned a degree in the U.S. must, according to university policy, submit a TOEFL score (minimum of 550 paper-based, 213 computer-based, or 80 internet-based test). See the Graduate Admissions website for further clarification and possible exemptions. Please check with program regarding the policy on evaluation of transcripts. For more information, please visit http://www.grad.usf.edu/graduate-admissions-checklist.asp.

DEGREE PROGRAM REQUIREMENTS

All Special Education programs are currently under review. Students are advised to work closely with program advisors in the department when developing their program of study.

Plan I
The M.A. program in special education is a 36-hour program, designed for students with an undergraduate degree in special education. This program is delivered through a number of formats. Evening and online courses are offered during the Fall, Spring and Summer semesters. Daytime courses are sometimes offered during the summer. Students usually take one or two courses a semester and complete their program of study within two to four years. Students are required to take courses two of the three semesters each calendar year and they must complete their program of study within 7 years of their admission date.

Program of Study **36 hour minimum**

Core Requirements **24 hours**
EDF 6481 Foundations of Educational Research
EEX 6025*
EEX 6612
EEX 6222
EEX 6245
EEX 6732
EEX 5752
EEX 6248
EEX 6939
* Not required, if equivalent course taken in undergraduate program.

Concentration Requirements **9 hours**
Varying Exceptionalities courses
EBD 6215 Adv Theories and Practices in Behavior Disorders
ELD 6015 Adv Theories and Practies in Specific Learning Disabilities
EMR 6052 Advanced Theories and Practices in Intellectual Disabilities

Comprehensive Examination **3 hours**
A project is required to fulfill the comprehensive examination requirement.
EEX 6943

Plan III
This option is available for students who do not hold an undergraduate degree in special education. An interview is required for all students seeking admission to the Plan III Program. Contact Student Advisor to schedule.

COURSES
See http://www.ugs.usf.edu/sab/sabs.cfm

EXCEPTIONAL STUDENT EDUCATION (ESE) PROGRAM

Master of Arts in Teaching (M.A.T.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 13.1001
Dept Code: EDS
Program (Major/College): **T**VE ED

CONTACT INFORMATION

College: Education
Department: Special Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description

The Master of Arts in Teaching (MAT) is a graduate program in special education for individuals teaching with temporary certification and/or individuals who hold an undergraduate degree in an area other than special education. This program leads to a Master of Arts in Teaching degree, certification in Exceptional Student Education (ESE) and endorsement in Reading and ESOL. Students can be admitted to the program during any semester throughout the year; however, the special education core course sequence begins in the summer. Students in the M.A.T. Program benefit from an integrated curriculum taught in six-hour blocks; mentors who are master teachers within the district that provide one-on-one mentoring for each program participant; and accelerated delivery of course content which allows for completion of the degree in two summers and three academic semesters. All students are required to conduct action research in their classrooms, investigating how they may more effectively use research-based interventions. This requires that students link theory and practice and encourages an inquiring approach to teaching.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Admission Requirements

- An earned baccalaureate degree or its equivalent from a regionally accredited college or university.
- Evidence of ability to perform successfully in the academic program, as indicated by one of the following:
  - An earned graduate degree from a regionally accredited college or university, **OR**
  - An undergraduate GPA of 3.0 or higher in all work attempted while registered as an upper division student working for a baccalaureate degree, **OR**
  - Minimum GRE scores of: 430 Verbal; 470 Quantitative; and 4 Analytical Writing.
- Evidence of passing scores on all portions of the General Knowledge or CLAST subtests.
- A letter of application that addresses why the candidate desires to pursue a master's degree in special education.
- At least two (2) letters of recommendation, one from a person who has seen the candidate teach and/or work with children/youth and the other from an administrator or supervisor.
- A completed application submitted to the Graduate School

- Interview with the MAT program faculty.

For international applicants
All applicants whose native language is other than English or who have earned a degree from an institution outside Applicants whose native language is not English or who have not earned a degree in the United States must also submit TOEFL scores earned within two (2) years of the desired term of entry. A minimum total score of 79 on the internet-based test, or 550 on the paper-based test, are required. Applications submitted with TOEFL scores that do not meet the minimum requirements will be denied. The TOEFL requirement may be waived if the applicant meets one of the following conditions:

- The applicant's native language is English, or
- Has scored 500 or higher on the GRE Verbal Test, or
- Has earned a college degree at a U.S. institution of higher learning, or
- Has earned a college degree from an institution whose language of instruction is English (must be noted on the transcript), or
- Has scored 6.5 on International English Language Testing System (IELTS) http://www.ielts.org/

DEGREE PROGRAM REQUIREMENTS

Program of Study **50 hours***
(Students entering with an ESOL endorsement and certification in Elementary Education have a minimum of 36 hours required to complete the program)

College Requirements

Core Requirements: **6 hrs minimum**
EDF 6211 Psychological Foundations of Education 3
EDF 6432 Foundations of Measurement 3

Concentration Requirements **29 hrs minimum**
EEX 6051 Creating Positive Learning Environments for Students with Disabilities (6)
EEX 6224 Developing Individualized Educational Programs for students with Disabilities (6)
EEX 6247 Implementing and Evaluating Individualized Programs for Students with Disabilities (6)
EEX 6943 Practicum in Exceptional Student Education (2)
RED 6514 The Reading Process in the Elementary School 3
RED 6544 Remediation of Comprehension Problems 3
MAE 6117 Math Methods

ESOL Requirements **9 hrs**
TSL 5085 Theory and Practice of Teaching English Language Learners 3
TSL 5086 Second Language Acquisition and Literacy in Children and Adolescents 3
TSL 5240 Language Principles, Acquisition, and
Assessment for Teaching English Language Learners 3

NOTE: The special requirements for ESOL endorsement through infusion are as follows: Successful completion of (1) TSL 5085, TSL 5086, and TSL 5240, with a minimum grade of 70% or better on all three sections of the ESOL Comprehensive Exam administered in the three ESOL courses; (2) a 20-hour early ESOL field experience in ESOL 1; 3 a late ESOL field experience where students plan, implement, and evaluate lessons for one or more ESOL students over a series of weeks; and 4 an ESOL folder, containing all assignments and test results from ESOL 1, 2, and 3.

Note: If a student obtains a state approved ESOL Endorsement prior to internship, consideration will be given to waiving TSL 5085, TSL 5086 and TSL 5240 with the appropriate program and college approvals.

Internship **6 hrs**
EDG 6947 Internship and Classroom Research

Practicum and Internship

Practicum Requirements
All students are required to register for and complete a 1-hour practicum (EEX 6943) during the semesters they are taking EEX 6225 Developing Individualized Educational Programs for students with Disabilities and EEX 6247 Implementing and Evaluating Individualized Programs for Students with Disabilities. Students who are employed as a teacher as teaching assistant/paraprofessional may complete the practicum in the classroom where they are employed. . Students who are not employed as a teacher or teaching assistant/para position will be placed in a classroom practicum setting with a mentor teacher in the local school district.

Internship Requirements
All students are required to complete a full-time semester long internship as a special education teacher in a K-12 classroom setting. The internship can be a supervised paid internship which an employed teacher can complete in his/her own classroom. If a student is not employed as a special education teacher, he/she must complete the internship (non-paid) in a supervising teacher's (Professional Practice Partner) classroom.

Comprehensive Exam
The successful completion of a comprehensive exam in the form of a portfolio is required of all students in their final semester of the program.

Tests and Examinations
All students must pass the following examinations:

- General Knowledge Test (all four subtests) – if the CLAST (taken after July 1, 2002) was used to fulfill admission requirements instead of the General Knowledge Test (GKT), the GKT must be passed before internship.
- Florida Teacher Certification Professional Education Test – must be passed prior to graduation.
- Florida Teacher Certification ESE Subject Area Test – must be passed prior to graduation.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

FOREIGN LANGUAGE EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15*
Spring:	October 15*
Summer:	February 15*

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 13.1306
Dept Code: EDI
Program (Major/College): FLE EJ

Concentrations available in:
Foreign Language Ed., French (AFF)
Foreign Language Ed., German (AFG)
Foreign Language Ed., Spanish (AFS)

***Currently no students are being admitted to Plan II of this program.**

CONTACT INFORMATION

College: Education
Department: Secondary Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
Prepares educators for teaching foreign language in a K-12 environment.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: German, Spanish, French, Latin, Foreign Language Education.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent. The admissions committee will consider each applicant in light of his or her qualifications and likelihood of success. The faculty employs a holistic approach to the admissions consideration, taking into account all the information and balancing previous grade point averages, test scores, previous success in graduate coursework, recommendations, and professional experiences as well as fit of the program to the applicants' personal and professional goals. In order to be admitted to the graduate program in Foreign Language Education, students must present the following:

Requirements for all applicants include:

- Minimum GPA of 3.00 in upper division coursework in the Baccalaureate degree
- Proof of relevant educational or professional experience

- ~~Coursework is allowed in lieu of GPA or GRE requirement (Plan I)~~
- A current resume
- A clear and detailed statement of professional and personal goals describing the reasons that earning the degree is important to those goals.
- Two letters of recommendation, preferably at least one from a current or former professor (or school principal if working in a school environment) who will attest to the applicant's likelihood of success in a graduate program.
- Strong GRE scores with no more than one sub-score below the 33rd percentile. If a score in one area is very low, the other should be considerably higher.
- Evidence of 30 credit hours in foreign language coursework or evidence of native language proficiency.
- An appropriate level of proficiency in foreign language demonstrated by an interview with the program faculty (in person or by telephone), by presenting an ACTFL OPI score of intermediate high or higher, or by any equivalent measure as approved by the program faculty.

Additional requirements for German Concentration:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts
- A social security number in degree programs requiring practica or internships
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.)

For international applicants

Applicants whose native language is not English or who have not earned a degree in the U.S. must, according to university policy, submit a TOEFL score (minimum of 550 paper-based, 213 computer-based, or 80 internet-based test). See http://web.usf.edu/iac/admissions/language.html for further clarification and exemptions. Please check with program regarding the policy on evaluation of transcripts. For more information, please visit http://web.usf.edu/iac/admissions

DEGREE PROGRAM REQUIREMENTS

For M.A. - Plan I

Program of Study **36 hours**

CORE REQUIREMENTS

Professional Education ~~**12 hours**~~

EDF 6211 or EDF 6215 3

Select one from the following:

EDF 6517 Historical Foundations of American Education 4

or

EDF 6544 Philosophical Foundations of American Education 3

or

EDF 6606 Socio-Economic Foundations of American Education 4

~~EDF 6517 or EDF 6544 or EDF 6606~~

EDF 6481 Foundations of Educational Research 3

EDF 6432 Foundations of Measurement 3

FLE 6665 Current Trends ~~3 hours~~

FLE 5291 Applications of Technology to FLE (except if taken as part of the B.A.) ~~3 hours~~

CONCENTRATION REQUIREMENTS **18 hours**

Students select one of the following concentrations:

FRENCH (AFF) – 18 HOURS

Offered from the Department of Secondary Education

Description: Prepares educators for teaching German in a K-12 environment.

Concentration Requirements

In addition to the Program requirements, students must complete the following concentration requirements:

(at the 5000 and 6000 level) Six (6) courses in the French language are taken at the 5000 and 6000 level in the World Language Education Department in the College of Arts & Sciences to provide students with further specialization in the foreign language. With their advisor, students are encouraged to select a mix of courses based on the areas (literature, civilization, linguistics) they wish to be examined on during their comprehensive examination. Please refer to the USF course catalogue as well as your advisor for course selection.

GERMAN (AFG) – 18 HOURS

Offered from the Department of Secondary Education

Description: Prepares educators for teaching German in a K-12 environment.

Concentration Requirements

In addition to the Program requirements, students must complete the following concentration requirements:

(at the 5000 and 6000 level) Six (6) courses in the French language are taken at the 5000 and 6000 level in the World Language Education Department in the College of Arts & Sciences to provide students with further specialization in the foreign language. With their advisor, students are encouraged to select a mix of courses based on the areas (literature, civilization, linguistics) they wish to be examined on during their comprehensive examination. Please refer to the USF course catalogue as well as your advisor for course selection.

Comprehensive Examination

A Comprehensive Examination must be taken in the final semester in the program. It is a 3-hour exam where the candidate will be expected to answer questions that display knowledge about the broad subjects that were covered in your program of studies.

SPANISH (AFS) – 18 HOURS

Offered from the Department of Secondary Education

Description: Prepares educators for teaching German in a K-12 environment.

Concentration Requirements

In addition to the Program requirements, students must complete the following concentration requirements:

(at the 5000 and 6000 level) Six (6) courses in the French language are taken at the 5000 and 6000 level in the World Language Education Department in the College of Arts & Sciences to provide students with further specialization in the foreign language. With their advisor, students are encouraged to select a mix of courses based on the areas (literature, civilization, linguistics) they wish to be examined on during their comprehensive examination. Please refer to the USF course catalogue as well as your advisor for course selection.

Comprehensive Examination: Required in both Foreign Language and Foreign Language Education.

Plan II – inactive.

Plan III - A Plan III, non-certification option is also available for those who do not desire teacher certification. For information on Plan III, contact the program coordinator. This plan is currently **closed for new applications for the German Concentration.**

COURSES

See http://www.coedu.usf.edu/main/departments/seced/ForLang/fle_ma.html

FOREIGN LANGUAGE EDUCATION PROGRAM

Master of Arts in Teaching (M.A.T.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	~~42~~33
Program Level:	Masters
CIP Code:	13.1306
Dept Code:	EDI
Program (Major/College):	TFL ED

Concentration:
Fast-Track Concentration (with no ESOL Endorsement) [title to be confirmed]

CONTACT INFORMATION

College:	Education
Department:	Secondary Education
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

Program Description
The M.A.T. degree is designed for individuals with a Bachelor's degree in a field other than education who wish to become certified teachers in foreign language at the middle or high school level in the following Languages: Spanish, French, German, Latin, Italian, Chinese, Japanese, or Russian. Students can earn ESOL endorsement at the same time as the Master's degree. ~~The M.A.T. is an accelerated degree.~~

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools, the National Council for the Accreditation of Teacher Education, and the Department of Education.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions), including an earned degree from regionally accredited institutions or an international equivalent as well as requirements listed below.

Admission Program Requirements
Requirements for all applicants include:

- Minimum GPA of 3.0 in upper division coursework completed in the baccalaureate degree, OR
- An earned graduate degree with a minimum GPA of 3.5
- The General Knowledge Test (GKT) of the Florida Teacher Certification Exam.
- 2 Letters of recommendation (1 personal and 1 professional) stating the ability of the student to complete graduate studies.
- Concept Paper or goal statement
- Evidence of 30 credit hours in foreign language coursework or evidence of native language proficiency.
- An appropriate level of proficiency in the foreign language demonstrated by an interview with the program faculty (in person or by telephone, by presenting an ACTFL OPI score of intermediate high or higher, or by any equivalent measure as approved by the program faculty.

International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

A program of study designed for the holder of a non-education baccalaureate degree who is functionally competent and proficient in the target language. This program meets initial certification requirements (K-12) as well as full ESOL endorsement. There is also a fast-track concentration without ESOL endorsement. ~~**The program requires 42 semester hours, minimum.**~~

Minimum Program Hours **33 (no ESOL); 42 (with ESOL)**

Core Requirements ~~**18**~~ **9 hours minimum**

EDF 6432, Foundations of Measurement OR TSL 5440, Language Testing	3
ESE 5342, Teaching the Adolescent Learner	3
ESE 5344 Classroom Management for a Diverse School & Society	3

Current Trends in Teaching Specialization **3 hours**

FLE 6665 Current Trends in Foreign Language Education	3

ESOL Endorsement Track **24 hours**

This track is for individuals who wish to receive the ESOL Endorsement.
~~ESE 5344 Classroom Management for a Diverse School & Society~~

TSL 5085 ESOL I	3
TSL 5086 ESOL II	3
TSL 5242~~0~~ ESOL III	3
FLE 5291 Applications of Technology to FLE	3
FLE 5313 Methods of Teaching FL & ESOL in the Elementary School	3
FLE 5331 Methods of Teaching FL & ESOL in the Secondary School	3
FLE 5895 Dual Language Education	3
FLE 5946 Practicum in FL Teaching in the Secondary School	3

Fast-Track Concentration, with No ESOL Endorsement, Requirements **15 hours minimum**

The fast track program is designed for the individuals who wish to become certified teachers in foreign language at the elementary, middle, or high school level (K-12), in the following languages: **Spanish, French, German, Latin, Italian, Chinese, Japanese, or Russian, but do not want or need the ESOL Endorsement.**

TSL 5932 L2 Reading for ESOL Students Across Content Areas	3
FLE 5313 Methods of Teaching FL & ESOL in the Elementary School	3
FLE 5331 Methods of Teaching FL & ESOL in the Secondary School	3
FLE 5895 Dual Language Education	3
FLE 5946 Practicum in FL Teaching in the Secondary School	3

Comprehensive Examination
A Comprehensive Examination must be taken in the final semester in the program. It is a 3-hour exam where the candidate will be expected to answer questions that display knowledge about the broad subjects that were covered in your program of studies.

Practicum, Internship, Field Work, etc. **6 hours**

A 6-credit hour internship provides an essential practical and evaluative exit to the program. It is highly recommended to complement it with a 2-credit hour Senior Seminar to debrief and enhance the internship experience.

FLE 6947 Internship – 6 hours (PR: CI and passing scores of FTCE)
FLE 5936 Senior Seminar (optional)

Please be advised that program and/or course requirements are subject to change per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

COURSES

See http://www.coedu.usf.edu/main/departments/seced/ForLang/fle_ma.html

FOREIGN LANGUAGE EDUCATION ACCELERATED PROGRAM

Bachelor of Arts (B.A.) / Master of Arts in Teaching (M.A.T.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15
Inactive for Admissions	

Minimum Total Hours:
Program Level: Bachelors/Masters
CIP Code: 13.1306
Dept Code: EDI
Program (Major/College): TFL ED

CONTACT INFORMATION

College: Education
Department: Secondary Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
The Accelerated B.A. or B.S. to M.A.T. Degree Program offers benefits for students who decide to pursue a career in the teaching profession. It provides the background within specific liberal arts disciplines and then allows students to take that knowledge into an accelerated master's degree in teaching, designed around collaboration, academic excellence, progressive research, and ethical practices within diverse environments.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Admission Program Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent. Requirements for all applicants include:

The BA/BS to MAT Program is designed for academically talented and educationally mature students who meet the following criteria:

- are admitted to one of the participating undergraduate majors in the College of Arts and Sciences (French, Spanish, or Latin programs)
- have completed at least 90 semester hours of coursework in one of the participating programs
- have an earned grade point average of at least 3.0 both overall and in the major coursework
- have no arrest record or have disclosed any record of previous arrests and/or convictions

Applying to the BA/BS to MAT Program
It is very important that students interested in the BA/BS to MAT Program work closely with their undergraduate academic advisor to ensure timely application to the program and a seamless transition from undergraduate to graduate status.

Please review and follow these steps carefully:

1. Contact your undergraduate academic advisor in the relevant subject area:
   - World Languages: Osiris Albrecht

2. File an Accelerated Degree Program Interest Form.

3. Submit the Interest form to your undergraduate advisor (instructions are on the form).

4. When the time comes to apply for the graduate program, submit the Accelerated Degree Program Application.

5. Provide an official copy of the General Knowledge Test (GKT) score report verifying passing scores on all four sections of the exam when submitting the Accelerated Degree Program Application. For more information about the GKT, please visit the following link: http://www.fl.nesinc.com/FL_testselection.asp. NOTE: The GKT information can be found under the "Florida Teacher Certification" of this webpage. The test code for the GKT is 082.

For international applicants: Applicants whose native language is not English or who have not earned a degree in the U.S. must, according to university policy, submit a TOEFL score (minimum of 550paper-based, 213 computer-based, or 80 internet-based test). See http://web.usf.edu/iac/admissions/language.html for further clarification and exemptions. Please check with program regarding the policy on evaluation of transcripts. For more information, please visit http://web.usf.edu/iac/admissions

DEGREE PROGRAM REQUIREMENTS

A program of study designed for a student currently in the World Language Education French, Spanish, or Latin BA program, who has already completed a minimum of 90 credits of course work in that program.,

Core Requirements **18 hours minimum**

EDF 6432, Foundations of Measurement or TSL 5440, Language Testing
ESE 5344, Classroom Management for a Diverse School & Society
ESE 5342, Teaching the Adolescent Learner
Including ESOL Endorsement
TSL 5085, ESOL I
TSL 5086, ESOL II
TSL 5240, ESOL III

Current Trends in Teaching Specialization **3 hours**

FLE 6665, Current Trends in FLE

Concentration Requirements **15 hours minimum**

FLE 5313, Methods of Teaching FL & ESOL in the Elementary School
FLE 5331, Methods of Teaching FL & ESOL in the Secondary School
FLE 5895, Dual Language Education
FLE 5946, Practicum in FL Teaching in the Secondary School
FLE 5291, Applications of Technology to FLE

Comprehensive Examination:

A Comprehensive Examination must be taken in the final semester in the program. It is a 3-hour exam where the candidate will be expected to answer questions that display knowledge about the broad subjects that were covered in your program of studies.

Practicum, Internship, Field Work, etc. **6 hours**

A 6-credit hour internship provides an essential practical and evaluative exit to the program.
FLE 6947 Internship – 6 hours (PR: CI and passing scores of FTCE)
(The internship is planned observation and teaching, supervised by a member of the University faculty and a school staff member.) Please refer to www.coedu.usf.edu/sas for specific internship entrance and State of Florida testing requirements.

COURSES

See http://www.coedu.usf.edu/main/departments/seced/ForLang/fle_ma.html

MATHEMATICS EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 13.1311
Dept Code: EDI
Program (Major/College): AMA EJ

CONTACT INFORMATION

College: Education
Department: Secondary Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
This degree is designed primarily for secondary school teachers desiring to improve their skills in the teaching of mathematics to secondary students,

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent.

MA Plan I
Meet one of the following criteria:

- Shall have earned a "B" (3.0 on a 4.0 scale) average or better in all upper division level undergraduate coursework in the baccalaureate degree.
  OR
  Shall have GRE scores of 450 verbal and 550 quantitative or higher taken within five years

- Certification in mathematics education (Include copy of your Florida State Teaching Certification with your application. Temporary Certificates are not acceptable.)

MA Plan II Inactive
MA Plan III Inactive

For international applicants
Applicants whose native language is not English or who have not earned a degree in the U.S. must, according to university policy, submit a TOEFL score (minimum of 550 paper-based, 213 computer-based, or 80 internet-based test). Seethe Graduate Admissions website for further clarification and possible exemptions. Please check with program regarding the

policy on evaluation of transcripts. For more information, please visit http://www.grad.usf.edu/graduate-admissions-checklist.asp.

DEGREE PROGRAM REQUIREMENTS

Plan I Option

Core Requirements: (minimum of 9 hours)

EDF 6432 Foundation of Measurement
EDF 6481 Foundation of Ed Research
EDF 6211 or EDF 6215 – Psych Foundations

C**urrent Trends**:

MAE 6136 Current Trends in Secondary School Mathematics

Concentration Requirements: 18 hours minimum

Graduate level mathematics courses to be approved by the student's advisor.
Courses with the following prefixes are acceptable: MAA, MAD, MAE, MAP, MAT, MHF, and STA

Elective: 3 hours of mathematics education

Comprehensive Examination

The comprehensive examination will consist of a written and/or oral examination in the concentration area.

A **Plan III option** is available for individuals who are neither certified nor desire certification.

Process Core: (minimum of 9 hours)

EDF 6432 Foundation of Measurement
EDF 6481 Foundation of Ed Research
EDF 6211 or EDF 6215 – Psych Foundations

The Master of Arts in Teaching (M.A.T.) in Mathematics Education Degree program is currently available at the middle grades (5-9) level and secondary grades (6-12). Please check the Mathematics Education website for an update as well as other sections of this catalog.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria

COURSES

See www.coedu.usf.edu/main/departments/seced/math/mathma_course.htm

MATHEMATICS EDUCATION PROGRAM (6-12)

Master of Arts in Teaching (M.A.T.)Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 40
Program Level: Masters
CIP Code: 13.1311
Dept Code: EDI
Program (Major/College): TSM ED

CONTACT INFORMATION

College: Education
Department: Secondary Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description

The MAT in Mathematics Education (6-12) is designed for individuals seeking initial certification to teach mathematics at the High School or Middle School levels. Please be advised that program and/or course requirements are subject to change per state legislative mandates, Florida Department of Education program approval standards and accreditation criteria.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools, the Florida Department of Education, and the National Council for the Accreditation of Teacher Education.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions), including an earned degree from regionally accredited institutions or an international equivalent as well as requirements listed below.

Program Admission Requirements

Other Admissions Requirements include:

- A bachelor's degree or equivalent from a regionally accredited university or its international equivalent
- An earned minimum grade point average of 3.0 on a 4.0 scale average or higher in all upper division undergraduate coursework in the baccalaureate degree.
- Meet one of the following criteria: Have passed the Florida Subject Area Exam in Mathematics 6-12
  Or Have completed at least 30 credit hours in mathematics to include 6 hours of calculus, 3 hours of linear or abstract algebra, 3 hours of number theory
- Demonstrate mastery of general knowledge including the ability to read, write, and compute by passing the Florida General Knowledge Test (GKT) or College Level Academic Skills Test (CLAST). For graduate level teacher preparation programs, GRE scores of 450 verbal and 550 quantitative or higher, taken within the last 5 years may be accepted in lieu of GKT or CLAST.

International Students

All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours **40**

Program Pre-requisites
Students without appropriate ESOL training and/or a measurement course must complete graduate course(s) to satisfy those two program prerequisites. Students admitted without a 30 hour mathematics background will have to take undergraduate course work to insure that their background reflects at least:

- 6 hours of Calculus
- 3 hours of linear algebra or abstract algebra
- 3 hours of Number Theory or Discrete Mathematics
- 3 hours of geometry
- 3 hours of History of Mathematics
- 3 hours of Probability or Statistics

Core Requirements

Required Courses			**12 hrs**
EDF 6432	Foundations of Measurement	3	
ESE 5344	Classroom Management for a Diverse School and Society 3		
ESE 5342	Teaching the Adolescent Learner	3	
TSL 5325	ESOL Strategies for Content for Content Area Teachers	3	

Current Trends in Teaching Concentration			**3 hours**
MAE 6136	Current Trends Secondary Math Education	3	

Concentration **15 minimum**
Students may waive up to 6 hours of course credit based upon approval of their academic advisor and the department.

MAE 6643	Communication Skills in Mathematics	3
MAE 6337	Topics in Teaching Algebra	3
MAE 6338	Topics in Teaching Geometry	3
MAE 6317	Topics in Teaching Probability and Statistics	3
MAE 6336	Topics in Teaching Calculus	3
MAE 6370	Mathematics for High School Teachers	3
MAE 6362	Senior High Mathematics Methods	3

Practicum, Internship, Field Work, etc.			**10 hours**
MAE 6945	Practicum in Mathematics Education	3	
MAE 6947	Internship in Secondary Education for Mathematics	6	
MAE 6899	Internship Seminar in Mathematics Education	1	

Testing
All portions of the General Knowledge Test (GK) of the Florida Teacher Certification Exam (FTCE) must be passed prior to internship. Both the Mathematics 6 – 12 test and the Professional Education test of the FCTE must be passed prior to completion of internship

Comprehensive Examination:
A comprehensive exam/final project is required during the Spring or Fall semester just prior to graduation

Other Information
Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Mathematics Education Program (5-9)
Please refer to the Mathematics Education Program (5-9) for specific information.

COURSES

See http://www.coedu.usf.edu/main/departments/seced/math/mathma_course.htm

MIDDLE GRADES MATHEMATICS PROGRAM (5-9)

Master of Arts in Teaching (M.A.T.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 13.1311
Dept Code: EDI
Program (Major/College): TMA ED

CONTACT INFORMATION

College: Education
Department: Secondary Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The M.A.T. in Middle Grades Mathematics Education (5-9) is designed for individuals seeking initial certification to teach mathematics at the middle grades level. Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards, and accreditation criteria.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools, the Florida Department of Education and the National Council for the Accreditation of Teacher Education.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions), including an earned degree from a regionally accredited institutions or an international equivalent as well as requirements listed below.

Program Admission Requirements

Admissions Requirements include:

- A bachelor's degree or equivalent from a regionally accredited university or its international equivalent
- Have an earned minimum grade point average of 3.0 on a 4.0 scale average or higher in all upper division level undergraduate coursework taken in the baccalaureate degree
  or
  Shall have GRE scores of 450 Verbal and 550 Quantitative or higher taken within five years
- Meet one of the following criteria:
  - Have passed the Florida Subject Area Exam in Mathematics 5-9
    or
  - Have completed at least 18 credit hours in mathematics at the level of college algebra

- Demonstrate mastery of general knowledge including the ability to read, write, and compute by passing the Florida General Knowledge Test (GKT) or College Level Academic Skills Test (CLAST), if taken and passed prior to July 1, 2004. For graduate level teacher preparation programs, GRE scores of 450 verbal and 550 quantitative or higher, taken within the last 5 years may be accepted in lieu of GKT or CLAST.

International Students

All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours **33**

Pre-Requisites **6 hrs**

EDF 6432 Foundations of Measurement 3 (Or Equivalent)
FLE 5366 ESOL Competencies in Content Area 3

Core Requirements

Required Courses **6 hrs**

ESE 5344 Classroom Management 3
ESE 5342 Teaching the Adolescent Learner 3

Concentration Requirements **9 hrs**

MAE 6328 Algebra for Middle Grade Teachers 3
MAE 6329 Geometry for Middle Grade Teachers 3
MAE 6127 Prob & Stat for Middle Grade Teachers 3

Math Education **18 hrs**

MAE 6356 Teaching Pre-secondary Math 3
MAE 6126 Current Trends Middle Grade Math 3
MAE 6643 Comm. Skills in Math 3
MAE 6945 Practicum in Math Ed 3
MAE 6947 Grad Internship Math Ed (6)

Project

Action Research Project to be taken in the last fall or spring: Can only be taken while enrolled in at least two credits

COURSES

See http://www.coedu.usf.edu/main/departments/seced/math/mathma_course.htm

PHYSICAL EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 13.1314
Dept Code: EDP
Program (Major/College): EPH ED

Concentrations:
Exercise Science (EXS)

CONTACT INFORMATION

College: Education
Department: School of Physical Education & Exercise Science

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
The master's degree in Physical Education is offered online only. The degree is designed for anyone interested in the lifelong process of becoming a reflective, effective teacher who is prepared to lead youngsters to become physically active for a lifetime.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools, National Council for Accreditation of Teacher Education, National Association for Sport and Physical Education.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent. Requirements:

- A bachelor's degree from a regionally accredited institution or international equivalent and satisfying at least one of the following criteria:
  - A "B" average (3.0 on a 4.0 scale) or higher in all work attempted while registered as an upper division student in a Baccalaureate degree **OR** A previous graduate degree from a regionally accredited institution with a grade point average of at least a 3.5

- Exercise Science specialization additionally requires a C (a 2.0 on a 4.0 scale) or higher in the following courses:
  1. Anatomy & Physiology I & II or equivalent (minimum 3 credit hours each)
  2. Kinesiology/Biomechanics
  3. Exercise Physiology
  4. Nutrition
  5. Recommended: Physics, Chemistry, Computer Proficiency

- Proof of initial certification (Plan I)

International Students

All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

Physical Education K-12

Two plans are available (Plan I, Plan III).

Plan I

Program of Study		**30 hours minimum**
Core Requirements:		**6 hours minimum**
EDF 6432 Foundations of Measurement	3	
EDF 6481, Foundations of Educational Research	3	
OR (Exercise Science Concentration)		
EDF 6407 Statistical Analysis for Educational Research 1	4	
Concentration Requirements		**24 hours minimum**

EXERCISE SCIENCE (EXS)

Offered from the Department of Secondary Education

The Exercise Science program provides the theoretical, practical, and professional skills needed to pursue employment opportunities in exercise science, fitness/wellness, and hospital rehabilitation centers. The course work is designed to prepare students for advanced positions in their respective fields and is based on national standards and competencies established by professional organizations. Accredited by the Commission on Colleges of the Southern Association of College and Schools, National Council for Accreditation of Teacher Education, National Association for Sport and Physical Education.

Concentration Requirements (30 hours minimum)

Required courses:

PET 6535C: Professional Assessment Process	3
EDG 6931: Advanced Exercise Phys	3
EDG 6931: Lab Techniques in ES	3
PET 6396: Applied Biomechanics	3
EDG 6931: Topics in Sports Medicine	3

Concentration Electives (15 hrs Minimum)

Select from the following or other graduate coursework approved by the faculty advisor:

PET 6419 Clinical Supervision in Physical Education	3
PET 6443Instructional Design and Content: Games	3
PET 6444 Instr Design and Content: Dance and Gymn.	3
PET 6516 Learner Assessment in School Based Physical Ed	3
PET 6706 Analysis of Research in Physical Education	3
PET 6716 Analysis of Teaching in Physical Education	3

Concentration Electives (6 hours from the list below)

PET 6256 Sport in Society: Contemporary Issues	3
PET 6419: Sport Psychology	3
PET 6447 Grant Writing in PE	3
PET6447 Adapted PE	3

Comprehensive Examination - A written comprehensive examination is required during the semester in which the student completes the requirements for the master's degree.

Plan III

Program of Study		**30 hours minimum**
Core Requirements		**6 hours minimum**
EDF 6432, Foundations of Measurement	3	
EDF 6481 , Foundations of Educational Research	3	
Other Requirements		
PET 6419 Clinical Supervision in Physical Education	3	
PET 6443 Instructional Design and Content: Games	3	
PET 6444 Instructional Design and Content: Dance and Gymnastics	3	
PET 6516 Learner Assessment in School Based Physical Education	3	
PET 6706 Analysis of Research in Physical Education	3	
PET 6716 Analysis of Teaching in Physical Education	3	
Electives		**6 hours**
PET 6419: Sport Psychology	3	
PET 6447 Grant Writing in PE	3	
PET6447 Adapted PE	3	

Comprehensive Exam

A written comprehensive examination is required during the semester in which the student completes the requirements for the master's degree.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria

COURSES

http://www.ugs.usf.edu/sab/sabs.cfm

READING EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 13.1305
Dept Code: EDR
Program (Major/College): ARD ED

CONTACT INFORMATION

College: Education
Department: Childhood Education and Literacy Studies

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
This degree is designed to prepare special reading teachers, clinicians, supervisors, directors, and coordinators of reading for school systems.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools, the National Council for the Accreditation of Teacher Education, and the Department of Education.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent.

In order to be considered for admission, first-time or transferring graduate applicants must:

- Have a bachelor's degree or equivalent from a regionally accredited university,
- Have earned a "B" (3.0 on a 4.0 scale) average or higher in all work attempted while registered as an upper division student working in a baccalaureate degree in a regionally accredited institution
- Have an earned, valid teaching certificate OR
- Be eligible for professional certification through the completion of a Bachelor's degree in Education

Exceptions to minimum requirements will be considered for National Board Certification and an outstanding professional record.

For International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number for purposes of State testing, internship and practica;

DEGREE PROGRAM REQUIREMENTS

Program of Study **36 hours minimum**

Core Requirements

Process Core **3 hours**

EDF 6481: Foundations of Educational Research

Research 3

LAE 6316: Trends in Literature in a Diverse Society

Concentration Requirements: **30 hours**

RED 6247: District and School Level Supervision in Reading	3
RED 6449: Literacy and Technology	3
RED 6540: Assessment in Literacy	3
RED 6544: Cognition, Comprehension, and Content Area Reading: Remediation of Reading Problems	3
RED 6545: Issues in Vocabulary and Word Study	3
RED 6747: History and Models of Reading: Prevention and Intervention of Reading Difficulties	3
RED 6748: Teacher Research Methods in Reading	3
RED 6846: Practicum in Reading	3
LAE 6315: Writers and Writing: Trends and Issues	3
TSL 5085: ESOL I: Teaching limited English Proficiency Students in K-12	3

TSL 5085 may be waived with appropriate documentation by the COEDU ESOL Coordinator.

Program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria. Please contact program for more information.

Comprehensive Examination

Successful performance on a Comprehensive Examination is required for degree completion.

Practicum

Students are required to take RED 6846 Practicum in Reading.

Transition Point Projects

Students must successfully complete a Transition Point Project after each block of courses, culminating in an action research project.

Tests

Passing scores on the PED (Professional Education Test) is required for admission to the program. Passing scores on the Subject Area Exam- Reading K-12 are required for graduation. Students must provide an official FCTE score report (no copies) to their advisor in addition to having the scores reported to USF.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SCHOOL PSYCHOLOGY PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 1
Fall Admission Only

Minimum Total Hours: 32
Program Level: Masters*
Program Status: Active
CIP Code: 42.1701
Dept Code: EDF
Program (Major/College): ASP EJ

*Only available when combined with the Ed. S. or Ph.D.

CONTACT INFORMATION

College: Education
Department: Psychological and Social Foundations

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
The M.A. degree in School Psychology is offered only when combined with the Ed.S. and/or Ph.D. degrees. The M.A. in School Psychology is not a terminal degree and cannot be used for certification or licensure as a school psychologist.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below. Admission occurs once each year for the Fall class. The School Psychology program is a limited access program. This means that only a limited number of students are able to be accepted each year.

Program Admission Requirements
For all admission, all programs require earned degrees from regionally accredited institutions. International students are also required to:

1. Provide a course-by-course evaluation of foreign transcripts from an approved external agency
2. Submit passing TOEFL scores

Prerequisite Coursework for Admission

- Bachelor's degree or higher
- An undergraduate (or graduate) course in Statistics
- An undergraduate (or graduate) course in Tests and Measurements (including issues such as reliability, validity, standard error of measurement, etc.)
- An undergraduate (or graduate) course in Research Methods or Experimental Design with a lab component.

Required Admissions Materials
All admissions materials should be submitted directly to our program. A complete application includes the following:

- A completed Application to Graduate Studies. All applications must be submitted online and can be located on our program website: http://www.coedu.usf.edu/schoolpsych/
- The application fee ($30) - payable by credit card.
- Submit official GRE scores (Note: Verbal, Quantitative, and Analytical Writing scores are required; scores should not be more than 5 years old).

- Provide official transcripts from all colleges and universities where you have completed coursework. Applicants must have an undergraduate GPA of 3.5 or higher in upper division level undergraduate coursework.
- Provide a statement of professional goals. In a 2-3 page statement, explain your immediate, intermediate, and long term goals as well as your research interests. Professional goals and research interests must be compatible with the School Psychology Program.
- Submit three letters of recommendation from professionals who are familiar with your scholarship and work history.
- Demonstrate the ability to write professionally by submitting a scholarly paper completed as part of your prior course work.
- If invited for an interview, a) present self professionally in an oral interview with two or more faculty members and graduate students, and b) provide a writing sample related to a relevant topic to the field of school psychology during the interview process.

For international applicants

Applicants whose native language is not English or who have not earned a degree in the United States must also submit TOEFL scores earned within two (2) years of the desired term of entry. A minimum total score of 79 on the internet-based test, or 550 on the paper-based test, are required. Applications submitted with TOEFL scores that do not meet the minimum requirements will be denied. The TOEFL requirement may be waived if the applicant meets one of the following conditions:

- The applicant's native language is English, or
- Has scored 500 or higher on the GRE Verbal Test, or
- Has earned a college degree at a U.S. institution of higher learning, or
- Has earned a college degree from an institution whose language of instruction is English (must be noted on the transcript), or
- Has scored 6.5 on International English Language Testing System (IELTS) http://www.ielts.org/.

DEGREE PROGRAM REQUIREMENTS

Core Requirements

EDF 6938 Issues in Child Dev	3
EDF 6214 Classroom Learn	4
EDF 6217 Behavior Learn	4

Concentration Requirements

SPS 6936 Sem in School Psy	3
EDF 6407 Statistics I	4
SPS 6197 Assessment I	4
SPS 6198 Assessment II	4
EDF 6288 Instructional Des	3
EDF 6166 Consultation	3

Note: Students may be required to take additional hours depending on the course of study and or academic deficiencies.

Practicum

Students must complete a school-based practicum consisting of eight (8) hours per week for a minimum of 32 weeks (2 semesters) for a total of 256 contact hours.

Comprehensive Exam

Prior to clearance for the MA degree, candidates must satisfactorily complete a portfolio of performance-based accomplishments that is evaluated by the School Psychology faculty.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm and www.coedu.usf.edu/schoolpsych

SCHOOL PSYCHOLOGY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 1
Fall Admission Only

Minimum Total Hours: 84
Program Level: Doctoral
Program Status: Active
CIP Code: 42.1701
Dept Code: EDF
Program (Major/College): DSG ED

CONTACT INFORMATION

College: Education
Department: Psychological and Social Foundations

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

Program Description

The Ph.D. program in School Psychology at the University of South Florida is offered through the College of Education's Department of Psychological and Social Foundations. The program has been designed specifically for training in school psychology and has been developed to meet all relevant national accreditation standards. The Ph.D. program is fully accredited by the American Psychological Association and fully approved by the National Association of School Psychologists and the Florida Department of Education. Students who complete the School Psychology Training Program at USF automatically meet the academic and field training requirements for certification as a Nationally Certified School Psychologist (N.C.S.P.)

The Ph.D. program in School Psychology is committed to training professionals who have expertise in the depth and diversity of both psychology and education. This training is accomplished within a scientist-practitioner model that emphasizes comprehensive school psychological services using a social and cognitive behavioral learning theory orientation that recognizes the impact of children's individual differences and the importance of multicultural awareness and skills. Graduates of the Ph.D. program move to positions of employment as university faculty and researchers, as psychologists in school, hospital, and agency settings, and as program leaders in applied settings. The program also offers professional development opportunities for practitioners in the field.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools, NCATE, and the American Psychological Association, and Approved by the National Association of School Psychologists.

Major Research Areas:
Pediatric School Psychology, Organizational Development and Consultation, Academic Assessment and Intervention, Problem-Solving and Response to Intervention, School-Based Mental Health Services, Positive Psychology, Behavior Disorders, Home-School Collaboration, Gender-Related Issues in Education and Adolescent Development, and ADHD.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.
Admission occurs once each year for the Fall class. The School Psychology program is a limited access program. This means that only a limited number of students are able to be accepted each year

Program Admission Requirements
For all admission, all programs require earned degrees from regionally accredited institutions. International students are also required to:

1. Provide a course-by-course evaluation of foreign transcripts from an approved external agency
2. Submit passing TOEFL scores

Prerequisite Coursework for Admission

- Bachelor's degree or higher
- An undergraduate (or graduate) course in Statistics
- An undergraduate (or graduate) course in Tests and Measurements (including issues such as reliability, validity, standard error of measurement, etc.)
- An undergraduate (or graduate) course in Research Methods or Experimental Design with a lab component.

Required Admissions Materials

- All admissions materials should be submitted directly to our program. A complete application includes the following:
- A completed Application to Graduate Studies. All applications must be submitted online and can be located on our program website: http://www.coedu.usf.edu/schoolpsych/
- The application fee ($30) - payable by credit card.
- Submit official GRE scores (Note: Verbal, Quantitative, and Analytical Writing scores are required; scores should not be more than 5 years old).
- Provide official transcripts from all colleges and universities where you have completed coursework. Applicants must have an undergraduate GPA of 3.5 or higher in upper division level undergraduate coursework.
- Provide a statement of professional goals. In a 2-3 page statement, explain your immediate, intermediate, and long term goals as well as your research interests. Professional goals and research interests must be compatible with the School Psychology Program.
- Submit three letters of recommendation from professionals who are familiar with your scholarship and work history.
- Demonstrate the ability to write professionally by submitting a scholarly paper completed as part of your prior course work.
- If invited for an interview, a) present self professionally in an oral interview with two or more faculty members and graduate students, and b) provide a writing sample related to a relevant topic to the field of school psychology during the interview process.

For international applicants
Applicants whose native language is not English or who have not earned a degree in the United States must also submit TOEFL scores earned within two (2) years of the desired term of entry. A minimum total score of 79 on the internet-based test, or 550 on the paper-based test, are required. Applications submitted with TOEFL scores that do not meet the minimum requirements will be denied. The TOEFL requirement may be waived if the applicant meets one of the following conditions:

- The applicant's native language is English, or
- Has scored 500 or higher on the GRE Verbal Test, or
- Has earned a college degree at a U.S. institution of higher learning, or
- Has earned a college degree from an institution whose language of instruction is English (must be noted on the transcript), or
- Has scored 6.5 on International English Language Testing System (IELTS) http://www.ielts.org/

DEGREE PROGRAM REQUIREMENTS

The Doctor of Philosophy (Ph.D.) degree consists of approximately 84 semester hours beyond the Masters degree in School Psychology and includes advanced leadership coursework and practica experiences, concentration and area of emphasis courses in school psychology, a 2,000 clock hour internship, and the dissertation. A Master of Arts (M.A.) degree is earned by most students during the first year of their Ph.D. program. However, the M.A. is not considered a terminal degree and is not sufficient for state certification in school psychology.

Core Requirements

Research Competencies

EDF 7410 Research Design	4
EDF 6407 Statistics I	4
EDF 7408 Statistics II	4
EDF 7484 Statistics III	4*
SPS 7980 Dissertation	9

**or similar course as recommended by doctoral committee and approved by the College and/or Graduate School.*

Psychological Foundations

SPS 6101 Behavior Disorders	3
EDF 6938 Social Psychology	3
EDF 6883 Issues in Multi Education	4
EDF 6213 Biological Bases of Beh	3

Consultation/Intervention/Problem-Solving

SPS 6700 Intervention I	4
SPS 6701 Intervention II	4
SPS 6702 Intervention III	4
SPS 7205 Advanced Consult	3
SPS 7700 Adv Behav Intervention	3

Professional Practice

SPS 7936 Advanced Seminar	2
SPS 6940 Intervention Practicum	2
SPS 6941 Intervention Practicum	2
EDG 7931 Advanced Practicum	2
SPS 7090 Supervision	4
SPS 6947 Internship	16

Note: Students may be required to take additional hours depending on the course of study and or academic deficiencies.

Area of Emphasis

All doctoral students in School Psychology must specialize in at least one Area of Emphasis. An area of emphasis is defined by course work, practice, research, and internship experiences taken by the student. Possible Areas of Emphasis include: Pediatric School Psychology, Organizational Development and Consultation, Academic Assessment and Intervention, Problem-Solving and Response to Intervention, School-Based Mental Health Services, Positive Psychology, Behavior Disorders, Home-School Collaboration, Gender-Related Issues in Education and Adolescent Development, and ADHD.

Qualifying Examination

The purpose of the qualifying examination is to evaluate the student's ability to apply and synthesize the skills and knowledge acquired during graduate study. Students must successfully complete the qualifying examination and complete all required coursework before admission to doctoral candidacy.

Tests or Examinations
All students must complete the General Knowledge Exam prior to internship. It is recommended that students take both the General Knowledge Examination and the Professional Education Examination (required for degree completion) at the same time. Both of these requirements should be completed as a part of the Ed.S. degree. All students are required to take and pass the National Association of School Psychology Certification Exam during the internship year, prior to graduation.

Residency Requirement
University academic residency is defined as registration for at least 9 semester hours, two semesters in a 12 month period.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SCIENCE EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 13.1316
Dept Code: EDI
Program (Major/College): SCE EJ

Concentrations:
Biology (ASB)
Chemistry (ASC)
Physics (ASY)

CONTACT INFORMATION

College: Education
Department: Secondary Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Currently, no students are being admitted to this program. Please refer to the M.Ed. program.

Program Description
Plan I – The Plan I track is a program of graduate study designed for those with initial certification in the area of concentration (typically with a baccalaureate degree from a college of education) who desire to increase their competence in the subject specialization. It is an individually planned program of study in consultation with a departmental advisor.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools, the National Council for Accreditation of Teacher Education, and the Department of Education.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions), including an earned degree from regionally accredited institutions or an international equivalent as well as requiremnets listed below.

Program Admission Requirements

- A bachelor's degree in a science field (biology, chemistry, physics, geology, etc.) or coursework in a science teaching field acceptable to the program faculty. Students should provide a typed listing of science courses as part of their application. Students who do not meet this requirement can enroll in undergraduate courses prior to application. These courses will not be counted toward the master's degree and can be taken at any regionally accredited university or community college

- A "B" (3.0 on a 4.0 scale) average or higher in all work attempted while registered as an upper division student working for a baccalaureate degree, **or** students seeking admission by completing three graduate courses with a B or higher in each course while a non-degree seeking student should take: * EDF 6432 Foundations of Measurement and * EDF 6211 or 6215 Psychological Foundations and * SCE 5337 or SCE 5364, and

- CLAST, GKT, Praxis I or GRE is required. For the GRE the following scores are required: V:430, Q:570, AW:4.
- Proof of educational or professional experience.
- Proof of initial certification or relevant degree (Plan I).

International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

Plan I

Program of Study		**33 hours minimum**
Core Requirements		**12 hours minimum**
EDF 6432 Foundations of Measurement	3	
EDF 6211 Psychological Foundations of Education **or**	3	
EDF 6215 Learning Principles Applied to Instruction	3	
Select one from the following:		
EDF 6517 Historical Foundations of American Education	4	
EDF 6544 Philosophical Foundations of American Education	3	
EDF 6606 Socio-Economic Foundations of American Education	4	
EDF 6481 Foundations of Educational Research	3	
OR an equivalent research methods course.		
Current Trends in Teaching Concentration		**3 hours minimum**
SCE 6634 Current Trends in Science Education	3	
Concentration Requirements		**18 hours minimum**

Students select from the following concentrations:

Biology (ASB)
Chemistry (ASC)
Physics (ASY)

Courses to be taken in the College of Arts and Sciences based on the prior background and interests of the student.

Comprehensive Examination
The comprehensive exam will consist of a written and/or oral examination in the major area.

COURSES

See http://www.coedu.usf.edu/main/departments/seced/science/scemd.htm

SCIENCE EDUCATION PROGRAM

Master of Arts in Teaching (M.A.T.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 39
Program Level: Masters
CIP Code: 13.1316
Dept Code: EDI
Program (Major/College): TSC ED

CONTACT INFORMATION

College: Education
Department: Secondary Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
The Masters of Arts in Teaching (M.A.T.) in Science Education is designed for individuals with a bachelor's degree in science (or equivalent) who wish to become certified teachers in science education at the middle or senior high school level. This program leads to teaching certification in grades 6-12 science education as part of the master's degree program. For the general program structure, admission and program requirements, please see contact the program coordinator.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) including an earned degree in science discipline taught in school from regionally accredited institutions or an international equivalent as well as requirements listed below.

Program Admission Requirements

Requirements for all applicants include:

- Minimum GPA of 3.0 in upper division coursework in the Baccalaureate degree
- CLAST or GKT
- ~~Graduate coursework may be allowed in lieu of GPA~~

International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

The courses required for the M.A.T. in Science Education are listed below. Please check with the program for other program requirements.

Core Requirements
Process Core **12 hours minimum**

EDF 4330:	Measurement for Teachers	3
ESE 5342:	Teaching the Adolescent Learner	3
ESE 5344:	Classroom Management for a Diverse School and Society	3
TSL 5325:	ESOL Education in Content Areas	3
SCE 5564:	Reading and Communication Science Education	3
SCE 5334:	Methods for Middle Grades Science Education	3
SCE 4330:	Methods for Secondary Science Education	3
SCE 4330:	Teaching the Life Sciences	3
SCE 6436:	Teaching the Physical Sciences	3
SCE 6634:	Current Trends in Science Education	3
SCE 6938:	Topics in Science Education: Field Practicum	3
SCE 6947:	Internship: Science Education (PR: CI and passing scores of FTCE exam)	6

TOTAL **39 semester hours**

Comprehensive Examination:
A written narrative exam tailored to the individual student. Exam needs to be completed by two weeks before final exam week of the student's graduating semester. Exams will only be accepted during fall or spring semester, unless previous contract is established with the student's advisor.

COURSES

See **http://www.ugs.usf.edu/sab/sabs.cfm**.

SECOND LANGUAGE ACQUISITION AND INSTRUCTIONAL TECHNOLOGY PROGRAM (SLAIT)

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Domestic applicants:
Fall: February 15
Fall Admission Only

International applicants not in the U.S:
Fall: February 1
Fall Admission Only
International applicants currently in the U.S:
Fall: February 15
Fall Admission Only

Minimum Total Hours: 74
Program Level: Doctoral
CIP Code: 13.401
Dept Code: EDI
Program (Major/College): DLT EJ

Cross-listed under the College of Arts and Sciences, the College of Education, and the Interdisciplinary Programs Sections.

CONTACT INFORMATION

Colleges: Education and Arts and Sciences
Department: Secondary Education

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

This is an interdisciplinary program between the College of Education and the College of Arts and Sciences. It combines the expertise of both faculties to provide a curriculum in pedagogy, second language acquisition, sociocultural theory, instructional technology, statistics, and research design. The goal of the program is to prepare students for careers in academia.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Second Language Acquisition, Instructional Technology, Foreign Language Education, ESOL, Distance Learning.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Admission Requirements

In addition to the general admission requirements under the advanced graduate education programs, applicants must:

- Submit a "Statement of Purpose" relating their career goals specifically to this doctoral program and describing their experience with instructional technology and language teaching;
- Supply a current curriculum vitae;

- Provide 3 letters of recommendation from professors or other individuals who can attest to the applicant's experience and background;
- Offer evidence of research experience and/or scholarly promise in the statement of purpose and cover letter;
- Meet with the graduate faculty for a personal interview;
- In addition to proficiency in their native language (L1), students must demonstrate proficiency in two other world languages (L2, L3). Proficiency in speaking the L2 must be at the "Advanced" level or higher, as measured on the Oral Proficiency Guidelines (OPI) of the American Council on the Teaching of Foreign Languages (ACTFL). Speaking proficiency in L3 must be at the "Novice" level or higher, again as measured by ACTFL. For specific information, consult www.actfl.org. The program advisors will determine whether the students have met this requirement based on these as well as other criteria identified by the SLA/IT faculty. Criteria and documentation for L2 and L3 should be submitted before the student is accepted into the SLA/IT program.

Most students admitted to this program will:

- Possess a Master's degree (or equivalent academic level) from a regionally accredited institution or its international equivalent;
- present a minimum GPA of 3.5 at the Master's level (or international equivalent)
- score at or above 500 on the GRE verbal reasoning and 4 on the GRE analytical writing section;
- Submit a TOEFL score of minimum 550 (paper-based), 213 (computer-based), or 80 (internet-based), if applicable.
- I evaluate each applicant's dossier based on a composite of variables and appropriateness of fit with the program

For international applicants
Applicants whose native language is not English or who have not earned a degree in the United States must also submit TOEFL scores earned within two (2) years of the desired term of entry. A minimum total score of 79 on the internet-based test, or 550 on the paper-based test, are required. Applications submitted with TOEFL scores that do not meet the minimum requirements will be denied. The TOEFL requirement may be waived if the applicant meets one of the following conditions:

- The applicant's native language is English, or
- Has scored 500 or higher on the GRE Verbal Test, or
- Has earned a college degree at a U.S. institution of higher learning, or
- Has earned a college degree from an institution whose language of instruction is English (must be noted on the transcript), or
- Has scored 6.5 on International English Language Testing System (IELTS) http://www.ielts.org/

In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

Prerequisites:
(The prerequisite courses are based on the needs of the individual student; they are not counted towards the 44 hours of required core course work. No minimum or maximum number of prerequisites must be taken. Their selection quantity is reviewed by the student in consultation with his/her SLA/IT supervisory committee chair prior to the student's first semester of study, and is begun during the first year. Please refer to the Program of Study at
http://www.coedu.usf.edu/slait/programStudy.htm

Prerequisite Coursework

LIN 5700 Applied Linguistics	3
FLE 6665 Current Trends in Foreign Language Education	3
LIN 6720 Second Language Acquisition	3
LIN 6081 Introduction to Graduate Studies	3
TSL 5371 Methods of TESOL	3
TSL 5372 ESOL Curriculum and Instruction	3
EME 5403 Computers in Education	3
TSL 5440 Language Testing	3
FLE 4314/5313 *or* FLE 4333/5331 Methods of Teaching Foreign Languages	3

Program of Study **74 hours minimum**

44 hours of core requirements (with suggested credit hours for different sub-categories);
12 credit hours of electives;
18 hours of dissertation work.
See each section (immediately below) for specific information and course suggestions.

Core Requirements **44 hours**

Statistics/Measurement/Research Design **14 hours minimum**

EDF 6407 Statistical Analysis of Education I	4
EDF 7408 Statistical Analysis of Education II	4
and either	
EDF 7477 Qualitative Research I **and**	4
EDF 7478 Qualitative Research II	4
or	
EDF 7410 Design for Systematic Studies in Education **and**	4
EEX 7743 Philosophies of Inquiry **or**	3
EDG 7931 Introduction to Qualitative Research	3

Second Language Acquisition: **18 hours**

SLA 7776 Research Lab 1	2
SLA 7776 Research Lab 2	2
SLA 7776 Research Lab 3	2-4
SLA 7776 Research Lab 4	1-4
SLA 7776 Research Lab 5	1-4
SLA 7776 Research Lab 6	1-4
SLA 7938 Advanced Seminar in SLA	3
SLA 7939 Advanced Seminar in FLE	3
EDG 7362 Sociocultural Theory in SLA	3

Instructional Technology: **12 hours**

EME 6936 ACET Interactive Media	3
FLE 6932 Applications of Technology to SLA/FLE	3
EDF 6284 Problems in Instructional Design (prereq. for EME 6613)	3
EME 7938 Computer-Augmented Instructional Paradigms (Survey of research in instructional technology)	3

Electives: **12 hours**

Courses (not inclusive of these) are selected with the approval of the student's program advisor or committee. Elective coursework must be taken at the graduate and/or advanced graduate level. Select a total of 12 hours of electives from the following three groups (A, B, and C).

Group A: Second Language Acquisition (6-9 hours are required from Group A)

LIN 6018 Topics in Theoretical Linguistics	3
LIN 6117 History of Linguistic Thought	3
LIN 6601 Sociolinguistics	3
LIN 6748 Contrastive Analysis	3
LIN 6722 Writing Processes in SLA	3
EDG 6931 Heritage Language Teaching & Learning	3
LIN 6932 Discourse Analysis	3
FLE 6932 Dual Language in Education	3
EDG 7931 Advanced Seminar in Heritage Language Teaching & Learning	3

Group B: Technology

EME 6613 Development of Technology-Based Instruction	3
EME 6930 PLE: FLASH	3
EME 6930 PLE: Web Programming I	3
EME 6936 ACET: Digital Video	3
EME 6936 ACET: Instructional Graphics	3
EME 6936 ACET: Current Trends in Ed Technology	3
EME 6936 ACET: Web Design	3
EME 7939 Research Methods in Technology-Based Education (EDF 7410 as prerequisite)	3
EME 7458 Research in Distance Learning	3
EME 7631 Research in Technology Proj Management	3
EME 6936 Internet in Education	3

Group C: Education, Anthropology, Psychology

EXP 6643 Psychology of Language	3
EDF 7145 Educational Psychology	3
EDF 6883 Issues in Multicultural Education	4
EDF 7586 Classics in Educational Research	4
EDF 7934 Seminar in Social Foundations of Educ	4
EDG 7692 Issues in Curriculum and Instruction	3
EDG 7931 Practicum in Teacher Education	3
EDG 7931 Curriculum Frameworks in Teacher Education	3
ANG 6766 Seminar in Anthropological Linguistics	3

Dissertation **18 hours**

SLA 7980 – SLAIT Dissertation	18

Qualifying Examination

All students will be required to pass a written qualifying examination (QE). The QE integrates work in the specialization, cognate, and foundations areas, in this case, in Second Language Acquisition, Instructional Technology, and Teacher Education.

Residency requirements

Students must enroll in a minimum of 9 hours for each of two semesters in a 12 month period to fulfill the residency requirements. Students in the Ph.D. program should be engaged in no more than half-time employment during the residency period.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards and accreditation criteria.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SOCIAL SCIENCE EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Admission to this program has been temporarily Suspended

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	13.1317
Dept Code:	EDI
Program (Major/College):	ASO EJ

CONTACT INFORMATION

College:	Education
Department:	Secondary Education
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

Admission to this program has been temporarily suspended. Please see the M.Ed. in Secondary Education-Social Studies or the MA programs in the College of Arts and Sciences.

PROGRAM INFORMATION

Program Description
Plan I. This program is designed for teachers certified in social science education, typically with a baccalaureate degree from a college of education.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools and by the National Council for the Social Studies.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions)), including an earned degree from regionally accredited institutions or an international equivalent as well as requirements listed below.

Program Admission Requirements

Requirements for all applicants include:

- Minimum GPA of 3.0 upper division undergraduate coursework in the baccalaureate degree
- 3.0 in graduate coursework can be used to augment the undergraduate GPA.
- Proof of teaching K-12 full-time experience
- Proof of professional teaching certificate
- Resume
- 250-word letter of interest stating your objectives in pursuing this course of study
- Two letters of recommendation attesting to the applicants' potential success as a graduate student and his/her ability to work with adolescents.

International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.)

DEGREE PROGRAM REQUIREMENTS

Program of Study **30 hours minimum**

The requirements are as follows or as recommended by the program advisor and approved by the college and/or Graduate School.

Core Requirements **3 hours**
Select one of the following:

EDF 6432 Foundations of Measurement	3
EDF 6481 Foundations of Educational Research	3
EDF 6211 Psychological Foundations of Education	3
EDF 6215 Learning Principles Applied to Instruction	3
EDF 6517 Historical Foundations of American Education	4
EDF 6544 Philosophical Foundations of American Education	3
EDF 6606 Socio-Economic Foundations of American Education	4

Current Trends in Teaching Concentration **3 hours**

SSE 6636 Current Trends in Social Science Education	3

Concentration Requirements **6 hours**

SSE 6932 Special Topics	6

Electives
Taken in 5000 or higher courses in social sciences teaching fields in the College of Arts and Sciences.
Any Prefix of *AFA, AMS, ANT, GEA, GEO, HIS, HUM, ISS, PHI, CPO, INR, POS, POT, PUP, SYG, SYO, WST, ECO, OR ECP*

Comprehensive examination
The Comprehensive exam is taken while enrolled in SSE 6636 Trends and Issues.

COURSES

See http://www.coedu.usf.edu/main/departments/seced/SocialS/sseMA1choices.html

SOCIAL SCIENCE EDUCATION PROGRAM

Master of Arts in Teaching (M.A.T.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 39
Program Level: Masters
CIP Code: 13.1317
Dept Code: EDI
Program (Major/College): TSS ED

CONTACT INFORMATION

College: Education
Department: Secondary Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The MAT degree is for individuals with a bachelor's degree in a field other than education who wish to become certified teachers in social science at the middle or senior high school level. This program leads to teaching certification in grade 6-12 social sciences as part of the master's degree program.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools, , the Florida State Department of Education, and the National Council for the Social Studies.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions)), including an earned degree from regionally accredited institutions or an international equivalent as well as requirements listed below.

Program Admission Requirements
The requirements are as follows or as recommended by the program advisor and approved by the college and/or Graduate School.

Prerequisites:

Major: A bachelor's degree in a social studies field that is taught at the 6-12 grade level.
Specific Courses: In addition, the applicant's transcript should include the following prerequisite courses:

- Survey of American History 1 & 2;
- Survey of Western Civilization, World History or Humanities 1 & 2; and
- Geography, economics. psychology, and either anthropology or sociology

Students who do not have these 8 courses can submit passing scores on the Florida 6-12 Social Sciences Subject Area Exam with their application.

Requirements for all applicants include:

- Minimum GPA of 3.0 in upper division coursework in the Baccalaureate degree
- 3.0 in graduate coursework can be used to augment the undergraduate GPA.
- Resume
- 250-word letter of interest stating your objectives in pursuing this course of study
- Two letters of recommendation attesting to the applicants' potential success as a graduate student and his/her ability to work with adolescents.
- The Florida FTCE General Knowledge Test (GKT) an original version of the passing scores must be on file in the COEDU Graduate Office.
- Disclosure of arrest and conviction information

International Students

All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

Program of Study **39 hours Minimum**

The requirements are as follows or as recommended by the program advisor and approved by the college and/or Graduate School.

Core Requirements		**12 hours**
ESE 5342 Teaching the Adolescent Learner	3	
TSl 5325 ESOL Strategies for Content Area Teachers	3	
EDF 6432 Foundations of Measurement	3	
ESE 5344 Classroom Management for the Diverse School & Society	3	
Current Trends in teaching Concentration		**3 hours**
SSE 6636 Current Trends in Social Science Education	3	
Concentration Requirements		**18 hours**
SSE 5331 Foundations, Curriculum & Instruction	3	
SSE 5332 Methods and Strategies in Social Science Education	3	
SSE 5641 Reading & Basic Skills	3	
SSE 5946 Practicum in SSE (Prereq: SSE 5331)	3	
SSE 6932 Special Topics	6	
Practicum, Internship, Field Experiences, etc.		**9 hours**
SSE 5946 Practicum in SSE (Prereq: SSE 5331)	3	
SSE 6947 Internship	6	

All sections of the GKT, the FTCE Prof., and Educ. & Subj. Area: Social Science 6-12 must be passed **prior** to internship.

Program of studies will be planned so that all course work will be completed prior to the internship. However, should there be a need for an exception; M.A.T. students may take one 3-credit course during internship—although this is unadvisable given the full-time nature of the teaching experience and one 3-credit course after internship. The only courses that can be taken during or after internship are:

SSE 6932: Special Topics
SSE 6636: Current Trends

All school districts require finger prints and will conduct a background check prior to assignment of the final internship. Some districts also require drug testing.

Comprehensive examination
The Comprehensive exam is taken while enrolled in SSE 6636 Trends and Issues.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm or http://www.coedu.usf.edu/main/departments/seced/SocialS/SSEmahome.htm

SPECIAL EDUCATION, BEHAVIOR DISORDERS PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 13.1005
Dept Code: EDS
Program (Major/College): ABD ED

CONTACT INFORMATION

College: Education
Department: Special Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
The Master's Programs in the Department of Special Education prepare special education teacher leaders for work in public and private schools and in state, federal, or community settings. Specific areas of education and training include behavior disorders, mental retardation, specific learning disabilities, and varying exceptionalities (exceptional student education.) The program is designed to ensure that all graduates are prepared to be reflective practitioners, able to evaluate and continuously learn from their own teaching; collaborative professionals who affirm diversity; knowledgeable of theory and research; and skilled in the best practices of special education. Graduates of this program will have advanced clinical and pedagogical skills in working with children with disabilities and their families. The program is structured so that students can maintain full-time employment while pursuing their degrees through traditional, web-enhanced and on-line course delivery.

After admission to a program, the candidate and the department advisor together chart a program of study incorporating both core requirements and courses of specific interest to the student. All programs stress field application..

Accreditation: Accredited by the Commission on Colleges and Schools of the Southern Association of College and Schools and the National Coouncil for the Accreditation of Teacher Education (NCATE).

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
For admission, programs require earned degrees from regionally accredited institutions or an international equivalent.

- An earned baccalaureate degree or its equivalent from a regionally accredited college or university.
- Scholastic evidence to successfully perform in the academic program, as indicated by one of the following:
  - An earned graduate degree from a regionally accredited college or university, or
  - An undergraduate GPA of 3.0 or higher in all work attempted while registered as an upper division student working for a baccalaureate degree, or
  - A GRE score on the Verbal and Quantitative Subtests , or
  - Completion of 9 hours of specified graduate course work in special education with a GPA of 3.0 or higher, and the endorsement of a Special Education faculty member.

- A letter of application that addresses why the candidate desires to pursue a master's degree in special education.
- At least two (2) letters of recommendation from persons who have seen the candidate teach and/or work with children and youth.

International Students

All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

All Special Education programs are currently under review. Students are advised to work closely with program advisors in the department when developing their programs of study.

Plan I

The M.A. program in special education is a 36-hour program, designed for students with an undergraduate degree in special education. This program is delivered through a number of formats. Evening and on-line courses are offered during the Fall, Spring and Summer semesters. Daytime courses are sometimes offered during the summer. Students usually take one or two courses a semester and complete their program of study within two to four years. Students are required to take courses two of the three semesters each calendar year and they must complete their program of study within 7 years of their admission date.

Program of Study **36 hours minimum**

Core Requirements

Process Core **3**

EDF 6481 Foundations of Educational Research

Other Requirements: **21 hours minimum**

EEX 6612 Management and Motivation
EEX 6222 Advanced Psychological Assessment
EEX 6245 Transitional Programming
EEX 6732 Consultation and Collaboration
EEX 5752 Working with Families
EEX 6248 Instructional Approaches
EEX 6939 Advanced Seminar in Special Education

Concentration in Behavior Disorders **9 hours**

EED 6215 Advanced Theories/Practices in Behavior Disorders 3

Electives: (6 hours)

Elective coursework relevant to the student's concentration is required and must be aproved by the faculty advisor prior to registering for the course.

Practicum

EEX 6943 Practicum in Exceptional Student Education

Comprehensive Examination **3 hours**

The successful completion of a comprehensive exam in the form of a portfolio is required of all students in their final semester of the program

Plan II

This program is **no longer offered**. See the M.A.T. in Exceptional Student Education-ESE to earn a graduate degree and certification in ESE and ESOL.

Plan III

This option is available for students who do not hold an undergraduate degree in special education.

Program of Study **45 hour minimum**

Pre--Requisite

EEX 6025* Trends and Issues in Special Education

College Requirement

Core Requirements **12 hours**

EDF 6481 Foundations of Educational Research
EDF 6432 Foundations of Measurement
EDF 6211 or EDF 6215 Psychological Foundations of Education
EDF 6517: Social/Historical/or EDF 6544 or EDF 6606 Philosophical Foundations of Education)

Other Requirements **21 hours minimum**

EEX 6612 Management and Motivation
EEX 6222 Advanced Psychological Assessment
EEX 6245 Transitional Programming
EEX 6732 Consultation and Collaboration
EEX 5752 Working with Families
EEX 6248 Instructional Approaches
EEX 6939 Advanced Seminar in Special

Specilization in Behavior Disorders: **9 hours**

EED 6215 Advanced Theories and Practices in Behavior Disorders

Practicum

EEX 6943 Practicum inExceptional Student Education

Comprehensive Examination

The successful completion of a comprehensive exam in the form of a portfolio is required of all students in their final semester of the program.

COURSES

See **http://www.ugs.usf.edu/sab/sabs.cfm**

SPECIAL EDUCATION, GIFTED PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 13.1004
Dept Code: EDS
Program (Major/College): AGI ED

CONTACT INFORMATION

College: Education
Department: Special Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
The Master's Program in Gifted Education (Plan I) provides advanced training for certified teachers to work with gifted and talented students and with other teachers on a consultant or collaborative basis. The courses for this program are offered through an on-line format, though some courses may be taken on campus. Emphasis is placed on developing specific skills in identification of gifted students; focusing on the characteristics and needs of special populations; assessing students' cognitive and affective strengths; modifying educational programs to develop gifted students' potential; and consulting with gifted students, their families, and teachers. This program qualifies students for the State of Florida Endorsement in Gifted Education.

After admission to a program, the candidate and the department advisor together chart a program of study incorporating core requirements. Courses stress field based experiences. Students provide their own transportation to practicum sites in K-12 education settings. The practicum experience requires candidates to access assessment information about K-12 students in their school setting, including performance on individualized intelligence tests, achievement tests, and educational programs (EPs). Practicum coursework also requires candidates to conduct extended projects focused on the development and educational progress of K-12 gifted students. Employment in a K-12 classroom as a licensed educator is required to successfully complete program coursework.

Accreditation: Accredited by the Commission on Colleges and Schools of the Southern Association of Colleges and Schools, Natioanl Council for Accreditation of Teacher Education, and the Florida Department of Education

Plan III: Inactive

ADMISSION INFORMATION

Program Admission Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent.

Admissions Requirements include:

- An earned bachelor's degree or its equivalent from a regionally accredited college or university
- An undergraduate GPA of 3.0 on a 4.0 scale as an upper division student in a baccalaureate degree or the following GRE Scores:
  - Verbal: 550 or Analytical Writing: 3.5
  - Quantitative: 520
- Two letters of recommendation from administrators familiar with applicant's professional teaching experience and expertise
- A statement of professional goals
- Copy of professional teaching certificate (not a temporary certificate)
- Evidence that applicant currently holds a teaching position in a K-12 setting

International Students

Applicants whose native language is not English or who have not earned a degree in the United States must also submit TOEFL scores earned within two (2) years of the desired term of entry. A minimum total score of 79 on the internet-based test, or 550 on the paper-based test, are required. Applications submitted with TOEFL scores that do not meet the minimum requirements will be denied. The TOEFL requirement may be waived if the applicant meets one of the following conditions:

- The applicant's native language is English, or
- Has scored 500 or higher on the GRE Verbal Test, or
- Has earned a college degree at a U.S. institution of higher learning, or
- Has earned a college degree from an institution whose language of instruction is English (must be noted on the transcript), or
- Has scored 6.5 on International English Language Testing System (IELTS) http://www.ielts.org/

DEGREE PROGRAM REQUIREMENTS

(co-requisite)		
EEX 6025 Trends and Issues in Special Education	3	
Program of Study		**36 hours**
Core Requirements		**9 hours**
EDF 6481Foundations of Educational Research	3	
EEX 6939 Current Trends in Special Education	3	
Special Education Program Core	3	
EEX 6222 Pyschoeducational Assessment of Exceptional Students		
Concentration Requirements		**27 hours**
EGI 5051 Nature and Needs of the Gifted	3	
EGI 5307 Theory and Development of Creativity	3	
EGI 6232 Advanced Strategies for Teaching the Gifted	3	
EGI 6415 Seminar in Special Populations of the Gifted	3	
EGI 6416 Consultation, Counseling, and Guide of the Gifted	3	
EGI 6943 Supervised Practicum in Gifted Education	12	

Comprehensive Examination (Portfolio)
In lieu of a comprehensive examination, candidates maintain an electronic portfolio of required critical tasks completed at specific timepoints during the program of study, which is evaluated by the program faculty. Completion of the portfolio occurs during the final semester of coursework with a culminating statement reflective of the field standards and the candidate's competence in these domains.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SPECIAL EDUCATION, INTELLECTUAL DISABILITIES PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	36
Program Level:	Masters
CIP Code:	13.1006
Dept Code:	EDS
Program (Major/College):	AMR ED

CONTACT INFORMATION

College:	Education
Department:	Special Education
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

Program Description

The Master's Programs in the Department of Special Education prepare special education teacher leaders for work in public and private schools and in state, federal, or community settings. Specific areas of education and training include behavior disorders, mental retardation, specific learning disabilities, and varying exceptionalities (exceptional student education). The program is designed to ensure that all graduates are prepared to be reflective practitioners, able to evaluate and continuously learn from their own teaching; collaborative professionals who affirm diversity; knowledgeable of theory and research; and skilled in the best practices of special education. Graduates of this program will have advanced clinical and pedagogical skills in working with children with disabilities and their families. The program is structured so that students can maintain full-time employment while pursuing their degrees through traditional, web-enhanced and on-line course delivery. After admission to a program, the candidate and the department advisor together chart a program of study incorporating both core requirements and courses of specific interest to the student. All programs stress field application.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools and the National Council for the Accreditatoin of Teacher Education (NCATE).

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent. Requirements include:

- An earned baccalaureate degree or its equivalent from a regionally accredited college or university.
- Scholastic evidence to successfully perform in the academic program, as indicated by one of the following:
  - An earned graduate degree from a regionally accredited college or university, or
  - An undergraduate GPA of 3.0 or higher in all work attempted while registered as an upper division student working for a baccalaureate degree, or
  - A GRE score on each of the Verbal and Quantitative Subtests that when combined equals at least 1000 or higher, or Completion of 9 hours of specified graduate course work in special education with a GPA of 3.0 or higher, and the endorsement of a Special Education faculty member.

- A letter of application that addresses why the candidate desires to pursue a master's degree in special education.

- At least two (2) letters of recommendation from persons who have seen the candidate teach and/or work with children and youth.

Special Instructions for international applicants:
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number for purposes of practicum and internship;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

All Special Education programs are currently under review. Students are advised to work closely with program advisors in the department when developing their programs of study.

Plan I - The M.A. program in special education is a 36-hour program, designed for students with an undergraduate degree in special education. This program is delivered through a number of formats. Evening and online courses are offered during the Fall, Spring and Summer semesters. Daytime courses are sometimes offered during the summer. Students usually take one or two courses a semester and complete their program of study within two to four years. Students are required to take courses two of the three semesters each calendar year and they must complete their program of study within 5 years of their admission date.

Program of Study **36 hour minimum**

College Requirements

Core Requirements **3 hours minimum**
EDF 6481 Foundations of Educational Research

Concentration Requirements **21 hours minimum**
EEX 6612 Management and Motivation*
EEX 6222 Advanced Psychological Assessment
EEX 6245 Transitional Programming
EEX 6732 Consultation and Collaboration
EEX 5752 Working with Families
EEX 6248 Instructional Approaches
EEX 6939 Advanced Seminar in Special
* Not required, if equivalent course taken in undergraduate program.

Intellectual Disabilities Concentration **9 hours**
EMR 6052: Advanced Theories and ~~/~~Practices in Intellectual Disabilities~~Mental Retardation~~

Electives **6 hours**
Elective coursework relevant to the concentration is required and must be aproved by the faculty advisor prior to registering for the course.

Comprehensive Examination

EEX 6943

The successful completion of a comprehensive exam in the form of a portfolio is required of all students in their final semester of the program.

Plan II

This program is **no longer offered**. See the M.A.T. in Exceptional Student Education-ESE to earn a graduate degree and certification in ESE and ESOL.

Plan III

This option is available for students who do not hold an undergraduate degree in special education. An interview is required for all students seeking admission to the Plan III Program. Contact student advisor to schedule.

Program of Study (Plan III Option) **45 hours minimum**

Core Requirements **12 hours**

EDF 6481 Foundations of Educational Research
EDF 6432 Foundations of Measurement
EDF 6211 or EDF 6215 Psychological Foundations of Education
EDF 6517: Social/Historical/or EDF 6544 or EDF 6606: Philosophical Foundations of Education)

Pre--Requisite

EEX 6025* Trends and Issues in Special Education

Concentration Requirements **21 hours minimum**

EEX 6612 Management and Motivation
EEX 6222 Advanced Psychological Assessment
EEX 6245 Transitional Programming
EEX 6732 Consultation and Collaboration
EEX 5752 Working with Families
EEX 6248 Instructional Approaches
EEX 6939 Advanced Seminar in Special

Intellectual Disabilities Concentration **9 hours**

EMR 6053: Advanced Theories/Practices in Mental Retardation

Electives **6 hours**

Elective coursework relevant to the concentration is required and must be aproved by the faculty advisor prior to registering for the course.

Practicum

EEX 6943 Practicum in Exceptional Student Education 3 hours

Comprehensive Examination:

The successful completion of a comprehensive exam in the form of a portfolio is required of all students in their final semester of the program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SPECIAL EDUCATION, MOTOR DISABILITIES PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines: Closed for new admissions

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 13.1001
Dept Code: EDS
Program (Major/College): AMD ED

CONTACT INFORMATION

College: Education
Department: Special Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

Currently, no students are being admitted to this program.

SPECIAL EDUCATION, SPECIFIC LEARNING DISABILITIES PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 13.1011
Dept Code: EDS
Program (Major/College): ALD ED

CONTACT INFORMATION

College: Education
Department: Special Education

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

Program Description
The Master's Programs in the Department of Special Education prepare special education teacher leaders for work in public and private schools and in state, federal, or community settings. Specific areas of education and training include behavior disorders, mental retardation, specific learning disabilities, and varying exceptionalities (exceptional student education). The program is designed to ensure that all graduates are prepared to be reflective practitioners, able to evaluate and continuously learn from their own teaching; collaborative professionals who affirm diversity; knowledgeable of theory and research; and skilled in the best practices of special education. Graduates of this program will have advanced clinical and pedagogical skills in working with children with disabilities and their families. The program is structured so that students can maintain full-time employment while pursuing their degrees through traditional, web-enhanced and on-line course delivery. After admission to a program, the candidate and the department advisor together chart a program of study incorporating both core requirements and courses of specific interest to the student. All programs stress field application.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
For admission, all programs require earned degrees from regionally accredited institutions or an international equivalent.

Other requirements include:

- An earned baccalaureate degree or its equivalent from a regionally accredited college or university.
- Scholastic evidence to successfully perform in the academic program, as indicated by one of the following:
  - An earned graduate degree from a regionally accredited college or university, or
  - An undergraduate GPA of 3.0 or higher in all work attempted while registered as an upper division student working for a baccalaureate degree, or
  - A GRE score on the Verbal and Quantitative Subtests , or
  - Completion of 9 hours of specified graduate course work in special education with a GPA of 3.0 or higher, and the endorsement of a Special Education faculty member.

- A letter of application that addresses why the candidate desires to pursue a master's degree in special education.
- At least two (2) letters of recommendation from persons who have seen the candidate teach and/or work with children and youth.

International Students
All applicants whose native language is other than English or who have earned a degree from an institution outside the United States must meet the University requirements relative to international graduate admission, (e.g. TOEFL scores, etc.). In addition to these university requirements, applicants to the College of Education must provide the following:

- An external, course by course evaluation of the foreign degree by an approved external agency, and based on official transcripts;
- A social security number in degree programs requiring practica or internships;
- Other information as required by the program of interest, (e.g. Graduate Record Exam scores, etc.).

DEGREE PROGRAM REQUIREMENTS

All Special Education programs are currently under review. Students are advised to work closely with program advisors in the department when developing their program of study.

Plan I
The M.A. program in special education is a 36-hour program, designed for students with an undergraduate degree in special education. This program is delivered through a number of formats. Evening and online courses are offered during the Fall, Spring and Summer semesters. Daytime courses are sometimes offered during the summer. Students usually take one or two courses a semester and complete their program of study within two to four years. Students are required to take courses two of the three semesters each calendar year and they must complete their program of study within 7 years of their admission date.

Program of Study **36 hour minimum**

Core Requirements **3 hours**
EDF 6481 Foundataions of Educational Research

Concentartion Requirements **21 hours minimum**
EEX 6612 Management and Motivation
EEX6222 Advanced Psychological Assessment
EEX 6245 Transitional Programming
EEX 6732 Consultation and Collaboration
EEX 5752 Working with Families
EEX 6248 Instructional Approaches
EEX 6939 Advanced Seminar in Special Education
EEX 6943 Practicum

Specific Learning Disabilities ~~course~~Concentration **3 hours**
ELD 6015 Advanced Theories and Practices in ~~of~~ Behavior Disorders

Electives
Elective courseworkrelevant to the concentration is required and must be aproved by the faculty advisor prior to registering for the course.

Comprehensive Examinatio **3 hours**
A project is required to fulfill the comprehensive examination requirement.
EEX 6943

Plan II

This program is **no longer offered**. See the M.A.T. in Exceptional Student Education-ESE to earn a graduate degree and certification in ESE and ESOL.

Plan III

This option is available for students who do not hold an undergraduate degree in special education. An interview is required for all students seeking

Program of Study **45 hour minimum**

Core Requirements **12 hours**

EDF 6481 Foundations of Educational Research
EDF 6432 Foundations of Measurement
EDF 6211 or EDF 6215 Psychological Foundations of Education
EDF 6517: Social/Historical/or EDF 6544 or EDF 6606: Philosophical Foundations of Education)

PreRequsite

EEX 6025* Trends and Issues in Special Education

Concentration Requirements (21 hours minimum)

EEX 6612 Management and Motivation
EEX 6222 Advanced Psychological Assessment
EEX 6245 Transitional Programming
EEX 6732 Consultation and Collaboration
EEX 5752 Working with Families
EEX 6248 Instructional Approaches
EEX 6939 Advanced Seminar in Special

Concentration in Specific Learning Disibilities **9 hours**

EED 6215 Advanced Theories and Practices in Behavior Disorders 3

Electives **6 hours**

Elective coursework relevant to the concentration is required and must be aproved by the faculty advisor prior to registering for the course.

Practicum **3 hours**

EEX6943 Practicum in Exceptional Student Education

Comprehensive Exam

The successful completion of a comprehensive exam in the form of a portfolio is required of all students in their final semester of the program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

COLLEGE OF ENGINEERING

Changes to Note

The follow curricular changes for the College of Engineering were approved by the USF-Tampa Graduate Council on the date noted.

College Requirements

Engineering (Ph.D.)	change in college requirements from 90 to 72 hours	2/21/11

New Program

Environmental Engineering (Ph.D.)		4/21/11

In process for BOT/BOG approval – pending final approval

Program changes

Civil/Environ Engineering (M.C.E., M.S.C.E., M.E.V.E., M.S.E.V.)	Add alternative to GRE req	6/6/11
Civil Engineering (Ph.D.)	change curr; add new conc: Environ Engin	4/18/11
Computer Science and Engineering (Ph.D.)	change curriculum	6/6/11

New Courses

EIN 6353	Risk and Decision Analysis	4/18/11
EIN 5452	Engineering a Lean Enterprise	8/18/10
EIN 6392	New Product Development	2/21/11
ESI 6420	Non-Linear Programming	7/5/11
ESI 6447	Large-scale and Computational Optimization	7/5/11

Course change:

EIN 6179	Adv. TQM Methods: Six Sigma	title change	6/6/11

Courses Withdrawn:

ESI 6638	Data Mining - new course; withdrawn by dept.	10/18/10

University of South Florida
College of Engineering
4202 E. Fowler Ave ENB118
Tampa, FL 33620

Web address: http://www2.eng.usf.edu/

Phone: 813-974-3780
Fax: 813-974-0460
Email: n/a

College Dean: John Wiencek
Associate Dean: Rafael Perez

Accreditation:
The Commission on Colleges of the Southern Association of College and Schools. Contact College for additional accreditation information.

MISSION STATEMENT
The mission of the USF College of Engineering is to improve the quality of life in our community by providing a high quality education for our engineering graduates and practicing professionals; by creating new knowledge and solving real world problems via innovative research; and by engaging in effective community service and outreach.

WHAT WE DO
At the graduate level students work in close collaboration with faculty, pursuing advanced topics within their disciplines, which will result in advancements in their fields and society at large.

Utilizing the expertise of its individual and collective faculty, the College is dedicated to the development of new fundamental knowledge and processes or procedures, which will benefit all humanity. The College promotes multi-disciplinary approaches, commitment to life-long learning and awareness of societal issues, which are requisite for meeting technological challenges.

The College provides technical assistance and technology transfer to the region, state and nation. In all facets of teaching, research and service, the College emphasizes close liaisons with industry and government to provide students and faculty with the skills and perspectives needed to ensure effective technological leadership.

Degrees, Programs, Concentrations:
See individual listings for current active status

Degree
Program
Concentration

Master of Chemical Engineering (M.Ch.E.)
Chemical Engineering (ECH)
Biomedical & Biotechnology (BEB)

Master of Civil Engineering (M.C.E.)
Civil Engineering (ECE)
Geotechnical (GTL)
Interdisciplinary Transportation (ITP)
Materials (MTL)
Structures (STR)
Transportation (TPT)
Water Resources (WRS)

Master of Engineering (M.E.)
Chemical Engineering (ECH)
Biomedical & Biotechnology (BEB)
Electrical Engineering (EEL)
~~Industrial Engineering~~
Mechanical Engineering (EME)

Master of Environmental Engineering (M.E.V.E.)
Environmental Engineering (EVE)

Master of Industrial Engineering (M.I.E.)
Industrial Engineering (EIE)
Quantitative Analysis (QAS)
Engineering Management (IMA)

Master of Mechanical Engineering (M.M.E.)
Mechanical Engineering (EME)

Master of Science in Biomedical Engineering (M.S.B.E.)
Biomedical Engineering (EBI)

Master of Science in Chemical Engineering (M.S.C.H.)
Chemical Engineering (ECH)
Biomedical & Biotechnology (BEB)

Master of Science in Civil Engineering (M.S.C.E.)
Civil Engineering (ECE)
Geotechnical (GTL)
Interdisciplinary Transportation (ITP)
Materials (MTL)
Structures (STR)
Transportation (TPT)
Water Resources (WRS)

Master of Science in Computer Engineering (M.S.C.P.)
- Computer Engineering (ECP)

Master of Science in Computer Science (M.S.C.S.)
- Computer Science (ECC)

Master of Science in Electrical Engineering (M.S.E.E.)
- Electrical Engineering (EEL)

~~Master of Science in Engineering (M.S.E.)~~
~~Engineering (Accelerated 5 yr program)~~

Master of Science in Engineering Management (M.S.E.M.)
- Engineering Management (EMA)

Master of Science in Engineering Science (M.S.E.S.)
- Biomedical Engineering (EBI)
- Chemical Engineering (ECH)
  - Biomedical & Biotechnology (BEB)
- Civil Engineering (ECE)
  - Geotechnical (GTL)
  - Interdisciplinary Transportation (ITP)
  - Materials (MTL)
  - Structures (STR)
  - Transportation (TPT)
  - Water Resources (WRS)
- Electrical Engineering (EEL)
- Engineering Science (EGC)
- Environmental Engineering (EVE)
- Mechanical Engineering (EME)

Master of Science in Environmental Engineering (M.S.E.V.)
- Environmental Engineering (EVE)

Master of Science in Industrial Engineering (M.S.I.E.)
- Industrial Engineering (EIE)
  - Quantitative Analysis (QAS)
  - Engineering Management (IMA)

Master of Science in Materials Science and Engineering (M.S.M.S.E.)
- Materials Science and Engineering (MSE)

Master of Science in Mechanical Engineering (M.S.M.E.)
- Mechanical Engineering (EME)

Doctor of Philosophy (Ph.D.)
- Biomedical Engineering (EBI)
- Chemical Engineering(ECH)
  - Biomedical & Biotechnology (BEB)
  - Manufacturing (MFT)
- Civil Engineering

Environmental Engineering (ENV)
Geotechnical (GTL)
Interdisciplinary Transportation (ITP)
Materials (MTL)
Structures (STR)
Transportation (TPT)
Water Resources (WRS)

Computer Science and Engineering (CSE)
Electrical Engineering (EEL)
Engineering Science (EGC)
Physics (ENP)
Industrial Engineering (EIE)
Engineering Management (IMA)
Manufacturing Systems (MFS)
Quantitative Analysis (QAS)
Mechanical Engineering (EGR)
Manufacturing (MFG)

Dual Degree Programs:

Dual Degrees in Biomedical Engineering (Ph.D.) and Medicine (M.D.)
Dual degrees in Biomedical Engineering (M.S.B.E.) and Entrepreneurship in Applied Technologies (M.S.)

Graduate Certificates Offered: See Graduate Certificates

COLLEGE REQUIREMENTS

General Program Requirements

The requirements for graduate degrees from the College of Engineering consist of University requirements, College requirements, and Program requirements. For University requirements refer to the Graduate School Policies and Procedures. College requirements are listed below. Refer to the degree program sections for other requirements.

Master's Degree Programs

The Master's degree is awarded for advanced study beyond the baccalaureate degree within an area of specialty. The College of Engineering offers several programs leading to degrees at the master's level.

Master of Science in Designated Engineering Field - This degree is normally awarded to a Master's graduate who holds a Bachelor's degree in the designated field. Some programs offer this degree in two options: (1) thesis option (30 credits), and (2) non-thesis option (30 credits).

Master of Science in Engineering Science - This program is designed to meet the needs of students who wish to pursue an interdisciplinary course of study and research. This degree is individually tailored to student needs. Some programs offer this degree in two options: (1) thesis option (30 credits), and (2) non-thesis option (30 credits).

Master of Science in Engineering - This degree is normally awarded to a Master's graduate who has a Bachelor's degree from a non-engineering program and has completed a prescribed series of

undergraduate engineering courses. Some programs offer this degree in two options: (1) thesis option (30 credits), and (2) non-thesis option (30 credits).

Master of Designated Discipline - This degree is normally awarded to a Master's graduate who has an undergraduate degree in the discipline and who follows an all coursework program or a project program.

~~Master of Engineering - This degree is normally awarded to a Master's graduate who has a Bachelor's degree from a non-engineering program and has completed a prescribed series of undergraduate engineering courses.~~

Manufacturing Option - In addition, the departments of Chemical & Biomedical Engineering, Computer Science and Engineering, Electrical Engineering and Mechanical Engineering, offer a Master of Science in Engineering with a Manufacturing Systems Option (consisting of an 18 hour core and 18 hours of electives). The degree is administered by the Industrial Engineering Department and is a true interdisciplinary degree with areas of Robotics, Automation, Computer Aided Design, Computer Integrated Manufacturing, Control Systems, Software Systems, Hardware Systems, and Production Systems available for emphasis. The student, upon completion of the core courses, may choose electives and concentrate within one of the above departments or may choose to acquire an in-depth knowledge in one of the above emphasis areas by making elective course choices from several departments.

College of Engineering Requirements for Master's Degree

1. A thesis program must contain a minimum of 24 credit hours of coursework and a minimum of 6 credit hours of thesis. (If a student transfers from a thesis program to an all coursework program, no thesis hours may be transferred, converted or counted toward the degree.)
2. Non-thesis program requirements vary according to department but must contain a minimum of 30 credits of approved coursework.
3. Students must maintain an overall grade point average of 3.00. No grade below "C" will be accepted in a graduate program. If a student's average falls below 3.00, the student will be placed on probation.
4. Most programs require students to pass a final oral or written comprehensive examination prior to receiving the degree. These examinations are arranged and administered by the student's department.

Accelerated Programs Leading to Accelerated Bachelor and Master's Degrees

Students who, at the end of the junior year, clearly are interested in graduate study are invited to pursue a five-year program leading simultaneously to the Bachelor of Science in Engineering or Engineering Science and Master Degrees. This program offers the opportunity to take graduate courses during the fourth year and deferring senior courses to the fifth year. Students in the Five-Year Program may apply 6 credit hours of coursework, which must be approved by the Graduate Program Coordinator, to count towards both degrees.

Students apply for admission to this program through their advisors, who should be consulted regarding additional requirements. Several factors, which vary by academic department, are considered for admission. However, all applicants must have a minimum GPA of at least 3.00.

Doctoral Degree Programs

The Doctor of Philosophy degree is awarded in recognition of demonstrated scholarly competence and ability to conduct and report original and significant research. Unlike the baccalaureate and Master's degrees, the Ph.D. degree cannot be earned by an accumulation of course credits over a period of residence alone. After adequate fundamental preparation to gain competence, the student must demonstrate research capability through completion of an authoritative investigation in the chosen engineering field, culminating in a written dissertation. The dissertation must demonstrate that the

student possesses the ability to reason logically, the talent for engaging in significant and original research, and the ability to organize and present conclusions in a professional manner.

Doctor of Philosophy in Designated Engineering Field - This degree is awarded to students pursuing a program in one of the following Engineering disciplines: Biomedical Engineering, Chemical Engineering, Civil Engineering, Computer Science and Engineering, Electrical Engineering, Industrial Engineering, and Mechanical Engineering. Students receiving this degree must demonstrate a thorough foundation in the designated discipline.

Doctor of Philosophy in Engineering Science - This program is designed to meet the needs of students who wish to pursue doctoral studies in interdisciplinary areas closely related to engineering.

College of Engineering Requirements for Doctoral Degrees

1. Supervisory Committee. An advisor will be appointed by the chair of the appropriate department or program for each student during the first semester of registration at the University of South Florida. The advisor will help determine the student's area of research interest and will delineate preliminary course assignments. At the earliest possible date, a major professor will be appointed and a supervisory committee formed. This committee will monitor the student's program of studies and has full responsibility for conducting the student's qualifying examination. The Supervisory Committee consists of a minimum of five members. One member of the committee must be outside the College of Engineering. (The requirement may be waived if special reasons exist and prior approval is obtained from the Engineering Associate Dean for Academic Affairs.) A majority of the committee will be from the College of Engineering, with at least two departments of the College represented.

2. Credit Hours. ~~A minimum of 60 hours of coursework beyond the baccalaureate degree plus a minimum of 20 hours of dissertation research is required. Total hours of credit must equal or exceed 90 hours. A minimum of 27 hours coursework in an engineering area of concentration is required. The 27 hours need not be coursework in the same department, but must focus directly upon the areas of concentration; at least 20 hours must be at the 6000 level. In addition, a minimum of 8 hours of mathematics or statistics is required. Engineering Mathematics may be approved by the committee if appropriate. Also, a minimum of 8 hours of coursework as defined by the committee outside the major area of concentration is required. Further requirements may be imposed by the candidate's committee.~~ A minimum of 72 hours beyond the baccalaureate degree, including a minimum of 20 hours of dissertation, and a minimum of 30 hours of coursework (excluding independent study and directed research) is required by the College. Further requirements may be imposed by the candidate's doctoral program and supervisory committee. See individual programs for specific requirements.

3. Learning Focus. Throughout the student's program of study, independent learning will be emphasized. For the first time in the participant's career, in most cases, the student will be responsible for mastering a new domain of knowledge without the aid of organized lectures and textbooks. The principal information source will be current literature. Such experience is a necessary preparation for a meaningful career in engineering and other fields where the professional must keep pace with a large, ever-changing body of knowledge.

4. Qualifying Examination. A written and oral qualifying examination, conducted by the supervisory committee, will be taken by each Ph.D. student as soon as a substantial majority of coursework is completed.

5. Admission to Candidacy. Students must be admitted to candidacy before they register for dissertation. Before admission to candidacy, students must have officially formed a Ph.D. Supervisory Committee and passed the qualifying examination of paragraph 4. Once admitted to candidacy students must enroll for a minimum of 2 credit hours each semester of the academic year until completion of program.

6. Dissertation Research. The student must carry out an investigation resulting in an original and significant contribution to the knowledge in the field of research. The requirement of uniqueness means that the dissertation research will provide an important creative experience for the student. As the final stage of the student's program, the candidate must prepare a written dissertation covering the research. Students in the Ph.D. program must take an appropriate number of doctoral dissertation credits, but not less than 20 hours; the exact number is determined by department and/or individual requirements. The defense of the dissertation will conform to Graduate School general rules.

7. Residency. Minimum residency requirements may be satisfied by completing the University's minimal requirement at the University of South Florida. Any graduate work counted toward the fulfillment of the requirement for the Ph.D. degree after admission to candidacy must be accomplished within 5 calendar years.

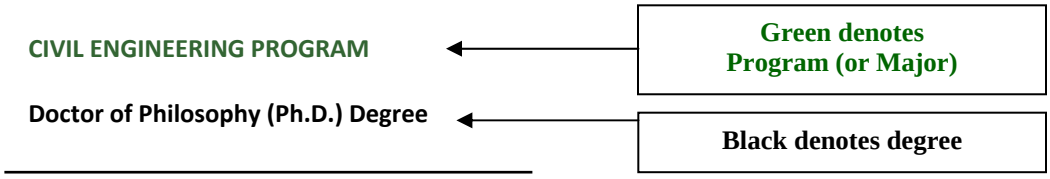
Collaboration with Other Colleges and Departments

Advanced study and research challenges exist at the interfaces between engineering and other academic disciplines. Examples include surface physics and chemistry applied to semiconductor processing technology; semiconductor physics applied to VLSI and analog integrated circuit design, manufacture and quality control; chemical processing and its relation to chemical principles; environmental engineering and chemical identification of minute impurities; environmental and transportation engineering and its relation to public health and public administration; water resources engineering and geo-hydrology; and biomedical engineering, to name only a few. The College collaborates with other academic units of the University in research activities and selectively educates students to become proficient in such interdisciplinary fields.

About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the College that offers them. For example, the Master of Science degree with a "program" (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or "concentrations" within a degree program.

PROGRAMS



CONCENTRATIONS

Concentration Requirements are listed separately under each Program.

The Program and Concentration are listed on the official transcript. Other areas, such as application tracks, are not listed on the transcript.

Example:
Doctor of Philosophy in Civil Engineering
with a Concentration in Transportation

BIOMEDICAL ENGINEERING PROGRAM

Master of Science in Biomedical Engineering (M.S.B.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.0501
Dept Code: DEA
Program (Major/College): EBI EN

CONTACT INFORMATION

College: Engineering
Department: Chemical & Biomedical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Biomedical Engineering is a highly interdisciplinary program that combines engineering and the medical sciences. The student works with an advisor to develop a graduate program that draws on courses from engineering, medicine, public health, and the life sciences. Current active areas of research include: biomechanics, biomaterials, medical imaging, neuroengineering, tissue engineering, sensors, cellular-level drug delivery, and rehabilitation engineering. In addition to USF Health, participating institutions include the James Haley Veterans Administration Hospital, Shriners Orthopedic Hospital for Children, Florida Orthopedics Institute, and Tampa General Hospital. For more information, please contact the BME Program Advisor.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Neuroengineering and Tissue Engineering

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Undergraduate GPA of 3.00 or higher.
- Minimum GRE, Quantitative >620; Analytical written score of 4 or >;
- An undergraduate Bachelor's degree or equivalent in Engineering or Science;
- TOEFL 550 (paper-based total) for international students or 213 (computer-based total);
- Three (3) letters of recommendation;
- A statement of purpose.

Note: Exceptionally qualified students with undergraduate degrees in the Life and Physical Sciences may be admitted into the BME M.S. Program. Such students will typically have to complete a series of remedial courses before formal admission into the program. Any remedial courses will normally not count towards the degree requirements. The BME Program Advisor should be consulted for details.

DEGREE PROGRAM REQUIREMENTS

Both the thesis and non-thesis options are available at the M.S. level. A total of 30 credit hours are required for either option.

Core Requirements

Currently there are three (3) required courses:

GMS 6440	Basic Medical Physiology	3
GMS 6605	Basic Medical Anatomy	3
PHC 6051~~2~~	Biostatistics II	3

Students select from additional approved courses to complete the 30 hour requirement. A minimum of 16 hours must be at the 6000 level. In addition, all of the elective courses must consist of engineering-prefix courses, although the Thesis Committee (thesis option) or the BME Program Advisor (non-thesis option) may approve 1 or 2 courses in relevant areas such as chemistry or physics. Thesis option students can count up to 6 hours of thesis research towards the requirements.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

BIOMEDICAL ENGINEERING PROGRAM

Master of Science in Engineering Science (M.S.E.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Currently closed for admission

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.0501
Dept Code: DEA
Program (Major/College): EBI EN

CONTACT INFORMATION

College: Engineering
Department: Chemical & Biomedical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

This program is inactive and not accepting applications for admission.

PROGRAM INFORMATION

Biomedical Engineering is a highly interdisciplinary program that combines engineering and the medical sciences. The student works with an advisor to develop a graduate program that draws on courses from engineering, medicine, public health, and the life sciences. Current active areas of research include: biomechanics, biomaterials, medical limaging, tissue engineering, sensors, telehealth, cellular-level drug delivery, and rehabilitation engineering. Participating institutions include the James Haley Veterans Administration Hospital, Shriners Orthopedic Hospital for Children, Florida Orthopedics Institute, and Tampa General Hospital. Dr. William Lee (Lee@eng.usf.edu) is the Program Director

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Undergraduate GPA of 3.00 or higher.
- Minimum GRE, Quantitative >620; Analytical written score of 4 or >;
- An undergraduate Bachelor's degree or equivalent in Engineering or Science;
- TOEFL 550 (paper-based total) for international students or 213 (computer-based total);
- Three (3) letters of reference;
- Statement of research interests.

DEGREE PROGRAM REQUIREMENTS

The thesis option consists of 30 hours of coursework, including 6 hours of thesis. Students with non-engineering undergraduate degrees can apply; remedial courses may be required that will not count towards the degree.

Currently there are three required classes:

GMS 6xxx	Anatomy and Physiology for Engineers	3
PHC 6051	Biostatistics	3
BME 6xxx	Foundations of Biomedical Engineering	3
BME 5740	Theory and Design of Bioprocesses	3
BME 5742	Pharmaceutical Engineering	2
BME 5746	Introduction to Biomedical Engineering	3
BME 5748	Selected Topics in Biomedical Engineering	1-3
BME 5910	Directed Research in Bioengineering	1-3

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

BIOMEDICAL ENGINEERING PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 14.0501
Dept Code: ECH
Program (Major/College): EBI EN

CONTACT INFORMATION

College: Engineering
Department: Chemical & Biomedical Engineering

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Ph.D. in Biomedical Engineering at the University of South Florida prepares individuals to contribute in this highly interdisciplinary field both as individuals and as members of interdisciplinary teams. Graduates are prepared to solve complex problems in areas such as diagnostic instrumentation, artificial organs, prosthetic devices, rehabilitation, and health care system design and operations. The doctoral program capitalizes on USF's strong programs in Engineering and in the Health Sciences as well as the contiguously located H. Lee. Moffitt Cancer Center and Research Institute, the Shriners Orthopedic Hospital and the James Haley Veterans Administration Hospital.

Students in the program may choose to concentrate in one of several nationally recognized areas of Biomedical Engineering strength at USF including:

- Medical Imaging
- Rehabilitation Engineering
- Biomechanics and Biomaterials
- Molecular, Cellular and Tissue Engineering
- Drug and Gene Delivery
- Neuroengineering
- Tissue Engineering

The Biomedical Engineering Program at USF provides students with an integrated knowledge of engineering, biomedical science and other appropriate disciplines to allow participation in and advancement of the interdisciplinary field of Biomedical Engineering. The program also facilitates biomedical engineering research at USF through interactions with USF faculty and with industry and other health care institutions and catalyzes the growth of biomedical product companies throughout the region by the development, dissemination, and commercialization of new biomedical technologies. Overall, the program strives to develop and promote technologies and processes that will lead to better health care and improved quality of life.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Neuroengineering and Tissue Engineering

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Successful applicants to the Ph.D. degree program in biomedical engineering will typically have presented the following preferred qualifications:

- GRE scores (V and Q) > 75 %tile and an AW > 4.0.
- An undergraduate GPA of >3.5 (out of a possible 4.0) based on official transcripts.
- Completion of a Master's degree in biomedical engineering or a related field including a Master's thesis.
- Evidence of sustained interest in biomedical engineering
- A statement of purpose
- Three Letters of recommendation.

Note: Admissions decisions will be made using multiple measures indicated above. We strongly encourage applicants to contact specific faculty conducting research related to the student's interests. Such direct contact with individual faculty members can greatly strengthen an application.

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours: 90

1) Core Courses:
A minimum of 15 credits including:

GMS 6440 Basic Medical Physiology	3
GMS 6605 Basic Medical Anatomy	3
PHC 6051~~2~~ Biostatistics II	3

Plus one additional approved course in Biostatistics and one approved course in the Medical Sciences.

2) Specialization Courses:
A minimum of 18 credit hours selected from one of the four areas of specialization:
-Medical Imaging
-Rehabilitation Engineering
-Biomechanics and Biomaterials
-Cardiovascular Engineering
-Neuroengineering
-Tissue Engineering
Courses completed as part of a Master's degree may be used to partially meet the above course requirements.

3) Dissertation:
A minimum of ~~50~~ 30 credits of dissertation research are required. As with other engineering Ph.D. degrees, evidence of the significance of the conducted research is provided by publication in appropriate refereed journals.

OTHER INFORMATION

Graduate Assistantships and Fellowships
A limited number of financially competitive teaching and research graduate assistantships will be offered to incoming students. The College of Engineering is also home to several national graduate student support programs including NSF sponsored IGERT, GK-12 and Bridge to the Doctorate programs, the latter particularly emphasizing support for underrepresented minorities. Of special importance are the research opportunities and support available through affiliated institutions including the H. Lee Moffitt Cancer Center and Research Institute, the James Haley VA Hospital and the Shiners' Hospital. In addition, particularly outstanding applicants will be nominated for university fellowships including Presidential Fellowships which provide competitive stipends plus tuition, fees and Health Insurance renewable for five years.

Results
Doctoral graduates of this program have been prepared for and are successfully engaged in research careers in Government, Corporate, and University Laboratories. In addition, since much of Biomedical Engineering research translates directly into biomedical devices and instrumentation, graduates have also been directly involved in technology transfer, including the establishment of new Biomedical Engineering related businesses.

Graduate Certificates
As a valuable complement to graduate training in Biomedical Engineering, students are encouraged to also consider earning a graduate certificate particularly in the areas of:

Aging and Neuroscience
Biochemistry and Molecular Biology
Bioinformatics
Biostatistics
Biotechnology
Clinical Epidemiology
Entrepreneurship
Health Management and Leadership
Infection Control
Materials Science & Engineering
Regulatory Affairs – Medical Devices.
Technology Management
Total Quality Management

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

BIOMEDICAL ENGINEERING AND ENTREPRENEURSHIP IN APPLIED TECHNOLOGIES DUAL DEGREE PROGRAM

Master of Science in Biomedical Engineering (M.S.B.E.) Degree and Master of Science (M.S.)

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	14.0501 / 52.0701
Dept Codes:	ECH / DEA
Program (Major/College):	EBI EN / EAT GS

CONTACT INFORMATION

Colleges:	Engineering and Graduate Studies
Department:	Chemical & Biomedical Engineering Entrepreneurship
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The M.S. Biomedical Engineering (BME) and M.S. Entrepreneurship In Applied Technologies (EAT) Dual Degree Program is designed to prepare students who can effectively function in the complex world of Biotechnology companies ("Biotechs"). The program's objectives are to provide a strong BME~~mc~~ foundation for technical product development and research and development along with the skill set to effectively participate in the entrepreneurship, venture capital, business and financial aspects of Biotechs. Students would pursue appropriate coursework within both the College of Engineering and the Center For Entrepreneurship, double counting a total of nine credit hours.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements for each program. Students must satisfy the requirements for the two degrees separately. ~~.~~ Refer to the individual program listings for the specific requirements for each degree.

DEGREE PROGRAM REQUIREMENTS

Course requirements:

Biomedical Engineering		**30 hrs required**
BME 6000 Biomedical Engineering I	3	
BMD 6931 Biomedical Engineering II	3	
GMS 6440 Basic Medical Physiology	~~(~~3~~)~~	
GMS 6605 Basic Medical Anatomy	~~(~~3~~)~~	
PHC 6051 Biostatistics II	~~(~~3~~)~~	
Additional approved BME courses (can include up to 6 thesis hours for thesis option)	~~(~~12~~)~~	

Common BME/EAT courses ~~(9)~~
30 hours total

Common Courses (counted towards both the BME and EAT degrees)
BME 6000 Biomedical Engineering ~~(3)~~
GMS 7930 Principles of Intellectual Property ~~(3)~~
EIN ~~6936~~ 6391 New Product Development ~~(3)~~
9 hrs total

Entrepreneurship in Applied Technologies **30 hrs required**
EIN 6324 Technical Entrepreneurship ~~(3)~~
EIN 6935 Technology Venture Strategies ~~(3)~~
EIN 6935 Strategic Marketing Assessments ~~(3)~~
EIN 6934 Venture Cap Private Equity ~~(3)~~
GMS 7930 Medical Ethics and Humanities ~~(2)~~
EIN 6430 Overview of Regulated Industries ~~(3)~~
MAN 6930 Entrepreneurship Research Seminar ~~(1)~~
EIN 6936 Strategies in Entrep Technology ~~(3)~~
Common BME/EAT courses ~~(9)~~
30 hrs total

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

BIOMEDICAL ENGINEERING AND MEDICINE DUAL DEGREE PROGRAM

Doctor of Philosophy (Ph.D.) Degree in Biomedical Engineering and Doctor of Medicine (M.D.) Degree in Medicine

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	November 1
Spring:	No Admit
Summer:	No Admit

Minimum Total Hours: 90/
Program Level: Doctoral/Professional
CIP Code: 14.0501
Dept Code: ECH
Program (Major/College): EBI EN

CONTACT INFORMATION

Colleges: Engineering/Medicine
Departments: Chemical & Biomedical Engineering; Medicine

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Objectives of the M.D./Ph.D. Program are: 1) Produce Highly Trained Professionals who can work effective in the area of Biomedical Translational Research, more specifically Engineer-Physicians who can conduct research in a Biomedical Engineering Area that addresses a significant clinical problem, and bring that research through to Clinical application; and 2) provide an integrated educational experience leading to both the M.D. degree and the Ph.D.(BME) Degree. In order to accomplish the first objective, advances in health care increasingly involves the application of emerging science and technology (I.E., Engineering) to clinical problems, including problems in diagnostics treatment and the health care system itself. Unlike more basic research that often aims to increase science and technology knowledge in itself, translational research seeks to specifically address the science and technology needed to solve problems with the end product an actual application or product (of course, adding new significant knowledge in the process). In order to conduct effective biomedical translational research, the investigator must be trained in both clinical science (i.e. the MD Degree) and Engineering (Specifically Biomedical Engineering). This need has been delineated by both academics and industry and is validated by the growing number of MD/PH.D. (BME) programs nationally. USF has the necessary educational components and research infrastructure for this endeavor; both degrees are currently available. The proposed program seeks to provide an integrated experience where the student really fells a part of both the medical/clinical and engineering worlds simultaneously, hence the need for an integrated dual degree program.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Biomechanics, Biomaterials, Cellular and Tissue Engineering, Cardiovascular Engineering, Rehabilitation Engineering

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements for each program. Students must satisfy the requirements for the two degrees separately. Refer to the individual program listings for the specific requirements for each degree.

Program Admission Requirements
Students apply for the BME degree through the Graduate School; Students apply separate for the MD Degree through the College of Medicine. Admissions are on the same time schedule as that for general M.D. students. Applicants should contact a program advisor prior to applciation

For specific admission requirements, refer to the Ph.D. in Biomedical Engineering program page in the Graduate Catalog and refer to the M.D. program requirements in the College of Medicine.

DEGREE PROGRAM REQUIREMENTS

For specific degree requirements, refer to the Ph.D. in Biomedical Engineeering program page in the Graduate Catalog and to the curriculum requirements for the M.D. as posted by the College of Medicine.

This is a seven (7) year program. Students initially complete a non-thesis M.S. in Biomedical Engineering. Then proceed to complete the first three (3) years of the Medical School Curriculum. The following two (2) years focus on the Ph.D. requirements, specifically the completion of coursework, qualifying exams, and dissertation research. In the seventh (7^{th}) year, students complete the fourth (4^{th}) year of Medical School and also complete any Ph.D. requirements as needed. Students must have at least one publication in an appropriate peer-reviewed journal prior to graduation.

Other Requirements

Students establish a Graduate Committee immediately after starting the program, with members from both Engineering and Medicine. This committee guides the student through the program until a formal Ph.D. committee is established, typically in year four or five.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CHEMICAL ENGINEERING PROGRAM

Master of Chemical Engineering (M.Ch.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 30
Program Level: Masters

CIP Code: 14.0701
Dept Code: ECH
Program (Major/College): ECH EN

Concentrations:
Biomedical and Biotechnology (BEB)

CONTACT INFORMATION

College: Engineering
Department: Chemical & Biomedical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Cont~~r~~act Program for Information

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
The Chemical & Biomedical Engineering faculty research and development interests cover a broad range of areas in reacting systems, thermodynamics, transport phenomena, systems engineering and characterization, all fundamental as well as applied in biomedical, materials including microelectronic, and environmental domains. Strong collaboration with the College of Medicine, Center of Microelectronic Research, as well as~~,~~ Departments of Biology, Chemistry, Industrial Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, and Computer Science and Engineering makes most programs in Chemical E~~e~~ngineering truly interdisciplinary.

The Department offers core courses in thermodynamics, transport phenomena, reacting systems, math, and process analysis and modeling. A rich variety of electives are available regularly within the department as well as the University. Chemical & Biomedical Engineering research facilities include modern laboratories for polymer synthesis and characterization, supercritical fluid technology, life sciences, process control, instrumentation, computer aided process design, and phase behavior.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- GRE required, Applicants must score >720 (Q), >350 (V) and Analytical of 3.0 or greater.
- An undergraduate Bachelor's degree or equivalent in Chemical Engineering;
- TOEFL 550 (paper-based total) for international students or 213 (computer-based total);
- Two (2) letters of reference;
- Statement of Purpose.

DEGREE PROGRAM REQUIREMENTS

This is a non-thesis option degree and requires an undergraduate degree in Chemical Engineering.

Complete Background courses in Chemical Engineering as needed. Students in this program are also required to complete the FE (Fundamentals of Engineering Examination) offered by the Society of Professional Engineers.

Course requirements:

ECH 6105 Advanced Thermodynamics	3
ECH 6285 Advanced Transport	3 **or**
BME 6634 Biotransport Phenomenon	3
ECH 6515 Advanced Reaction Engineering	3
ECH 6840 Math Methods	3 **or**
ECH 641~~1~~12 Processes Analysis and Modeling	3
6 hours in other 6000 course **or**	
ECH 6907 Ind. Study	3 hrs each
9 hours in other 5000 or 6000 course **or**	
ECH 6907 Ind. Study	3 hrs each
~~3 hours in o~~Other 5000 or 6000 courses	~~(~~3~~)~~
Total 30	

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CHEMICAL ENGINEERING PROGRAM

Master of Engineering (M.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.0701
Dept Code: ECH
Program (Major/College): ECH EN

Concentrations:
Biomedical and Biotechnology (BEB)

CONTACT INFORMATION

College: Engineering
Department: Chemical & Biomedical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

This degree is normally awarded to a Master's graduate who has an undergraduate degree in engineering or who has completed a prescribed series of undergraduate engineering courses, and completes an all coursework program.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
The Chemical & Biomedical Engineering faculty research and development interests cover a broad range of areas in reacting systems, thermodynamics, transport phenomena, systems engineering and characterization, all fundamental as well as applied in biomedical, materials including microelectronic, and environmental domains. Strong collaboration with the College of Medicine, Center of Microelectronic Research, as well as, Departments of Biology, Chemistry, Industrial Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, and Computer ~~Science~~ Science and Engineering makes most programs in Chemical ~~e~~Engineering truly interdisciplinary.

The Department offers core courses in thermodynamics, transport phenomena, reacting systems, math, and process analysis and modeling. A rich variety of electives are available regularly within the department as well as the University. Chemical & Biomedical Engineering research facilities include modern laboratories for polymer synthesis and characterization, supercritical fluid technology, life sciences, process control, instrumentation, computer aided process design, and phase behavior.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- GRE required. Applicants must score >720 (Q), >350 (V) and Analytical of 3.0 or greater.
- An undergraduate Bachelor's degree or equivalent in Engineering or Science;
- TOEFL 550 (paper-based total) for international students or 213 (computer-based total);
- Two (2) letters of reference;
- Statement of Purpose.

DEGREE PROGRAM REQUIREMENTS

This is a non-thesis degree normally awarded to a Masters' Candidate who has an undergraduate degree in any engineering or related science field. Complete Background courses in Chemical Engineering as needed. Students in this program are also required to complete the FE (Fundamentals of Engineering Examination) offered by the Society of Professional Engineers.

Core Requirements (6):

Take two Courses from the list below: ~~(6)~~

ECH 6105 Advanced Thermodynamics	3
ECH 6285 Advanced Transport	3
ECH 6840 Math Methods	3
ECH 6515 Advanced Reaction Engineering	3
~~ECH 6230 Advance Mass Transport~~	~~3~~
ECH 64~~1~~12 Processes Analysis and Modeling	3

Electives (~~(~~24~~)~~):

One ECH 6000 Level Course	~~(~~3~~)~~
Remaining electives are taken from other 5/6000 level courses	~~(~~21~~)~~

Total 30

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CHEMICAL ENGINEERING PROGRAM

Master of Science in Chemical Engineering (M.S.Ch.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.0701
Dept Code: ECH
Program (Major/College): ECH EN

Concentrations:
Biomedical and Biotechnology (BEB)

CONTACT INFORMATION

College: Engineering
Department: Chemical & Biomedical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Master of Science in Chemical Engineering degree is usually awarded to a student who has an undergraduate degree in Chemical ~~e~~Engineering or ~~-~~strong evidence of undergraduate chemical engineering experience.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
The Chemical & Biomedical Engineering faculty research and development interesst cover a broad range of areas in reacting systems, thermodynamics, transport phenomena, systems engineering and characterization, all fundamental as well as applied in biomedical, materials including microelectronic, and environmental domains. Strong collaboration with the College of Medicine, Center of Microelectronic Research, as well as, Departments of Biology, Chemistry, Industrial Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, and Computer Science and Engineering makes most programs in Chemical ~~e~~Engineering truly interdisciplinary.

The Department offers core courses in thermodynamics, transport phenomena, reacting systems, math, and process analysis and modeling. A rich variety of electives are available regularly within the department as well as the University. Chemical & Biomedical Engineering research facilities include modern laboratories for polymer synthesis and characterization, supercritical fluid technology, life sciences, process control, instrumentation, computer aided process design, and phase behavior.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- GRE required. Applicants must score >720 (Q), >350 (V) and Analytical of 3.0 or greater.
- An undergraduate Bachelor's degree or equivalent in Chemical Engineering;
- TOEFL 550 (paper-based total) for international students or 213 (computer-based total);
- Two (2) letters of reference;
- Statement of research interests.

DEGREE PROGRAM REQUIREMENTS

This is a thesis option degree that requires an undergraduate degree in Chemical Engineering. A background with undergraduate chemical engineering courses is needed.

Course Requirements:

ECH 6105 Advanced Thermodynamics ~~(~~3~~)~~
ECH 6285 Advanced Transport ~~(3)~~ **or** 3
BME 6634 Biotransport Phenomenon ~~(~~3~~)~~
ECH 6515 Advanced Reaction Engineering ~~(~~3~~)~~
ECH 6840 Math Methods ~~(3)~~ **or** 3
ECH 64~~1~~12 Processes Analysis and Modeling ~~(~~3~~)~~
ECH 6971 Masters Thesis ~~(~~6~~)~~

Other 5000 or 6000 course or ECH 6907 Individual Study ~~(~~3~~)~~
Other 5000 or 6000 course or ECH 6907 Individual Study ~~(~~3~~)~~
Other 5000 or 6000 course or ECH 6907 Individual Study ~~(~~3~~)~~
Other 5000 or 6000 course or ECH 6907 Individual Study ~~(~~3~~)~~
Total 30

- (must have a minimum of 16 hours at 6000 level)
- (must have a minimum of 12 hours of ECH 6000 level)
- (may include a maximum of 4 hours of independent study)

At least 2 members of the Thesis committee must be from tenured or tenure track Chemical & Biomedical Engineering faculty. All thesis option students are required to present a departmental seminar based on their research as part of their oral examination. The examination must be scheduled after the Thesis Supervisory Committee has approved the Thesis. The Graduate Coordinator should be notified so he can coordinate the seminar scheduling. Students in this program are also required to pass the FE (Fundamentals of Engineering Examination) offered by the Society of Professional Engineers. Candidates who have at least one publication in a journal or proceedings or presentation at a conference (based on their M.S. Thesis research) may be exempted from this comprehensive examination requirement. Students wishing to continue on for a Ph.D. must apply to the Graduate School.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CHEMICAL ENGINEERING PROGRAM

Master of Science in Engineering Science (M.S.E.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.0701
Dept Code: ECH
Program (Major/College): ECH EN

Concentrations:
Biomedical and Biotechnology (BEB)

CONTACT INFORMATION

College: Engineering
Department: Chemical & Biomedical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

This degree is normally awarded to a Master's graduate who has an undergraduate degree in engineering or who has completed a prescribed series of undergraduate engineering courses, and completes an all coursework program.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
The Chemical & Biomedical Engineering faculty research and development interests cover a broad range of areas in reacting systems, thermodynamics, transport phenomena, systems engineering and characterization, all fundamental as well as applied in biomedical, materials including microelectronic, and environmental domains. Strong collaboration with the College of Medicine, Center of Microelectronic Research, as well as, Departments of Biology, Chemistry, Industrial Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, and Computer Science and Engineering makes most programs in Chemical eEngineering truly interdisciplinary.

The Department offers core courses in thermodynamics, transport phenomena, reacting systems, math, and process analysis and modeling. A rich variety of electives are available regularly within the department as well as the University. Chemical & Biomedical Engineering research facilities include modern laboratories for polymer synthesis and characterization, supercritical fluid technology, life sciences, process control, instrumentation, computer aided process design, and phase behavior.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- GRE required. Applicants must score >720 (Q), >350 (V) and Analytical of 3.0 or greater.
- An undergraduate Bachelor's degree or equivalent in Engineering or Science;
- TOEFL 550 (paper-based total) for international students or 213 (computer-based total);
- Two (2) letters of reference;
- Statement of research interests.

DEGREE PROGRAM REQUIREMENTS

Requires an undergraduate degree in engineering or science. This is an interdisciplinary program that involves a combination of engineering and science courses. It requires a thesis. Complete Background courses in Chemical Engineering as needed.

Course Requirements:

*6000 level ECH course 1	3
*6000 level ECH course 2	3
Independent study 3 hours Max	3
Other formal course work 5000 or 6000	15
ECH 6971 Masters Thesis	6
Total 30	

- (must have a minimum of 16 hours at the 6000 level)
- (must have a minimum of 6 hours of ECH 6000 level)

***Require 2 courses out of**

ECH 6105 Advanced Thermodynamics	3
ECH ~~5~~6285 Advanced Transport	3
ECH 6840 Math Methods	3
ECH 6515 Advanced Reaction Engineering	3
ECH 6~~4~~12 Processes Analysis and Modeling	3
ECH 5324 Auto Control II	3

(may include a maximum of 4 hours of independent study)

At least 2 members of the Thesis committee must be from tenured or tenure track Chemical & Biomedical Engineering faculty.

All thesis option students are required to present a departmental seminar based on their research as part of their oral examination. The examination must be scheduled after the Thesis Supervisory Committee has approved the Thesis. The Graduate Coordinator should be notified so he can coordinate the seminar scheduling. The Thesis must be on file at the USF library prior to scheduling of the oral examination.

Students in this program are also required to pass the FE (Fundamentals of Engineering Examination) offered by the Society of Professional Engineers. Candidates who have at least one publication in a journal or proceedings or presentation at a conference (based on their M.S. Thesis research) may be exempted from this comprehensive examination requirement. Students wishing to continue on for a Ph.D. must apply to the Graduate School.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CHEMICAL ENGINEERING PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 14.0701
Dept Code: ECH
Program (Major/College): ECH EN

Concentrations:
Manufacturing (MFT)
Biomedical and Biotechnology (BEB)

CONTACT INFORMATION

College: Engineering
Department: Chemical & Biomedical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Contact Program for Information

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
The Chemical & Biomedical Engineering faculty research and development interests cover a broad range of areas in reacting systems, thermodynamics, transport phenomena, systems engineering and characterization, all fundamental as well as applied in biomedical, materials including microelectronic, and environmental domains. Strong collaboration with the College of Medicine, Center of Microelectronic Research, as well as, Departments of Biology, Chemistry, Industrial Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, and Computer Science and Engineering makes most programs in Chemical eEngineering truly interdisciplinary.

The Department offers core courses in thermodynamics, transport phenomena, reacting systems, math, and process analysis and modeling. A rich variety of electives are available regularly within the department as well as the University. Chemical & Biomedical Engineering research facilities include modern laboratories for polymer synthesis and characterization, supercritical fluid technology, life sciences, process control, instrumentation, computer aided process design, and phase behavior.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- GRE required. Applicants must score >720 (Q), >500 (V), and Analytical of 4.0 or greater;
- An undergraduate Bachelor's degree or equivalent in Chemical Engineering.
- TOEFL 550 (paper-based total) for international students or 213 (computer-based total);
- Three (3) letters of reference.
- Statement of Research Interests.

DEGREE PROGRAM REQUIREMENTS

Requires an undergraduate degree in Chemical Engineering. Complete Background courses in Chemical Engineering as needed.

Course Requirements:

ECH 6105 Advanced Thermodynamics ~~(~~3~~)~~
ECH ~~5~~6285 Advanced Transport ~~(~~3~~)~~
ECH 6840 Math Methods ~~(~~3~~)~~
ECH 6515 Advanced Reaction Engineering ~~(~~3~~)~~
ECH 6~~1~~r12 Processes Analysis and Modeling ~~(~~3~~)~~
Seminar courses ~~(~~At least 3 required~~)~~
2 Tools of Research (Directed Research in 1st year of study)- ~~(~~At least 4 hours~~)~~
Concentration area (Engineering) ~~(~~Minimum 27 hours in one area; ~~At~~ at least 20 at 6000 level~~)~~
5000 or 6000 Math level Courses ~~(a~~At least 9 hours~~)~~
Dissertation hours (Can register only after you have been admitted as a candidate for Ph.D.)- ~~(~~At least 20 hours but no more than 30 hours~~)~~

Other 5000 or 6000 course (need a total of 60 hours of coursework)

Other Elements:

1. Diagnostic Examination completed by the end of first year of study. Waived for students who have successfully passed the FE (Fundamentals of Engineering Examination) offered by the Florida Society of Professional Engineers. See details of the diagnostic exam under Departmental requirements for a Ph.D.

2. Qualifying Examination, Complete by the end of the second year of study.

3. Publication in a refereed journal with the student as the first and primary author. At least 1 is required with the expectation that most Ph.D. students will have 3 or more. The publication must be based on your Dissertation research. Presentation at a conference or publication in a proceeding (even if refereed) is not sufficient.

4. See complete list of requirements under *Departmental requirements for a Ph.D.*

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CIVIL ENGINEERING PROGRAM

Master of Civil Engineering (M.C.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.0801
Dept Code: EGX
Program (Major/College): ECE EN

Concentrations:
Geotechnical Engineering (GTL)
Interdisciplinary Transportation (ITP)
Materials Engineering and Science (MTL)
Structural Engineering (STR)
Transportation Engineering (TPT)
Water Resources (WRS)

CONTACT INFORMATION

College: Engineering
Department: Civil and Environmental Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The field of Civil Engineering has long been known for its breadth and ability to adapt to the new technological needs of society. The traditional areas of public works, such as highways, bridges, water supply, building design, and wastewater treatment, remain very important. In addition, the modern area of managing the environment has been included in the Civil Engineering domain. Graduates of the programs are prepared for careers with public agencies or private industry and firms involved in planning, design, research and development, or regulation.

College computer facilities are available to all departmental students. In addition, the department has a variety of microcomputers available for student use. The department also has a high bay structures laboratory, which includes an MTS 250 kip testing machine. There are also well-equipped environmental, soils, pavement and hydraulics laboratories. These laboratories include equipment such as an ion chromatograph, atomic absorption unit, environmental chamber, constant rate of stress consolidometer, triaxial units and superpave testing equipment.

The M.C.E. degree provides a student with the opportunity to earn the advanced degree by coursework only. These degrees are recommended for part-time students who find it difficult to do thesis research because of their work commitment or those who wish to complete degree requirements quickly. Many of the department's graduate courses are offered online or on weekday evenings, which permits working students the opportunity to seek a graduate degree.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Overall GPA 2.75; GPA in major 3.00
- GRE 650Q, 350V and 3.0 AW or valid fundamentals of engineering (FE) certificate preferred. Verification of FE certification should be obtained from the professional engineering (PE) board where the FE certification was obtained. See the CEE department website for more information: http://www2.eng.usf.edu/cee/graduate/apply.htm.
- TOEFL (International applicants only) 79 (550 paper based exam) or 6.5 (IELTS).
- Two (2) Letters of Reference
- Statement of Purpose
- Exceptions made on a case-by-case basis where warranted.

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours: **30**

The minimum coursework requirement is 30 credit hours for students with an undergraduate Engineering degree. Students without an engineering BS will be required to complete undergraduate engineering pre-requisite courses as determined by the Department. Please consult the graduate program coordinator for the list of required courses.

Core Requirements

- A maximum of 12 credits taken outside the CEE department may be applied to meet the degree requirements.
- A maximum of 6 credits of 4000 level courses may be applied to meet the degree requirements.
- A maximum of 6 credits of independent study may be applied to meet the degree requirements.

Portfolio

These degrees are coursework only degrees and do not require a thesis; however, a portfolio providing examples of the following is required at the end of the program: (1) design of complex systems, (2) written and oral communication skills, (3) solution of ill defined or open ended problems.

The Department supports MCE concentration areas in Geotechnical Engineering (GTL), Interdisciplinary Transportation (ITP), Materials Engineering and Science (MTL), Structural Engineering (STR), Transportation Engineering (TPT) and Water Resources (WRS). Students work with a member of the graduate program committee to map out their graduate coursework.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CIVIL ENGINEERING PROGRAM

Master of Science in Civil Engineering (M.S.C.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 14.0801
Dept Code: EGX
Program (Major/College): ECE EN

Concentrations:

Geotechnical Engineering (GTL)
Interdisciplinary Transportation (ITP)
Materials Engineering and Science (MTL)
Structural Engineering (STR)
Transportation Engineering (TPT)
Water Resources (WRS)

CONTACT INFORMATION

College: Engineering
Department: Civil and Environmental Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The field of Civil Engineering has long been known for its breadth and ability to adapt to the new technological needs of society. The traditional areas of public works, such as highways, bridges, water supply, building design, and wastewater treatment, remain very important. In addition, the modern area of managing the environment has been included in the Civil Engineering domain. Graduates of the programs are prepared for careers with public agencies or private industry and firms involved in planning, design, research and development, or regulation.

College computer facilities are available to all departmental students. In addition, the department has a variety of microcomputers available for student use. The department also has a high bay structures laboratory, which includes an MTS 250 kip testing machine. There are also well-equipped environmental, soils, pavement and hydraulics laboratories. These laboratories include equipment such as an ion chromatograph, atomic absorption unit, environmental chamber, constant rate of stress consolidometer, triaxial units and superpave testing equipment.

The M.S.C.E. is a research oriented degree in which the student writes, as a major part of the degree requirements, a thesis that defines, examines, and reports in depth on a subject area relevant to engineering. The purpose of the thesis is to instill in the student the ability to inspect, evaluate, and report on a subject of interest to the engineering profession.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Overall GPA 2.75; GPA in major 3.00
- GRE 650Q, 350V and, 3.0AW~~.~~ or valid fundamentals of engineering (FE) certificate preferred. Verification of FE certification should be obtained from the professional engineering (PE) board where the FE certification was obtained. See the CEE department website for more information: http://www2.eng.usf.edu/cee/graduate/apply.htm.
- TOEFL (International applicants only) 79 (550 paper based exam) or 6.5 (IELTS).
- Two (2) letters of reference.
- Statement of Purpose.
- Exceptions made on a case-by-case basis where warranted.

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours: 30

These degrees are for students doing a Master's thesis. The program consists of a minimum of 24 credit hours of coursework and 6 credit hours of thesis for students with an undergraduate degree in Civil Engineering;~~:~~ s~~S~~tudents without an Engineering BS will be required to complete undergraduate engineering pre-requisite courses as determined by the Department. Please consult the graduate program coordinator for the list of required courses.

Core Requirements (24 hours)

- A maximum of 9 credits taken outside the CEE department may be applied to meet the degree requirements.
- A maximum of 6 credits of 4000 level courses may be applied to meet the degree requirements.
- A maximum of 6 credits of independent study may be applied to meet the degree requirements.

Thesis Requirements (6 hours)

The Department supports M.S.C.E. concentration areas in Geotechnical Engineering (GTL), Interdisciplinary Transportation (ITP), Materials Engineering and Science (MTL), Structural Engineering (STR), Transportation Engineering (TPT) and Water Resources (WRS). Students work with a Major Professor and thesis committee to map out their graduate programs.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CIVIL ENGINEERING PROGRAM

Master of Science in Engineering Science (M.S.E.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 14.0801
Dept Code: EGX
Program (Major/College): ECE EN

Concentrations:
Geotechnical Engineering (GTL)
Interdisciplinary Transportation (ITP)
Materials Engineering and Science (MTL)
Structural Engineering (STR)
Transportation Engineering (TPT)
Water Resources (WRS)

CONTACT INFORMATION

College: Engineering
Department: Civil and Environmental Engineering

Contact Information www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The field of Civil Engineering has long been known for its breadth and ability to adapt to the new technological needs of society. The traditional areas of public works, such as highways, bridges, water supply, building design, and wastewater treatment, remain very important. In addition, the modern area of managing the environment has been included in the Civil Engineering domain. Graduates of the programs are prepared for careers with public agencies or private industry and firms involved in planning, design, research and development, or regulation. College computer facilities are available to all departmental students. In addition, the department has a variety of microcomputers available for student use. The Department also has a high bay structures laboratory, which includes an MTS 250 kip testing machine. There are also well-equipped environmental, soils, pavement and hydraulics laboratories. These laboratories include equipment such as an ion chromatograph, atomic absorption unit, environmental chamber, constant rate of stress consolidometer, triaxial units and superpave testing equipment.

The M.S.E.S. is a research oriented degree for students without an undergraduate degree in engineering. As a major part of the degree requirement, the student is expected to write a thesis that defines, examines, and reports in depth on a subject area relevant to engineering. The purpose of the thesis is to instill in the student the ability to inspect, evaluate, and report on a subject of interest to the engineering profession.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Overall GPA 2.75; GPA in major 3.00
- GRE 650Q, 350V, 3.0AW.
- TOEFL (International applicants only) 79 (550 paper based exam) or 6.5 (IELTS).

- Two (2) letters of reference.
- Statement of Purpose.

Exceptions made on a case-by-case basis where warranted

DEGREE PROGRAM REQUIREMENTS

Total Minimuim Hours: **30**

These degrees are for students without an undergraduate engineering degree who wish to pursue a Master's degree in CEE. This program consists of a minimum of 24 credit hours of coursework and 6 credit hours of thesis:

Pre-Requisites

Students will be required to complete undergraduate engineering pre-requisite courses required for specific courses or as determined by their major professor.

Core Requirements (24 hours)

- A maximum of 9 credits taken outside the CEE department may be applied to meet the degree requirements.
- A maximum of 6 credits of 4000 level courses may be applied to meet the degree requirements.
- A maximum of 6 credits of independent study may be applied to meet the degree requirements.

The Department supports M.S.E.S. concentration areas in Geotechnical Engineering (GTL), Interdisciplinary Transportation (ITP), Materials Engineering and Science (MTL), Structural Engineering (STR), Transportation Engineering (TPT) and Water Resources (WRS). Students work with a Major Professor and thesis committee to map out their graduate programs.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

CIVIL ENGINEERING PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: ~~60/90~~ **48/78**
Program Level: Doctoral
CIP Code: 14.0801
Dept Code: EGX
Program (Major/College): ECE EN

Concentrations:

Environmental Engineering (ENV)
Geotechnical Engineering (GTL)
Interdisciplinary Transportation (ITP)
Materials Engineering and Science (MTL)
Structural Engineering (STR)
Transportation Engineering (TPT)
Water Resources (WRS)

CONTACT INFORMATION

College: Engineering
Department: Civil and Environmental Engineering

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The field of Civil Engineering has long been known for its breadth and ability to adapt to the new technological needs of society. The traditional areas of public works, such as highways, bridges, water supply, building design, and wastewater treatment, remain very important. In addition, the modern area of managing the environment, including sustainable development, has been included in the Civil Engineering domain. Graduates of the programs are prepared for careers in academia and with public agencies or private industry and firms involved in planning, design, research and development, or regulation.

College computer facilities are available to all departmental students. In addition, the department has a variety of microcomputers available for student use. The department also has a high bay structures laboratory, which includes an MTS 250 kip testing machine. There are also well-equipped environmental, soils, pavement and hydraulics laboratories. These laboratories include equipment for water and air quality analysis, bench and pilot scale reactor studies, field instrumentation for environmental and water resources studies~~such as an ion chromatograph, atomic absorption unit, environmental chamber~~, constant rate of stress consolidometer, triaxial units and superpave testing equipment.

The Ph.D. degree is awarded in recognition of demonstrated scholarly competence and ability to conduct and report original and significant research. Ph.D. students may work in all of the areas of Civil Engineering: Engineering Mechanics, Environmental Engineering, Geotechnical Engineering, Pavement Engineering, Materials Engineering and Science, Structural Engineering, Transportation Engineering and Planning, and Water Resources Engineering.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- GRE 700Q, 450V, 4.0AW.
- TOEFL (International applicants only) 550 or 213 (CBT).
- Resume
- Three (3) letters of reference.
- Statement of Purpose.

DEGREE PROGRAM REQUIREMENTS

Total Program Hours:

For students with an approved master's degree	48 ~~60~~ hours minimum
For students without a master's degree	78 ~~90~~ hours minimum

Core Requirements **3 hours minimum**

[c1]

- A maximum of 3 credits (9 credits for students entering without a master's degree) of independent study may be applied to meet the coursework requirement
- Students entering without a master's degree are required to complete an additional 30 graduate hours.
- Students work with a Major Professor and a Ph.D. committee to determine their course of study
- No credits of directed research or graduate instruction methods can be applied to meet the coursework requirement.
- Up to 30 credits of coursework from an approved master's degree may be applied to meet the coursework requirements.

~~**Total Minimum Hours 60**~~

- ~~A minimum 6 credits of coursework are required outside of the CEE department~~
- ~~A minimum of 6 credits of math and/or statistics are required~~
- ~~A maximum of 6 credits at the 4000 level may be applied to meet the degree requirements~~
- ~~Three credits of graduate instruction methods (CGN 6941) are required~~

Concentration Requirements **15 hours minimum**

~~The Department supports Ph.D. concentration areas in~~ Environmental Engineering (ENV), ~~Geotechnical Engineering (GTL), Interdisciplinary Transportation (ITP), Materials Engineering and Science (MTL), Structural Engineering (STR), Transportation Engineering (TPT) and Water Resources (WRS).~~ Students select from the following Concentrations and work with a Major Professor and a Ph.D. committee to determine their course of study.

Environmental Engineering (ENV)

- ENV 6002 Physical Chemical Principles (3)
- EES 6107 Biological Principles (3)
- ENV 6666 Aquatic Chemistry (3)
- CGN 6933 Green Engineering for Sustainability (3) *or* CGN 6933 Green Infrastructure for Sustainable Communities (3) *or* CGN 6933 Sustainable Development Engineering (3)
- 3 additional credits of coursework in Environmental Engineering

Geotechnical Engineering (GTL)

- Foundation Engineering (3)
- Finite Element Analysis (3)
- 9 additional credits of coursework in Geotechnical Engineering

Interdisciplinary Transportation (ITP)

Materials Engineering and Science (MTL)

- CGN 6933 Concrete Construction Materials
- CGN 6720 Electrochemical Diagnostic Techniques
- CGN 6933 Structural Life Prediction
- CGN 6933 Corrosion of Materials
- ECH 6931 Characterization of Materials (2011)
- 3 additional credits of coursework in Materials Engineering and Science or related areas
- ~~See department website~~

Structural Engineering (STR)

- See department website

Transportation Engineering (TPT)

- TTE 5205 Traffic Systems Engineering (3)
- TTE 5501 Transportation Planning and Economics (3)
- TTE 6507 Travel Demand Modelling (3)
- 6 additional credits of coursework in Transportation Engineering or related areas
- ~~See department website~~

Water Resources (WRS)

- a minimum of 4 courses (12 credits) from the following list:

  CWR 6235 Free Surface Flow (3)
  CWR 6239 Waves and Beach Protection (3)
  CWR 6305 Urban Hydrology (3)
  CWR 6534 Coastal and Estuary Modeling (3)
  CWR 6535 Hydrologic Models (3)
  CGN 6933 Vadose Zone Hydrology (3)
  CGN 6933 Groundwater Hydraulics (3 credits)
  CGN 6933 Advanced Computational Fluid Mechanics (3)
  GLY 6836 Numerical Modeling of Hydrogeologic Systems (3)
  GLY 6827C Advanced Hydrogeology (4)
- 3 additional credits in WR engineering or related areas
- ~~See department website~~

~~Materials Engineering and Science (MTL)Structural Engineering (STR)Transportation Engineering (TPT) Water Resources (WRS)~~

Dissertation Requirements **20 hours minimum**

- CGN 7980 Dissertation (20 hrs minimum)
- ~~A minimum of 20 credits of dissertation are required.~~

Additional Requirements **10 hours minimum**

- 10 credits of additional coursework, graduate instruction methods, dissertation, or directed research are required.

COURSES

http://www.ugs.usf.edu/sab/sabs.cfm or http://www2.eng.usf.edu/cee/graduate/gradautecourses.htm

COMPUTER ENGINEERING PROGRAM

Master of Science in Computer Engineering (M.S.C.P.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
U.S. Students
Fall: ~~February 15~~ June 1
Spring: October 15
Summer: no admit

International Students in the U.S.:
Fall: ~~January 2~~June 1
Spring: ~~July 1~~October 15
Summer: no admit

International Students Outside the U.S.
Fall: ~~January 2~~May 1
Spring: ~~July 1~~September 15
Summer: no admit

Minimum Total Hours: 30 thesis; 30 non-thesis
Program Level: Masters
CIP Code: 14.0901
Dept Code: ESB
Program (Major/College): ECP EN

CONTACT INFORMATION

College: Engineering
Department: Computer Science and Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of Computer Science and Engineering offers both a thesis and non-thesis option for the degree of Master of Science in Computer Engineering (M.S.C.P.). The thesis option requires students to pursue a more concentrated range of topics, while the non-thesis option allows students to explore various areas of computer engineering. There is considerable freedom in the choice of the courses.

The breadth of subjects that comprise computer engineering together with the immense diversity of its applications, make it imperative that students in the Master's program maintain close contact with the Graduate Program Director, or, if choosing the thesis option, with their major professor to achieve a coherent plan of study directed towards a specific goal. In particular, selection of courses should only be made with prior consultation and approval of the major professor or the Graduate Program Director.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, bioinformatics, computer architecture, graphics, networks, computer vision, distributed systems, expert systems, formal verification, human-computer interface, image processing, pattern recognition, robotics, software engineering, software security, and VLSI design and CAD.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
The GRE may be waived for M.S.-degree applicants with an undergraduate degree from an ABET-accredited United States university.

- The GRE is required for all Ph.D. and M.S. applicants who apply for TA, RA, GA, or Fellowships. The median GRE scores of recently admitted students include 770 on the Quantitative portion and a Quantitative + Verbal Total of 1220. If a candidate is admitted to the M.S. program and later decides to apply to the Ph.D. program, the GRE requirement must be met by the candidate as part of the application process.
- Minimum grade point average (GPA) of B or equivalent for all coursework completed during the last two years of undergraduate program
- Minimum TOEFL score for international students is 550 (paper-based total) or 213 (computer-based total) or 79 (internet-based total).
- Three letters of recommendation
- Statement of purpose

The applicant must also have mathematical preparation equivalent to that obtained from courses in Calculus through Differential Equations; knowledge of computer science and computer engineering, including logic design, computer architecture, data structure, operating systems and analysis of algorithms. The majority of students accepted to the program possess an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering, or Mathematics; however, students who hold an undergraduate degree in a related field are encouraged to apply.

For teaching assistantship consideration, applicants from non-English speaking countries must take and pass the speaking component of the internet-based TOEFL with a score of 26 or above.

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours: **30**

Core Requirements: **(9 hrs)**
Successful completion of three core graduate-level courses is required:

EEL 6764	Principles of Computer Architecture	3
COP 6611	Operating Systems	3
COT 6405	Introduction to the Theory of Algorithms	3

Electives:
Thesis option students should pick 15 hours from the following and non-thesis option should pick 21 hours from the following: .

CAP 5400	Digital Image Processing	3
CAP 5625	Introduction to Artificial Intelligence	3
CAP 5682	Expert and Intelligent Systems	3
CAP 5771	Data Mining	3
CAP 6100	Human Computer Interface	3
CAP 6415	Computer Vision	3
CAP 6455	Advanced Robotic Systems	3
CAP 6615	Neural Networks	3
CAP 6672	Robot Intelligence and Computer Vision	3
CAP 6736	Geometric Modeling	3

CDA 5416	Introduction to Computer-Aided Verification	3
CIS 6900	Independent Study	1-19
CIS 6930	Special Topics	1-5
CIS 6940	Graduate Instruction Methods	1-4
CIS 6971	Thesis: Masters	2-19
~~CIS 7910~~	~~Directed Research~~	~~1-19~~
~~CIS 7980~~	~~Dissertation: Doctoral~~	~~2-19~~
CNT 6215	Computer Networks	3
COP 6621	Programming Languages and Translation	3
EEL 5771	Introduction to Computer Graphics I	3
EEL 6706	Testing and Fault Tolerance in Digital Systems	3
EEL 6766	Advanced Computer Architecture	3

Thesis Option:
The thesis option requires completion of 24 credit hours of CSE graduate-level courses (9 credit hrs core and 15 hrs of electives) and 6 credit hours of thesis. At least 16 credit hours must be at the 6000 level. Maximum of 3 hours of Independent Study and maximum of 3 hours of one-hour seminar courses may be applied.

Non-Thesis Option:
The non-thesis option requires 30 credit hours, with 9 credit hours core, 21 hours of electives. At least 16 credit hours must be at the 6000 level. Maximum of 3 hours of Independent Study and maximum of 3 hours of one-hour seminar courses may be applied. Students must make a grade of "B" or higher in the core courses.

Additional Requirements:
For the thesis option, 6 hours of the thesis (CIS 6971 Thesis: Masters) should be in computer engineering related problems, as determined by the Major Professor and documented in the Plan of Work.

For Non-Thesis Option, at least 6 hours of electives should be in the following topic areas:

CMOS VLSI Design, Digital Circuit Synthesis, Formal Verification, Testing and Fault Tolerance, Low-Power VLSI, Robotics, or Computer Networks, as determined by the Graduate Program Coordinator and documented in the Plan of Work.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

COMPUTER SCIENCE PROGRAM

Master of Science in Computer Science (M.S.C.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	~~February 15~~ June 1
Spring:	October 15
Summer:	No admit

International Students in the U.S.:

Fall:	~~January 2~~June 1
Spring:	~~July 1~~October 15
Summer:	no admit

International Students Outside the U.S.:

Fall:	~~January 2~~May 1
Spring:	~~July 1~~September 15
Summer:	no admit

Minimum Total Hours: 30 thesis; 30 non-thesis
Program Level: Masters
CIP Code: 14.0901
Dept Code: ESB
Program (Major/College): ECC EN

CONTACT INFORMATION

College: Engineering
Department: Computer Science and Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of Computer Science and Engineering offers a thesis and non-thesis option for ~~the degree~~ the degree of Master of Science in Computer Science (M.S.C.S.), ~~with thesis and non-thesis options~~. The thesis option requires students to pursue a more concentrated range of topics. The non-thesis option offers students some experience in many areas of computer science. There is considerable freedom in the choice of the courses.

The ~~great~~ breadth of subjects which are part of computer science together with the immense diversity of its applications, make it imperative that students in the Master's program maintain close contact with the Graduate Program Director, or, if choosing the thesis option, with their major professor in order to achieve a coherent plan of study directed towards a specific goal. In particular, election of courses should only be made with prior consultation and approval of the Major Professor or the Graduate Program Director.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, bioinformatics, computer architecture, graphics, networks, computer vision, distributed systems, expert systems, formal verification, human-computer interface, image processing, pattern recognition, robotics, software engineering, software security, and VLSI design and CAD.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

The GRE will be waived for M.S.-degree applicants with an undergraduate degree from an ABET-accredited United States university.

- ~~The~~ The GRE is required for all Ph.D. and M.S. applicants who apply for TA, RA, GA, or Fellowships. The median GRE scores of recently admitted students include 770 on the Quantitative portion and a Quantitative + Verbal Total of 1220. If a candidate is admitted to the M.S. program and later decides to join the Ph.D. program, the GRE requirement must be met by the candidate as part of the application process. ~~then the GRE will be required. For reference, in 2008/2009 the median GRE scores of admitted students were Quantitative of 770.~~
- Minimum grade point average (GPA) of "B" (or equivalent) for all coursework completed during the last two years of undergraduate program
- Minimum TOEFL score for international students is 550 (paper-based total) or 213 (computer-based total) or 79 (internet-based total)
- Three letters of recommendation
- Statement of purpose
- The applicant must also have mathematical preparation equivalent to that obtained from courses in Calculus through Differential Equations; knowledge of computer science and computer engineering, including logic design, computer architecture, data structure, operating systems and algorithms. The majority of ~~our accepted~~ students accepted to the Program possess ~~have~~ an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering, or Mathematics. However, students who hold an undergraduate degree in a related field ~~Wel lprepared studnets in other majors~~ are encouraged to apply.
- For teaching assistantship consideration, applicants from non-English speaking countries must take and pass the speaking component of the internet-based TOEFL with a score of 26 or above.

DEGREE PROGRAM REQUIREMENTS

Total Minimum hours: 30

Core Requirements: 9 hrs.
Successful completion of three core graduate-level courses is required. For non-thesis option, students must make a grade of "B" or higher in these core courses:

COP 6611	Operating Systems	3
EEL 6764	Principles of Computer Architecture	3
COT 6405	Introduction to the Theory of Algorithms	3

Electives:
Thesis option students should pick 15 hours from the following and non-thesis option should pick 21 hours from the following:

CAP 5400	Digital Image Processing	3
CAP 5625	Introduction to Artificial Intelligence	3
CAP 5682	Expert and Intelligent Systems	3
CAP 5771	Data Mining	3
CAP 6100	Human Computer Interface	3
CAP 6415	Computer Vision	3
CAP 6455	Advanced Robotic Systems	3
CAP 6615	Neural Networks	3
CAP 6672	Robot Intelligence and Computer Vision	3
CAP 6736	Geometric Modeling	3
CDA 5416	Introduction to Computer-Aided Verification	3
CIS 6900	Independent Study	1-19
CIS 6930	Special Topics	1-5
CIS 6940	Graduate Instruction Methods	1-4
CIS 6971	Thesis: Master's	2-19
~~CIS 7910~~	~~Directed Research~~	~~1-19~~
~~CIS 7980~~	~~Dissertation: Doctoral~~	~~2-19~~

CNT 6215	Computer Networks	3
COP 6621	Programming Languages and Translation	3
EEL 5771	Introduction to Computer Graphics I	3
EEL 6706	Testing and Fault Tolerance in Digital Systems	3
EEL 6766	Advanced Computer Architecture	3

Thesis Option:
The thesis option requires the completion of 24 credit hours of CSE graduate-level courses (9 credit hrs core and 15 hrs of electives) and 6 credit hours of thesis. At least 16 credit hours must be at the 6000 level. Maximum of 3 hours of Independent Study and maximum of 3 hours of one-hour seminar courses may be applied.

Non-Thesis Option:
The non-thesis option requires 30 credit hours, with 9 credit hrs core, 21 hrs of electives. At least 16 credit hours must be at the 6000 level. Maximum of 3 hours of Independent Study and maximum of 3 hours of one-hour seminar courses may be applied.

Additional Requirements:
For the thesis option, 6 hours of the thesis (CIS 6971 Thesis: Masters) should be in computer science related problems, as determined by the Major Professor and documented in the Plan of Work.

For Non-Thesis Option, at least 6 hrs of electives should be in the following topic areas: advanced algorithms, compilers, databases, parallel computing and distributed systems, security, programming languages, or software engineering, as determined by the Graduate Program Director and documented in the Plan of Work.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

COMPUTER SCIENCE AND ENGINEERING PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
US Students:

Fall:	February 15
Spring:	October 15
Summer:	No admit

International Students:

Fall:	January 2
Spring:	July 1
Summer:	No admit

Minimum Total Hours: ~~90~~ 72/~~60~~33
Program Level: Doctoral
CIP Code: 14.0901
Dept Code: ESB
Program (Major/College): CSE EN

CONTACT INFORMATION

College: Engineering
Department: Computer Science and Engineering

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The degree of Doctor of Philosophy is conferred in recognition of a candidate's highest level of scholarly competence and demonstrated capability to independently conduct and report significant research in computer science and engineering. This achievement requires more than an accumulation of course credits over a stated period of residence. Scholarly competence is achieved through systematic study and investigation in the chosen discipline at an advanced level. The major professor and at least two committee members will be from the Computer Science and Engineering department. Research capability is developed during the course of study and is achieved through the completion of significant and independent research. The results of this research must be formally presented in a written dissertation and successfully defended before an examining committee. The dissertation must demonstrate the significance of the research as well as the candidate's ability to organize and present her/his results in a professional manner.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, bioinformatics, computer architecture, graphics, networks, computer vision, distributed systems, expert systems,~~,~~ formal verification, human-computer interface, image processing, pattern recognition, robotics, software engineering, software security, and VLSI design and CAD.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- The GRE is required for all Ph.D. applicants. ~~-~~ If a candidate is admitted to the M.S. program without GRE and later decides to join the Ph.D. program then the GRE will be required. For reference, ~~in 2008/2009~~ the median GRE scores of recently admitted students were Quantitative of 770 and Verbal of 430~~+Quantitative of 1200~~ or higher.
- Minimum grade point average (GPA) of B average (or equivalent) for all coursework completed during the last two years of undergraduate program
- Minimum TOEFL score for international students is 550 (paper-based total) or 213 (computer-based total) or 79 (internet-based total).
- Three letters of recommendation
- Statement of purpose
- The applicant must also have mathematical preparation equivalent to that obtained from courses in Calculus through Differential Equations; knowledge of computer science and computer engineering, including logic design, computer architecture, data structures, operating systems and analysis of algorithms. Students are assumed to have good programming skills~~-~~The majority of students accepted to the program possess an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering, or Mathematics; however, students who hold an undergraduate degree in a related field are encouraged to apply.
- For teaching assistantship consideration, applicants from non-English speaking countries must take and pass the speaking component of the internet-based TOEFL with a score of 26 or above.

DEGREE PROGRAM REQUIREMENTS

The requirements for obtaining the doctoral degree can be met by fulfilling the minimum requirements below. These requirements and the various committees appointed to oversee the completion of these requirements are explained in detail below:

1. Completion of the requisite coursework and the successful completion of qualifying examinations in Computer Architecture, Operating Systems, and math/Algorithms, and the student's specialty area.

2. Completion of a Major Research-Area paper within one year after qualifier examinations are passed.

~~2.~~3. Completion of a doctoral dissertation representing significant, original research.

~~3. Ph.D. candidates are required to teach at least one semester course before the Ph.D. is awarded.~~

Coursework

~~A minimum of 90 semester hours including dissertation hours beyond the baccalaureate degree is required of all Ph.D. students. Of these, a student must include courses in two minor fields of study, one of which must be mathematics. In each of the minor fields, a minimum of 8 units of graduate level course work is required (up to 3 units of 4000 level coursework may be counted toward the 8 units required) A student may apply up to 15 semester hours of independent study/directed research towards the coursework requirements with the approval of his supervisory committee. Students should also accumulate at least 20 hours of dissertation credits to count towards degree requirements. The remaining hours can be taken in the Computer Science and Engineering Department. The exact distribution of these hours in the Computer Science and Engineering discipline will be determined by the student and his supervisory committee to provide the student with a stimulating educational experience. The student's progress in the program is monitored by a supervisory doctoral committee, which is usually appointed at an early state in the student's program. This committee consists of at least four members, one of which is outside the College of Engineering. The Major Professor will be a member of the~~

~~Computer Science and Engineering Department. Normally, two more Computer Science and Engineering faculty serve on the committee with a member in another department in the college~~

Total Program hours 72 minimum (post-bacc)

A minimum of 72 semester hours including dissertation hours beyond the baccalaureate degree are required of all Ph.D. students

Core Requirements 48 hours minimum

The distribution of these hours is as follows:

- At least 33 semester hours in coursework excluding independent study and directed research. The exact distribution of these hours in the Computer Science and Engineering discipline will be determined by the student and the supervisory committee to provide the student with a stimulating educational experience. An additional 4 hours is required, either through completion of additional courses or through additional dissertation hours.
- Up to 15 semester hours of independent study/directed research.
- Students select the specific courses in conjunction with the advisor and committee.

Departmental Course Options (examples)

COP 6611	Operating Systems	3
EEL 6764	Principles of Computer Architecture	3
COT 6405	Introduction to the Theory of Algorithms	3
CAP 5400	Digital Image Processing	3
CAP 5625	Introduction to Artificial Intelligence	3
CAP 5682	Expert and Intelligent Systems	3
CAP 5771	Data Mining	3
CAP 6100	Human Computer Interface	3
CAP 6415	Computer Vision	3
CAP 6455	Advanced Robotic Systems	3
CAP 6615	Neural Networks	3
CAP 6672	Robot Intelligence and Computer Vision	3
CAP 6736	Geometric Modeling	3
CDA 5416	Introduction to Computer-Aided Verification	3
CIS 6900	Independent Study	1-19
CIS 6930	Special Topics	1-5
CIS 6940	Graduate Instruction Methods	1-4
CIS 6971	Thesis: Master's	2-19
CIS 7910	Directed Research	1-19
CIS 7980	Dissertation: Doctoral	2-19
CNT 6215	Computer Networks	3
COP 6621	Programming Languages and Translation	3
EEL 5771	Introduction to Computer Graphics I	3
EEL 6706	Testing and Fault Tolerance in Digital Systems	3
EEL 6766	Advanced Computer Architecture	3

Doctoral Screening/Qualifying Examination

Students must pass the Ph.D. Qualifying examinations in Computer Architecture, Operating Systems, and ~~math~~Math/Algorithms~~, and the student's specialty area~~.

Admission to Candidacy

A student will not be admitted to candidacy until a Doctoral committee has been appointed, and the committee has certified that the student has successfully completed the comprehensive qualifying examination and demonstrated the qualifications necessary to successfully complete the requirements for the degree. The admission to Candidacy form must be approved by the Dean of the college and forwarded to the Dean of Graduate Studies for final approval. The student may elect to enroll in dissertation credits in the semester following approval of the Admission to Candidacy form by Graduate Studies.

Major Research-Area Paper

After an extensive review of literature on the area of research the student will author a paper and give an oral presentation on the subject. The written document should constitute a significant part of the student's literature-review chapter for his/her dissertation. The oral presentation will be open to the public. The paper and presentation is to be completed within one year of passing the Qualifying Examinations.

Dissertation 20 hours minimum

CIS 7980 Dissertation

The student's progress in the program is monitored by a supervisory doctoral committee, which is usually appointed at an early stage in the student's program. This committee consists of at least four members, one of whom is outside the College of Engineering. The Major Professor will be a member of the Computer Science and Engineering Department. Normally, two more Computer Science and Engineering faculty serve on the committee with a member in another department in the college.

The student must conduct research of sufficient quality that demonstrates an independent and original contribution to the field of computer science and engineering. Students must take at least 20 semester hours of doctoral dissertation credits; the exact number of credits is determined by the candidate's supervisory committee. It is strongly recommended that doctoral students submit journal articles for publication relevant to dissertation research.

Dissertation Defense

A doctoral candidate must defend her/his research before her/his committee. The defense is usually open to the university community and conducted in accordance with the university's general rules and regulations. The defense involves a formal presentation of the dissertation followed by a critical exchange between the candidate and the committee. The committee chairman moderates the proceedings and determines procedure, originality of the research, and contributions made by the candidate.

~~**University Policy**~~

~~All work applicable to the Ph.D. degree requirements must be completed within eight years from the time a student is admitted into the program.~~

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ELECTRICAL ENGINEERING PROGRAM

Master of Engineering (M.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	No admit

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.1001
Dept Code: EGE
Program (Major/College): EEL EN

Also offered as:

Dual M.S. Degree in Physics/Engineering;
Joint degree with the Industrial Engineering (this permits simultaneous specialization in an Electrical Engineering discipline with an MSEM minor.)

CONTACT INFORMATION

College: Engineering
Department: Electrical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of Electrical Engineering offers both doctoral and masters level degrees. The major areas of research and instruction in the Department are: semiconductor materials, microelectronic manufacturing, MEMS, nanotechnology, VLSI design, digital signal processing, communication theory, wireless communications, microwave engineering, power systems and controls, and biomedical materials and imaging. The Department's research efforts are supported by well-equipped laboratories in the areas of silicon processing, compound semiconductors, electro-optics, IC design, thin dielectric films, communications and signal processing, power systems, nanotechnology, MEMS, micro/millimeter waves, biomedical materials and imaging, and bioengineering.

Current and previous Ph.D. dissertations explored the areas of microelectronics (materials and devices of elemental and compound semiconductors, circuit design, modeling, testing, and reliability); communications and signal processing (communication networks, packet switching, satellite communications, communications software, and VLSI for signal processing); systems and controls; solid state material and device processing and characterization; electro-optics, electromagnetic, microwave and millimeter- wave engineering (antennas, devices, systems); and biomedical engineering. Master's programs include options in semiconductor materials and processes, VLSI design, communications and signal processing, power systems and controls, microwave and millimeter-wave engineering, and biomedical engineering. The M.E. degree is an option for students whose B.S. Degree is in an engineering discipline other than Electrical engineering. Both thesis and course work only master's options are available.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Minimum GPA of 3.0
- GRE Required (Q>700, V+Q>1100)
- Three Letters of Recommendation
- TOEFL score of 550; 213 on computerized test; 79 internet based exam

DEGREE PROGRAM REQUIREMENTS

Thesis Option

Required Courses	24	
Thesis hours	6	
Total hours		30

Course Work Only Option

Required courses	30

Students must take two of the following applied Mathematics courses as part of the degree program:

EGN 5421 Engineering Applications of Vector Analysis	3
EGN 5422 Engineering Applications of Partial Differential Equations	3
EGN 5423 Mathematics for Communications Engineering	3
EGN 5424 Engineering Applications of Complex Analysis	3
EGN 5425 Matrix Theory	3
EEL 6545 Random Processes	3

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ELECTRICAL ENGINEERING PROGRAM

Master of Science in Electrical Engineering (M.S.E.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.1001
Dept Code: EGE
Program (Major/College): EEL EN

Also offered as:
Dual M.S. Degree in Physics/Engineering;
Joint degree with the Industrial Engineering (this permits simultaneous specialization in an Electrical Engineering discipline)

CONTACT INFORMATION

College: Engineering
Department: Electrical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of Electrical Engineering offers both doctoral and masters level degrees. The major areas of research and instruction in the Department are: semiconductor materials, microelectronic manufacturing, MEMS, nanotechnology, VLSI design, digital signal processing, communication theory, wireless communications, microwave engineering, power systems and controls, and biomedical materials and imaging. The Department's research efforts are supported by well-equipped laboratories in the areas of silicon processing, compound semiconductors, electro-optics, IC design, thin dielectric films, communications and signal processing, power systems, nanotechnology, MEMS, micro/millimeter waves, biomedical materials and imaging, and bioengineering.

Current and previous Ph.D. dissertations explored the areas of microelectronics (materials and devices of elemental and compound semiconductors, circuit design, modeling, testing, and reliability); communications and signal processing (communication networks, packet switching, satellite communications, communications software, and VLSI for signal processing); systems and controls; solid state material and device processing and characterization; electro-optics, electromagnetic, microwave and millimeter-wave engineering (antennas, devices, systems); and biomedical engineering. Master's programs include options in semiconductor materials and processes, VLSI design, communications and signal processing, power systems and controls, microwave and millimeter-wave engineering, and biomedical engineering.

Accreditation
Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Minimum 3.00 GPA
- GRE Required (Q>700, V+Q>1100)
- Three Letters of Recommendation
- Educational experience required
- TOEFL score of 550; 213 on computerized test; 79 on internet based exam

DEGREE PROGRAM REQUIREMENTS

Thesis Option

Required Courses	24 hours
Required Thesis Hours	6 hours
Total hours:	30 hours

Course work only

Required Courses	30 hours

Students must take two of the following applied mathematics courses as part of the degree program:

EGN 5421 Engineering Applications of Vector Analysis	3
EGN 5422 Engineering Applications of Partial Differential Equations	3
EGN 5423 Mathematics for Communications Engineering	3
EGN 5424 Engineering Applications of Complex Analysis	3
EGN 5425 Matrix Theory	3
EEL 6545 Random Processes	3
PHC 6050 Bio-Statistics	3

All students must take two of the following approved in depth sequences as part of their degree program:

EEL-6426 RF/MW Ckts I and EEL-6427 RF/MW Ckts II
EEL-6486 EM Field Theory and EEL-6487 Adv EM Field Theory or EEL-6481 Num. Techniques in Electromagnetics
EEL-5462 Antenna Theory and EEL-6463 Adv Antenna Theory or EEL-6481 Num. Techniques in Electromagnetics
EEL-6935 Monolithic MW Ckts and EEL-6936 Adv Monolithic MW Ckts
EEL-6534 Digital Communication Systems and EEL-6509 Satellite Comm. or EEL-6593 Mobile and Personal Comm
~~ECH 6693~~ BME 6000 Intro to Biomedical Eng and GM-7930 Anatomy for Bio Engineers or EEL-6936 Bio Image Processing
EEL-6935 Bioelectricity and EE~~L~~-6273 Chemical and Bio Sensor Microsystems
EEL-6502 DSP-I and EEL-6752 DSP-II or EEL-6586 Speech Signal Processing
EEL-6597 Wireless Network Architecture and Protocols and EEL-6936 Adv Topics in Wireless Comm.
EEE-5344 Digital CMOS VLSI Design and EEE-6936 VHDL or EEE-6936 Low Power VLSI Design
EEE-5382 Physical Basis of Microelectronics and EEE-6353 Semiconductor Device Theory I
EE~~EL~~-6353 Semi Conductor Device Theory I and EEE-6358 Semi Conductor Device Theory II
EEE 5356 Integrated Circuit Technology and EEE-6936 Adv Integrated Circuit Technology
EEE-6355 Compound Semiconductor Technology and EEE-6318 Characterization of Semiconductors
EEL-5631 Digital ~~c~~Control Systems and EEL-6613 Modern Control Theory
EEE-6936 VHDL and EEL-6936 Rapid System Prototyping
EEL-5250 Electric Power Systems I and EEL-6935 Electric Power Systems II
EEL-6935 Industrial Power Distribution I and EEL-6936 Industrial Power Distribution II
EEL-5935 Utility Power Distribution I and EEL-6935 Utility Power Distribution II
EEL-6935 Electric Machines and Drives and EEL-6936 Power Electronics
EEL-~~6734~~ 6425 Intro to Nanotechnology and EEL-6936 Nanotechnology II
EEL-6935 Micro Electro Mechanical Systems I and EEL-6936 Micro Electro Mechanical Systems II

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ELECTRICAL ENGINEERING PROGRAM

Master of Science in Engineering Science (M.S.E.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.1001
Dept Code: EGE
Program (Major/College): EEL EN

Also offered as:

Dual M.S. Degree in Physics/Engineering;
Joint degree with the Industrial Engineering (this permits simultaneous specialization in an Electrical Engineering discipline with an MSEM minor.)

CONTACT INFORMATION

College: Engineering
Department: Electrical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of Electrical Engineering offers both doctoral and masters level degrees. The major areas of research and instruction in the Department are: semiconductor materials, microelectronic manufacturing, MEMS, nanotechnology, VLSI design, digital signal processing, communication theory, wireless communications, microwave engineering, power systems and controls, and biomedical materials and imaging. The Department's research efforts are supported by well-equipped laboratories in the areas of silicon processing, compound semiconductors, electro-optics, IC design, thin dielectric films, communications and signal processing, power systems, nanotechnology, MEMS, micro/millimeter waves, biomedical materials and imaging, and bioengineering.

Current and previous Ph.D. dissertations explored the areas of microelectronics (materials and devices of elemental and compound semiconductors, circuit design, modeling, testing, and reliability); communications and signal processing (communication networks, packet switching, satellite communications, communications software, and VLSI for signal processing); systems and controls; solid state material and device processing and characterization; electro-optics, electromagnetic, microwave and millimeter-wave engineering (antennas, devices, systems); and biomedical engineering. Master's programs include options in semiconductor materials and processes, VLSI design, communications and signal processing, power systems and controls, microwave and millimeter-wave engineering, and biomedical engineering. Non-thesis master's studies, comprising 30 credit hours of coursework without a thesis are possible. The M.S.E.S. Degree is an option for students whose B.S. Degree is in a discipline other than engineering.

Accreditation
Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

- Minimum 3.00 GPA
- GRE Required (Q>700, V+Q>1100)

- Three Letters of Recommendation
- TOEFL score of 550; 213 on computerized test; 79 internet based exam.

DEGREE PROGRAM REQUIREMENTS

Thesis Option

Required Courses	24 hours
Required Thesis Hours	6 hours
Total hours:	30 hours

Course work only

Required Courses	30 hours

Students must take two of the following applied mathematics courses as part of the degree program:

EGN 5421 Engineering Applications of Vector Analysis	3
EGN 5422 Engineering Applications of Partial Differential Equations	3
EGN 5423 Mathematics for Communications Engineering	3
EGN 5424 Engineering Applications of Complex Analysis	3
EGN 5425 Matrix Theory	3
EEL 6545 Random Processes	3
PHC 6050 Bio-Statistics	3

All students must take two of the following approved in depth sequences as part of their degree program:

EEL-6426 RF/MW Ckts I and EEL-6427 RF/MW Ckts II
EEL-6486 EM Field Theory and EEL-6487 Adv EM Field Theory or EEL-6481 Num. Techniques in Electromagnetics
EEL-5462 Antenna Theory and EEL-6463 Adv Antenna Theory or EEL-6481 Num. Techniques in Electromagnetics
EEL-6935 Monolithic MW Ckts and EEL-6936 Adv Monolithic MW Ckts
EEL-6534 Digital Communication Systems and EEL-6509 Satellite Comm. or EEL-6593 Mobile and Personal Comm
~~ECH 6693~~BME 6000 Intro to Biomedical Eng and GM-7930 Anatomy for Bio Engineers or EEL-6936 Bio Image Processing
EEL-6935 Bioelectricity and EE~~L~~-6273 Chemical and Bio Sensor Microsystems
EEL-6502 DSP-I and EEL-6752 DSP-II or EEL-6586 Speech Signal Processing
EEL-6597 Wireless Network Architecture and Protocols and EEL-6936 Adv Topics in Wireless Comm.
EEL-5344 Digital CMOS VLSI Design and EEE-6936 VHDL or EEE-6936 Low Power VLSI Design
EEE-5382 Physical Basis of Microelectronics and EEE-6353 Semiconductor Device Theory I
EE~~EL~~-6353 Semi Conductor Device Theory I and EEE-6358 Semi Conductor Device Theory II
EEE 5356 Integrated Circuit Technology and EEE-6936 Adv Integrated Circuit Technology
EEE-6355 Compound Semiconductor Technology and EEE-6318 Characterization of Semiconductors
EEL-5631 Digital ~~c~~Control Systems and EEL-6613 Modern Control Theory
EEE-6936 VHDL and EEL-6936 Rapid System Prototyping
EEL-5250 Electric Power Systems I and EEL-6935 Electric Power Systems II
EEL-6935 Industrial Power Distribution I and EEL-6936 Industrial Power Distribution II
EEL-5935 Utility Power Distribution I and EEL-6935 Utility Power Distribution II
EEL-6935 Electric Machines and Drives and EEL-6936 Power Electronics
EEL-6425~~6734~~ Intro to Nanotechnology and EEL-6936 Nanotechnology II
EEL-6935 Micro Electro Mechanical Systems I and EEL-6936 Micro Electro Mechanical Systems II

COURSES

See **http://www.ugs.usf.edu/sab/sabs.cfm**

ELECTRICAL ENGINEERING PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 90/60
Program Level: Doctoral

CIP Code: 14.1001
Dept Code: EGE
Program (Major/College): EEL EN

CONTACT INFORMATION

College: Engineering
Department: Electrical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Department of Electrical Engineering offers both doctoral and masters level degrees. The major areas of research and instruction in the Department are: semiconductor materials, microelectronic manufacturing, MEMS, nanotechnology, VLSI design, digital signal processing, communication theory, wireless communications, microwave engineering, power systems and controls, and biomedical materials and imaging. The Department's research efforts are supported by well-equipped laboratories in the areas of silicon processing, compound semiconductors, electro-optics, IC design, thin dielectric films, communications and signal processing, power systems, nanotechnology, MEMS, micro/millimeter waves, biomedical materials and imaging, and bioengineering.

Current and previous Ph.D. dissertations explored the areas of microelectronics (materials and devices of elemental and compound semiconductors, circuit design, modeling, testing, and reliability); communications and signal processing (communication networks, packet switching, satellite communications, communications software, and VLSI for signal processing); systems and controls; solid state material and device processing and characterization; electro-optics, electromagnetic, microwave and millimeter-~~-~~wave engineering (~~-~~antennas, devices, systems); and biomedical engineering. ~~—~~Master's programs include options in semiconductor materials and processes, VLSI design, communications and signal processing, power systems and controls, microwave and millimeter-wave engineering, and biomedical engineering.

Accreditation
Accredited by the Commission on Colleges of the Southern Association of Colleges and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Minimum 3.00 GPA
- GRE (Q> 700, Q+V>1100)
- TOEFL score of 550; 213 on computerized test; 79 internet based exam...
- Three (3) Letters of Reference
- Statement of Purpose

DEGREE PROGRAM REQUIREMENTS

The student's supervisory committee is responsible for evaluating his/her overall transcript to ensure that the following distributional requirements are met:

Program of Study

Concentration Coursework Minimum 27 hours formal regularly scheduled graduate course work in the engineering area of concentration (not necessarily electrical engineering courses); at least 20 of these hours at the 6000 level.	**27 hours**
Mathematics and Statistics Minimum 8 hours in mathematics or statistics courses (not necessarily math department courses).	**8 hours**
Electives Minimum 8 hours outside the major area of concentration (these could be other courses in the Department).	**8 hours**
Courses Minimum 60 hours total course work (including i-iii above) beyond B.S. degree (EEL 6908-002 forward), directed research (EEL 6910-001 forward), seminars (EEL 6932-5). **Each professor will have his/her own section for independent study and directed research section.**	
Dissertation Minimum 20 hours dissertation (EEL 7980). **Each Professor will have his/her own section for dissertation hours.**	**20 hours**
Total hours:	Minimum 90 hours total beyond B.S. degree

Please contact Electrical Engineering for information

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ENGINEERING MANAGEMENT PROGRAM

Master of Science in Engineering Management (M.S.E.M.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15
Spring: October 15
Summer: February 15

Minimum Total Hours: 30
Program Level: Masters

CIP Code: 14.3502
Dept Code: EGS
Program (Major/College): EMA EN

CONTACT INFORMATION

College: Engineering
Department: **Industrial & Management Systems Engineering**

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

This program is designed to prepare engineers from various disciplines to make the transition to technical management. Courses in the program involve concepts in engineering management, resource management, strategic planning, and productivity. They combine qualitative approaches with quantitative techniques. Courses are available on campus or through distance learning.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- BS in Engineering or equivalent.
- Minimum 3.00 GPA upper level
- GRE may be required
- Letter of recommendation.
- TOEFL score of 79 or higher on internet-based test, 213 or higher on computer-based test, or 550 or higher on paper-based test
- Resume
- Two years professional experience or internship may be required as part of the program

DEGREE PROGRAM REQUIREMENTS

A minimum of 30 credits of approved coursework beyond the bachelor level is required, 18 credits of core work and 12 credits of electives. Up to 6 hours of advanced courses in the student's area of specialty may be taken as electives. A thesis option is available to M.S.E.M. students who are interested in applied research. In the thesis option, 18 credits of core work, 6 credits of electives, and 6 credits of thesis are the minimum required.

The required 18 credits of core work are divided into three components: 12 credits in the general core area, 3 credits in the quantitative core area, and 3 credits in the job design core area. An undergraduate statistics course with a grade of C or higher is a prerequisite for the quantitative core area. Otherwise students must additionally take EGN 3443 Probability & Statistics for Engineers as a prerequisite.

General Core Area: 12 credits

EIN 5182 Principles of Engineering Management
EIN 6386 Management of Technological Change
EIN 5350 Technology and Finance
EIN 6183 Engineering Management Policy & Strategy (Capstone: must be taken after all core work requirements have been fulfilled)

Quantitative Core Area: 3 credits must be selected from the following options, as approved by advisor. The other courses may be taken as electives.

ESI 5306 Operations Research for Engineering Managers
ESI 5219 Statistical Methods for Engineering Managers
ESI 6247 Statistical Design Models

Job Design Core Area: 3 credits must be selected from the following options, as approved by advisor. The other course may be taken as an elective.

EIN 6108 Engineering Management: Human Relations
EIN 6319 Work Design, Motivation & Productivity

Electives: 12 credits minimum must be selected from the following options, as approved by advisor.

EIN 6179 Advanced TQM Methods: Six Sigma
EIN 6936 Benchmarking
ESI 5522 Computer Simulation
EIN 6217 Construction Safety Engineering
EIN 6xxx~~934~~Creativity in Technology
EIN 6275 Design Controls for Medical Devices
EIN ~~6936~~5452 Engineering a Lean Enterprise
EIN 6215 Engineering Systems Safety
ESI 6605 Engineering Data Mining
EIN 6324 Engineering the Supply Chain
EIN 6936 Graduate Research Seminar
EIN 6433 Human Factors Engineering in Medical Devices
EIN 6112 Information Systems Design for Engineering
ESI 6448 Integer Programming
EIN 6934 International Project Management
EIN 6435 International Regulations for Medical Devices
EIN 6178 ISO 9000/14000
ESI 6491 Linear Programming & Network Optimization
EIN 5510 Manufacturing Systems Analysis
EIN ~~6934~~63921~~1~~ New Product Development
EIN ~~6936~~6420 Non-Linear Programming
EIN 6216 Occupation Safety Engineering
EIN 6430 Overview of Regulated Industries
EIN 6336 Production Control Systems
EIN 6145 Project Management
EIN 6431 Regulatory Quality Systems & Controls for Medical Devices
EIN 6432 Regulated Product Approval Process
ESI 5236 Reliability Engineering
EIN 6935 Strategic Marketing Assessment
EIN 6936 Strategies in Technical Entrepreneurship

ESI 6213 Stochastic Decision Models I
EIN 6934 Tech Venture Strategy
EIN 6145 Technical Entrepreneurship
EIN 6106 Technology & Law
EIN 6121 Technology & Markets
EIN 5174 Total Quality Management (TQM) Concepts
EIN 6225 Total Quality Management (TQM) Seminar
EIN 6936 Venture Capital & Private Equity
EIN 5275 Work Physics / Biomechanics

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ENGINEERING SCIENCE (5-YEAR) PROGRAM

Master of Science in Engineering Science (M.S.E.S) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall: February 15
Spring: October 15
Summer: February 15

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.0101
Dept Code: ESB
Program (Major/College): EGC EN

Also offered as:

5 year M.S.E.S. program -available in each department

CONTACT INFORMATION

College: Engineering
Department: Chemical & Biomedical Engineering, Civil & Environmental Engineering, Electrical Engineering, Industrial & Management Systems Engineering, Mechanical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

This program is designed to meet the needs of students who wish to pursue studies in interdisciplinary engineering areas. A strong foundation in rigorous scientific and engineering principles and practice is expected. It is normally awarded for completion of a thesis program.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Check the admission requirements of the host department; student's interest of study.

DEGREE PROGRAM REQUIREMENTS

Each department in the College is authorized to offer the Master of Science in Engineering Science and the Master of Science in Engineering. These degrees are individually tailored to student needs. Please check with the individual department for requirements.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ENGINEERING SCIENCE PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15
Spring: October 15
Summer: February 15

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 14.0101
Dept Code: DEA
Program (Major/College): EGC EN

Concentrations:
Physics (ENP)

CONTACT INFORMATION

College: Engineering
Department:

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

This program is designed to meet the needs of students who wish to pursue studies in interdisciplinary engineering areas.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
The student should have a strong background in scientific and engineering principles. At least one major professor in the College of Engineering should agree to guide the student by approving the admission.

DEGREE PROGRAM REQUIREMENTS

The student's Ph.D. program must meet University and College requirements (see main College of Engineering section), but is individually designed by the student's two Co-Major Professors based on the student's main areas of interest. While the student is hosted by a department, program approvals and the degree are authorized by the Co-Major Professors and the College of Engineering.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ENGINEERING SCIENCE / PHYSICS PROGRAM

Joint Degree Program
Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	14.0101
Dept Code:	ESB
Program (Major/College):	EGC EN

Also offered as:
Interdisciplinary - Ph.D. in Engineering Science

CONTACT INFORMATION

Colleges:	Engineering and Arts and Sciences
Departments:	Engineering / Physics
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

Contact the program for information. Under an interdisciplinary arrangement with the College of Arts and Sciences and the College of Engineering, the physics graduate students may obtain a Ph.D. in Engineering under the dissertation direction of a Physics Director of Graduate Studies.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
See listings for Physics and Engineering Science.

DEGREE PROGRAM REQUIREMENTS

Contact the program for information.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ENGINEERING SCIENCE / PHYSICS PROGRAM

Joint Degree Program
Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15
Spring: October 15
Summer: February 15

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 14.0101
Dept Code: DEA
Program (Major/College): EGC EN
Concentration:
Physics (ENP)

CONTACT INFORMATION

Colleges: Engineering and Arts and Sciences
Department: Engineering / Physics

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Contact the program for information. Under an interdisciplinary arrangement with the College of Arts and Sciences and the College of Engineering, the physics graduate students may obtain a Ph.D. in Engineering under the dissertation direction of a Physics Director of Graduate Studies

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
See listings for Physics and Engineering Science.

DEGREE PROGRAM REQUIREMENTS

Contact the program for information.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ENVIRONMENTAL ENGINEERING PROGRAM

Master of Environmental Engineering (M.E.V.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	14.1401
Dept Code:	EGX
Program (Major/College):	EVE EN

CONTACT INFORMATION

College:	Engineering
Department:	Civil and Environmental Engineering
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The M.E. degree provides a student with the opportunity to earn the advanced degree by coursework only. Students must have an accredited first degree in engineering or complete a list of makeup engineering coursework. Many of the department's graduate courses are offered on weekday evenings, which permits part-time and FEEDS (Florida Engineering Education Delivery System online) students the opportunity to seek a graduate degree.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:

The field of Environmental Engineering has long been known for its breadth and ability to adapt to the new technological, societal, and global problems facing the environment. Major research areas include water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; and groundwater hydrology. Other focus areas include water reuse, green engineering, renewable energy, fate of emerging contaminants, and humanitarian engineering that has a developing world focus. Graduates of the programs are prepared for careers with governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in planning, design, research and development, or policy. The environmental engineering laboratories provide state-of-the-art analytical equipment for chemical and biological research. Equipment includes an ion chromatograph, atomic absorption spectrophotometer, several gas chromatrographs, HPLC, ICPs, TOC machine, and environmental chambers. Field research sites are available locally and in several international settings that include developing world communities.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Overall GPA 2.75; GPA in major 3.00

- GRE 650Q; 350V with3.0 AW or valid fundamentals of engineering (FE) certificate preferred. Verification of FE certification should be obtained from the professional engineering (PE) board where the FE certification was obtained. See the CEE department website for more information: http://www2.eng.usf.edu/cee/graduate/apply.htm.
- TOEFL (~~interantional~~ international applicants only) 550 or 213 (CBT).
- Exceptions made on a case-b~~a~~y-case basis where warranted.

DEGREE PROGRAM REQUIREMENTS

The minimum coursework requirement for the Master of Engineering degrees is 30 credit hours. No research thesis is required. All students must take four principles courses in physical/chemical principles; biological principles; aquatic chemistry, and sustainability and two environmental engineering process elective courses. An international capstone design course is available that includes a field experience in the developing world.

Core Courses (required)

ENV 6002 Physical Chemical Principles	3
EES 6107 Biological Principles of Environmental Engineering	3
ENV 6666 Aquatic Chemistry	3
CGN 6933 Green Engineering for Sustainability ***or***	3
CGN 6933 Green Infrastructure for Sustainable Communities) ***or***	3
CGN 6933 Sustainable Development Engineering	3

Elective Courses (12 additional courses required, two courses must be from this list)

ENV 6519 Physical/Chemical Processes	3
CGN 6933 Environmental Biotechnology	3
ENV 6105 Air Pollution	3

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ENVIRONMENTAL ENGINEERING PROGRAM

Master of Science in Engineering Science (M.S.E.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	14.1401
Dept Code:	EGX
Program (Major/College):	EVE EN

CONTACT INFORMATION

College:	Engineering
Department:	Civil and Environmental Engineering
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The M.S.E.S. degree provides a student with the opportunity to earn the advanced degree by combining coursework and a research thesis. This program is typically open to students who have a first degree in science or mathematics but do not have an accredited first degree in engineering and are not completing makeup coursework that would be requireed for the M.S. or M.E. degrees. A Master's International Program in Civil & Environmental Engineering allows students to combine their graduate education and research with engineering service in the Peace Corps. Many of the department's graduate courses are offered on weekday evenings, which permits part-time and FEEDS (Florida Engineering Education Delivery System online) students the opportunity to seek a graduate degree.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
The field of Environmental Engineering has long been known for its breadth and ability to adapt to the new technological, societal, and global problems facing the environment. Major research areas include water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; and groundwater hydrology. Other focus areas include water reuse, green engineering, renewable energy, fate of emerging contaminants, and humanitarian engineering that has a developing world focus. Graduates of the programs are prepared for careers with academia, governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in planning, design, research and development, or policy. The environmental engineering laboratories provide state-of-the-art analytical equipment for chemical and biological research. Equipment includes an ion chromatograph, atomic absorption spectrophotometer, several gas chromatrographs, HPLC, ICPs, TOC machine, and environmental chambers. Field research sites are available locally and in several international settings that include developing world communities.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Overall GPA 2.75; GPA in major 3.00
- GRE 650Q; 350V with 3.0 AW
- TOEFL (~~interantional~~ international applicants only) 550 or 213 (CBT).
- Exceptions made on a case-b~~a~~y-case basis where warranted.

DEGREE PROGRAM REQUIREMENTS

The programs consist of a minimum of 24 credit hours of coursework and 6 credit hours of thesis. All students must take four principles courses in physical/chemical principles; biological principles; aquatic chemistry, and sustainability and two environmental engineering process courses. An international capstone design course is available that includes a field experience in the developing world.

Core Courses (required)

ENV 6002 Physical Chemical Principles	3
EES 6107 Biological Principles of Environmental Engineering	3
ENV 6666 Aquatic Chemistry	3
CGN 6933 Green Engineering for Sustainability ***or***	3
CGN 6933 Green Infrastructure for Sustainable Communities ***or***	3
CGN 6933 Sustainable Development Engineering	3

Elective Courses (12 additional courses required based on approval of graduate committee)

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ENVIRONMENTAL ENGINEERING PROGRAM

Master of Science in Environmental Engineering (M.S.E.V.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	14.1401
Dept Code:	EGX
Program (Major/College):	EVE EN

CONTACT INFORMATION

College:	Engineering
Department:	Civil and Environmental Engineering
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The M.S. degree provides a student with the opportunity to earn the advanced degree with coursework and a required research thesis. Students must have an accredited first degree in engineering or complete a list of makeup engineering coursework. A Master's International Program in Civil & Environmental Engineering allows students to combine their graduate education and research with engineering service in the Peace Corps. Many of the department's graduate courses are offered on weekday evenings, which permits part-time and FEEDS (Florida Engineering Education Delivery System online) students the opportunity to seek a graduate degree.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
The field of Environmental Engineering has long been known for its breadth and ability to adapt to the new technological, societal, and global problems facing the environment. Major research areas include water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; and groundwater hydrology. Other focus areas include water reuse, green engineering, renewable energy, fate of emerging contaminants, and humanitarian engineering that has a developing world focus. Graduates of the programs are prepared for careers with academia, governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in planning, design, research and development, or policy. The environmental engineering laboratories provide state-of-the-art analytical and experimental equipment for chemical and biological research. Equipment includes an ion chromatograph, atomic absorption spectrophotometer, several gas chromatrographs, HPLC, ICPs, TOC machine, and environmental chambers. Field research sites are available locally and in several international settings that include developing world communities.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Overall GPA 2.75; GPA in major 3.00

- GRE 650Q; 350V with 3.0AW or valid fundamentals of engineering (FE) certificate preferred. Verification of FE certification should be obtained from the professional engineering (PE) board where the FE certification was obtained. See the CEE department website for more information: http://www2.eng.usf.edu/cee/graduate/apply.htm.
- TOEFL (international ~~interantional~~ applicants only) 550 or 213 (CBT).
- Exceptions made on a case-bay-case basis where warranted.

DEGREE PROGRAM REQUIREMENTS:

The programs consist of a minimum of 24 credit hours of coursework and 6 credit hours of thesis. ~~.~~All students must take four principles courses in physical/chemical principles; biological principles; aquatic chemistry, and sustainability and two environmental engineering process courses. An international capstone design course is available that includes a field experience in the developing world.

Core Courses (required)

ENV 6002 Physical Chemical Principles	3
EES 6107 Biological Principles of Environmental Engineering	3
ENV 6666 Aquatic Chemistry	3
CGN 6933 Green Engineering for Sustainability ***or***	3
CGN 6933 Green Infrastructure for Sustainable Communities) ***or***	3
CGN 6933 Sustainable Development Engineering	3

Elective Courses (12 additional courses required based on approval of graduate committee)

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

INDUSTRIAL ENGINEERING PROGRAM

Master of Industrial Engineering (M.I.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.3501
Dept Code: EGS
Program (Major/College): EIE EN

Concentrations:
Engineering Management (IMA)
Quantitative Analysis (QAS)

CONTACT INFORMATION

College: Engineering
Department: Industrial and Management Systems Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Department participates in the College's M.S.E.~~,~~ and M.E. ~~and.~~ programs. The Department offers advanced degrees in areas of study pertinent to the design, evaluation, and operation of a variety of industrial systems, ranging from the analysis of public systems, to the service industry, to the operation of manufacturing concerns. Course topics and research opportunities include production planning, production control, facilities design, applied engineering statistics, quality control and reliability, operations research, engineering economic analysis, human factors engineering, productivity analysis, manufacturing systems, robotics, automation, and computer applications. The department has advanced laboratory facilities that support class projects and research in microcomputer applications, computer-aided design and manufacturing, flexible automation, quality control, and applications in robotics.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- An undergraduate degree in industrial engineering with a 3.0/4.0 GPA; non engineering degrees will be required to take supplemental undergraduate courses
- GRE Required
- TOEFL for international students 213 (550 paper version)
- Three letters of reference

DEGREE PROGRAM REQUIREMENTS

Total of 30 approved credit hours, including the following 4 core courses:

Required Core Courses:

ESI 6213 Stochastic Decision ~~Making~~ Making ~~(~~3~~)~~
ESI 5470 Manufacturing Systems ~~Analysis~~ Analysis ~~(~~3~~)~~
ESI 6247 Statistical Design ~~Models~~ Models ~~(~~3~~)~~
ESI 6491 Linear Programming and Network ~~Optimization~~ Optimization ~~(~~3~~)~~

Elective Courses:

ESI~~EIN~~ 5522 Computer ~~Stimulation~~ Stimulation ~~(~~3~~)~~
EIN 6119 Decision Support ~~Systems~~ Systems ~~(~~3~~)~~
ESI 6605 Engineering Data ~~Mining~~ Mining ~~(~~3~~)~~
ESI 6324 Engineering the Supply ~~Chain~~ Chain ~~(~~3~~)~~
EIN 6433 Human Factors in Engineering Medical ~~Devices~~ Devices ~~(~~3~~)~~
EIN 6112 Information Systems ~~Design~~ Design ~~(~~3~~)~~
ESI 6448 Integer ~~Programming~~ Programming ~~(~~3~~)~~
EIN 6435 Internationall Regs for Med ~~Devices~~ Devices ~~(~~3~~)~~
EIN 6386 Management of Technology ~~Change~~ Change ~~(~~3~~)~~
EIN 6420~~936~~ Non-Linear ~~Programming~~ Programming ~~(~~3~~)~~
EIN 6336 Production Control ~~Systems~~ Systems ~~(~~3~~)~~
EIN 6145 Project ~~Management~~ Management ~~(~~3~~)~~
ESI 5236 Reliability ~~Engineering~~ Engineering ~~(~~3~~)~~
EIN 6319 Work Design and ~~Productivity~~ Productivity ~~(~~3~~)~~
ESI 6353 Risk and Decision Analysis

In addition, students can choose electives from other department and/or non-departmental courses, with the approval of the program director. Contact the department for information. Also visit http://imse.eng.usf.edu

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

INDUSTRIAL ENGINEERING PROGRAM

Master of Science in Industrial Engineering (M.S.I.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.1401
Dept Code: EGX
Program (Major/College): EVE EN

Concentrations:
Engineering Management (IMA)
Quantitative Analysis (QAS)

CONTACT INFORMATION

College: Engineering
Department: Industrial and Management Systems Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The department participates in the C~~c~~ollege's M.S.E. and M.E. programs. The department offers advanced degrees in areas of study pertinent to the design, evaluation, and operation of a variety of industrial systems, ranging from the analysis of public systems, to the service industry, to the operation of manufacturing concerns. Course topics and research opportunities include production planning, production control, facilities design, applied engineering statistics, quality control and reliability, operations research, engineering economic analysis, human factors engineering, productivity analysis, manufacturing systems, robotics, automation, and computer applications. The department has advanced laboratory facilities that support class projects and research in microcomputer applications, computer-aided design and manufacturing, flexible automation, quality control, and applications in robotics.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- An undergraduate degree in Industrial Engineering with a 3.0/4.0 GPA; non engineering degrees will be required to take supplemental undergraduate courses
- GRE Required
- TOEFL for international students 213 (550 paper version)
- Three letters of reference
- Statement of purpose including evidence of research potential

DEGREE PROGRAM REQUIREMENTS

Minimum of 24 credit hours of approved course work and six credit hours of thesis including the following 4 core courses:

Required Core Courses:

ESI 6213	Stochastic Decision Making	3
ESI 5470	Manufacturing Systems Analysis	3
ESI 6247	Statistical Design Models	3
ESI 6491	Linear Programming and Network Optimization	3

Elective Courses:

ESI~~EIN~~ 5522	Computer Stimulation	3
EIN 6119	Decision Support Systems	3
ESI 6605	Engineering Data Mining	3
ESI 6324	Engineering the Supply Chain	3
EIN 6433	Human Factors in Engineering Medical Devices	3
EIN 6112	Information Systems Design	3
ESI 6448	Integer Programming	3
EIN 6435	International~~l~~ Regs for Med Devices	3
EIN 6386	Management of Technology Change	3
EIN 6420~~936~~	Non-Linear Programming	3
EIN 6336	Production Control Systems	3
EIN 6145	Project Management	3
ESI 5236	Reliability Engineering	3
EIN 6319	Work Design and Productivity	3
ESI 6353	Risk and Decision Analysis	

~~**Core Courses:**~~
~~ESI 5470 Manufacturing Systems Analysis (3)~~
~~ESI 6213 Stochastic Decision Making (3)~~
~~ESI 6247 Statistical Design Models (3)~~
~~ESI 6491 Linear Programming and Network Optimization (3)~~

~~**Elective Courses:**~~
~~EIN 5522 Computer Stimulation (3)~~
~~EIN 6119 Decision Support Sys (3)~~
~~ESI 6605 Engineering Data Mining (3)~~
~~ESI 6324 Engineering the Supply Chain (3)~~
~~EIN 6433 Human Factors in Engineering Medical Devices (3)~~
~~EIN 6112 Information Systems Design (3)~~
~~ESI 6448 Integer Programming (3)~~
~~EIN 6435 International Regs for Med Devices (3)~~
~~EIN 6386 Management of Technology Change (3)~~
~~EIN 6936 Non-Linear Programming (3)~~
~~EIN 6336 Production Control Systems (3)~~
~~EIN 6145 Project Management (3)~~
~~ESI 5236 Reliability Engineering (3)~~
~~EIN 6319 Work Design and Productivity (3)~~

In addition, students can choose electives from other department and/or non-departmental courses, with the approval of major advisor or program director. Contact the department for information. Also visit http://imse.eng.usf.edu

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

INDUSTRIAL ENGINEERING PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 14.3501
Dept Code: EGS
Program (Major/College): EIE EN

Concentrations:
Engineering Management (IMA)
Manufacturing Systems (MFS)
Quantitative Analysis (QAS)

CONTACT INFORMATION

College: Engineering
Department: Industrial and Management Systems Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Contact the department for information.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Although USF only requires Ph.D. ~~S~~students to complete two consecutive~~tuive~~ semesters as full-time students, the IMSE Dept. policy is for Ph.D. ~~S~~students to complete their total doctoral program as full-time Tampa campus students. Other requirements include:

- GRE Required
- TOEFL for international students 213 (550 paper version)
- Three letters of reference
- Statement of Purpose including evidence of research potential

DEGREE PROGRAM REQUIREMENTS

Minimum of 90 credit hours beyond BS degree. Minimum of 60 credit hours of approved course work and 20 credit hours of research. Contact the department for information.

Must have 2 (at least one accepted, the other submitted) referred journal publication before graduation.
Must take the following 4 core courses:

Required Core Courses: **12 hours minimum**

ESI 6213	Stochastic Decision Making	3
ESI 5470	Manufacturing Systems Analysis	3
ESI 6247	Statistical Design Models	3
ESI 6491	Linear Programming and Network Optimization	3

Elective Courses:

~~EIN~~ESI 5522	Computer Stimulation	3
EIN 6119	Decision Support Systems	3
ESI 6605	Engineering Data Mining	3
ESI 6324	Engineering the Supply Chain	3
EIN 6433	Human Factors in Engineering Medical Devices	3
EIN 6112	Information Systems Design	3
ESI 6448	Integer Programming	3
EIN 6435	Internationall Regs for Med Devices	3
EIN 6386	Management of Technology Change	3
EIN 6420~~936~~	Non-Linear Programming	3
EIN 6336	Production Control Systems	3
EIN 6145	Project Management	3
ESI 5236	Reliability Engineering	3
EIN 6319	Work Design and Productivity	3
ESI 6353	Risk and Decision Analysis	3
ESI 6353	Risk and Decision Analysis	

~~**Core Courses:**~~
~~ESI 5470 Manufacturing Systems Analysis (3)~~
~~ESI 6213 Stochastic Decision Making (3)~~
~~ESI 6247 Statistical Design Models (3)~~
~~ESI 6491 Linear Programming and Network Optimization (3)~~

~~**Elective Courses:**~~
~~EIN 5522 Computer Stimulation (3)~~
~~EIN 6119 Decision Support Systems (3)~~
~~ESI 6605 Engineering Data Mining (3)~~
~~ESI 6324 Engineering the Supply Chain (3)~~
~~EIN 6433 Human Factors in Engineering Medical Devices (3)~~
~~EIN 6112 Information Systems Design (3)~~
~~ESI 6448 Integer Programming (3)~~
~~EIN 6435 Internationall Regs for Medical Devices (3)~~
~~EIN 6386 Management of Technology Change (3)~~
~~EIN 6936 Non-Linear Programming (3)~~
~~EIN 6336 Production Control Systems (3)~~
~~EIN 6145 Project Management (3)~~
~~ESI 5236 Reliability Engineering (3)~~
~~EIN 6319 Work Design and Productivity (3)~~

In addition, students may choose electives from other department and/or non-departmental courses, with the approval of major advisor or program director. Contact the department for information. Also visit http://imse.eng.usf.edu

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MATERIALS SCIENCE AND ENGINEERING PROGRAM

Master of Science in Materials Science and Engineering (M.S.M.S.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15
	Currently not open for admissions

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 14.1801
Dept Code: PHY/All Engineering Depts except Computer Science and Engineering
Program (Major/College): MSE AS or MSE EN

CONTACT INFORMATION

Colleges: Arts and Sciences
Engineering

Departments: Physics
Chemical & Biomedical Eng
Civil Engineering
Electrical Engineering
Industrial Engineering
Mechanical Engineering

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The field of Materials Science and Engineering (MSE) applies the fundamental principles of physics and chemistry to engineering materials, with a focus on the interrelationship between material structure, their properties, and the means by which they are processed. MSE impacts multiple facets of our economy, such as aerospace, electronics, transportation, communication, construction, recreation, entertainment, environment and energy. It is, by its very nature, an interdisciplinary field. The goal of the M.S. program in Materials Science and Engineering is to provide a route for well-qualified undergraduate students who desire in-depth graduate-level work including structured courses and research experience, in preparation for work in industry or for entrance into a relevant science or engineering Ph.D. program.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Applicants should have a Bachelor's degree in Engineering (Chemical, Mechanical, Industrial, Electrical, Civil, Materials Science, Ceramic, Metallurgy, Manufacturing, Polymer and related disciplines) or Natural Sciences (Physics, Chemistry or Biology) from an accredited institution.
- An applicant must have a cumulative GPA of 3.0 or higher during undergraduate studies.
- For specific GRE requirements all applicants should contact the admitting department
- At least 2 letters of reference
- Statement of objectives/purpose must be included with the application.

DEGREE PROGRAM REQUIREMENTS

Students will require a minimum of 30 total credit hours to qualify for the M.S. degree in MSE. The degree may be completed within 12 months by taking 12 credit hours in each of the fall and spring semesters followed by 6 credit hours during the summer. Students must take 15 credit hours of core courses (including a maximum of 3 credit hours for an interdisciplinary Graduate Materials Seminar), 9 hours of elective courses for the thesis option which requires an additional 6 hours of thesis research. For the non-thesis option, 6 additional hours of elective courses would be required in lieu of thesis hours. Courses taken for this program cannot be used to fulfill requirements of another Master's degree program.

Core Requirements (6 credit hours)

EML/ECH 6931	Materials Characterization	3
-/~~and~~ PHY 6938	~~Materials Characterization (3)~~	
PHY/ENG ~~6935~~ 6932	Graduate Seminar Series in MSE	Min 2, Max 3

And three of the following five courses (9 credit hours):

EML/ECH 6930	Advanced Materials	3
PHY 6938	Materials Physics I	3
PHY 6938	Materials Physics 2	3
ECH~~/EGN~~ 6930	Diffusion, Transport and Kinetics in Solid Materials	3
PHZ 5405	Introduction to Solid State Physics	3

Elective Courses (9 credit hours)

Thesis Hours (6 credit hours)
For Non-thesis Option six additional credit hours of elective courses is required in lieu of thesis hours.

Elective Courses:

~~EEL~~ EEE 6318	Characterization of Semiconductors	~~(~~3~~)~~
~~EEL~~ EEE 6353, 6358	Semiconductor Device Theory I and II	~~(~~3, 3~~)~~
~~CHE/~~EEL 6355	Compound Semiconductor Technology	3
PHY 6446	Lasers and Applications	3
PHY 6447	Physics of Lightwave Devices and Applications	3
EEL ~~6386, 6389~~ 6935	Principles of Semiconductor Device Modeling I, II	3, 3
~~EEL 6935~~ EEE 6226	Microsystems and MEMS Technology	3
PHZ 5156C	Computational Physics I	3
~~EEL6935/ECH6391~~ EEE 6273	Chemical/Biological Sensors and Microfabrication	3
ECH 6749	Biomaterials and Biocompatibility	3
PHZ 6426	Solid State Physics II	3
CGN 6933	Corrosion of Engineering Materials	3
CGN 6933	Durability Issues in Cementitious Materials	3
EML 6930	Failure Mechanisms in Material	3
PHZ 6136	Physical Applications of Group Theory	3
~~EEL 6937~~ EEE 6425	Introduction to Nanotechnology	3
ECH 6930/EEL 6935	Wide Band Gap Semiconductor Technology I	3
ECH 6931/EEL ~~6931~~ 6935	Wide Band Gap Semiconductor Technology II	3
CES 6107C	Advanced Mechanics of Materials II	3
EEL 6935	Characterization of Defects in Electronic Materials	3
EIN 6935	Statistical Quality Control	3
ESI 6247	Statistical Design Models	3
EML 6232	~~Laminated~~ Composite Laminated Materials	3
EML 6653	Applied Elasticity	3
~~EEL~~ EEE 5382	Physical Basis of Microelectronics	3
ECH 6230	Advanced Mass Transfer	3
EEE 5356	Integrated Circuit Technology	3
EEL 6935	Advanced I.C. Technology	3
EEL 6936	Bioelectricity	3
EML 6930	Cellular Engineering	3

EIN 6934	Introduction to Haptic Interfaces for Virtual Environments	3
EML 6930	Micro and Nano Manufacturing	3
EEL ~~0000~~ 6935	Materials for Energy Applications	3
EEL 6936	SiC Technology	3

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MECHANICAL ENGINEERING PROGRAM

Master of Engineering (M.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	33
Program Level:	Masters
CIP Code:	14.1901
Dept Code:	EGR
Program (Major/College):	EME EN

CONTACT INFORMATION

College:	Engineering
Department:	Mechanical Engineering
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The Department offers graduate programs leading to the M.S. and Ph.D. in Mechanical Engineering.

Research opportunities are available in the following areas: Mechanism Design, Kinematics, System Dynamics and Vibrations, Mechanical Controls, Tribology, Mechanical Design, Robotics, Rehabilitation Engineering, Composite Materials, Solid Mechanics, Fluid Dynamics, Thermal Energy Systems, Microelectronic Device Thermal Management, Clean and Renewable Energy Systems, Micro and Nano scale materials and systems, MEMS, Biosensors, Biofluids, Biomedical Engineering, and Engineering Education.

Department facilities include the following laboratories: Computational Fluid Dynamics, Computational Solid Mechanics, Computer-Aided Design, Dynamic Systems, Hydraulics, Rehabilitation Engineering, Robotics, Biofuel cells and Biomimetics, Nanomaterials and Thin Films, Advanced Materials Processing and Characterization, Biofluids and Biosensors, Microelectronic Thermal Management and Heat Transfer, and Compliant Mechanisms.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- All applicants must take the GRE.
- A minimum score of 350V, 700Q must be obtained **or** the student must have a grade point average (GPA) of 3.0/4.0 for the last two years of coursework from an ABET accredited engineering program for admission to the Master's Program.
- International students must score a minimum of ~~500~~ 550 on the TOEFL examination.

DEGREE PROGRAM REQUIREMENTS

The Department of Mechanical Engineering has available, on request, the Mechanical Engineering Graduate Program Handbook, which delineates the Department's entrance requirements, programs of study, supervisory committee formation, and program completion requirements. The M.M.E is a non-thesis program and the M.S.M.E. is a thesis or design project program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MECHANICAL ENGINEERING PROGRAM

Master of Mechanical Engineering (M.M.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	14.1901
Dept Code:	EGR
Program (Major/College):	EME EN

CONTACT INFORMATION

College:	Engineering
Department:	Mechanical Engineering
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The Department offers graduate programs leading to the M.S. and Ph.D. in Mechanical Engineering.

Research opportunities are available in the following areas: Mechanism Design, Kinematics, System Dynamics and Vibrations, Mechanical Controls, Tribology, Mechanical Design, Robotics, Rehabilitation Engineering, Composite Materials, Solid Mechanics, Fluid Dynamics, Thermal Energy Systems, Microelectronic Device Thermal Management, Clean and Renewable Energy Systems, Micro and Nano scale materials and systems, MEMS, Biosensors, Biofluids, Biomedical Engineering, and Engineering Education.

Department facilities include the following laboratories: Computational Fluid Dynamics, Computational Solid Mechanics, Computer-Aided Design, Dynamic Systems, Hydraulics, Rehabilitation Engineering, Robotics, Biofuel cells and Biomimetics, Nanomaterials and Thin Films, Advanced Materials Processing and Characterization, Biofluids and Biosensors, Microelectronic Thermal Management and Heat Transfer, and Compliant Mechanisms.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- All applicants must take the GRE.
- A minmum score of 350V, 700Q must be obtained **OR** the student must have a grade point average (GPA) of 3.0/4.0 for the last two years of coursework from an ABET accredited engineering program for admission to the Master's Program.
- International students must score a minimum of 550~~00~~ on the TOEFL examination.

DEGREE PROGRAM REQUIREMENTS

The Department of Mechanical Engineering has available, on request, the Mechanical Engineering Graduate Program Handbook, which delineates the Department's entrance requirements, programs of study, supervisory committee formation, and program completion requirements. The M.M.E is a non-thesis program and the M.S.M.E. is a thesis or design project program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MECHANICAL ENGINEERING PROGRAM

Master of Science in Engineering Science (M.S.E.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	14.1901
Dept Code:	EGR
Program (Major/College):	EME EN

CONTACT INFORMATION

College:	Engineering
Department:	Mechanical Engineering
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The Department offers graduate programs leading to the M.S. and Ph.D. in Mechanical Engineering.

Research opportunities are available in the following areas: Mechanism Design, Kinematics, System Dynamics and Vibrations, Mechanical Controls, Tribology, Mechanical Design, Robotics, Rehabilitation Engineering, Composite Materials, Solid Mechanics, Fluid Dynamics, Thermal Energy Systems, Microelectronic Device Thermal Management, Clean and Renewable Energy Systems, Micro and Nano scale materials and systems, MEMS, Biosensors, Biofluids, Biomedical Engineering, and Engineering Education.

Department facilities include the following laboratories: Computational Fluid Dynamics, Computational Solid Mechanics, Computer-Aided Design, Dynamic Systems, Hydraulics, Rehabilitation Engineering, Robotics, Biofuel cells and Biomimetics, Nanomaterials and Thin Films, Advanced Materials Processing and Characterization, Biofluids and Biosensors, Microelectronic Thermal Management and Heat Transfer, and Compliant Mechanisms.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
All applicants must take the GRE. A minmum score of 350V, 700Q must be obtained or the student must have a grade point average (GPA) of 3.0/4.0 for the last two years of coursework from an ABET accredited engineering program for admission to the Master's Program. International students must score a minimum of ~~500~~ 550 on the TOEFL examination.

DEGREE PROGRAM REQUIREMENTS

The Department of Mechanical Engineering has available, on request, the Mechanical Engineering Graduate Program Handbook, which delineates the Department's entrance requirements, programs of study, supervisory committee formation, and program completion requirements. The M.M.E. is a non-thesis program and the M.S.M.E. is a thesis or design project program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MECHANICAL ENGINEERING PROGRAM

Master of Science in Mechanical Engineering (M.S.M.E.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	14.1901
Dept Code:	EGR
Program (Major/College):	EME EN

CONTACT INFORMATION

College:	Engineering
Department:	Mechanical Engineering
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

PROGRAM INFORMATION

The Department offers graduate programs leading to the M.S. and Ph.D. in Mechanical Engineering.

Research opportunities are available in the following areas: Mechanism Design, Kinematics, System Dynamics and Vibrations, Mechanical Controls, Tribology, Mechanical Design, Robotics, Rehabilitation Engineering, Composite Materials, Solid Mechanics, Fluid Dynamics, Thermal Energy Systems, Microelectronic Device Thermal Management, Clean and Renewable Energy Systems, Micro and Nano scale materials and systems, MEMS, Biosensors, Biofluids, Biomedical Engineering, and Engineering Education.

Department facilities include the following laboratories: Computational Fluid Dynamics, Computational Solid Mechanics, Computer-Aided Design, Dynamic Systems, Hydraulics, Rehabilitation Engineering, Robotics, Biofuel cells and Biomimetics, Nanomaterials and Thin Films, Advanced Materials Processing and Characterization, Biofluids and Biosensors, Microelectronic Thermal Management and Heat Transfer, and Compliant Mechanisms.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- All applicants must take the GRE.
- A minmum score of 350V, 700Q must be obtained or the student must have a grade point average (GPA) of 3.0/4.0 for the last two years of coursework from an ABET accredited engineering program for admission to the Master's Program.
- International students must score a minimum of ~~500~~ 550 on the TOEFL examination.

DEGREE PROGRAM REQUIREMENTS

The Department of Mechanical Engineering has available, on request, the Mechanical Engineering Graduate Program Handbook, which delineates the Department's entrance requirements, programs of study, supervisory committee formation, and program completion requirements. The M.M.E. is a non-thesis program and the M.S.M.E. is a thesis or design project program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MECHANICAL ENGINEERING PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15
Spring: October 15
Summer: February 15

Minimum Total Hours: 72
Program Level: Doctoral
CIP Code: 14.1901
Dept Code: EGR
Program (Major/College): EME EN

Concentrations:
Manufacturing (MFG)

CONTACT INFORMATION

College: Engineering
Department: Mechanical Engineering

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Department offers graduate programs leading to the M.S. and Ph.D. in Mechanical Engineering.

Research opportunities are available in the following areas: Mechanism Design, Kinematics, System Dynamics and Vibrations, Mechanical Controls, Tribology, Mechanical Design, Robotics, Rehabilitation Engineering, Composite Materials, Solid Mechanics, Fluid Dynamics, Thermal Energy Systems, Microelectronic Device Thermal Management, Clean and Renewable Energy Systems, Micro and Nano scale materials and systems, MEMS, Biosensors, Biofluids, Biomedical Engineering, and Engineering Education.

Department facilities include the following laboratories: Computational Fluid Dynamics, Computational Solid Mechanics, Computer-Aided Design, Dynamic Systems, Hydraulics, Rehabilitation Engineering, Robotics, Biofuel cells and Biomimetics, Nanomaterials and Thin Films, Advanced Materials Processing and Characterization, Biofluids and Biosensors, Microelectronic Thermal Management and Heat Transfer, and Compliant Mechanisms.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- As a rule only students with an M.S. in Mechanical Engineering or a closely related field will be admitted into the Ph.D. Program.
- Students without an M.S. in Mechanical Engineering may also be admitted but will be required to take
  - a minimum of 6 credit hours from the Fluid and Thermal Sciences area and
  - a minmum of 6 credit hours from the Mechanics and Systems area.
- Minimum requirements for admission are 400V, 750Q on the GRE .

DEGREE PROGRAM REQUIREMENTS

The Department of Mechanical Engineering has available, on request, the Mechanical Engineering Graduate Program Handbook, which delineates the Department's entrance requirements, programs of study, supervisory committee formation, and program completion requirements. The M.M.E. is a non-thesis program and the M.S.M.E. is a thesis or design project program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

COLLEGE OF MARINE SCIENCE

Changes to Note

College of Marine Science

Marine Science (M.S. and Ph.D.)	*Change curriculum*	6/6/11

University of South Florida
College of Marine Science
140 7th Avenue S, MSL119
St. Petersburg, FL 33701

Web address: http://www.marine.usf.edu/
Email: advisor@marine.usf.edu
Phone: 727-553-1130
Fax: 727-553-1189

~~Interim~~ College Dean: ~~William T. Hogarth~~ Jacqueline E. Dixon
Associate Dean: n/a
Graduate Coordinator: Ted Van Vleet

Accreditation:
The Commission on Colleges of the Southern Association of College and Schools

College Structure and Location:
The College of Marine Science (CMS) was formed during 2000 from the previous Department of Marine Science, initiated in 1967 with three founding faculty members. The Florida Board of Regents declared it a University Center of Excellennce in 1978 and approved the Marine Science Ph.D. program in 1982. ~~Staff and faculty serve students on the St. Petersburg campus, Tampa, and the other regional campuses together with their surrounding communities, espousing goals of both diversity and equal opportunity.~~ The CMS at the University of South Florida is constituted as a graduate-level research program that forms the basis for educational opportunities at the Ph.D. and M.S. degree levels and for public service to the State of Florida. ~~The College administratively reports to the Provost of USF.~~

Located on the beautiful waterfront of Tampa Bay adjacent to the USF St. Petersburg campus, CMS is administratively part of the USF Tampa campus and reports to the Provost of USF. The College is focused on interdisciplinary research in marine science. Our 30 ranked faculty, 112 support personnel and roughly 100 graduate students work together toward a vision of understanding the unified global ocean system. The College seeks to build new interdisciplinary research teams in colalboration with our local marine science research partners, include the Florida Fish and Wildlife Research Institute, the U.S. Geological Survery, NOAA, SRI St. Petersburg, and Mote Marine Lab.

Mission Statement:
The primary mission of the College is to conduct basic and applied research in ocean science. Here, ocean science is defined by application of the traditional fields of science to both the biology, chemistry, geology, and physics of the marine environment and to the interactions between the marine environment and the adjoining atmosphere and land systems – presently and throughout earth's history. Included in the primary ocean science mission is the development of new technologies and tools for exploring the coupled ocean-atmosphere-land systems. The College expects its faculty to develop research programs of outstanding caliber and to fully engage the national and international scientific communities, through the reporting of research results in the most respected oral and written venues, and by professional service. Integral to the ocean science research mission is the education of graduate students.

The College recruits, trains, and graduates productive, creative scientists at the Ph.D. and M.S. levels that are prepared to make independent contributions to ocean science. The faculty are expected to develop outstanding graduate education programs that will afford students the opportunity to participate in all aspects of research. The College recognizes that graduate education requires strong mentoring along with traditional

classroom instruction. An ancillary but important mission of the College is education outreach for students at all levels and for the public at large. Our outreach programs have significantly expanded our educational responsibilities, and they are intended to motivate all generations to become scientifically literate citizens and to understand the environment in which they live. The College pursues innovative avenues for educational outreach. Efforts are made to attract more junior and senior level undergraduates into both the ocean science core courses and into advanced courses for which they have pre-requisites. Historically, this is a way in which students have made career decisions to engage in ocean science. In this manner the College maintains close ties with the student body in other University of South Florida Colleges and campuses.

Research Facilities:

The College facilities include specilaized laboratories equipped for studies in: Scanning and transmission electron microscopy; Trace metal analysis; Water quality; Organic and isotope geochemistry, Physical chemistry, Optical oceanography, Satellite imagery; Sedimentology; Geophysics; Physical oceanography; Micropaleontology; Physiology; Benthic ecology; Microbiology; Planktology; and Ichthyology. Additionally, the complex includes the Center for Ocean Technology, which provides manufacturing and prototyping support to the faculty, students and engineers.

The College's students and faculty have conducted research in the Antarctic, Arctic, Atlantic, Indian, and Pacific Oceans, as well as the Norwegian, Bering, Mediterranean and Caribbean Seas. The College has access to 5 research vessels in conjunction wit hthe Florida Institute of Oceanography (FIO) and the U.S. geological Survey: The RV Weatherbird II (115 ft), the RV Bellows (71 ft), the RV Gilbert (42 ft), the RV Fish Hawk (38 ft), and the RV Price (24 ft). Ship time on other vessels in the U.S. fleet of oceanographic vessels, as well as foreign research vessels, is generally obtained through federal funding.

~~The College of Marine Science's specialized laboratories include those for trace metal analysis, water quality, organic and isotope geochemistry, physical chemistry, optical oceanography, satellite imagery, sedimentology, geophysics, physical oceanography, micropaleontology, physiology, benthic ecology, microbiology, planktology, and ichthyology. The College has a large flume facility and laser Doppler velocimeter for interdisciplinary boundary layer studies. It is often the case that a student's research is primarily conducted at sea. Bayboro Harbor can accommodate any ship in the fleet of the U.S. oceanographic vessels, and is home port to the principal vessels operated by the Florida Institute of Oceanography for the entire State University System. Marine science students frequently participate in Gulf of Mexico cruises on either of two FIO vessels, the R/V Suncoaster (110ft) and the R/V Bellows (71ft). Ship time on other vessels in the U.S. fleet of oceanographic vessels, as well as foreign research vessels, is generally obtained through federal funding. Over the past decade, the College's students and faculty have conducted research in the Antarctic, Atlantic, Indian, and Pacific Oceans, as well as the Norwegian, Bering, Mediterranean and Caribbean Seas.~~

Major Research Areas: ~~Refer to College Information above~~.
Faculty major research areas as listed at: http://www.marine.usf.edu/faculty/index.shtml

Degrees, Programs, Concentrations:

Master of Science M.S.

Marine Science (MSC)
- Biological Oceanography (BOC)
- Chemical Oceanography (COG)
- Geological Oceanography (GOG)
- Interdisciplinary (IDY)
- Marine Resource Assessment (MRA)
- Physical Oceanography (POG)

Doctor of Philosophy Ph.D.

Marine Science
- Biological Oceanography (BOC)
- Chemical Oceanography (COG)

Geological Oceanography (GOG)
Interdisciplinary (IDY)
Marine Resource Assessment (MRA)
Physical Oceanography (POG)

Graduate Certificates Offered: n/a

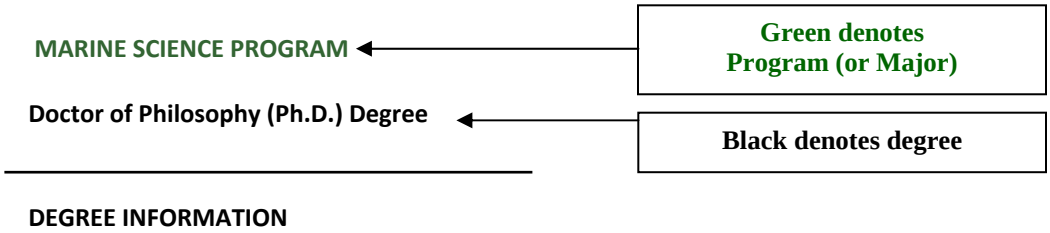
COLLEGE REQUIREMENTS

Refer to ~~College website~~ the Marine Science Program pages for information.

About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the College that offers them. For example, the Master of Science degree with a "program" (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or "concentrations" within a degree program.

PROGRAMS



CONCENTRATIONS

Concentration Requirements are listed separately under each Program.

The Program and Concentration are listed on the official transcript. Other areas, such as application tracks, are not listed on the transcript.

Example:
Doctor of Philosophy in Marine Science
with a Concentration in Biological Oceanography

MARINE SCIENCE PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

U.S. Citizens

Fall:	January 15
Spring:	October 1

Internatational Students
(not currently residing in U.S.):

Fall:	January 2
Spring:	June 1

International Students
(currently residing in U.S.:):
Refer to U.S. Citizens deadlines

Minimum Total Hours:	32
Program Level:	Masters
CIP Code:	40.0607
Dept Code:	MSC
Program (Major/College):	MSC MS

Concentrations:

Biological Oceanography (BOC)
Chemical Oceanography (COB)
Geological Oceanography (GOG)
Interdisciplinary (IDY)
Marine Resource Assessment (MRA)
Physical Oceanography (POG)

CONTACT INFORMATION

College:	Marine Science
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

The College of Marine Science (CMS) offers M.S. and Ph.D. degrees in Marine Science. This research-based program has a low student-to-faculty fatio, with an average of 100 graduate students under the direction of 30 fill-time faculty. ~~The s~~Students in the Master's program may ~~emphasize~~ elect a concenetration in biological, chemical, geological, or physical oceanography, or ~~develop an interdisciplinary~~marine resource assessment ~~program in oceanography~~ through course work and thesis ~~or dissertation~~ research. CMS graduates are well prepared for positions in academe, industry, government agencies, and non-governmental organizations at local to international levels.~~More than 100 students are currently pursuing degrees under the direction of 30 full-time faculty. Study areas range from estuarine and near-shore systems to remote areas of the Pacific, Atlantic and Indian Oceans, as well as the Arctic and Antarctic. Additional information on faculty research and college facilities is available from the College upon request.~~

Biological Oceanography
Biological oceanography seeks to understand the life histories and population dynamics of marine organisms and how they interact with their environment over space and time. Scientists in the College of Marine Science study the full breadth of biological oceanography including microbiology, phytoplankton, zooplankton, benthos, coral reefs, fishes, and marine mammals. Our biological oceanographers utilize a variety of techniques including SCUBA, shipboard samplers, acoustics, molecular biology, and mathematical modeling to understand the oceans and their inhabitants. Scientists in our college also use the latest in remote sensing technology to study vast regions of the Earth's oceans,

and have also developed new technology, such as genosensor capable for identifying and quantifying harmful algal blooms and related processes on unprecedented scales.

Chemical Oceanography
Chemical oceanographers seek to understand the ways in which various elements are cycled within the oceans, and the reactions that these elements undergo. Ocean chemists improve our understanding of the basic conditions under which ocean life thrives in seawater, and help predict the effects of anthropogenic and natural climate change on ocean composition. Research programs in the College of Marine Science include such wide ranging topics as the role and variability of nutrients in seawater, the distribution and cycling of rare earth elements and other trace metals, examination of the oceans' CO2 system, the study of dissolved organic matter, molecular organic compounds, radionuclides and stable isotopes in the oceans, and the distribution of chemical pollutants and their toxicity on marine organisms and ecosystems. Faculty and students utilize a wide variety of state-of-the art instrumentation and technology for investigating these research problems.

Geological Oceanography
Geological oceanographers in the College of Marine Science conduct research from the continental margins to the deep-ocean seafloor extending in time from modern environments to millions of years back in Earth's history to understand and predict Earth surface and interior processes. Primary research themes include: (1) paleoceanography and paleoclimatology; (2) coastline and continental shelf development and processes including effects of storms and sea-level fluctuations; (3) the health of modern and recent geologic history of coral reefs and carbonate depositional environments; (4) anthropogenic influences on estuaries; (5) mathematical explanations of geologic phenomena; and (6) plate tectonics. Our geological oceanography group has a variety of modern well-equipped laboratories and field equipment, including one of the best seafloor mapping capabilities in the US. Fully integrated with these field instruments is the computational capability to generate state-of-the art data depictions and imagery. Our group also works closely with scientists from the US Geological Survey's Center for Coastal and Marine Science Center, a major federal laboratory located nearby.

Physical Oceanography
Physical oceanography involves the study of water movement in the ocean. Energy is introduced to the ocean through wind and solar heating, and these combine with the rotation of the Earth and gravitational effects to drive ocean circulation, tides, and waves. Our physical oceanographers also investigate how the Earth's oceans are directly coupled with the atmosphere, from local weather patterns to the global climate system. Physical oceanographers in the CMS carry out research on a variety of topics using the latest technology. Computer models, real time data, satellite remote sensing, and in situ data from moored arrays, coastal and island tide gauges, and research cruises are used to study a wide range of research problems. Topics include tide and current prediction in Tampa Bay, circulation on the West Florida Shelf and in the Gulf of Mexico, El Niño, and the potential for global climate change.

Marine Resource Assessment
The College of Marine Science offers an interdisciplinary concentration in Marine Resource Assessment (MRA) as part of its M.S. and Ph.D. programs. This concentration provides training in the emerging field of ecosystem-based management. Its mission is to train a new generation of scientists that can effectively address issues concerning the sustainability of the world’s living natural resources. At the College of Marine Science, the MRA concentration addresses the national shortage of graduates possessing the skills required for managing living marine resources by requiring a quantitative approach to ecosystem analysis and living resource assessment. The MRA concentration is designed to produce resource assessment scientists who can introduce relevant ecosystem-level variables into the traditional, single-species assessment process, complementing and enhancing the development of the science-based management policies that protect living marine resources.
~~The College's location on St. Petersburg’s Bayboro Campus allows immediate access to Tampa Bay and the Gulf of Mexico. Bayboro Harbor is home-port to the R/V Bellows (71 ft.) and the R/V Suncoaster (110 ft.) operated by the Florida Institute of Oceanography (FIO) for the State University System. The College's principal building is shared with FIO and is adjacent to the Fish and Wildlife Research Institute (FWRI), the research arm of the Florida Fish and Wildlife Conservation Commission (FWCC). A recently completed research building shared by CMS and FWCC houses a remote sensing, satellite data acquisition center. With the Center for Coastal Geology and Regional Studies of the U.S. Geological Survey and the office of the Tampa Bay National Estuary Program also at Bayboro, our campus has one of the largest concentrations of marine scientists in the southeastern United States. Many of these scientists serve on advisory committees of CMS graduate students.~~

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Bachelor's degree or equivalent from a regionally accredited university (Preferable majors include biology, chemistry, geology, physics or math)
- ~~Have earned a "B" (3.0 on a 4.0 scale) average or better in all work attempted while registered as an upper division student working for a baccalaureate degree~~Have earned a 3.00 (on a 4.00 scale) average GPA or higher on upper division undergraduate coursework
- Have completed all of the coursework listed on our website (http://www.marine.usf.edu) under "Undergraduate Preparation"
- Have taken the Graduate Record Examination (GRE) within 5 years preceding application. The ~~minimum~~ preferred scores generally considered acceptable by the College are as follows: Verbal = 500, Quantitative = 600 . Preferred minimum scores for Marine Resource Assessment concentration are: Verbal = 550, Quantitative = 700. Once the minimum scores for the new GRE format are determined, it will be posted to the college website.
- Have the commitment of a Marine Science faculty member to serve as advisor during the student's graduate studies.

Required Application Materials

- research interest statement (use template from Marine Science website)
- a resume or curriculum vitae
- three letters of recommendation
- official transcripts of grades
- GRE exam scores

Additional Requirements for International Applicants

- Minimum TOEFL exam score of 79
- Financial Support Requirements Form (available on the Graduate School website
- (http://www.grad.usf.edu/graduate-admissions-international.asp)
- Official transcripts of grades: all international transcripts must be in English; it is the applicant's responsibility to have foreign transcripts translated and evaluated before submitting them as part of their graduate application packet. Please visit the Foreign Transcript Evaluations Services Listing of acceptable evaluators. (http://www.grad.usf.edu/graduate-admissions-Foreign-Transcript-Evaluation.asp)

~~Contact Program for additional information and requirements (e.g., Research Interest Statement, Letters of Recommendation, etc.). (http://www.marine.usf.edu/graduate-programs/applications.shtml)~~

DEGREE PROGRAM REQUIREMENTS

A committee, consisting of a major advisor and at least 2 other members of the graduate faculty, will be appointed to supervise and guide the program of each student.

Total Minimum Hours: 32 hours

Students must complete a minimum of 32 credit~~s~~ hours under the following areas:

1. **CORE REQUIREMENTS (12 hours)**
   Core courses completed with a grade of "B" or better:

OCB 6050	Biological Oceanography	3
OCC 6050	Chemical Oceanography	3
OCG 6051	Geological Oceanography	3
OCP 6050	Physical Oceanography	3

2. **CONCENTRATION REQUIREMENTS (14 ~~credit~~ hours)**
   Students select one of the following concentrations and complete 14 hours of electives within the concentration subject area (or other courses as approved by the Graduate Program Director). Note: At least 8 of these credit hours must be in formal courses to satisfy the USF requirement of 20 hours of formal coursework.~~:~~

   Biological Oceanography (BOC)
   Chemical Oceanography (COB)
   Geological Oceanography (GOG)
   Interdisciplinary (IDY)
   Marine Resource Assessment (MRA)*
   Physical Oceanography (POG)

   *Students in Marine Resource Assessment Concentration area are required to take 3 courses from the following list (totaling 9 credit hours) as part of their concentration requirements:

Population Dynamics	3
Fish Biology	3
Dynamics of Marine Ecosystems	3
Applied Multivariate Statistics	3

3. **ELECTIVE REQUIREMENTS ~~(5 hours)~~**
   Electives are taken within each concentration area (see above)

4. **COMPREHENSIVE EXAM REQUIREMENTS**
   In lieu of a standard Comprehensive Exam, students must successfully pass the thesis defense.
   ~~Students must pass a final oral examination conducted by members of the student's advisory committee~~.

5. **THESIS REQUIREMENTS (6 hours)**
   - A minimum of 6 credits of OCE 6971 (Thesis credit hours)
   - A written thesis
   - A successful thesis defense examination

   - ~~Six (6) credits of OCE 6971~~
   ~~Students must complete a thesis conducted by members of the student's advisory committee.~~

~~5.~~6. **OTHER REQUIREMENTS**
   Other coursework as required by thesis advisory committee

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm
See http://www.marine.usf.edu/graduate-programs/courses-offered.shtm

MARINE SCIENCE PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

U.S. Citizens:
Fall: January 15
Spring: October 1

Internatational Students
(not currently residing in U.S.):
Fall: January 2
Spring: June 1

International Students
(currently residing in U.S.:):
Refer to U.S. Citizens deadlines

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 40.0607
Dept Code: MSC
Program (Major/College): MSC MS

Concentrations:
Biological Oceanography (BOC)
Chemical Oceanography (COB)
Geological Oceanography (GOG)
Interdisciplinary (IDY)
Marine Resource Assessment (MRA)
Physical Oceanography (POG)

CONTACT INFORMATION

College: Marine Science

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The College of Marine Science (CMS) offers M.S. and Ph.D. degrees in Marine Science. This research based program has a low student-to-faculty ratio, with an average of 100 graduate students under the direction of 30 full-time faculty. Students in the Ph.D. program may elect a concentration in biological, chemical, geological, or physical oceanography, or Marine Resource Assessment through course work and dissertation research. CMS graduates are well prepared for positions in academe, industry, government agencies, and non-governmental organizations at local to international levels.

Biological Oceanography
Biological oceanography seeks to understand the life histories and population dynamics of marine organisms and how they interact with their environment over space and time. Scientists in the College of Marine Science study the full breadth of biological oceanography including microbiology, phytoplankton, zooplankton, benthos, coral reefs, fishes, and marine mammals. Our biological oceanographers utilize a variety of techniques including SCUBA, shipboard samplers, acoustics, molecular biology, and mathematical modeling to understand the oceans and their inhabitants. Scientists in our college also use the latest in remote sensing technology to study vast regions of the Earth's oceans, and have also developed new technology, such as genosensor capable for identifying and quantifying harmful algal blooms and related processes on unprecedented scales.

Chemical Oceanography
Chemical oceanographers seek to understand the ways in which various elements are cycled within the oceans, and the reactions that these elements undergo. Ocean chemists improve our understanding of the basic conditions under which ocean life thrives in seawater, and help predict the effects of anthropogenic and natural climate change on ocean composition. Research programs in the College of Marine Science include such wide ranging topics as the role and variability of nutrients in seawater, the distribution and cycling of rare earth elements and other trace metals, examination of the oceans' CO2 system, the study of dissolved organic matter, molecular organic compounds, radionuclides and stable isotopes in the oceans, and the distribution of chemical pollutants and their toxicity on marine organisms and ecosystems. Faculty and students utilize a wide variety of state-of-the art instrumentation and technology for investigating these research problems.

Geological Oceanography
Geological oceanographers in the College of Marine Science conduct research from the continental margins to the deep-ocean seafloor extending in time from modern environments to millions of years back in Earth's history to understand and predict Earth surface and interior processes. Primary research themes include: (1) paleoceanography and paleoclimatology; (2) coastline and continental shelf development and processes including effects of storms and sea-level fluctuations; (3) the health of modern and recent geologic history of coral reefs and carbonate depositional environments; (4) anthropogenic influences on estuaries; (5) mathematical explanations of geologic phenomena; and (6) plate tectonics. Our geological oceanography group has a variety of modern well-equipped laboratories and field equipment, including one of the best seafloor mapping capabilities in the US. Fully integrated with these field instruments is the computational capability to generate state-of-the art data depictions and imagery. Our group also works closely with scientists from the US Geological Survey's Center for Coastal and Marine Science Center, a major federal laboratory located nearby.

Physical Oceanography
Physical oceanography involves the study of water movement in the ocean. Energy is introduced to the ocean through wind and solar heating, and these combine with the rotation of the Earth and gravitational effects to drive ocean circulation, tides, and waves. Our physical oceanographers also investigate how the Earth's oceans are directly coupled with the atmosphere, from local weather patterns to the global climate system. Physical oceanographers in the CMS carry out research on a variety of topics using the latest technology. Computer models, real time data, satellite remote sensing, and in situ data from moored arrays, coastal and island tide gauges, and research cruises are used to study a wide range of research problems. Topics include tide and current prediction in Tampa Bay, circulation on the West Florida Shelf and in the Gulf of Mexico, El Niño, and the potential for global climate change.

Marine Resource Assessment
The College of Marine Science offers an interdisciplinary concentration in Marine Resource Assessment (MRA) as part of its M.S. and Ph.D. programs. This concentration provides training in the emerging field of ecosystem-based management. Its mission is to train a new generation of scientists that can effectively address issues concerning the sustainability of the world’s living natural resources. At the College of Marine Science, the MRA concentration addresses the national shortage of graduates possessing the skills required for managing living marine resources by requiring a quantitative approach to ecosystem analysis and living resource assessment. The MRA concentration is designed to produce resource assessment scientists who can introduce relevant ecosystem-level variables into the traditional, single-species assessment process, complementing and enhancing the development of the science-based management policies that protect living marine resources.

~~The College of Marine Science (CMS) offers M.S. and Ph.D. degrees in Marine Science. The student may emphasize biological, chemical, geological, or physical oceanography, or develop an interdisciplinary program in oceanography through course work and thesis or dissertation research.~~ More than 100 students are currently pursuing degrees under the direction of 28 full-time faculty. Study areas range from estuarine and near-shore systems to remote areas of the Pacific, Atlantic and Indian Oceans, as well as the Arctic and Antarctic. Additional information on faculty research and college facilities is available from the College upon request.

~~The college's location on St. Petersburg’s Bayboro Campus allows immediate access to Tampa Bay and the Gulf of Mexico. Bayboro Harbor is home port to the R/V Bellows (71 ft.) and the R/V Suncoaster (110 ft.) operated by the Florida Institute of Oceanography (FIO) for the State University System. The college's principal building is shared with FIO and is adjacent to the Fish and Wildlife Research Institute (FWRI), the research arm of the Florida Fish and Wildlife Conservation Commission (FWCC). A recently completed research building shared by CMS and FWCC houses a remote sensing, satellite data acquisition center. With the Center for Coastal Geology and Regional Studies of the U.S.~~

~~Geological Survey and the office of the Tampa Bay National Estuary Program also at Bayboro, our campus has one of the largest concentrations of marine scientists in the southeastern United States. Many of these scientists serve on advisory committees of CMS graduate students.~~

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

~~**Program Admission Requirements**~~

~~• **Bachelor's degree or equivalent from a regionally accredited university (preferable majors include biology, chemistry, geology, physics or math). Master's degree in one of the above sciences highly preferable.**~~

~~• **Have earned a "B" (3.0 on a 4.0 scale) average or better in all work attempted while registered as an upper division student working for a baccalaureate degree.**~~

~~• **Have completed all of the coursework listed on our website (http://www.marine.usf.edu) under "Undergraduate Preparation"**~~

~~• **Have taken the Graduate Record Examination (GRE) within 5 years preceding application. The scores generally considered acceptable by the college are as follows: Verbal = 500, Quantitative = 600**~~

~~• **Have the commitment of a Marine Science faculty member to serve as advisor during the student's graduate studies.**~~

~~**Contact Program for additional information and requirements (e.g., Research Interest Statement, Letters of Recommendation, etc.). (http://www.marine.usf.edu/graduate-programs/applications.shtml)**~~

Program Admission Requirements
Meeting these criteria per se shall not be the only basis for admission. Complete application instructions can be found on the college website (http://www.marine.usf.edu/graduate-programs/applications.shtml)

- Bachelor's degree or equivalent from a regionally accredited university (Preferable majors include biology, chemistry, geology, physics or math)
- Have earned a 3.00 (on a 4.00 scale) average GPA or higher on upper division undergraduate coursework • Have completed all of the coursework listed on our website (http://www.marine.usf.edu) under
- "Undergraduate Preparation"
- Have taken the Graduate Record Examination (GRE) within 5 years preceding application. The preferred scores generally considered acceptable by the College are as follows: Verbal = 500, Quantitative = 600. Preferred minimum scores for Marine Resource Assessment concentration are: Verbal = 550, Quantitative = 700. Once the minimum scores for the new GRE format are determined, it will be posted to the college website.
- Have the commitment of a Marine Science faculty member to serve as advisor during the student's graduate studies.

Required Application Materials
- research interest statement (use template from Marine Science website)
- a resume or curriculum vitae
- three letters of recommendation
- official transcripts of grades
- GRE exam scores

Additional Requirements for International Applicants

- Minimum TOEFL exam score of 79
- Financial Support Requirements Form (available on the Graduate School website (http://www.grad.usf.edu/graduate-admissions-international.asp)
- Official transcripts of grades: all international transcripts must be in English; it is the applicant's responsibility to have foreign transcripts translated and evaluated before submitting them as part of their graduate application packet. Please visit the Foreign Transcript Evaluations Services Listing of acceptable evaluators. (http://www.grad.usf.edu/graduate-admissions-Foreign-Transcript-Evaluation.asp)

DEGREE PROGRAM REQUIREMENTS

A committee, consisting of a major advisor and at least 4 other members of the graduate faculty, is appointed to supervise and guide the program of the candidate. One member shall be from a science department outside Marine Science.

Total Minimum Hours Required: 90 hours beyond the Bachelor's

Students must complete a minimum of 90 ~~credits~~ credit hours beyond the Bachelor's degree, (12 hours of core requirements, 16 hours of dissertation, and 62 hours split between courswork and research as determined by the committee) and must complete the following:

1. **CORE REQUIREMENTS (12 hours)**
   Core courses completed with a grade of "B" or better

~~a.~~	OCB 6050	Biological Oceanography	3
~~b.~~	OCC 6050	Chemical Oceanography	3
~~c.~~	OCG 6051	Geological Oceanography	3
~~d.~~	OCP 6050	Physical Oceanography	3

~~a. OCB 6050 Biological Oceanography (3)~~
~~b. OCC 6050 Chemical Oceanography (3)~~
~~c. OCG 6051 Geological Oceanography (3)~~
~~d. OCP 6050 Physical Oceanography (3)~~

2. **CONCENTRATION REQUIREMENTS**
   Students select one of the following concentrations. There is no minimum credit requirement except for the Marine Resource Assessment Concentration:

Biological Oceanography (BOC)
Chemical Oceanography (COB)
Geological Oceanography (GOG)
Interdisciplinary (IDY)
Marine Resource Assessment (MRA)*
Physical Oceanography (POG)
~~Marine Resource Assessment (MRA)~~

*Students in Marine Resource Assessment Concentration area are required to take 3 courses from the following list (totaling 9 credit hours) as part of their concentration requirements:

~~e.~~	Population Dynamics	3
~~f.~~	Fish Biology	3
~~g.~~	Dynamics of Marine Ecosystems	3
~~h.~~	Applied Multivariate Statistics	3

~~a. Population Dynamics (3)~~
~~b. Fish Biology (3)~~
~~c. Dynamics of Marine Ecosystems (3)~~
~~d. Applied Multivariate Statistics (3)~~

3. **ELECTIVE REQUIREMENTS**
   ~~——~~Electives are taken within each concentration area (see above)

4. **COMPREHENSIVE QUALIFYING EXAM REQUIREMENTS**
A comprehensive qualifying exam consisting of a written and oral portion.~~,~~ A student must receive a passing vote on the qualifying exam from at least 4 committee members before admission to Ph.D. candidacy.

5. **DISSERTATION REQUIREMENTS (16 hours)**
   - A minimum of 16 credits of OCE 7980 (Dissertation credit hours). Following admission to candidacy, the student must enroll in OCE 7980 when engaged in research, data collection, or writing activities relevant to the dissertation. The student is required to accumulate a minimum of 6 credits during each previous 12 month period (previous 3 terms, e.g., Fall, Spring, Summer) until the degree is granted.
   - A written dissertation
   - A successful dissertation defense examination

~~6. A minimum of 16 credits of OCE 7980. Following admission to candidacy, the student must enroll in OCE 7980 when engaged in research, data collection, or writing activities relevant to the dissertation. The student is required to accumulate a minimum of 6 credits during each previous 12 month period (previous 3 terms, e.g., Fall, Spring, Summer) until the degree is granted.~~

~~A dissertation, and a dissertation defense examination.~~

~~7.~~6. **OTHER REQUIREMENTS**
Other coursework as required by dissertation advisory committee

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm
See http://www.marine.usf.edu/graduate-programs/courses-offered.shtm

COLLEGE OF MEDICINE

Changes to Note

The follow curricular changes for the College of Medicine were approved by the USF-Tampa Graduate Council on the date noted.

Program changes

Bioinformatics & Computational Bio	Add 5 elective options	9/20/10
Biotechnology	Add 5 elective options	9/20/10
Medical Sciences (M.S.M.S.)	New Conc: Athletic Training	1/11/11
	Change conc: Clinical and Translational Research	3/21/11
Medical Sciences (M.S.M.S.)	Changes to core; pre-professional program	6/6/11
	New Conc: Health Informatics	6/6/11

Programs/Concentrations placed inactive:

Medical Sciences (MS): Biochemistry and Molecular Biology (eff fall 2010)	12/6/10
Medical Sciences (MS): Med Microbiology and immunology (eff fall 2010)	12/6/10
Medical Sciences (Ph.D.): Biochemistry and Molecular Biology (eff fall 2010)	12/6/10
Medical Sciences (Ph.D.): Med Microbiology and immunology (eff fall 2010)	12/6/10

New Certificates

Health Informatics	9/20/10
Intellectual Property	3/21/11

Certificate changes

Metabolic and Nutritional Medicine	change requirements	9/20/10
Molecular Medicine	change requirements	10/18/10

New Courses

ATR 5xxx	Administration of Injury Prevention Programs	4/18/11
ATR 5xxx	Contemporary Issues in Athletic Training	4/18/11
ATR 5xxx	Rehabilitation Considerations for Children	4/18/11
ATR 5xxx	Youth Injury Epidemiology	4/18/11
ATR 6xxx	Athletic Training Professional Colloquium	4/18/11
ATR 6xxx	Capstone Project 1	4/18/11
ATR 6xxx	Capstone Project 2	4/18/11
ATR 6xxx	Ethical and Legal Issues in Healthcare	4/18/11
ATR 6xxx	Evidence Based Research and Writing	4/18/11
ATR 6xxx	Medical Conditions of Adolescents	4/18/11
ATR 6xxx	Pediatric Sports Medicine	4/18/11
HIM 6xxx	Foundations in Management Information Systems	4/18/11
HIM 6xxx	Legal Aspects of Health Information Management	4/18/11
GMS 6103~~6~~	Foundations in Medical Microbiology and Immunology	8/18/10
GMS ~~7xxx~~6115	Medical Parasitology & Mycology	1/24/11
HIM ~~6xxx~~6114	Integrated Electronic Medical Records	8/18/10
HIM 6~~xxx~~350	e-Medicine Business Models	8/18/10
HIM ~~6xxx~~6320	Managerial Communication	8/18/10
HIM ~~6xxx~~6118	Introduction to Health Informatics	8/18/10

GMS 6xxx	A Metabolic Approach to Pain Management	7/5/11
GMS 6xxx	Introduction to IV Therapies	7/5/11
GMS 6xxx	Metabolic Approaches to Pediatrics	7/5/11
GMS 6xxx	Toxic Metals & Functional Toxicology	7/5/11
GMS 7xxx	Aging and Neuroscience	7/5/11
GMS 7xxx	The Spinal Cord: Dev, Pathology and Therapy	7/5/11
HIM 6xxx	Case Studies in Health Information Management	7/5/11
HIM 6xxx	E-Healthcare Ethics	7/5/11
HIM 6xxx	Pharmacy Informatics	7/5/11

Course Changes

BCH 6627	*Metabolic and Genetic Basis of Human Diseases*	*Change title, desc.*	*1/24/11*
BCH 6746	*Proteomics and Structural Biology*	*Change title, desc*	*1/24/11*
GMS 6906	*Grantsmanship II*	*Change desc.*	*3/21/11*
GMS 6875	*Ethical and Regulatory Aspects of Clinical Rsch*	*Change hrs*	*4/18/11*
GMS 6921	*Building a Patient-Oriented Research Center*	*Change hrs*	*4/18/11*

Course Terminations

GMS 6907	Grantsmanship III	4/18/11

University of South Florida
College of Medicine
12901 Bruce B. Downs Blvd. MDC40
Tampa, FL 33612-4799

Web address: www.health.usf.edu/medicine/graduatestudies
Email: biomed@health.usf.edu
Phone: 813-974-4181
Fax: 813-974-4317

College Dean: Steven Klasko
Associate Dean: Michael Barber
Graduate Coordinator: Michael Barber

Accreditation:
The Commission on Colleges of the Southern Association of College and Schools

Mission Statement:
The College of Medicine Graduate Faculty consist of scientists who conduct research in many fields of science basic to understanding disease processes and to the development of improved methods of diagnosis, treatment and prevention of disease. Students receive their research training in up-to-date methods of scientific investigation and gain experience in modern well-equipped laboratories. The faculty is dedicated to providing high quality education in an environment conducive to scholarly activity and scientific achievement.

Candidates for the Ph.D. in Medical Science enter into an interdisciplinary program enabling them to major in any one of the six concentrations that are offered. Collaboration among laboratory scientists of all disciplines is encouraged. The programs of study allow students to tailor their programs to individual needs and interests. Thanks to faculty research awards, students have a multitude of opportunities to participate in cutting-edge research projects. Medical Science Ph.D. graduates go on to become deeply involved in research sponsored by academic, industrial and government institutions

The master's degree in Medical Sciences (M.S.) can be completed in as little as one year and has been designed to assist students who are seeking admissions into doctoral programs (Ph.D. or M.D.). Successful graduates of the Medical Science master's program can improve their chances for admissions into professional programs by further developing their foundational knowledge of biomedical science. Currently, the Medical Sciences master's degree program boasts a ninety percent success rate for adequately preparing students for entry into doctoral or professional programs.

Financial Aid - A limited number of assistantships, fellowships, and tuition waivers are available for doctoral students.

Major Research Areas:
Allergy, Immunology and Infectious Diseases Cancer Biology, Cardiovascular Research, Neuroscience Research

Degrees, Programs, Concentrations:

Master of Arts in Bioethics and Medical Humanities (M.A.B.M.H.)
Bioethics and Medical Humanities (BMH)

Master of Science in Bioinformatics and Computational Biology (M.S.B.C.B.)
Bioinformatics and Computational Biology (BCB)

Master of Science in Biotechnology (M.S.B.)
Biotechnology (MSB)

Master of Science in Medical Sciences (M.S.M.S.)
Medical Sciences (MSG)
Aging and Neuroscience (ANS)
Athletic Training (ATL)
Anatomy (ANA)
Biochemistry and Molecular Biology (BMB) **Closed for admissions**
Clinical and Translational Research (CTR)
Health Informatics (HIN)
Health Science (HSC)
Interdisciplinary Medical Ssciences (IMS)
Medical Microbiology and Immunology (MDI) **Closed for admissions**
Metabolic and Nutritional Medicine (MNM)
Molecular Medicine (MLM)
Women's Health (WSH)

Doctor of Philosophy (Ph.D.)
Medical Sciences (MSG)
Allergy, Immunology and Infectious Disease (AII)
Anatomy (ANA)
Biochemistry and Molecular Biology (BMB) **Closed for admissions**
Clinical and Translational Research (CTR)
Microbiology and Immunology (MMI) **Closed for admissions**
Molecular Medicine (MLM)
Molecular Pharmacology and Physiology (MPY)
Neuroscience (NEU)
Pathology and Cell Biology (PCB)
Pathology and Laboratory Medicine (PLM)
Pharmacology and Therapeutics (PAT)
Physiology and Biophysics (PAB)

Doctor of Medicine (M.D.)*
Doctor of Physical Therapy (D.P.T.)*
**professional programs, offered through the College of Medicine – USF Medical School*

Dual Programs:
Biomedical Engeering (Ph.D.) and Medicine (M.D.) Dual Degree*
Biotechnology (MS) and Entrepreneurship in Applied Technologies (M.A.)
Medical Sciences (Ph.D.)/Medicine (M.D.) Combined Program
Physical Therapy (D.P.T.) and Public Health (M.P.H.)
**refer to the USF Medical School or the College of Engineering for information.*

Graduate Certificates Offered:
Aging and Neuroscience
Biochemistry & Molecular Biology
Bioinformatics
Biotechnology
Cardiovascular Engineering
Clinical Investigation
Health Informatics
Health Sciences

Medical Biochemistry, Microbiology and Immunology
Medicine and Gender
Metabolic and Nutritional Medicine
Molecular Medicine
Pharmacy Sciences
See: http://www.outreach.usf.edu/gradcerts/

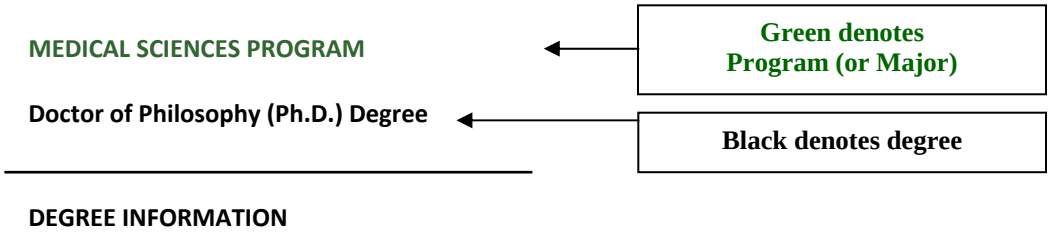
COLLEGE REQUIREMENTS

Refer to College for information.

About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the College that offers them. For example, the Master of Science degree with a "program" (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or "concentrations" within a degree program.

PROGRAMS



CONCENTRATIONS

Concentration Requirements are listed separately under each Program.

The Program and Concentration are listed on the official transcript. Other areas, such as application tracks, are not listed on the transcript.

Example:
Doctor of Philosophy in Medical Sciences
with a Concentration in Anatomy

BIOETHICS AND MEDICAL HUMANITIES PROGRAM

Master of Bioethics and Medical Humanities (M.A.B.M.H.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 51.3201
Dept Code: MED
Program (Major/College): BMH MD

CONTACT INFORMATION

College: Medicine
Department: Biomedical and Medical Humanities

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you
http://hsc.usf.edu/medicine/internalmedicine/bioethics/index.htm

PROGRAM INFORMATION

This innovative program, the first in Florida to combine bioethics and medical humanities, is designed to prepare leaders for increasingly complex healthcare concerns, especially those raised by advancements in technology, the distribution of scarce resources, and emerging global tensions. It is designed to focus on questions associated with genetic research and therapy, new reproductive technologies, health care delivery systems, end-of-life decisions, bio-terrorism, and numerous challenges associated with cultural sensitivities and competencies. The program is founded on the premise that questions posed by contemporary health care dilemmas, whether local, national or international, do not reside within the province of any single discipline, but require collaborative integration of insights from science, humanities, history, law, medicine, public health, nursing, philosophy, education and social-behavioral sciences.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- BA or equivalent degree from a regionally accredited university, with a "B" (3.0 on a 4.0 scale) average or better in all work attempted while registered as an upper division student working toward a baccalaureate degree; AND Graduate Record Examination (GRE) scores (500V, 500Q) OR
- GMAT scores of 500 or better; OR
- An equivalent measure approved by the Board of Trustees, taken within five years preceding application

Applicants to the program will be expected to have some competency in basic research design and methods (either qualitative or quantitative) that will be determined from student transcripts. Students who do not meet this prerequisite will be encouraged to enroll in USF courses that provide this foundation.

DEGREE PROGRAM REQUIREMENTS

CORE REQUIREMENTS

Four required core courses		12 credit hours

Choose 4 of the available 6 options:

GMS6870	Medical Ethics & Humanities: Tools and Foundations	3
ANG6469	Foundations of Medical Anthropology	3
REL6938	Spirituality and Medicine	2-4
NGR6137	Bioethics in Contemporary Society	3
GMS7930	Biotechnology and Bioethics	1-3
GMS7930	Health and Social Justice	1-3

Electives (18 hours)

Six approved elective courses	18 hours
Internship and Independent/Directed study	6 credit hours
Total:	36 hours

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

BIOINFORMATICS AND COMPUTATIONAL BIOLOGY PROGRAM

Master of Bioinformatics and Computational Biology (M.S.B.C.B.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 42
Program Level: Masters
CIP Code: 26.1103
Dept Code: MED
Program (Major/College): BCB MD

CONTACT INFORMATION

College: Medicine
Department: Molecular Medicine

Contact Information: www.grad.usf.edu

Other Resources:
http://health.usf.edu/medicine/graduatestudies/mscus/ms_bioinformatics.htm
http://ww.usf4you

PROGRAM INFORMATION

The Masters Program in Bioinformatics and Computational Biology at the University of South Florida represents a multi-college partnership and a truly interdisciplinary collaboration. Participating departments include the Departments of Biochemistry & Molecular Biology in the College of Medicine, Mathematics in the College of Arts and Sciences, Computer Sciences and Engineering and the Division of Biomedical Engineering in the College of Engineering, Epidemiology and Biostatistics in the College of Public Health and Information Systems and Decision Sciences in the College of Business Administration. The program is designed to meet the increasing demand for trained people in this emerging area, which crosses the traditional fields of biological, mathematical and computer sciences. The program, therefore, builds on and complements the current strengths of the university.

The goal of the Masters Program in Bioinformatics and Computational Biology is to provide students enrolled in the program with high quality training and education that will prepare them for careers in science, industry, health care and education. The curriculum has been designed accordingly and provides the theoretical background, the practical training and, with the internships, the "real life" experience, which will equip students with the essential tools for a successful career in the field of Bioinformatics and Computational Biology.

The Masters Program in Bioinformatics & Computational Biology is designed for 40 credit hours to be obtained during two years of study. Nine core courses will provide the foundation and basics before advanced work, including four electives, and a Master's thesis or internship will be pursued. The curriculum is flexible and will be tailored to the individual student's background, interests and career goals. However, electives must be selected from at least two of the participating departments to assure breadth of training.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- A bachelor's degree or equivalent from a regionally accredited university
- Minimum overall grade-point average of 3.00 out of a possible 4.00 with a minimum grade-point average of 3.00 in the sciences
- Graduate Record Examination
- Completed pre-requisites in:

- Calculus I-III
- Linear algebra
- Biostatistics
- At least "C" and "Maple" or "Mathematica" or "MATH-CAD"
- General biology (1 year)
- Organic chemistry (1 year)

DEGREE PROGRAM REQUIREMENTS

Prerequisites:
Calculus I-III, linear algebra, biostatistics, at least "C" and "Maple" or "Mathematica" or "MATH-CAD", one year of general biology and one year of organic chemistry.

CORE REQUIREMENTS

Required courses:

GMS6200	Biochemistry, Molecular and Cellular Biology	3-5
BCH6888	Bioinformatics I	3
MAT5932	Selected Topics in Combinatorics and Graph Theory	3
BCH6411	Biomedical Genomics and Genetics	
GMS6889	Bioinformatics II	3
MAT5932	Selected Topics in Probability Theory	3
BCH6935	Scientific Writing and Ethics	2
CIS6930	Advanced Data Structures	3
MAT6932	Selected Topics in Bioinformatics and Computational Biology	2

Electives 12-16

Molecular Medicine/COM:

BCH 6135	Methods in Molecular Biology	4
BCH 6627	Molecular Basis of Disease 3	
BCH 6746	Proteomics and Structural Biology	3
BCH 6876	Special Topics in Molecular Modeling and Drug Design	2
BCH 6876	Special Topics in Cell Signaling Pathways	2
BCH 6876	Special topics in Protein Structure/Function Analysis	2
GMS 6100	Medical Microbiology	3
GMS 6101	Molecular and Cellular Immunology	3
GMS 6114	Vaccines and Applied Immunology	2
GMS 7930	Biotechnology Forum – R8D in Florida's Biotech Companies	1
GMS 7930	Case Studies: Intellectual Property in Biotechnology	2

Management Information Systems/COBA:

ISM 6124	Advanced Systems Analysis and Design	3
ISM 6218	Advanced Database Management	3
ISM 6225	Distributed Information Systems	3
ISM 6930	Data Warehousing and Data Mining	3
ISM 6930	Information Technology in Medical Care	3

Computer Science and Engineering/Biomedical Engineering/CE:

COT 6405	Introduction to the Theory of Algorithms	3
CEN 6016	Software Engineering	3
CAP 5625	Introduction to Artificial Intelligence	3
CAP 6638	Pattern Recognition	3
CAP 5400	Digital Image Processing	3
ESB CIS 6930	Bioinformatics in Biomedical Engineering	3

Mathematics/CAS:

STA 5326	Mathematical Statistics	3
MAD 5305	Graph Theory	3
MAD 4504	Theory of Computation	3
STA 5166	Computational Statistics	3
MAT 6939	Graduate Seminar	2

Epidemiology & Biostatistics/CPH:

PHC 6051	Biostatistics II	3
PHC 6053	Categorical Data Analysis	3
PHC 6054	Design of Experimental Studies for Health Researchers	3
PHC 6057	Biostatistical Inference I	3

Thesis

Complete M.S. Thesis Project or Internship	4-6

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

BIOTECHNOLOGY PROGRAM

Master of Science in Biotechnology (M.S.B.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall:

Domestic	June 1
International in country	~~January 2~~March 1
International out of country	January 2

Spring:

Domestic	October 1
International in-country	~~February~~ August 1
International out of country	June 1

Minimum Total Hours: 36
Program Level: Masters
CIP Code: 26.1201
Dept Code: MED
Program (Major/College): MSB MD

CONTACT INFORMATION

College: Medicine
Department: Molecular Medicine

Contact Information: www.grad.usf.edu
biotech@health.usf.edu

Other Resources:
Website:
http://health.usf.edu/medicine/molecularmedicine/PSM-Biotechnology
~~http://health.usf.edu/medicine/graduatestudies/mscus/ms_biotechnology.htm~~
www.usf4you

PROGRAM INFORMATION

The USF Master's Program in Biotechnology represents a multi-college partnership and a truly interdisciplinary collaboration. Participating colleges include the College of Medicine, the College Of Engineering, the College Of Public Health, the College of Arts And Sciences and the College of Business Administration. The program is designed to meet the increasing demand for trained people in this exploding area, which crosses the traditional fields of biological, chemical, engineering, health and computer sciences. ~~It therefore builds on and complements the current strengths of the university.~~ The curriculum has been designed accordingly and provides the theoretical background, the practical training and, with the internships, the "real life" experience, which will equip students with the essential tools for a successful career in the field of biotechnology. In 2008, the USF Biotechnology Master's Program was recognized by the Council of Graduate Schools as **Professional Science Master's Program**. Program graduates take jobs in the Biotechnology Industry or move on to a PhD Program, Medical School, Dental School, Veterinary School or Pharmacy School.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

The USF Biotechnology Master's Program will be available for full -time and part-time enrollment. In order to be considered for admission to the Master's Program in Biotechnology, applicants must fulfill the following requirements:

Administrative Pre-Requirements:

- A bachelor's degree
- A minimum undergraduate GPA of 3.00 on a 4.00 scale
- A minimum GRE test score of at least 500 verbal and at least 600 quantitative
- Three letters of recommendation
- Statement of purpose, indicating how the program would suit the student's interests and serve his/her professional goals

- Complete transcripts of undergraduate work and any previous graduate work
- International students need an official transcript evaluation, see Graduate School Admissions
- A completed USF Application to Graduate Studies

Program Pre Requirements:

A good foundation in biochemistry, molecular biology and enetics, i.e. a~~A~~ bachelor's degree in either the biological or chemical sciences or at least one year of studies in those disciplines would be the optimal preparation for admission to the USF Master's Program in Biotechnology. However, the faculty of the USF Biotechnology Program is aware that not all applicants who are interested in pursuing this degree will have this formal background. Instead, some might have accumulated substantial knowledge in one of these disciplines during their work as laboratory technicians, engineering assistants or environmental or public health service providers. Those students would be ideally suited to start their graduate education with a Graduate Certificate in Biotechnology that is also offered by the Department of Molecular Medicine in the College of Medicine.
http://www.outreach.usf.edu/gradcerts/certinfo.asp?ccode=XBT

The Biotechnology Graduate Certificate Degree has less stringent entrance requirements a GRE is not required) but its successful completion will serve several purposes:

- it will provide the students with a certificate of advanced studies independent of prospective additional studies in the Biotechnology Master's Program,
- it will serve as a complete package of fulfilled pre requirements for admission into the Biotechnology Master's Program,
- 12 credit hours of the Biotechnology Certificate Program can be transferred into the Master's Program.

DEGREE PROGRAM REQUIREMENTS

The Masters Program in Biotechnology is designed for 36 credit hours, which can be obtained in 3 semesters of study. The program will be available for full-time and part-time enrollment. Seven core courses will provide the foundation and basics before advanced work, including four electives and an internship, will be pursued. The curriculum is flexible and can be tailored to the individual student's background, interests and career goals.

The core courses include introductory courses in biochemistry, molecular and cellular biology, introduction to biotechnology, bioinformatics, biotechnology and bioethics, Translational Biotechnology and a seminar on current topics in biotechnology. Most of these courses are part of the current graduate curricula in the involved colleges. Student will have the option to choose four electives out of a total of 22 electives that are contributed by five participating colleges. The electives are organized in four different categories i.e. science, engineering, public health and business/law and the students will be free to select according to their interests and career plans.

Core Requirements

Required Courses	**36 hrs**
Fall Semester	11 hrs
GMS6200: Biochemistry and Molecular and Cellular Biology	5
BSC6436 Introduction to Biotechnology	3
BCH6888: Bioinformatics	3
Spring Semester	13 hrs
~~BCH7930~~GMS 6847: Translational Biotechnology	3
~~BCH6070~~ BSC 6437: Biotechnology and Bioethics	3
GMS7930: Graduate Seminar	1
Elective:	3
Elective:	3
Fall Semester	12 hrs
EIN6106: Technology and Law	3
Elective:	3
Elective:	3
GMS6943~~7930~~: ~~(140 contact hrs minimum)~~ Biotechnology Internship	3

~~with Internship report & literature review~~

Students must maintain an overall average of 3.0 ("B") in all courses

Electives

Science:

BCH6411	Biomedical Genomics and Genetics	4
BCH6746	Proteomics and Structural Biology	3
BCH6135	Methods in Molecular Biology	4
GMS6889	Advanced Bioinformatics	3
GMS7930	Stem Cells in Brain Repair	3
BCH6627	Metabolic and Genetic Basis of Human Diseases	3
GMS6513	Principles of Pharmacology and Therapeutics	3
GMS7930	Aging and Neuroscience	3
GMS 6100	Medical Microbiology	3
GMS 6101	Molecular and Cellular Immunology	3
GMS 6114	Vaccines and applied Immunology	2
GMS 7930	Biotechnology Forum – R&D in Florida's Biotech Companies	1

Engineering:

BME6107	Biomaterials I: Material Properties	3
BME6108	Biomaterials II: Biocompatibility	3
BME6034	Biotransport Phenomena	3
ECH6417	Bioseparations	3
ECH5740	Theory and Design of Bioprocesses	3
BME5040	Pharmaceutical Engineering	2
ENV6667	Environmental Biotechnology	3

Public Health:

PHC6310	Environmental Occupational Toxicology	3
PHC6050	Biostatistics I	3
PCH6051	Biostatistics II	3
PHC6000	Epidemiology	3
PHC6017	Design and Conduct of Clinical Trials	3

Business/Law:

GEB6930/EIN 6935	Strategic Market Assessment for New Technologies	3
GEB6115	New Venture Formation	3
GEB6116	Business Plan Development	3
6EB6930	Fundamentals of Venture Capital and Private Equity in Entrepreneurship	3
~~GMS7930~~ GMS6095	Principles of Intellectual Property	3
GMS 7930	Case Studies: Intellectual Property in Biotechnology	2

Project or Thesis/Dissertation:

As an alternative to a Master's Comprehensive Exam, biotechnology Master's students will have to complete a practical internship and theoretical assignment which will both require the successful application of the knowledge they have acquired during their formal training. Required are:

- an internship with a written and an oral internship report and
- a review paper providing an overview of recent advancements in an area of biotechnology of the student's choice.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm. For more information on individual courses, please see http://www.ugs.usf.edu/sab/sabs.cfm or contact the program directly: biotech@health.usf.edu

For more information on individual courses, please see http://www.ugs.usf.edu/sab/sabs.cfm or contact the program directly: biotech@health.usf.edu

BIOTECHNOLOGY AND ENTREPRENEURSHIP IN APPLIED TECHNOLOGIES DUAL DEGREE PROGRAM

Master of Science in Biotechnology (M.S.B.) Degree and Master of Science in Entrepreneurship in Applied Technologies (M.S.)

DEGREE INFORMATION

Program Admission Deadlines:
Fall:

Domestic	June 1
International in country	January 2

Spring:

Domestic	October 1
International in-country	February 1
International out of country	June 1

Minimum Total Hours:	57
Program Level:	Masters
CIP Code:	26.1201
Dept Code:	MED
Program (Major/College):	MSB MD

CONTACT INFORMATION

Colleges:	Business and Medicine
Department:	Center for Entrepreneurship and Molecular Medicine
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

The Dual Degree Program in Biotechnology and Entrepreneurship is the combination of two existing programs that allows students to obtain two Master's degrees in a concurrent rather than sequential effort. The time commitment will be about three years with a total of 57 credit hours. The combination of a Master's in Biotechnology with a Master's in Entrepreneurship educates students to understand the scientific process and its challenges and at the same time provides the training that will enable them to facilitate the translation of scientific data from mind to market. This combination makes graduate students outstandingly versatile and thereby lays an essential step-stone for their future success.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools. The Biotechnology Program has also been recognized as a "Professional Science Master's Program" by the U.S. Council of Graduate Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Students will have to apply individually to each program. Admission to one program does not automatically grant admission to the other program. Once the student has been admitted to both programs, he/she seeks permission from the program directors of both programs for dual crediting of 9 credit hours; the USF Graduate School provides a form sheet for this process. For admission students must have:

- A bachelor's degree with a minimum undergraduate GPA of 3.0 on a 4.0 scale
- A minimum GRE test score of at least 500 verbal and at least 600 quantitative, can be waived in some cases

DEGREE PROGRAM REQUIREMENTS

A total of 57 credits is required for graduation with a Dual Master's in Biotechnology and Entrepreneurship. Beyond the dual crediting of 9 credit hours, all graduation requirements of the individual programs apply.

Course Requirements:

GMS 6200	Biochemistry and Molecular and Cellular Biology	5
BSC 6436	Intro to Biotechnology	3
BCH 6888	Bioinformatics	3
GMS 6095	Principles of Intellectual Property	3
GMS 6847	Translational Biotechnology	3
BCH 6070	Biotechnology and Bioethics	3
Elective from Biotechnology Program		3

GMS 7939	Graduate Seminar	1
EIN 6106	Technology and Law	3
GEB 6115	New Venture Formation	3
GEB 6930	Fund of Venture Cap Priv Equity	3
EIN 6930	New Product Development	3
GMS 6943	Biotechnology Internship (140 contact hrs minimum)	3
GEB 6930	Strategies in Entrepreneurship	3
EIN 6430	Overview of Regulated Industries	3
GEB 6930	Strategies in Market Assessment	3
GEB 645	Social, Ethical, Legal Systems	3
GEB 6116	Business Plan Development	3
GEB 6930	Adv Topics in Entrepreneurship/Internship	3
GEM 7930	Biomedical Ethics	3

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm
For more information on individual courses, please see http://www.ugs.usf.edu/sab/sabs.cfm or contact the program directly: biotech@health.usf.edu

MEDICAL SCIENCES PROGRAM

Master of Science in Medical Sciences (M.S.M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: June 1

Minimum Total Hours: 30
Program Level: Masters
CIP Code: 26.9999
Dept Code: MED
Program (Major/College): MSG MD

Concentrations:
Aging and Neuroscience (ANS)
Anatomy (ANA)
Athletic Training (ATL)
Biochemistry and Molecular Biology (BMB)*
Clinical and Translational Research (CTR)
Health Science (HSC)
Health Informatics (HIN)
Interdisciplinary Medical Sciences (IMS)
Medical Microbiology and Immunology*
Metabolic and Nutritional Medicine
Molecular Medicine (MLM)
Women's Health (WSH)
*Concentrations noted with (*) are closed for admissions; not accepting applications

CONTACT INFORMATION

College: Medicine
Department: Medical Sciences

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you
Website:
http://health.usf.edu/medicine/graduatestudies/index.htm

PROGRAM INFORMATION

The program is designed to provide students with advanced training in either Anatomy, Biochemistry, Medical Microbiology, or Pharmacology. Students successfully completing the program will have a foundation that will prepare them for a professional degree in biomedical science such as a M.D. or Ph.D. or qualify them to work as teachers or research assistants in academia or in the private sector. The program will provide a solid core of training in the latest findings, concepts, and experimental techniques. Students will be allowed to individualize their training through elective courses and will have the opportunity to conduct laboratory research. The program is intended for students who wish training beyond a baccalaureate degree but do not wish to commit to a Ph.D. program or do not meet the qualifications required for admissions into a M.D. or Ph.D. program.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- A bachelor's degree or equivalent from a regionally accredited university
- Minimum overall grade-point average of 3.0 out of a possible 4.0 with a minimum grade-point average of 3.0 in the sciences*
- GRE or MCAT

- Completed pre-requisites in:
  - General biology (1 year)
  - General chemistry (1 year)
  - General physics (1 year)
  - Organic chemistry (1 year)
  - Quantitative analysis (1 course)
  - Mathematics including integral and differential calculus

APPLICATION PROCEDURES
Please refer to http://health.usf.edu/medicine/graduatestudies/mscus/apply_domestic.htm?wbc_purpose=Basic

DEGREE PROGRAM REQUIREMENTS

Degree requirements are individualized according to the educational and research interests and goals.

Total Minimum hours **30**

Core Requirements

Core Course: (2 hours minimum)

GMS 7930	Health Sciences Ethics	2

~~One or more of the following (Check with Program Advisor):~~

~~GMS6001~~	~~Foundation in Biomedical Sciences~~	~~4-8~~
~~GMS6200C~~	~~Success Skills in Biomedical Sciences~~	~~1~~
~~GMS6020~~	~~Neuroscience~~	~~3~~
~~GMS6066~~	~~Molecular Medicine~~	~~11~~
~~GMS 6605~~	~~Basic Medical Anatomy~~	~~3~~
~~GMS6100~~	~~Medical Microbiology~~	~~3~~
~~BCH6935~~	~~Scientific Writing and Ethics~~	~~2~~

Students select either the Pre-professional track or one of the Concentrations.

Pre-Professional Track: (30 hours minimum in addition to core requirement)

Students are required to complete the following, chosen in consultation with Program Advisor.

GMS 6605	Basic Medical Anatomy	3
GMS 6630	Basic Medical Histology	3
GMS 6201	Basic Medical Biochemistry	3
GMS 6706	Basic Medical Neuroscience	3
GMS 6012	Basic Medical Genetics	3
GMS 6141	Basic Medical Immunology & Microbiology	3
GMS 6433	Clinical Correlations in Molecular Medicine	3
GMS 6440	Basic Medical Physiology	3
GMS 6111	Basic Medical Pathology	3
GMS 6505	Basic Medical Pharmacology	3

Concentration Options:

~~Students select one of the following concentrations to complete in addition to the core program requirements:~~Students who prefer to take a Concentration instead of the Pre-Professional Track may choose from the following concentrations. Requirements for each are listed on the following pages:

Aging and Neuroscience (ANS)
Anatomy (ANA)
Athletic Training (ATL)
Clinical and Translational Research (CTR)
Health Informatics (HIN)

Aging and Neuroscience (ANS)

Neuroscience is one the fastest growing fields of biomedical sciences. There is an increasing demand for health care professionals and research scientists to meet the needs of the increasing number of the aging population affected with neurodegenerative diseases such as Alzheimer's disease. The Aging and Neuroscience concentration within the masters program in Medical Sciences has been developed in collaboration with the School of Aging Studies to integrate neuroscience as well as biomedical aging in one-year curriculum. The program is targeted for students interested in pursuing a medical, professional degree or further graduate education in biomedical sciences and in aging studies. The core curriculum focuses on basic and applied neuroscience, with emphasis on neurodegenerative diseases. Classes on research methods, stem cell biology, neuropharmacology and other basic biomedical sciences, as well as several classes offered by the school of Aging Studies are offered as electives. The students can elect to engage in a research component where they will be supervised by mentors from the USF research faculty or affiliated institutes. Program graduates can pursue further professional training in medicine and allied health sciences, continue their graduate education in neuroscience or aging studies, or work in the diverse health care fields, especially those catered to the aging population.

Coursework:

Core: GMS6020	Neuroscience (Interdisciplinary)	4-6

Required Courses:

GMS7930	Aging and Neuroscience (Neurosurgery)	3
GMS7930	Neuroscience Seminar Series (Neurosurgery)	1
GEY 6613	Physical Change and Aging (Aging Studies)	3
GMS7910	Aging and Neuroscience Directed Research (neurosurgery)	3-12

All students are required to have a minimum of 20 hours of didactic lectures, and a minimum of 6 hours of directed research. Only students who opt for a research paper must and can accumulate a minimum of 15 hours of directed research and laboratory rotations in their mentor/mentors' laboratories.

Electives

A minimum of 10 credit hours must be fulfilled by COM elective courses.

College of Medicine Courses

GMS6091	Ethics and Skills in Research (Interdisciplinary)	2
GMS6404	Systems Neurophysiology (Physiology)	4
GMS6602	Neural Correlates of Behavior (Pathology and Cell Biology)	3
GMS6610	Advanced Neuroanatomy (Pathology and Cell Biology)	4
GMS6200	Biochemistry, Molecular & Cellular Biology (Molecular Medicine)	5
GMS7930	Aging/Neuroscience Lab Rotations (Neurosurgery)	3
GMS6735	Neuropharmacology (Pharmacology)	3
GMS7930	Stem Cells in Brain Repair (Neurosurgery)	3
GMS7930	Spec Topics in Alzheimer's Disease (Neurosurgery)	1
NUR6931	Psychoneuroimmunology (Nursing)	3
PCH6050	Biostatistics (Public Health)	3

School of Aging Elective Courses

GEY6600	Human Development	3
GEY5620	Sociological Aspects of Aging	3
GEY6450	Gerontological Research and Planning	3
GEY6614	Psychopathology and Aging I	3
GEY6934	Alzheimer's Diseases Management	3

GEY6616	Mental Health assessment in Older Adults	3

Graduate students must maintain an overall average of 3.0 (B) in all courses.

Anatomy

Total Minimum Hours 31

Core Requirements:

GMS6610	Advanced Neuroanatomy	4
GMS6604	Human Embryology	3
GMS6608	Advanced Microscopic Anatomy	4
GMS6609	Advanced Gross Anatomy	6

Required Courses:

GMS6001	Foundations in Biomedical Science	6

Electives (8 credit hours):

GMS6091	Responsible Conduct in Research	1
GMS6210	Basic Medical Biochemistry (on-line course)	3
GMS6334	Pathobiology of Human Cancer	3
GMS6601	Methods in Microscopy	3
GMS6870	Medical Ethics and Humanities	3
GMS7910	Directed Research	1-2
GMS	Directed Research	1-5
GMS7910	Directed Research	2
GMS7930	History of Pathology and Cell Biology	2
GMS7930	Theory of Cell Culture	3
PHC6050	Biostatistics (on-line course)	3

Athletic Training (ATL) – 33 hours minimum

Concentration ~~Degree~~ Requirements

Concentration Core Requirements: 3 hours

ATR 6236~~xxx~~	Pediatric Sports Medicine	3

Concentration Requirements 30 hours:

ATR 5605~~xxx~~	Youth Injury Epidemiology	3
ATR 5515~~xxx~~	Administration of Injury Prevention Programs	3
ATR 5x508~~xx~~	Contemporary Issues in Athletic Training	3
ATR 5319~~xxx~~	Rehabilitation Considerations for Children	3
ATR 6615~~xxx~~	Evidence Based Research & Writing	3
ATR 6920~~xxx~~	Athletic Training Professional Colloquium *(Includes 5 days on campus in Tampa)*	3
ATR 6446~~xxx~~	Medical Conditions of Adolescents	3
ATR 6516~~xxx~~	Ethical and Legal Issues in Healthcare [c1]	3
ATR 6617~~xxx~~	Capstone Project I	3
ATR 6618~~xxx~~	Capstone Project II	3

Biochemistry and Molecular Biology

Contact program for information - **Closed for admissions; not accepting applications**

Clinical and Translational Research (CTR)

Admission Criteria

This is a one-and-a-half to two-year program of both didactic coursework and mentored research. Admission criteria will be to the Scholars in Patient-Oriented Research (SPOR) Program and include the following:

- Must have a doctoral or first professional degree (M.D., D.O., Ph.D., D.D.S., Pharm.D., Dr.P.T., Doctorate of Nursing Practice, Ph.D. in Nursing, or equivalent degrees)
- GRE score will be waived and replaced by a requirement for documentation of a professional doctorate degree.
- NIH eligibility for the SPOR Program requires U.S. citizenship or status as a non-citizen national or lawfully admitted permanent resident of the U.S.
- Applicants will be required to complete a 2-step application process.
  - For Step 1 to enter the SPOR Program there is an online application.
  - Upon acceptance into the SPOR Program, Step 2 of the application process will consist of completing the standard application procedures to become a graduate degree-seeking student in the Master of Science in Medical Sciences degree program.

Concentration Degree Requirements

Minimum of ~~38~~ 32 hours of credit, (~~26~~ 23 hours core coursework, 6 hours directed research, and remaining ~~6~~ 3 required hours in any combination of directed research and/or elective courses, as needed for each SPOR scholar's particular research focus. In addition, each SPOR scholar will be required to submit a first author manuscript based on his/her research project (not a review article) to a peer-reviewed journal, and that manuscript must be judged by an appointed sub-panel of the SPOR Program Executive Committee and Key Faculty to be potentially acceptable for publication. This latter requirement is in lieu of a thesis requirement.

Coursework:	**~~26~~ 23 hrs**
~~GMS7930~~ GMS6875 ~~Ethics~~ Ethical & Regulatory Aspects of Clinical Research	~~Special Topics: Research and Professional (3~~ 2~~credits)~~
~~GMS7930~~ GMS6840 Diversity Issues in Clinical Research ~~Clinical Research~~	~~Special Topics:~~ Cultural Influences & ~~2 credits)~~2
GMS~~7930~~6844 Research ~~(1 credit)~~1	Special Topics: Principles of Patient-Oriented
PHC6050 Biostatistics I~~-~~	~~(3 credits)~~3
PHC6000 Epidemiology~~-~~	~~(3 credits)~~3
~~GMS7930~~ GMS6841 Translational and Team Research~~-~~	~~Special Topics:~~ Fundamentals of ~~(1 credit)~~1
~~GMS7930~~ GMS6843 ~~(2 credits)~~2	~~Special Topics:~~ Scientific Communication
BCH6627 Metabolic and Genetic Basis of Disease~~-~~ or another Basic Science course for 3 credits with approval	~~(3 credits)~~3
~~GMS7930~~ GMS6905 GMS6906 Grantsmanship II ~~PHC6017~~	Grantsmanship I 1 ~~(3 1credits)~~
PHC6020 Design and Conduct of Clinical Trials~~-~~ ~~GMS7930~~	~~(3 credits)~~3
~~-~~GMS6921 Colloquium on Building a Successful Academic Patient-Oriented Research Career	~~(2~~1 ~~credits)~~

Mentored Clinical and Translational Research/Directed Research		~~6~~6
Electives/Mentored Clinical and Translational Research/Directed Research		~~6~~3

Health Informatics (HIN)

Core Course:

GMS 7930	Health Sciences Ethics	2

Required Courses: (24 credits)

HIM 6XXX	Foundation in Management Information Systems	3
HIM 6118	Introduction to Health Informatics	3
HIM 6350	E-Medicine Business Models	3
HIM 6114	Integrated Electronic Medical Records	3
HIM 6320	Managerial Communications	3
HIM 6012	Legal Aspects of Health Information Systems	3
HIM 6XXX	Case Studies in Health Information Management	3
ISM 6127	Decision Support Systems Analysis & Design	3

Electives: (2 or more required, can be taken in any semester offered)

HIM 6XXX	Pharmacy Informatics	3
HIM 6XXX	Health Informatics Internship	3
GMS 6908	Medical Sciences Independent Study	3
MHS 6645	Mental Health Informatics	3
PHC 6934	Medical Terminology	3
ISM 6123	Systems Analysis & Design	3
ISM 7120	Information Requirements Management	3
PHC 6050	Biostatistics	3
BCH 6888	Bioinformatics	3

Health Science (HSC)

100% ONLINE. Health sciences, the study and research of the human body and health-related issues, are critical to our understanding of how humans function. The knowledge gained from these studies is vital to today's mission of improving health and preventing and curing diseases. In the new millennium, in which science truly complements the art of medicine, advances in the health sciences contribute to our understanding of the structure and function of molecules key to normal body function and the pathogenesis of disease and to design new approaches for diagnosis, treatment and prevention. Recent changes in research and scholarship in the biomedical sciences has directed attention to the development and training of students who are able cross the barriers of traditional disciplines and embrace the concepts of interdisciplinary approaches to biomedical problems. The Health Sciences concentration, within the Master's Program in Medical Sciences, has been developed to provide a new interdisciplinary and concentrated program of study that is designed for students interested in either future doctoral professional programs in the biomedical sciences. The program integrates an array of disciplines, including anatomy, biochemistry, histology, physiology, genetics, microbiology, immunology, pathology, pharmacology and ethics to provide a solid medically-relevant foundation. The rigorous program allows students to demonstrate their full academic ability for future graduate programs or medical school. The interdisciplinary program promotes the broad intellectual focus required of future graduate or professional students in the biomedical sciences or health-care related fields. The courses integrate

modern distance teaching methods and are designed to improve their academic skills that are critical to their future professional development.

Curriculum

Course Requirements:		32 hrs
GMS6605	Basic Medical Anatomy	3
GMS6630	Basic Medical Histology	3
GMS6201	Basic Medical Biochemistry	3
GMS6706	Basic Medical Neuroscience	3
GMS6012	Basic Medical Genetics	3
GMS6141	Basic Medical Immunology & Microbiology	3
MCB6433	Clinical Correlations in Molecular Medicine	3
GMS6871	Health Sciences Ethics	2
GMS6440	Basic Medical Physiology	3
GMS6111	Basic Human Medical Pathology	3
GMS6505	Basic Medical Pharmacology	3

Interdisciplinary Medical Sciences (IMS)

This concentration within the Master's degree in Medical Sciences program is designed to provide qualified students with advanced training in the sciences basic to the practice of medicine. Students successfully completing the program will have a foundation that fosters opportunities in the private sector, teaching, or the pursuit of further advanced degrees. A goal of this concentration is to provide promising medical school applicants an opportunity to develop the knowledge, skills, and attitudes that would enable them to have a career in the medical sciences. Students who perform well during this program could be considered for admission to medical, graduate, or other health professions programs. This concentration provides an opportunity for students interested in graduate work that has a broad medical base. Students will take courses that will provide the same level of depth, breadth and intensity as those taken by a first year medical student. This will allow successful participants to demonstrate their readiness for the rigors of a medical school curriculum. Alternatively, appropriate selection of elective courses will allow any student who completes the program to tailor their educational experience to best suit their future plans and aspirations.

Admission Information:
Applicants must hold a Bachelor's degree from an accredited institution at the time of entrance into the program. They must have completed at least 1 year each of General Chemistry, Organic Chemistry, General Biology and General Physics and have achieved a total score of at least 22 on the MCAT. Applicants who are deficient in one or more of these requirements, but otherwise meet the College-wide requirements for admission to the Master's Program may be considered on a case by case basis.

Core Courses:

GMS6066	Molecular Medicine	11 credits

Required Courses

GMS6XXX	Medical Science Learning Skills	3 credits
GMS6600c	Human Anatomy	8 credits
GMS6400c	Core Physiology	6 credits

Elective Courses
Students must select a minimum of two courses within one of the following elective tracks. Alternative "themed" elective tracks may also be developed with the approval of the Program Director (for example, education or laboratory management).

Medical Track

GMS6020	Neuroscience	6 credits
GMS6xxx	Behavioral Medicine	4 credits

Research Track

NGR6804	Foundations of Clinical Research for Health Professionals	3 credits

PHC6050	Biostatistics	3 credits
PHC6000	Epidemiology	3 credits

Pharmacology Track

GMS6513	Principles of Pharmacology and Therapeutics	3 credits
GMS5735	Neuropharmacology	3 credits
GMS6541	Pharmacology for Health Care Professionals	4 credits

Total minimum hours: 34

Medical Microbiology and Immunology - Closed for admissions; not accepting applications

Core Course **5**

GMS6200C Biochemistry, Cell & Molecular Biology 5

Required Courses **16 hrs**

GMS6100C Medical Microbiology 3
GMS7930 Medical Parasitology and Mycology 2
GMS6101 Molecular and Cell Immunology 3
GMS6107 Adv in Virology 2
GMS6110 Microbial Pathogenesis and Host-parasite Interactions 2
BCH6411 Biomedical Genomics and Genetics 4

Electives **11 hrs**

Select one course of the following (2 hrs minimum)
BCH6935 Scientific Writing and Ethics 2
BSC6436 Intro to Biotech 3
GMS6876 Current Topics in Molecular Medicine 1

Select one or more from the following (9 hrs minimum):
GMS7910 Directed Research (3-9)
GMS6114 Vaccines and Applied Immunology 2
BCH6135C Methods in Molecular Biology 4
BCH6420 Clinical Correlations in Molecular Medicine 3

Total minimum hours: 32

Metabolic and Nutritional Medicine

Total Minimum Hours 32

Core Requirements:
GMS6xxx Clinical Intensives in Metabolic and Nutritional Medicine 3

Required Courses:

GMS6xxx	Clinical Approach to Endocrinology	3
GMS6xxx	Diabetes and Coronary Heart Disease	3
GMS6xxx	Integrated Clinical Neurobiology	3
GMS6xxx	Nutrition and Metabolism	3
GMS6xxx	Functional Medicine and Infectious Disease	3
GMS6xxx	Autoimmune Diseases and Cognitive Function	3
GMS6xxx	Laboratory Fundamentals and Adjunct Cancer Therapies	3
GMS6871	Health Sciences Ethics	2

Electives:

GMS7930	Biomedical Aging	3
GMS6xxx	Clinical Nutrition	3
GMS7930	Aging and Neuroscience	3
GMS 6xxx	Medical Sciences Independent Study	3
GMS7910	Directed Research	3

Molecular Medicine (MLM)

Considered the vanguard of the new millennium in which science truly complements the art of medicine, molecular medicine strives to understand the molecules key to normal body function and the pathogenesis of disease and to design molecular tools for diagnosis, treatment and prevention. Recent changes in research and scholarship in the biomedical sciences has directed attention to the development and training of students who are able to cross the barriers of traditional disciplines and embrace the concepts of interdisciplinary approaches to biomedical problems. The Molecular Medicine concentration, within the Master's Program in Medical Sciences, has been developed to provide a novel interdisciplinary and concentrated program of study that is designed for students interested in either future doctoral or professional programs in the biomedical sciences. The program integrates several disciplines, including biochemistry, molecular biology, genetics, genomics, microbiology, immunology, virology and biomedical ethics to provide a solid medically-relevant foundation. The rigorous program allows students to demonstrate their full academic ability for future graduate programs or medical school. The interdisciplinary program promotes the broad intellectual focus required of future graduate students in the biomedical sciences or health-care profession. The courses integrate modern teaching methods with extensive student participation designed to improve their oral and presentation skills that are critical to their future professional development.

Core requirements:		**6 hrs**
GMS6200C	Biochemistry, Molecular and Cellular Biology	1
BCH6935	Scientific Writing and Ethics	2
GMS6100	Medical Microbiology	3

Course Requirements:		
BCH6411	Biomedical Genomics and Genetics	4
GMS6101	Molecular and Cellular Immunology	3-4
GMS6110	Host-Parasite Interactions	
GMS7930	Clinical Correlations in Molecular Medicine	
BCH6627	Metabolic and Genetic Basis of Human Diseases	3
GMS6114	Vaccines and Applied Immunology	

Electives (3)	
BCH6135C	Methods in Molecular Biology
GMS6104	Cellular Immunology
GMS6107	Advances in Virology
BCH6746	Proteomics and Structural Biology
BCH6888	Bioinformatics
PHC6050	Biostatistics I
BCH6876	Current Topics in Molecular Medicine

Total Minimum Hours:	**32**

Women's Health (WSH)

This innovative, interdisciplinary program, the first in Florida to provide an integrated approach to the subject area of holistic women's health, is designed to develop leaders in the field of women's health. The program, which has been constructed to prepare students for future educational or research endeavors in graduate or

medical schools or health practice institutions, is designed to fulfill the M.S. M.S. Women's Health Concentration increasing demand for trained individuals in this emerging area, which focuses on gender-specific issues. The program is founded on the premise that future health-care providers, researchers and educators will require extensive interdisciplinary training in order to develop novel solutions to current biomedical problems in women's health. The interdisciplinary curriculum has been designed to provide the background training that will equip students with the essential tools for a successful career in the field of women's health.

The program requires a minimum of 32 credit hours, which can be completed in one year of accelerated and intense study. Core courses provide both foundation and advanced training while electives in such topics as reproductive women's cancers, endocrine mechanisms, feminism and women's health, and biostatistics, provide students with additional educational opportunities.

Program Admission Requirements

- A bachelor's degree or equivalent from a regionally accredited university in the biological or chemical sciences
- Minimum overall grade-point average of 3.0 out of a possible 4.0 with a minimum grade point average of 3.0 in the sciences
- Graduate Record Examination (MCAT scores can be submitted in lieu of the GRE)

Courses

Core Courses:

BCH6935	Scientific Writing and Ethics	2
GMS7930	Women and Diabetes	3
GMS7930	Current Topics in Women's Health	3
GMS7930	Women's Health Lab (1-2 Interd.)	2-3
Elective		2-3 hrs
GMS6334	Pathobiology of Human Cancer	3
GMS7930	Why Do We Live Longer	3
PHC6532	Women's Health Issues	3
GMS7910	Directed Research (Women's Health)	3-6 hrs Interdisciplinary
Elective		3
GMS7910	Directed Research (Women's Health)	3-6 hrs Interdisciplinary
Elective	(5-6 hrs)	

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MEDICAL SCIENCES PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: February 15

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 26.9999
Dept Code: MED
Program (Major/College): MSG MD

Concentrations:
Allergy Immunology & Infectious Disease (AII)
Anatomy (ANA)
Biochemistry and Molecular Biology (BMB) *
Clinical and Translational Research (CTR)
Microbiology and Immunology (MMI) *
Molecular Medicine (MLM)
Molecular Pharmacology and Physiology (MPY)
Neuroscience (NEU)
Pathology and Cell Biology ((PCB)
Pathology and Laboratory Medicine (PLM)
Pharmacology and Therapeutics (PAT)
Physiology and Biophysics (PAB)
*Closed for admissions; not accepting applications

CONTACT INFORMATION

College: Medicine
Department: Medical Sciences

Contact Information: www.grad.usf.edu

Website:
http://health.usf.edu/medicine/graduatestudies/index.htm

PROGRAM INFORMATION

The program is designed to provide students with a broad knowledge in the basic medical sciences, while preparing them for careers as effective and knowledgeable teachers, as well as productive and versatile researchers. To meet these objectives, students take courses in the medical sciences and related areas, participate in seminars, and receive individual research training. Departmental advisory committees counsel the entering students in planning their first year curriculum. In addition to course work and participation in seminars, first year students are expected to become familiar with ongoing research in their chosen department; when possible, they are encouraged to work on a part-time basis as research assistants in their department. Once the student selects a major professor, a formal dissertation committee is appointed. The dissertation committee assists the student in planning the research and course of study, evaluates the student's progress, supervises the comprehensive examination, and conducts the final dissertation defense.

By the end of the second year, a student has usually completed sufficient course work and met the other research requirements to take the comprehensive qualifying examination. Successful completion of this examination leads to formal admission to candidacy for the Ph.D. degree. The final phase of the program emphasizes research and independent study and leads to a written dissertation. The Ph.D. degree is awarded upon successful completion and oral defense of the dissertation. Departments within the College of Medicine may have additional requirements that pertain to their respective training program. Contact the department for information.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
Allergy, Immunology and Infectious Diseases Cancer Biology, Cardiovascular Research, Neuroscience Research

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- A bachelor's degree or equivalent from a regionally accredited university
- Minimum overall grade-point average of 3.0 out of a possible 4.0 with a minimum grade-point average of 3.0 in the sciences
- GRE- Graduate Record Examination (minimum 600Q)
- Completed pre-requisites in:
  - General biology (1 year)
  - General chemistry (1 year)
  - General physics (1 year)
  - Organic chemistry (1 year)
  - Quantitative analysis (1 course)
  - Mathematics including integral and differential calculus
- Three (3) letters of recommendation
- Personal Interview
- One-two page personal statement

Application Procedures
Please refer to http://health.usf.edu/medicine/graduatestudies/phd/apply_phd.htm

DEGREE PROGRAM REQUIREMENTS

Degree requirements are individualized according to research interests and goals.

Total Minimum Hours: 90 hours
(including 24 minimum directed research hours)

Concentrations:

Allergy, Immunology & Infectious Disease
Research and education in the Ph.D. in Medical Sciences Program, concentration in Allergy, Immunology & Infectious Disease is focused on interdisciplinary approaches to the study of how the immune system functions properly to rid the body of foreign pathogens and how the immune system can go awry in autoimmunity. The process by which microbes interact with the host to cause disease is also a focus of this program.

Anatomy

Biochemistry and Molecular Biology - Closed for admissions; not accepting applications

Clinical and Translational Research
Cardiovascular disease is the leading cause of death, in the United States Atherosclerotic coronary artery disease, valvular heart disease, diseases of the heart muscle, electrical disturbances of the heart rhythm, high blood pressure, stroke, and peripheral vascular disease all contribute to this morbidity. According to current estimates, coronary heart disease, high blood pressure, congestive heart failure and stoke affect nearly 58 million Americans. The USF Signature Interdisciplinary Program in Cardiovascular Research is a comprehensive program that brings together resources in heart care, research and education to fight against cardiovascular disease. Clinicians and researchers at USF are working to improve our knowledge of cardiovascular disease in order to develop new

methods of prevention and treatment that will make a difference in the lives of patients with cardiovascular disorders.

Medical Microbiology and Immunology - **Closed for admissions; not accepting applications**

Molecular Medicine
Research and education in the Ph.D. in Medical Sciences Program, concentration in Molecular Medicine is focused on interdisciplinary approaches to the study of bacteriology, biochemistry, immunology, molecular biology and virology as it relates to human health and disease such as allergy and immune dysfunction, cancer, cardiovascular disorders, infectious diseases and inheritable defects. Training will include a unique interdisciplinary blend of didactic coursework, journal clubs, seminar series, as well as significant research experience.

Molecular Pharmacology & Physiology
Research and education in the Ph.D. in Medical Sciences Program, concentration in Molecular Pharmacology and Physiology is focused on interdisciplinary approaches to the study of the nervous and cardiovascular systems and related disorders, including Alzheimer's disease and other neurodegenerative disorders, cardiovascular disease and stroke, diabetes, and neuropsychiatric disorders such as depression and drug addiction. Training will include a unique interdisciplinary blend of didactic coursework, journal clubs, seminar series, as well as significant research experience.

Neuroscience
Research and education in the Ph.D. in Medical Sciences Program, concentration in Neuroscience is focused on interdisciplinary approaches to the study of the nervous systems and related disorders, including Alzheimer's disease and other neurodegenerative disorders, stroke, and neuropsychiatric disorders such as depression and drug addiction. Areas of expertise include biochemistry and cellular and molecular neuroscience, neural systems and computational neuroscience, behavioral neuroscience, developmental neuroscience, neuroimmunology, and neuropsychopharmacology, among others. Students are encouraged to carry out research during their entire period of study. Training will include a unique interdisciplinary blend of didactic coursework, journal clubs, seminar series, as well as significant research experience. The interdisciplinary structure permits considerable flexibility in training; each student's training is tailored to meet individual requirements.

Pathology & Cell Biology
Research and education in the Ph.D. in Medical Sciences Program, concentration in Pathology & Cell Biology is focused on interdisciplinary approaches to the study of cancer, reproductive pathobiology, neurological disease & injury and related diseases, including cancer biology, angiogenesis and morphogenesis, gene discovery, neurobiology, cell biology and new educational technologies.

Pathology and Laboratory Medicine

Pharmacology and Therapeutics

Physiology and Biophysics

Electives
Some of the electives include:

BCH 6746 Proteomics and Structural Biology	~~(3)~~3
GMS 6~~xxx~~115 Medical Parasitology & Mycology	~~(3)~~3

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MEDICINE / MEDICAL SCIENCES DUAL PROGRAM

Doctor of Medicine (M.D.) / Doctor of Philosophy (Ph.D.) Dual Degree

DEGREE INFORMATION

Program Admission Deadlines:
Contact the College of Medicine

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 26.9999
Dept Code: MED
Program (Major/College): MED MD / MSG MD
Concentrations:

Allergy Immunology & Infectious Disease (AII)
Anatomy (ANA)
Biochemistry and Molecular Biology (BMB)*
Clinical and Translational Research (CTR)
Microbiology and Immunology (MMI)*
Molecular Medicine (MLM)
Molecular Pharmacology and Physiology (MPY)
Neuroscience (NEU)
Pathology and Cell Biology ((PCB)
Pathology and Laboratory Medicine (PLM)
Pharmacology and Therapeutics (PAT)
Physiology and Biophysics (PAB)

*** Closed for admissions; not accepting applications**

CONTACT INFORMATION

College: Medicine
Department: Medicine/Medical Sciences

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The combined MD/PhD program is designed to provide well-qualified students who are interested in careers in translational medicine with a broad knowledge in the basic biomedical and clinical sciences that is integrated with the advanced experimental training that is critical for their development as productive and versatile researchers. To meet these objectives, student's complete courses in both the basic and clinical sciences, participate in patient-care activities and seminars, and receive individual research training in one of the many research concentrations available within the College. Program advisory committees counsel the entering students on planning their curriculum and selecting a research mentor. During the first two years, students complete the basic science course work and participation in research rotations that assist in the selection of a dissertation mentor. Following the successful completion of the second year of medical training and the selection of a major professor, a formal dissertation committee is appointed which assists the student in planning the research and course of study, evaluates the student's progress and supervises the comprehensive examination.

The successful completion of this examination leads to formal admission to candidacy for the PhD degree. The remainder of this phase of the program emphasizes research and independent study and leads to a written dissertation and its oral defense. Following the completion and defense of their PhD dissertation, students embark on the final two years of their medical training. The program culminates in the award of both MD and PhD degrees. Departments within the College of Medicine may have additional requirements that pertain to their respective portions of the training program. Contact the department for information.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas:
See College of Medicine website.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below. as well as requirements of the College of Medicine MD and PhD programs, listed below. Student applications must be submitted through AMCAS.

Program Admission Requirements

- A bachelor's degree or equivalent from a regionally accredited university
- Minimum overall grade-point average of 3.70 out of a possible 4.00 with a minimum grade-point average of 3.7 in the sciences
- Medical College Admissions Test score of 30 (The MCAT substitutes for the GRE).
- Completed pre-requisites in:
    - General biology (1 year)
    - General chemistry (1 year)
    - General physics (1 year)
    - Organic chemistry (1 year)
    - Quantitative analysis (1 course)
    - Mathematics including integral and differential calculus
- Three (3) letters of recommendation
- Interview
- One-two page personal essay

DEGREE PROGRAM REQUIREMENTS

Contact programs for complete information. Degree requirements are individualized according to research interests and goals. Ninety credit hours minimum including 24 minimum directed research hours.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PHYSICAL THERAPY AND PUBLIC HEALTH PROGRAM

Dual Degree Program
Doctor of Physical Therapy (D.P.T.) and Master of Public Health (M.P.H.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Rolling Admissions. One class admitted each August. Contact program for details.

Minimum Total Hours:	Contact Programs
Program Level:	Professional/Masters
Program Status:	Active
CIP Codes:	51.2308/
Dept Code:	PHT/
Program (Major/College):	MPT MD

CONTACT INFORMATION

Colleges:	Medicine and Public Health
Departments:	School of Physical Therapy and Rehabilitation Sciences and Public Health
Contact Information:	www.grad.usf.edu

PROGRAM INFORMATION

Physical therapists are health professionals with special expertise in the science of movement. They use this knowledge to provide preventive and therapeutic services and psychological support to people of all ages with movement dysfunction. Professional education includes study of basic sciences and the professional skills needed for client examination, evaluation, diagnosis, prognosis, intervention and outcomes. Students will participate in comprehensive clinical internships throughout the program. The School of Physical Therapy and Rehabilitation Sciences is a component of the College of Medicine and is a limited access first professional degree program with an annual enrollment of up to 36 students per year. Students complete the majority of their first year studies on a parallel path with the first year curriculum in medicine.

The Doctor of Physical Therapy is offered through the USF Medical School in the College of Medicine. For information regarding the DPT contact the School of Physical Therapy and Rehabilitation Sciences.

The Master of Public Health is offered through the USF College of Public Health. For information regarding the MPH contact the College of Public Health Graduate Studies office.

Accreditation:
Accredited by the Commission on Accreditation in Physical Therapy Education.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.
Contact programs for complete information.

Program Admission Requirements

- Have a bachelor's degree or equivalent from a regionally accredited university, and completion of prerequisite courses.
- Have earned a "B" (3.0 on a 4.0 scale) average or better in all work attempted while registered as an upper division student working for a baccalaureate degree; overall GPA of 3.0 and on all prerequisite coursework.
- Interview upon request of the School of Physical Therapy and Rehabilitation Sciences.

- Have at least 20 total hours of documented, observational, volunteer or other work experience in both hospital outpatient and inpatient physical therapy settings

- English competency. Applicants who have completed a degree in which English is not the primary language of instruction must present evidence of competency to pursue studies in the English language prior to being extended an offer of admission. Acceptable English language proficiency tests for applicants to the Doctor of Physical Therapy program are: TOEFL (Test of English as a Foreign Language) a minimum score of 600 (paper version); 230 (computer version).

- Have a written autobiographical statement of personal values and purpose for attending USF's DPT Degree Program.

DEGREE PROGRAM REQUIREMENTS

Contact programs for complete information.

Students must complete 107 credit hours of professional coursework and meet the general graduate requirements of the School of Physical Therapy and Rehabilitation Sciences and the College of Medicine for admission and graduation.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

COLLEGE OF NURSING

Changes to Note

The follow curricular changes for the College of Nursing were approved by the USF-Tampa Graduate Council on the date noted.

College of Nursing

Program changes

Nursing (M.S.)	change curr	6/23/11
Nursing (M.S.) Nurse Anesthesia	GRE change	6/23/11
Nursing (R.N. to M.S.)	change admission criteria	1/11/11
Nursing (D.N.P.)	change curriculum - add stats course	10/18/10
Nursing (D.N.P.)	change residency requirement: 9 to 2-9 variable	11/15/10
Nursing Science (Ph.D.)	change admission deadline from 2/1 to 12/15	7/5/11

New Courses

NGR 6xxx	Alternative and Complementary Therapies	1/11/11
NGR 7xxx	Fundamentals of Statistics for Clinicians (appd 10/18/10 pending correction)	4/18/11

Course changes

NGR 6423	Principles of Nurse Anesthesia I	change title, desc, obj.	2/21/11
NGR 6424	Principles of Nurse Anesthesia II	change title, desc, obj	2/21/11

Withdrawn:

Nursing Science (Ph.D.) – curriculum changes	withdrawn-6/6/11

University of South Florida
College of Nursing
12901 Bruce B. Downs Blvd. MDC22
Tampa, FL 33612

Web address: http://health.usf.edu/nocms/nursing/

Email: nurstudent@health.usf.edu
Phone: 813-974-2191
Fax: 813-974-5418

College Dean:	Dianne Morrison-Beedy
Associate Dean, Academic Affairs	Rita D'Aoust
Associate Dean, Research	**Cindy Munro**
Associate Dean, Student Affairs	**Connie Visovsky**
Director, PhD Program	**~~Jason Beckstead~~TBD**
Director, DNP Program	**Frances Sahebzamani Rankin**
~~**Interim Associate Dean**~~	~~Kevin Kipp~~
~~**Associate Dean of Doctoral Programs**~~	~~Mary Evans~~
~~**Assistant Dean for Faculty Development and Program Evaluation**:~~	~~Barbara Redding~~
Interim Assistant Dean of Academics, Master Program:	~~Denise Maguire~~ Rita D'Aoust
Enrollment and Curriculum Management~~**Graduate Coordinator:**~~	~~Denise Maguire~~ Dewel~~l~~ Lindsey
College Graduate Advisor Contact:	~~Michelle Kobus~~ Melinda Kretschmer

Accreditation:
The Commission on Colleges of the Southern Association of College and Schools, and the Commission on Collegiate Nursing Education, One Dupont Circle, Suite 530, Washington D.C. 20036-1120:(202) 887-6791 and the Florida Board of Nursing, 4052 Bald Express Way, Bin#C02, Tallahassee, Fl., 32399-3257. In addition, the Nurse Anesthesia Masters Concentration is accredited by the Council of Accreditation of Nurse Anesthesia Educational Programs, ~~-~~ 222 South Prospect Avenue, Suite 304, Park Ridge, IL 60068-4041. (847) 692-7050

Mission Statement:
Transforming Healthcare, Transforming Lives. We create the nursing leaders of tomorrow and the research that improves health. ~~The University of South Florida, College of Nursing is dedicated to improving health through excellence and innovation in:~~

- ~~student-centered learning and academic success~~
- ~~scholarly inquiry and research, and partnerships and engagement in communities~~

Major Research Areas:
Research opportunities include: End of Life Issues; Heart Disease and Women, Women, Children, Families and Communities; Health Services Research, Interdisciplinary Mental Health, Obesity, Psychoneuroimmunology, Post Traumatic Stress Disorder; Patient Safety.

Degrees, Programs, Concentrations
Master of Science (M.S.)
Nursing (*Major Code: NAS – for UG/GR nursing majors with an AS in Nursing)*
(Major Code: NBM for GS nursing majors with non-nursing bachelors)

(Major Code: NUR – for most nursing majors)

Concentrations:
Acute Care Nursing (NAC) *on hold*
Adult Health Nursing (NAH)
Adult Health Nursing & Occupational Health Nursing (NAO)
Clinical Nurse Leader (NCL)
Family Health Nursing (NFH)
Nurse Anesthesia (NAN)
Nursing Education (NED)
Occupational Health Nursing (NOH) ~~*on hold*~~
Oncology Nursing (NON)
Pediatric Nurse Practitioner (NCH)
Psychiatric-Mental Health Nursing (NPM) *on hold*

Doctor of Nursing Practice (D.N.P.)
Nursing (NRS)

Doctor of Philosophy (Ph.D.)
Nursing Science (NUS)

Dual Degree:
MS –Nursing and MPH in Public Health:~~-~~ Occupational Health/Adult Health Nurse Practitioner ~~and MPH – Public Health~~

Graduate Certificates Offered:
See: http://www.outreach.usf.edu/gradcerts/
Hospice, Palliative Care and End of Life Studies, Adult Health, Pediatric Health, Family Health, Psychiatric/Mental Health (on hold), Oncology Nursing, Nursing Education, and Clinical Nurse Leader. The credit hours will vary depending on the area of specialization.

COLLEGE REQUIREMENTS

For specific degree requirements for the M.S., D.N.P., and Ph.D., programs in Nursing, refer to the Nursing Program Information. The GRE is required only for the Nurse Anesthesia Masters Concentration and for the Doctoral Programs (Ph.D. and D.N.P.)

Baccalaureate Degree (Nursing) to Master's Degree Program (B.S. to M.S.)
Nurses with a baccalaureate degree in nursing are prepared to enroll directly in graduate course work. The total number of credits required is specific to the nursing concentration. Admission criteria include:

- Baccalaureate degree in nursing from a regionally accredited program
- Earned grade point average of 3.00 or higher on 4.00 scale in all work attempted while registered as an upper division applicant working on a baccalaureate degree
- Current license as a registered nurse in the State of Florida
- Three letters of recommendation, indicating potential for graduate study, from persons who can attest to the applicant's academic ability, clinical competence, and commitment. (Optimally, these letters will be from nursing professors, or clinical supervisors.)
- Personal statement of goals
- Current resume or curriculum vitae

- A personal interview with designated faculty may also be required
- For Nurse Anesthetist program, the Graduate Record Examination (GRE) is required.
- Graduate Record Exam (GRE) taken within five years of application. Competitive score on the GRE.

Applicants who do not meet these requirements may petition the Student Affairs Committee for consideration for admission.

Registered Nurse to Master's Degree Program (NBM)

Registered nurses who have earned a baccalaureate degree in another discipline are eligible for admission to the Master's program.

Admissions Requirements

- B.S./B.A. from a regionally accredited program
- ~~Associate Degree in Nursing from a regionally accredited program~~
- Earned grade point average of 3.00~~005~~ or higher on 4.00 scale in all ~~work attempted while~~upper-level coursework ~~registered as an upper division applicant~~ while working on a baccalaureate degree.*
- Current license as a registered nurse~~ing~~ in the State of Florida
- Three letters of recommendation
- Current resume or curriculum vitae
- Written statement of professional goals
- A personal interview with a designated faculty member may also be required, as well as other admission requirements.
- Completion of the bridge ~~following~~ courses ~~(in health assessment, research, statistics, community health and clinical~~ with a letter grade of "B" or greater and a GPA of 3.00 or better:* Consult the website for the bridge courses.
- ~~Students must complete the bridge courses within 2 years admission to the undergraduate portion of the program~~Students must complete all undergraduate requirements in 3 semesters of study to start master's courses in the 4th semester of study..

~~STA xxxx Statistics (3) (if needed)~~
~~NUR 3066 Physical Examination and Assessment (2)~~
~~NUR 3066L Clinical Experience in Assessment (1)~~
~~NUR 4807C Management and Education Transitions for RNs (3)~~
~~NUR 4165 Nursing Inquiry (3)~~
~~NUR 4636 Community/Public Health Population-focused Nursing (3)~~
~~NUR 4636L Community/Health Nursing Clinic (3)~~
~~(15-18 hours)~~

~~After satisfactory completion of the undergraduate courses, students will choose a Master's concentration and complete additional graduate courses based on that concentration chosen.~~

*Note: The primary care and other selected concentrations in the Master's program are highly competitive. Additional admission requirements and a higher GPA may be required for these concentrations.

Accelerated Graduate Program (NAS)
(Associate Degree in Nursing to Master's Degree – A.S. to M.S.)

Registered nurses who have earned an Associate of Science Degree in nursing are also eligible for admission to the Master's program. Students complete 15 credit hours of coursework in the baccalaureate program before applying to the Graduate Program.

Admission Requirements:

- Associate of Science Degree (Nursing) from a regionally accredited program
- Minimum cumulative grade point average of 3.~~00~~ 5 or higher on 4.00 scale on all undergraduate coursework (excluding Associate of Science Nursing courses)*
- Current license as a registered nurse in the State of Florida
- Completion of general education and state mandated prerequisites
- Application to the Master's program upon completion of the necessary undergraduate transitional courses
- Three letters of recommendation
- Current resume or curriculum vitae
- Written statement of professional goals
- A personal interview with a designated faculty member may also be required, as well as other admission requirements.
- Completion of ENC 1101, 1102 with a minimum grade of "C."
- A letter grade of "B" or greater and overall 3.00 GPA* or more is required in all Nursing (NUR) courses to be considered for application to the master portion of this program.
- ~~-~~Completion of 15 undergradute nursing credits with 3.00 GPA or better* (see website for RN/MS bridge coursework. ~~see below~~). ~~Students must complete the bridge courses within two years from admission to the undergraduate portion of the program.~~ Students must complete all undergraduate requirements in 3 semesters of study to start master's courses in the 4th semester of study.

~~NUR 3066 Physical Examination and Assessment 2~~
~~NUR 3066L Clinical Experience in Assessment 1~~
~~NUR 4807C Management and Education Transitions for RNs 3~~
~~NUR 4165 Nursing Inquiry 3~~
~~NUR 4636 Community/Public Health Population-focused Nursing 3~~
~~NUR 4636L Community/Health Nursing Clinic 3~~
~~Total 15~~

Upon admission to the Master's program, students choose a Master's concentration and complete additional courses based on that concentration.

*Note: The primary care and other selected concentrations in the Master's program are highly competitive. Additional admission requirements and a higher GPA may be required for these concentrations

PROGRESSION POLICY

1. All graduate students with the exception of PhD students:

~~1.~~1.1. Graduate students must earn the grade of 'B' or higher in each required course in their respective nursing program. An unsatisfactory ('U') or any grade below a 'B' ~~minus~~ is not acceptable.

~~2.~~1.2. Graduate students must also maintain an overall grade point average of 3.00 in order to be considered in academic "good standing". Students also must meet any special conditions of their admissions. ~~No grade below 'C' will be accepted toward a graduate degree~~. All grades will be counted in computing the overall grade point average. Students must have an overall GPA of 3.00 at the

completion of their respective program, or they will not be awarded a degree from the University of South Florida.

1.3. If a student earns a grade below a 'B' or receives a 'U' in a required course, she/he must repeat the course. The course must be taken in the next semester that it is offered and the student must earn a 'B' or higher. Any student, who earns below a 'B' (or 'U') in two or more required courses or earns below a 'B' (or 'U') in a required course twice, will be dismissed from the College. The Dean of the College of Nursing, or her designee (Associate Dean of Academic Affairs ~~or the Associate Dean of Doctoral Studies~~), will notify students who are dismissed, in writing. Students may petition for re-admission pending approval of their respective Director of their concentration. A petition must be submitted to the Associate Dean of Academic Affairs and the Chairperson of the Student Affairs Committee.

2. PhD students only:

2.1. All PhD students must earn the grade of 'B-' or higher in each required course in their respective nursing program. An unsatisfactory ('U') or any grade below a 'B minus" is not acceptable.

2.2. PhD students must also maintain an overall grade point average of 3.00 in order to be considered in academic "good standing". Students also must meet any special conditions of their admissions. No grade below 'B-' will be accepted toward a PhD graduate degree. All grades will be counted in computing the overall grade point average. Students must have an overall GPA of 3.00 at the completion of their respective program, or they will not be awarded a degree from the University of South Florida.

2.3. If a PhD student earns a grade below a 'B-' or receives a 'U' in a required course, she/he must repeat the course. The course must be taken in the next semester that it is offered and the student must earn a 'B-' or higher. Any PhD student, who earns below a 'B-' (or 'U') in two or more required courses or earns below a 'B-' (or 'U') in a required course twice, will be dismissed from the College. The Dean of the College of Nursing, or her designee (Associate Dean of Research), will notify students who are dismissed, in writing. Students may petition for re-admission pending approval of their respective Director of their concentration/program. A petition must be submitted to the Associate Dean of Research and the Chairperson of the Student Affairs Committee.

Clinical Performance

Patient safety and welfare are the most critical criteria of the clinical rotation. If at any time during the clinical rotation the student places the patient in an actual or potentially hazardous or unsafe situation or the faculty judges the student to be deficient in clinical competence for patient care responsibility, the student will fail the course regardless of previous clinical performance. Students who receive an unsatisfactory grade for their clinical performance may be dismissed from the program, regardless of academic standing in other classes. (enacted Fall 2004)

Human Research Conduct

The protection of the rights of human subjects is the most critical criteria of any research study involving human subjects. If at any time during the conduction of a human subject study, a student violates the rights of the participants, the study will be stopped. Permission to continue with the study will be dependent upon an investigation by the University of South Florida Institutional Review Board, the student's research advisor and the Dean of the College of Nursing. (enacted Fall 2004)

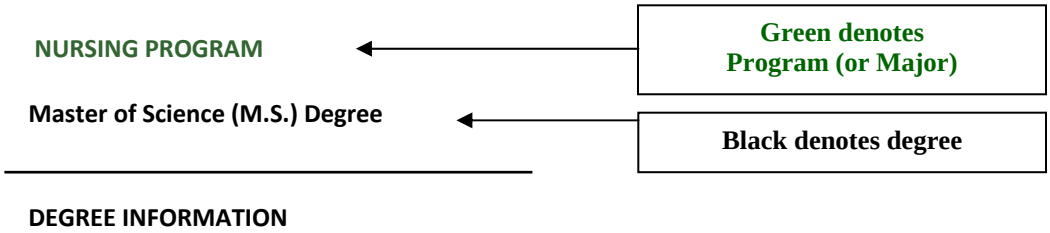
Withdrawal Policy Withdrawals are limited to 1 per course, with a limit of 2 per undergraduate or graduate program. Withdrawals are defined as officially withdrawing from any class after the drop/add period and before the final withdrawal date as outlined in the Academic Calendar. Any

student withdrawing in excess of the stated policy may be dismissed from the College of Nursing unless the College has pre-approved a documented medical and/or emergent situation.

About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the College that offers them. For example, the Master of Science degree with a "program" (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or "concentrations" within a degree program.

PROGRAMS



CONCENTRATIONS

Concentration Requirements are listed separately under each Program.

The Program and Concentration are listed on the official transcript. Other areas, such as application tracks, are not listed on the transcript.

Example:
Master of Science in Nursing
with a Concentration in Adult Health Nursing

NURSING PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15*
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 41
Program Level: Masters
CIP Code: 51.1601
Dept Code: NUR
Program (Major/College): NUR NR

Concentrations:

Acute Care Nursing (NAC) (on hold)
Adult Health Nursing (NAH)
Pediatric Nurse Practitioner (NCH)
Clinical Nurse Leader (NCL)
Family Health Nursing (NFH)
Nurse Anesthesia* (NAN)
Nursing Education (NED)
Occupational Health Nursing(NAO) ~~(on hold)~~
Oncology Nursing (NON)
Psychiatric-Mental Health Nursing (NPM) (on hold)

*Nurse Anesthesia students are admitted once per year in the Fall.~~,~~ Application information and d~~D~~eadline is publis~~i~~hed on the College of Nursing website. ~~October 30, 2010 for Fall 2011 applications. Applications will be accepted from 6/1/2010 through 10/30/2010.~~ See web site for more information.

Also offered:

Dual Degree M.S./M.P.H.
Adult Health Nursing/Occupational Health (NOH)

CONTACT INFORMATION

College: Nursing

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The program in nursing leading to a Master of Science degree prepares its graduates for careers as nurse practitioners, nurse educators, or clinical nurse leaders. Students choose from a variety of nursing specialty options in advanced practice roles and enroll in a prescribed set of core courses central to all specialty options as well as specialty courses and electives. Successful completion of the master's practitioners program or Certified Registered Nurse Anesthetist program qualifies students to take appropriate national certification examinations and apply for licensure as an ARNP in Florida and other states. Nurse Educator and Clinical Nurse Leader are also eligible for national certification from the National League of Nursing, and the American Association of the Colleges of Nursing, respectively.

Graduate Program Objectives

- Promote evidence based practice based on synthesis of the most current research relevant to advanced nursing practice.

- Ensure excellence in written and oral communication emphasizing opportunities for publishing and presenting in areas of expertise locally and nationally.
- Prepare leaders to implement and evaluate evidenced based practice.
- Create an environment that enhances the use of translational research to solve practice problems and improve health outcomes.
- Ensure excellence in the dissemination of findings from evidence-based practice at the national and international levels.

Major Research Areas
Research opportunities include: Quality of Life/ End of Life; Heart Disease and Treatment, Women, Children, Families and Communities; Health and Services Research, Interdisciplinary Mental Health, and Patient Safety.

Accreditation:
The Commission on Colleges of the Southern Association of Colleges and Schools, the Commission on Collegiate Nursng Education, and the Florida Board of Nursing. In addition Nurse Anesthesia Master's Concentration is accredited by the Council of Accreditation of Nurse Anesthesia Educational Programs.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed in the introductory portion of the college catalog section. Certain concentrations are highly competitive. Additional admission requirements and a higher GPA may be required for primary care and other selected concentrations.

Baccalaureate Degree (in Nursing) to Master's Degree Program (B.S. to M.S.)
Nurses with a baccalaureate degree in nursing are prepared to enroll directly in graduate course work. The total number of credits required is specific to the nursing concentration. Admission criteria include:

Admission Requirements
- Baccalaureate degree from a regionally accredited program
- Earned grade point average of 3.00 or higher on 4.00 scale* in all work attempted while registered as an upper division applicant working on a baccalaureate degree
- Current license as registered nurse ~~in the State of Florida~~
- Three letters of recommendation, indicating potential for graduate study, from persons who can attest to the applicant's academic ability, clinical competence, and commitment. (Optimally, these letters will be from nursing professors, or clinical supervisors.)
- Personal statement of goals
- Current resume or curriculum vitae
- A personal interview with a designated faculty member may also be required
- For the Nurse Anesthesia Concentration, the Graduate Record Examination (GRE) is required. Graduate Record Examination (GRE) taken within five years of application. Competitive score on the GRE.

Applicants who do not meet these requirements may petition the Student Affairs Committee for consideration for admission.

Registered Nurse to Master's Degree Program (NBM)
Registered nurses who have earned a baccalaureate degree in another discipline are eligible for admission to the Master's program.

Admissions Requirements
- B.S./B.A. from a regionally accredited program
- ~~Associate Degree in Nursing from a regionally accredited program~~
- Earned grade point average of 3.00~~00~~ 5 or higher on 4.00 scale in all work attempted while registered as an upper division applicant while working on a baccalaureate degree.*

- Current license as a registered nurse ~~in the State of Florida~~
- Three letters of recommendation
- Current resume or curriculum vitae
- Written statement of professional goals
- A personal interview with a designated faculty member may also be required, as well as other admission requirements
- Completion of ~~the~~ the bridge~~following~~ courses with a letter grade of "B/S" or greater and a GPA of 3.00 or better:* Consult the website for the listing of bridge courses.
- For the Nurse Anesthesia Concentration, the Graduate Record Examination (GRE) is required. Graduate Record Examination (GRE) taken within five (5) years of application. Competitive score on the GRE.~~>~~
- ~~Students must complete all undergraduate requirements in 3 semesters of study to start master's courses in the 4th semester of study.~~

~~STAXXXX~~	~~Statistics~~	~~3 (if needed)~~
~~NUR3066~~	~~Physical Examination and Assessment~~	~~2~~
~~NUR3066L~~	~~Clinical Experience in Assessment~~	~~1~~
~~NUR4807C~~	~~Leadership and Education Transitions~~	~~3~~
~~NUR4165~~	~~Nursing Inquiry~~	~~3~~
~~NUR4636~~	~~Community/Public Health Population-focused Nursing~~	~~3~~
~~NUR4636L~~	~~Community/Health Nursing Clinical~~	~~3~~
		~~15-18 hours~~

~~After satisfactory completion of the undergraduate courses, students will choose a Master's concentration and complete additional graduate courses based on that concentration chosen.~~

*Note: The primary care and other selected concentrations in the Master's program are highly competitive. Additional admission requirements and a higher GPA may be required for these concentrations.

Accelerated Graduate Program (N.A.S.)

Registered nurses who have earned an Associate of Science Degree in nursing, but do not have a bachelor's degree are also eligible for admission to the Master's program. Students complete 15 credit hours of coursework in the baccalaureate program before applying to the Graduate Program.

Admissions Requirements

- Associate of Science Degree (Nursing) from a regionally accredited program
- Minimum cumulative grade point average of 3.~~00~~ 5 or higher on 4.00 scale on all undergraduate coursework (excluding Associate of Science Nursing courses)*
- Current license as a registered nurse in the State of Florida
- Completion of general education and state mandated prerequisites
- Application to the Master's program upon completion of the necessary undergraduate transitional courses
  - Three letters of recommendation
  - Current resume or curriculum vitae
  - Written statement of professional goals
  - A personal interview with a designated faculty member may also be required, as well as other admission requirements
- Completion of ENC 1101, 1102 with a minimum grade of "C"
- Completion of 15 undergraduate nursing credits with a letter grade of "B/S" or greater and a cumulative 3.00 GPA* or higher is required to be considered for application to the master portion of this program. Consult the website for the bridge coursework. Students must complete all undergraduate requirements in 3 semesters of study to start master's courses in the 4th semester of study. ~~Students must complete the bridge courses within two years from admission to the undergraduate portion of the program.~~

~~NUR 3066~~	~~Physical Examination and Assessment~~	~~2~~
~~NUR 3066L~~	~~Clinical Experience in Assessment~~	~~1~~
~~NUR 4807C~~	~~Management and Education Transitions for RNs~~	~~3~~
~~NUR 4165~~	~~Nursing Inquiry~~	~~3~~

~~NUR 4636 Community/Public Health Population-focused Nursing 3~~
~~NUR 4636L Community/Health Nursing Clinic 3~~
~~15 hours~~

Upon admission to the Master's program, students choose a Master's concentration and complete additional courses based on that concentration.

*Note: The primary care concentrations in the Master's program are highly competitive. Additional admission requirements and a higher GPA may be required for these concentrations. During the semester that the student is completing the undergraduate nursing transition courses, the student will meet with an advisor to review all requirements to complete the transition into the Master's program.

DEGREE PROGRAM REQUIREMENTS

The M.S. program in nursing requires completion of the credit hours required by the concentration. Sequencing of courses is particularly important and academic advisors work with students to design both full-time and part-time program plans in the specialty areas. ~~The curricula for all advanced practice concentrations include the following components: theory-research component, advanced practice component, and specialty core.~~

~~**Theory-Research Component**~~**Core Requirements** ~~(12~~ 3 ~~credit hours)~~
~~NGR6121 Theoretical Foundations (3)~~
~~NGR6080 Health Promotion of Individuals, Families and Populations (3)~~
~~NGR6800 Nursing Research (3)~~
~~NGR6737 Ethical, Legal & Policy Issues in Advanced Practice (3)~~

~~**Advanced Practice Component** (12 credit hours)~~
~~NGR6140 Pathophysiology for Advanced Practice (4)~~
~~NGR6172 Pharmacology for Advanced Practice (4)~~
~~NGR6002C Health Assessment for Advanced Practice (4)~~

Core Requirement (3 credit hours)
NGR6800 Nursing Research (3)

Theory/Practice Component (21 credit hours)
NGR6121 Theoretical Foundations (3)
NGR6080 Health Promotion of Individuals, Families and Populations (3)
NGR6737 Ethical, Legal & Policy Issues in Advanced Practice (3)
NGR6140 Pathophysiology for Advanced Practice (4)
NGR6172 Pharmacology for Advanced Practice (4)
NGR6002C Health Assessment for Advanced Practice (4)

*Coursework in the following concentrations: Adult Health, Family Health, Pediatric Health, Nursing Education, Oncology, Occupational/Adult Health, and Clinical Nurse Leader.

Comprehensive Exam

Each concentration requires successful completion of a comprehensive exam.

Concentrations

Acute Care Concentration ~~**No longer offered; being terminated**~~ **– Admissions on hold.** **25 Credit Hours**
The Acute Care concentration is under revision and will open in the near future. Please consult The College of Nursing website.
~~NGR6143 Pathophysiologic Concepts/Acute Care 3~~
~~NGR6944 Acute Care Practicum 4 Taken twice~~
~~NGR6210 Clin. Mgt. of Acutely Ill Adult 3~~

~~NGR6649C Advanced Practice Nurse Transitions 5~~
~~NGR6931 Adult Health Management for Nursing Spec. 3~~
~~NGR6931 Advanced Procedures 1 taken three times~~

Adult Health Concentration		**22 Credit Hours**
NGR6201	Primary Care of Adults I	3
NGR6202C	Primary Care of Adults II	6
NGR6343C	Primary Care of Women	5
NGR6301	Primary Care of Children & Adolescents I	3
NGR6700C	Advanced Practice Nurse Transitions	5

Family Health Concentration		**25 Credits Hours**
NGR6201	Primary Care of Adults I	3
NGR6202C	Primary Care of Adults II	6
NGR6343C	Primary Care of Women	5
NGR6301	Primary Care of Children & Adolescents I	3
NGR6305L	Primary Care of Children Practicum	3
NGR6700C	Advanced Practice Nurse Transitions	5

Pediatric Health Concentration		**19 Credit Hours**
NGR6301	Primary Care of Children & Adolescents I	3
NGR6302	Primary Care of Children & Adolescents II	6
NGR6343C	Primary Care of Women	5
NGR6700C	Advanced Practice Nurse Transitions	5

Nursing Education Concentration		**18 credit hours**
NGR6713	Foundations of Nursing Education	3
NGR6710	Teaching/Learning Principes of Nursing Ed	3
NGR6718	Evaluation Strategies for Nurse Educators	3
NGR6947	Practicum in Nursing Ed	3x1
Cognates*		6 credit hours

*Selected courses with Advisor permission from the College of Public Health, College of Education, and the College of Nursing.~~, which may be chosen from:~~

~~NGR6723 Leadership and Applied Mgmt in Nursing Healthcare 3~~
~~NGRXXXX Advanced Practice courses with permission from instructor 3~~
~~Selected College of Education courses i.e., EDF, EDH, EME 3~~
~~Selected Public Health courses 3~~
~~Research Project 3~~

Oncology Concentration		**21 credit hours**
NGR6221	Oncology Nursing Concepts	3
NGR6220	Pathobiology of Neoplasia	3
NGR6240	Adult Health Care for ~~Nursing Specialties~~Speciality Care Nursing	3
NGR6222L	Practicum I in Advanced Oncology Nursing	3
NGR6223L	Practicum II in Advanced Oncology Nursing	3
NGR6224L	Practicum III in Advanced Oncology Nursing	3
NGR6971	Thesis or	
NGR6905	Directed Independent Study	3

Psychiatric/Mental Health Concentration (admissions on hold) ~~**26 credit hours**~~

~~NGR6931 Adult Health for Nursing Specialties 3~~
~~NGR6500 Theoretical Foundations for Advanced Psychiatric Nursing 3~~
~~NGR6501 Psychopathology for Advanced Psychiatric Nursing 3~~
~~NGR6538 Psychopharmacology for Advanced Nursing Practice 3~~
~~NGR6502 Treatment Modalities for Advanced Psychiatric Nursing 3~~
~~NGR6500L Psychiatric ARNP Practicum: Out Patient Setting 3~~

~~NGR6501L Psychiatric ARNP Practicum: In Patient Setting 3~~
~~NGR6700C Transitions 5~~

Occupational/Adult Health Nursing Concentration MS only		39 credit hours
NGR6650	Occupational Health Nursing I	2
NGR6651	Occupational Health Nursing II	2
NGR6201	Primary Care of Adults I	3
NGR6202C	Primary Care of Adults II	6
NGR6343C	Primary Care of Women	5
NGR6301	Primary Care Children and Adolescents	3
NGR6700C	Advanced Practice Nurse Transitions	5
NGR6650L	Practicum in Occupational Health Nursing	1
PHC6356	Industrial Hygiene	2
PHC6360	Safety Principles and Practices	2
PHC6364	Plant Operations Interdisciplinary Field Experience	2
	or	
PHC6945	COPH Field course	
PHC6351	Occupational Medicine	3
PHC6977	Special Project	3*

*Or other graduate course as approved by the advisor.

Clinical Nurse Leader Concentration		17 credit hours
NGR6673	Epidemiology for Nursing Practice	3
NGR6898	Microsystem Concepts of Healthcare Finance	3
NGR6723	Leadership and Applied Management in Nursing Healthcare	3
NGR6770C	Introduction to the Clinical Nurse Leader Role	1
NGR6872C	Concepts in Information Management	1
NGR6777C	Shaping the Practice Environment	1
NGR6773L	Clinical Nurse Leader Residency	5

Nurse Anesthesia Concentration **72~~59~~ credit hours**

The curriculum is composed of the didactic phase first 12 months and the clinical phase last 16 months. The classes contain the principles and practices in all applications of anesthesia. The nurse anesthetist concentration is independent of the USF academic calendar. During certain rotations in the clinical phase, weekends, nights, and 24-hour rotations will be expected.

PHC6050	Biostatistics	3
NGR6404	Anatomy and Physiology for Nurse Anesthesia I	3
NGR6400	Chemistry, Biochemistry, and Physics for Nurse Anesthesia	3
NGR6460	Pharmacology for Nurse Anesthesia	3
NGR6800	Nursing Research	3
NGR6140	Pathophysiology for Advanced Practice	4
GMS6461	Pharmacology and Physiology	5
NGR6422	Principles of Nurse Anesthesia through~~out~~ the Life Span	3
NGR6002C	Advanced Health Assessment	4
NGR6423	~~Principles for Nurse Anesthesia I~~Principles of Cardiothoracic Nurse Anesthesia	3
NGR6492	Nurse Anesthesia Role Development	3
NGR6420	Foundations & Methods of Nurse Anesthesia Practice & ~~Lab~~ Simulator	4
NGR6424	Principles for Nurse Anesthesia~~II~~	3
NGR6431	Nurse Anesthesia Clinical Residency I	4
NGR6929	Clinical Correlational Conference	1
NGR7103	Evidenced-based Practice for Nurse Anesthesia	3
NGR6432	Nurse Anesthesia Clinical Residency II	4
NGR6929	Clinical Correlational Conference	1

NGR7892	Health Policy in Nursing and Healthcare	3
NGR6433	Nurse Anesthesia Clinical Residency III	4
NGR6929	Clinical Correlational Conference	1
NGR6434	Nurse Anesthesia Clinical Residency IV	4
NGR6929	Clinical Correlational Conferences	1
NGR6491	Nurse Anesthesia Practice Comprehensive	2

Dual Degree M.S./M.P.H. in Occupational Health Nursing/Adult Nurse Practitioner 76 credit hours

NGR6121	Theoretical Basis of Advanced Nursing Practice	3
NGR6800	Nursing Research	3
NGR6140	Pathophysiology for Advanced Practice	4
NGR6172	Pharmacology for Advanced Practice	4
NGR6002C	Health Assessment for Advanced Practice	4
NGR6650	Occupational Health Nursing I	2
NGR6651	Occupational Health Nursing II	2
NGR6650L	Practicum in Occupational Health Nursing	1*
NGR6201	Primary Care of Adults I	3
NGR6202	Primary Care of Adults II	6*
NGR6343C	Primary Care of Women	5*
NGR6301	Primary Care of Children & Adolescents I	3
NGR6700C	Advanced Practice Nurse Transitions	5*
PHC 6357	Environmental and Occupational Health	3
PHC6000	Epidemiology	3
PHC6050	Biostatistics I	3
PHC6102	Principles of Health Policy Management	3
PHC6423	Occupational Health Law	2
PHC6360	Safety Principles and Practices	2
PHC 6~~9~~3645~~45~~	Plant Operations Interdisciplinary Field Experience ~~COPH Field Experience~~	2**
PHC6356	Industrial Hygiene	2
PHC6351	Occupational Medicine	3
PHC6354	Occupational Health and Safety Administration	2
PHC6977	Special Project	3
PHC6936	Public Health Capstone	3

** Can substitute PHC 6945~~364 Plant Operations Interdisciplinary~~ COPH Field Experience course if filled.

ADHERENCE TO DEGREE/PROGRAM PLANS

Admitted students are expected to meet with their professional advisor to determine the appropriate course sequence to meet the degree requirements. In some concentrations, the concentration director will develop the program plan with the student and forward the program plan to the professional advisor. Once a program plan is determined, students are expected to adhere to this plan unless special permission is obtained. As not all courses are offered each semester, a student who deviates from the program plan understands that delay in graduation can be expected Priority is given to students who maintain initial degree plans.

Clinical and/or site placements are based on preceptor and/or site availability. While every effort is made to assign students to preceptor/clinical sites near their residence, it is not always possible, and thus, students will need to be flexible. Students may find it useful to meet with the concentration director to understand speciality course focus and/or clinicla course demands and plan accordingly.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

NURSING PROGRAM

Doctor of Nursing Practice (D.N.P.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall: February 1

Minimum Total Hours: ~~52~~45
Program Level: Doctoral
CIP Code: 51.1601
Dept Code: NUR
Program (Major/College): NUR NR

CONTACT INFORMATION

College: Nursing

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The D.N.P. program is a practice-focused doctorate that provides an additional option for obtaining a terminal degree in the discipline. Advanced practice includes allnursing intervention that influences health care outcomes, including the direct care of patients, and management of care for individuals and populations

D.N.P. Program Goals:

- Prepare leaders to implement and evaluate evidenced based practice.
- Create an environment that enhances the use of translational research to solve practice problems and improve health outcomes.
- Ensure excellence in the dissemination of findings from evidence-based practice at the national and international levels.
- Promote critical analyses of health policy and related issues from the perspective of the consumer, nursing, and key stakeholders.
- Ensure advanced levels of clinical judgment, systems thinking, and accountability in the implementation and evaluation of evidenced based care to diverse individuals and populations.
- Develop leaders to integrate and institutionalize evidenced based clinical prevention and population health services.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools; Commission on Collegiate Nursing Education

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

- M.S. in Nursing from a regionally accredited program
- GRE
- Minimum 3.00 GPA at the graduate level
- Licensure as an Advanced Practice Nurse Three letters of recommendation
- National certification in area of advanced practice (CRNA, NP, CNM, CNS) – Flroida license required for residencies
- Curriculum Vitae
- Written Statement of Professional Goals
- A grade of B or higher is required in master's level health assessment, pathophysiology, pharmacology, theory, and research.

DEGREE PROGRAM REQUIREMENTS

A minimum of ~~52~~ 45 hours post-master's is required. The program can be completed in two to three years by full-time students and five or more years for part-time students. Specific program requirements are determined on an individual basis by the student's supervisory committee.

Total Minimum Hours: 45 minimum hours

Knowledge Building Core (Required)			**~~37~~ 30 minimum credit hours**
NGR6673	Epidemiology for Advanced Nursing	(3)	
~~NGR7841~~	~~Statistical Methods Nursing Research I~~	~~(3)~~	
~~or~~			
~~EDF6407~~	~~Statistical Analyses for Ed. Research~~	~~(4)~~	
~~or~~			
~~PHC6050~~	~~Biostatistics~~	~~(3)~~	
NGR 7848	Fundamental Statistics for Clinicians	(3)	
NGR7951	Scientific Writing-Publication	(3)	
NGR7103	Evidence Based Practice	(3)	
NGR7141	Pathophysiology for Advanced Practice II	(3)	
NGR7776	Leadership & System Analysis	(3)	
NGR7881	Ethics in Research and Practice	(3)	
NGR7892	Health Policy Issues in Nursing and Health Care	(3)	
NGR7974	Evidence Based Project	(4)	
NGR7945	DNP Residency	(2-9)*	

Advanced Practice Cognate			**15 credit hours**
NGR7176	Pharmacotherapeutics	(3)	
NGR7209	Diagnostic Reasoning	(3)	
NGR7767	Practice Management	(3)	
Electives		(6)	

*D.N.P. students must have a minimum of 1,000 post-baccalaureate supervised clinical hours at the time of graduation. ~~Credits earned during a student's master's advanced practice program will be computed into the total number of supervised clinical hours.~~ A minimum of two (2) credits or D.N.P. residency is required for graduation.

The residency and research project are done over a minimum of two semesters.

~~**COPY SENT BY MARCIA PARKER** * Credits earned during a student's master's advanced practice program may be computed into the total number of supervised clinical hours. Some residencies (ex: Dermatology) require additional credit hours. Additional information on clinical residencies is available upon request. Aminimum of two (2) credits of D.N.P. residency is required for graduation.~~

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

NURSING SCIENCE PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: ~~February 1~~ December 15

Minimum Total Hours: 60-99
Program Level: Doctoral
CIP Code: 51.1608
Dept Code: NUR
Program (Major/College): NUS NR

CONTACT INFORMATION

College: Nursing

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Ph.D. prepares scholars to

- generate and disseminate knowledge through independent and/or collaborative efforts
- conduct intra/interdisciplinary research
- assume leadership roles in nursing education and practice
- influence the delivery of health care services, especially for high risk and medically underserved groups
- educate future generations of nurses for health care delivery in the 21st Century through the use of innovative intra/interdisciplinary educational approaches

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

B.S. (in Nursing) – Ph.D.

- B.S. in Nursing from a regionally accredited program
- GRE
- 3.00 GPA
- Licensure as a Registered Nurse if performing clinical work
- Three letters or recommendation
- Curriculum Vitae
- Written Statement of Professional Goals
- Demonstrated commitment to doctoral study and scholarly productivity
- Clear potential for research contributions
- Evidence of potential for leadership in nursing profession

M.S. (in Nursing) – Ph.D.

- M.S. in Nursing from a regionally accredited program
- GRE
- 3.00 GPA
- Licensure as a registered nurse if performing clinical work
- Three letters or recommendation

- Curriculum Vitae
- Written Statement of Professional Goals
- Demonstrated commitment to doctoral study and scholarly productivity
- Clear potential for research contributions
- Evidence of potential for leadership in nursing profession

Applicants to the Ph.D. program who have completed a professional doctorate degree (DNP) may have professional degree credits transferred into the Ph.D. in Nursing Science. The transfer of credits is determined on an individual basis and will be at the discretion of the College's doctoral committee.

Requirements for Transfer of Credits:

- GPA –Credits transferred in must have a grade of B or higher
- For internal institutional credits the grade of the transferred course:
  - Will be calculated in the GPA at USF
  - Will be noted on the transcript as the grade earned
- For external institution credits the grade of the transferred course:
  - Will not be calculated in the GPA at USF
  - Will be noted on the transcript by a T from a non-USF institution
  - Will be noted on the transcript by a N/A if from a USF regionally accredited institution
- Credit Hours may not exceed 40% of the Ph.D. program requirements for total course hours. Credit hours from a professional doctorate may not count towards dissertation requirements.
- The doctoral committee will be responsible for evaluating, approving, and initiating the transfer as soon as possible following admission.

DEGREE PROGRAM REQUIREMENTS

There are two programs of study that lead to the Ph.D. in Nursing.

M.S. - Ph.D.
A minimum of 60 hours post-master's is required. The program can be completed in three to four years by full-time students and five or more years for part-time students. Specific program requirements are determined on an individual basis by the student's supervisory committee.

Knowledge Building Core (Required)			**33 credit hours**
NGR7123	Theory Development in Nursing	(3)	
NGR7124	Advances in Nursing Science	(3)	
NGR7816	Research Designs and Methods in Nursing	(3)	
NGR7841	Statistical Methods in Nursing Research I	(3)	
NGR7842	Statistical Methods in Nursing Research II	(3)	
NGR7843	Statistical Methods in Nursing Research III	(3)	
NGR7815	Qualitative Methods in Nursing Research	(3)	
NGR7823	Psychometrics and Measurement for Nursing Research	(3)	
NGR7881	Ethics in Researach and Practice	(3)	
NGR7892	Health Policy Issues in Nursing and Health Care	(3)	
NGR7941	Nursing Research Pro Seminar	(1)	
NGR7981	Dissertation Proposal Writing	(2)	

Satisfactory completion of the Knowledge Building Core required courses prepares students to successfully complete the dissertation research.

Cognate **(12 Credits)**

Students select a cognate area to further support the student's area of expertise in nursing and the research problem that will be addressed by the dissertation research. Examples of appropriate areas of study for the cognate might be organizational administration, health policy, physiology, cognitive psychology, organizational psychology, gerontology, epidemiology, biostatistics, administration, applied anthropology, educational measurement or a nursing specialty.

Electives (3-6 Credits)

Students must complete 3-6 elective credits. Three credits must be in research methods. ~~(s~~Suggested courses include: NGR 6824 Data Analysis for Health Sciences, NGR 7932 Current Topics in Quantitative Methods, and NGR 6713 Foundations of Nursng Education.

Qualifying Examinations:

The qualifying examination is to be completed as soon as the majority of core and minor coursework is completed The purpose of the qualifying examination is to assess the student's level of scholarship and research skills and to determine if the student possesses the critical and analytical skills necessary to undertake the dissertation research. The qualifying examination consists of two parts:

~~1. One qualification for admission to candidacy in the Ph.D. program at USF College of Nursing is the authorship of a scholarly manuscript, suitable for publication in a peer reviewed journal. The student need not be the sole author but is to be the principal (lead) author on the manuscript. The student is responsible for submission and related correspondence with the target journal. Secondary authorship is appropriate for faculty who provide existing data for the student to analyze, assist in formulating the problem or hypothesis, structuring the study design, organizing or conducting the statistical analysis, and interpreting the results. Lesser contributions that do not warrant secondary authorship include such supportive functions as building/providing equipment, advising about statistical analyses, copy editing, collecting and entering data, recruiting participants, or conducting routine observations, assessments, and/or diagnoses.~~

~~2. Preparation and submission of a research grant application for funding to an appropriate agency.~~

~~The manuscript may be: an empirical paper reporting on the results of an original study conducted by the student under the supervision of his/her advisor(s), a systematic narrative (i.e. qualitative) review of the empirical literature relevant to the student's dissertation topic, or a theoretical discussion paper addressing issues germane to the student's dissertation topic. The manuscript should build upon what is known and so make an original contribution to the knowledge base in nursing and/or other health care disciplines.~~

~~The type and content of the manuscript, as well as the selection of the target journal(s) to be discussed and decided upon by the student and the members of the student's dissertation committee. Target journals are to be strategically chosen based on the journal's impact factor, target audience, and consideration of other characteristics likely to further the student's career as a researcher. Manuscripts are to be prepared according t other target journals' guidelines for authors.~~

~~This motion was approved by the doctoral committee on March 12, 2010 and the (College of Nursing) faculty council on March 19, 2010 and is pursuant to the Admission to Candidacy requirement which has been previously been a "sole authored" manuscript.~~

Insert on Page 782

1. One qualification for admission to candidacy in the PhD program at USF College of Nursing is the authorship of a scholarly manuscript, suitable for publication in a peer-reviewed journal. The manuscript should build upon what is known and so make an original contribution to the knowledge base in nursing and/or other healthcare disciplines.

The manuscript may be: an empirical paper reporting on the results of an original study conducted by the student under the supervision of his/her advisor(s), a systematic narrative (i.e. qualitative) or meta-analytic (i.e. quantitative) review of the empirical literature relevant to the student's dissertation topic, or a theoretical discussion paper addressing issues germane to the student's dissertation topic.

The type and content of the manuscript, as well as the selection of the target journal(s), is to be discussed and decided upon by the student and the members of the student's dissertation committee. Target journals are to be strategically chosen based on the journal's impact factor, target audience, and consideration of other characteristics likely to further the student's career as a researcher. Manuscripts are to be prepared according to the target journal's guidelines for authors.
The student need not be the sole author but is to be the principal (lead) author on the manuscript. The student is responsible for submission and related correspondence with the target journal. Secondary authorship is appropriate for faculty who provide existing data for the student to analyze, assist in formulating the problem or hypothesis, structuring the study design, organizing or conducting the statistical analysis, and interpreting the results. Lesser contributions that do not warrant secondary authorship include such supportive functions as building/providing equipment, advising about statistical analyses, copy editing, collecting and entering data, recruiting participants, or conducting routine observations, assessments, and/or diagnoses.
This motion was approved by the Doctoral Committee on March 12, 2010 and the College of Nursing Faculty Council on March 19, 2010 and is pursuant to the Admission to Candidacy requirement which has previously been a "sole-authored" manuscript.
2. Preparation and submission of a research grant application for funding to an appropriate agency.

The research focus of the grant content area is chosen by the student and the dissertation committee and should reflect the area for dissertation research.

Determination of the appropriate agency is made in advance by the dissertation committee (examples follow).

Students should seek approval of the funding source from their doctoral supervisory committee.

The grant must be written to meet the specific grant guidelines of the selected funding agency (a review time of at least 2 weeks should be planned for the dissertation committee). It is the student's responsibility to coordinate submission of the grant with the College of Nursing Research Center.

Dissertation (12 Credits)
Students must complete and successfully defend a dissertation.

B.S. -Ph.D.

A minimum of 99 hours post-baccalaureate is required. The program is designed as a full-time four-year course of study.

Knowledge Building Core (Required)		**48 credit hours**
NGR6080	Health Promotion of Individuals, Families, and Populations	(3)
NGR6121	Theoretical Foundations	(3)
NGR6737	Ethical/Legal/Policy Issues in Adv Nursing Practice*	(3)
NGR6800	Nursing Research	(3)
NGR6824	Data Analysis for Health Sciences	(3)
NGR7123	Theory Development in Nursing	(3)
NGR7124	Advances in Nursing Science	(3)
NGR7815	Qualitative Methods in Nursing Research	(3)
NGR7816	Research Designs and Methods in Nursing	(3)
NGR7823	Psychometrics and Measurement for Nursing Research	(3)
NGR7841	Statistical Methods in Nursing Research I	(3)
NGR7842	Statistical Methods in Nursing Research II	(3)
NGR7843	Statistical Methods in Nursing Research III	(3)
NGR7881	Ethics in Research and Practice	(3)
NGR7892	Health Policy Issues in Nursing and Health Care	(3)
NGR7941	Nursing Research Pro Seminar	(1)
NGR7981	Dissertation Proposal Writing	(2)

*Not needed for Nursing Education track

Advanced Practice (Required)		**12 credit hours**
NGR6140	Pathophysiology for Advanced Practice Nursing	(4)
NGR6002C	Health Assessment for Advanced Practice	(4)
NGR6172	Pharmacology for Advanced Nursing Practice	(4)

Specialty Track **18-25 credit hours**

Required to choose at least one:

- Nursing Education
- Oncology
- Adult Health
- Pediatric Health
- Family Health

Nursing Education		**18 credit hours**
NGR6710	Teaching Strategies in Nursing Education	(3)
NGR6713	Foundations of Nursing Education	(3)
NGR6718	Evaluation Strategies in Nursing Education	(3)
NGR6947	Practicum in Nursing Education	(3)
Cognates*		(6)

~~*Selected courses with Advisor permission from the College of Public Health, College of Education, and the College of Nursing, which may be chosen from:~~

~~NGR672~~	~~Leadership and Applied Management in Nursing Health Care~~	~~(3)~~
~~NGRXXXX~~	~~Advanced Practice Specialty (with Permission of advisor)~~	~~(3)~~
~~Selected College of Education Courses (i.e. EDF, EDH, EME)~~		~~(3)~~
~~Selected Public Health Courses~~		~~(3)~~
~~Research Project~~		~~(3)~~

Oncology		**18 credit hours**
NGR6221	Oncology Nursing Concepts	(3)
NGR6220	Pathobiology of Neoplasia	(3)
NGR6240	Adult Health for Nursing Specialties	(3)

NGR6222L	Practicum I: Oncology Nursing	(3)
NGR6223L	Practicum II: Oncology Nursing	(3)
NGR6224L	Practicum III: Oncology Nursing	(3)

Adult Nurse Practitioner **22 credit hours**

NGR6201	Primary Care of Adults I	(3)
NGR6202C	Primary Care of Adults II	(6)
NGR6343C	Primary Care of Women	(5)
NGR6301	Primary Care of Children & Adolescents I	(3)
NGR6700C	Advanced Practice Nurse Transitions	(5)

Pediatric Nurse Practitioner **19 credit hours**

NGR6301	Primary Care of Children & Adolescents I	(3)
NGR6302C	Primary Care of Children & Adolescents II	(6)
NGR6343C	Primary Care of Women	(5)
NGR6700C	Advanced Practice Nurse Transitions	(5)

Family Nurse Practitioner **25 credit hours**

NGR6201	Primary Care of Adults I	(3)
NGR6202C	Primary Care of Adults II	(6)
NGR6343C	Primary Care of Women	(5)
NGR6301C	Primary Care of Children & Adolescents I	(3)
NGR 6305L	Primary Care Practicum: Children	(3)
NGR 6700C	Advanced Practice in Nurse Transitions	(5)

Cognate **(12-15 Credits)**

Students select a cognate area of study to further support the student's area of expertise in nursing and the research problem that will be addressed by the dissertation research. Examples of appropriate areas of study for the minor might be, but are not limited to public health, aging studies, psychology, business, and research tools.

Qualifying Examinations:

The qualifying examination is to be completed as soon as the majority of core and minor coursework is completed. The purpose of the qualifying examination is to assess the student's level of scholarship and research skills and to determine if the student possesses the critical and analytical skills necessary to undertake the dissertation research. The qualifying examination consists of two parts:

- Completion and submission of a manuscript ~~that is sole-authored~~ in which the student is the principal (lead) author) to a refereed journal for publication.
- Preparation and submission of a research grant application for funding to an appropriate agency.

Dissertation **(12- 24 Credits)**

Students complete and successfully defend a dissertation.

NOTE: Students are to meet with curriculum advisor for individual program plan.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

COLLEGE OF PUBLIC HEALTH

Changes to Note

The follow curricular changes for the College of Public Health were approved by the USF-Tampa Graduate Council on the date noted.

Program Changes

Health Administration (MHA)	change deadlines from 2/15 to 6/1	7/5/11
Public Health (M.P.H.)		
Program	change deadlines from 2/15 to 6/1	7/5/11
Accelerated Health Ed.	change curriculum*	9/20/10
Behavioral Health	change GRE; change curr	6/6/11
Health Care Org and Mgmt	change GRE/GPA req, hrs, curr	5/16/11
Health Policies & Programs	change curr and courses	5/16/11
Public Health Admin	hours correction, work reqs, curr	5/16/11
Public Health Education	change curriculum	10/18/10
Socio-Health Sciences	change curriculum	10/18/10
Toxicology and Risk Assess	eliminate comp exam req	5/16/11
Public Health (M.S.P.H.)		
Program	change deadlines from 2/15 to 6/1	7/5/11
International PH Research, Policy, and Planning -New Conc		11/15/10
Health Policy and Management - Terminate concentration		5/16/11
Public Health (Ph.D.)		
Community & Family Health	– revise competencies	5/16/11
Health Policy & Mgmt—title changed to:		5/16/11
	Health Services Research; curr updates	
Public Health (Ph.D.)	change deadlines	3/21/11
Public Health (Dr.P.H.)	change deadlines	3/21/11

New Dual Degree Programs/Concentration

Public Health (M.H.A./M.P.H.)	Health Admin/Health Policies and Programs	5/16/11

Dual Degree/Concentration Terminations

Public Health (B.S./M.P.H.)		
Accelerated Health Ed	*Terminate accelerated option**	9/20/10
	**part of Concentration Change request above*	

New Certificates

Concepts and Tools of Epidemiology		1/11/11
Maternal Child Health Epidemiology		5/16/11
Planning for Healthy Communities		5/16/11

Certificate changes

Health Management and Leadership	change GPA/admission requirement	5/16/11
Public Health Policies and Programs	change GPA/admission requirement	5/16/11
Social Marketing and Public Health	change courses	6/6/11

New Courses

MHS 6494	Women's Mental Health	7/5/11
PHC 7702	Advanced Public Health Research and Evaluation Methods	6/6/11
PHC 6974	Social Marketing Capstone	6/6/11
PHC 6716	Advanced Formative Research Methods	6/6/11
PHC 6460	Social Marketing Program Management	6/6/11
PHC 6461~~xxx~~	Advanced Social Marketing	6/6/11
PHC 6031	Comorbidity of Mental and Physical Disorders	4/18/11
PHC 6121	Vaccines	3/21/11
PHC 7122	Vaccinology	3/21/11
PHC 6507	Health Education Intervention Methods	3/21/11
PHC 6516~~xxx~~	Tropical Diseases	7/5/11
PHC 7437~~xxx~~	Applications in Health Economics	7/5/11
HSC 7260~~PHC 7xxx~~	Professional Foundations II Teaching Methods	7/5/11
HSC 7268~~PHC 7xxx~~	Professional Foundations III joining the academy	7/5/11

Course changes

PHC 7405	Theoretical Application to Public Health Issues	-Chg title	6/6/11
PHC 7708	Applied Research Methods	-Chg curr & objective	6/6/11
PHC 6106	Global Health Program Dev and Admin.	-Delete pre/co-reqs	8/18/10
PHC 6412	Health Disparities, Diversity & Cultural Competence	-Chg hours from 4 to 3	8/18/10
PHC 6760	Health Program Evaluation	-Chg title	7/5/11
PHC 6931	Seminar in Social & Behav. Sciences Appl. to Health	-Add pre-req	8/18/10

Course Terminations

PHC 6506	Program Planning Methods in Community Health	8/18/10

Withdrawn:

Public Health: Global Communicable Disease and Global Health Practice – changes to curriculum withdrawn 6/6/11

University of South Florida
College of Public Health
13201 Bruce B. Downs Blvd MDC56
Tampa, FL 33612

Web address: http://www.publichealth.usf.edu
Email: advisor@health.usf.edu
Phone: 813-974-6665
Fax: 813-974-8121

College Dean: Donna Petersen
~~**Interim**~~ **Associate Dean:** Deanna Wathington

DEPARTMENTS

Community and Family Health http://publichealth.usf.edu/cfh/

Adolescent health; Sexual Health; Reproductive and women's health; Family violence; Injury control and prevention; Aging and public health; Social marketing; Maternal and child health; Behavioral health; Health needs of special populations; Social determinants of health; Health disparities; Community-based interventions; Development; implementation and evaluation of programs to support healthy lifestyles; Application of technology in public health.

~~Adolescent health risk taking behavior, Community based prevention marketing, Reproductive and women's health, Health literacy, Health issues of developing countries, Family violence, Injury control and prevention, Social determinants of health, Aging and public health, and Social Marketing.~~

Environmental and Occupational Health http://publichealth.usf.edu/eoh/

Environmental and occupational toxicology and health risk assessment, Ergonomics and occupational heat stress, Occupational and environmental lung disease, inflammation and asthma, Environmental pollution assessment and modeling, bio-monitoring and management.

Epidemiology and Biostatistics http://publichealth.usf.edu/epb/

Epidemiology of dementia and Alzheimer's disease, Aging and occupational epidemiology, Cardiovascular disease epidemiology, Social epidemiology and public health geography, Cross-cultural studies, Cancer epidemiology, Perinatal epidemiology, Sleep disorders, Injury epidemiology, Osteoporosis and falls in aging population, Infectious disease epidemiology, Prevention science and prevention methodology, including design and analysis of preventive field trials, Prevention of conduct disorder and aggression, depression, and suicide and drug use/abuse, Analysis of behavior observation data, Multi-level and mixture modeling, Environmental statistics, Health outcome evaluation and medical surveillance, Maternal and child health epidemiology ~~Detection of bioterrorism~~, Small area estimation, Missing data methods, Growth curve modeling, Risk assessment, and Bayesian inference.

Global Health http://publichealth.usf.edu/gh/

Surveillance of intestinal parasitic infections; Realtime syndromic surveillance of bioterrorist event; Biosafety of bloodborne pathogens; Serology of arboviruses; pathophysiology of arboviral infections; Health promotion against violence; Health promotion and education in HIV/AIDS; Surveillance of waterborne infections; Development of solar latrines for helminth eradication; Ecodynamics and environmental impact on health.

Health Policy and Management http://publichealth.usf.edu/hpm/

Health care financial management, Health economics, Quantitative methods in health services, Health insurance, Health law, Quality management, Performance improvement, Community health assessment, Organizational theory and behavior applied to health settings, Health information management, Health policy, and Strategic planning.

Accreditation:

The Commission on Colleges of the Southern Association of College and Schools. The College is fully accredited by the Council on Education for Public Health and the M.S.P.H. in Industrial Hygiene is accredited by the Accreditation Commission of the Accreditation Board for Engineering and Technology.

Mission Statement:
The College of Public Health's mission is to improve the public's health through advancing discovery, learning, and service. Goals are related to building strong focused research programs that reward and encourage scholarship and creative activities, continual improvement of academic programs and student centered learning, a college culture that supports our mission, vision, and values, a strong sustainable infrastructure, and active service and meaningful community engagement.

The base of knowledge for public health comes from a variety of disciplines, ranging from social sciences to biological sciences and business, brought together by a commitment to improve the public's health. Thus, the field is open to students from diverse academic disciplines including Health Sciences, Education, Business, Communication, Mathematics, Social and Natural Sciences. Graduates are prepared for interdisciplinary focused public health careers as administrators, managers, educators, researchers, and direct service providers.

The College's five departments are Community and Family Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global Health, and Health Policy and Management The program in Public Health Practice is College-wide.

Core content is directly related to addressing and meeting public health issues. Off campus or alternate calendar programs may reflect additional offerings to meet specific needs. The College accommodates the working professional as well as the full-time student by offering late afternoon and evening classes, online delivery of courses and graduate certificates, and a executive M.P.H. for experienced health professionals.

The College hosts several College and Departmental based centers that augment the learning opportunities for students. A few examples include the Center for Biological Defense, Center for Leadership in Public Health Practice, Center for Positive Health, the Florida Health Information Center, The James and Jennifer Harrell Center for the Study of Family Violence, the Lawton and Rhea Chiles Center for Healthy Mothers and Babies, and the Florida Prevention Research Center.

Degrees, Programs, Concentrations

Master of Health Administration (M.H.A.)
Health Administration (MHA)

Master of Public Health (M.P.H.)
Public Health (MPH) ~~Accelerated Health Education (AHE)~~*~~terminated~~*
Behavioral Health (BHH)
Biostatistics (BST)
Environmental Health (EVH)
Epidemiology (EPY)
Epidemiology and Biostatistics (PEB*)-dual concentration*
Epidemiology and Global Communicable Disease (EGC)
Epidemiology and Global Health - (EGH*)-dual concentration*
Epidemiology and Maternal & Child Health (EMC)
Executive Program for Health Professionals (EPH)
Exec Program for MBA Physicians (EPP) *– being terminated*
Global Communicable Disease

Global Disaster Management and Humanitarian Relief (GDM)
Global Health Practice (GLO) [1]
Global Health Informatics (GHI) - *being terminated*
Health Care Organizations and Management (HCO)
Health Policies and Programs (HPP)
Maternal and Child Health (PMC)
Occupational Health (OCC) [2]
Occupational Medicine Residency (OMR)
Occupational Safety (SFM)
Public Health Administration (PHA)
Public Health Education (PHN) [3]
Public Health Practice (PHO) [4, 5]
Socio-Heatlh Sciences (SHS)
Toxicology and Risk Assessment (TXY)

Master of Science in Public Health (M.S.P.H.) Degree

Public Health (MSP)
Behavioral Health (PBH)
Bioinformatics (PBF) *is being terminated*
Biostatistics (PBC)
Environmental Health (PEH)
Epidemiology (PEY)
Global Communicable Disease (PGD)
Industrial Hygiene (PIH)
International Public Health Research, Policy and Planning (PIP)
Maternal and Child Health (PMH)
Occupational Health (POH) [6]
Occupational Medicine Residency (POM)
Occupational Safety (POS)
Public Health Education (PPD)
Socio-Health Sciences (PSH)
Toxicology and Risk Assessment (PTX)

Doctor of Philosophy (Ph.D.) Degree

Public Health
Behavioral Health (BHH) – is being terminated
Biostatistics (BST)
Community and Family Health (CFH)
Environmental Heatlh (EVH)
Environmental and Occupational Health (EOH)
Epidemiology (EPY)
Global Communicable Disease (TCD)
Health Services Research (HMP)
Industrial Hygiene (IHY)
International Heatlh Management (IHM) – is being terminated
Maternal and Child Health (PMC) – is being terminated
Occupational Health for Health Professionals (OHP)

[1] Master's International Peaace Corps Program available
[2] Only available to dual M.S. Adult Nursing students
[3] ~~Accelerated entry program available~~terminated
[4] Requires 3 years of health-related experience
[5] Offered (1) executive program and (2) online
[6] Only for health professionals

Public Health Education (HED) – is being terminated
Socio-Health Sciences (SHS) – is being terminated
Toxicology and Risk Assessment (TXY)

Doctor of Public Health (Dr.P.H.) Degree
Public Health

Accelerated Programs:

BS in Public Health and MPH in Public Health: Public Health Education Concentration (3+2 program)
MS in Environmental Science & Policy And MPH/MSPH in Public Health
Fast Track MPH/MSPH for USF Honors Students

Dual Degree Programs:

Health Administration and Public Health: Health Policies/Programs	MHA/MPH
Public Health and Anthropology	M.P.H./M.A. or Ph.D.
Public Health and Law	M.P.H./J.D.
Public Health and Medicine	M.P.H./M.D.
for already enrolled USF College of Medicine students.	
Public Health and Social Work	M.P.H./M.S.W.
Public Health (Occupational Health) and Nursing/Adult Nurse Practitioner	M.P.H./M.S.
Public Health and Biochemistry/Molecular Biology	M.P.H./Ph.D.
Public Health and Physical Therapy	M.P.H./D.P.T. ~~/M.P.H.~~

Masters International Peace Corps (MIPC) Program

Offered in All Departments

The Masters International Peace Corps (MIPC) program is a college-wide program open to all students (excluding international students) within the COPH. MIPC students begin studies on campus, and then serve abroad with the Peace Corps for 27 months before returning to campus to complete graduation requirements for a Master of Public Health (M.P.H.) degree. As an incentive, the College provides tuition and fee waivers for nine credit hours: the required Field Experience - 6 credit hours and the Special Project- 3 credit hours. MIPC students gain significant international practical experience and knowledge working in resource-poor settings, thereby enhancing their marketability for employment upon graduation

Graduate Certificates Offered:

For the most current list go to: http://www.outreach.usf.edu/gradcerts/

Biostatistics
Concepts and Tools of Epidemiology*
Epidemiology
Disaster Management*
Infection Control*
Health Management and Leadership
Humanitarian Assistance*
Maternal and Child Health
Maternal Child Health Epidemiology*
Planning for Healthy Communities
Safety Management
Social Marketing & Public Health
Violence and Injury: Prevention and Intervention
Interdisciplinary Women's Health
Public Health Generalist*
Public Health Policy and Programs*
Diasporas and Health Disparities (shared with Africana Studies)

Environmental Health
Global Health in Latin America and Caribbean Studies
Global Health Practice
Water, Health, and Sustainability
*fully on-line

COLLEGE REQUIREMENTS

Attendance Policy
It is the policy of the College of Public Health that a student will not be automatically dropped if they do not attend the first class of each semester for graduate classes only. However, it is the responsibility of the student to notify the course instructor if they cannot attend the first class.

Degree Requirements
A detailed description of each degree and its requirements can be found on the website listed.

Master of Health Administration (M.H.A.): http://health.usf.edu/publichealth/hpmmha.html
All MHA students are required to successfully complete a total of 56 credits plus field experience:

- Health and Communities—15 credits
- Management and policy courses - 19credits
- Finance, Economic and ~~Quantitative Courses~~Decision Making Skills - 17 credits
- ~~Health Plans – 3 credits~~
- Capstone Course - 2 (substitutes for comprehensive examination)
- Field Experience – 1-2 credits
- Special Projects - 3 credits

Master of Public Health (M.P.H.): http://health.usf.edu/publichealth/degree_descriptions.html
All M.P.H. students are required to successfully complete a minimum of 42 credits ~~plus field experience~~:

- Five college core courses - 15 credits: Biostatistics I*, Epidemiology, Principles of Health Policy and Management; Environmental and Occupational Health, and Social and Behavioral Sciences Applied to Health
- Concentration courses in specialty areas - 12 credit minimum, depending on department requirements
- Capstone Course/
- Comprehensive Exam
- Field Experience - 1 - 12 credits
- Special Projects - 3 credits
- Electives (variable)

* Students in the Biostatistics concentration who have previously taken introductory statistics courses and have a strong mathematical background must take the more advanced level biostatistics course "PHC 6057: Biostatistical Inference I" instead of "PHC 6050: Biostatistics I". However, if a student does not have this prior training in introductory statistics coursework then she/he can take both PHC 6050 Biostatistics I and PHC 6057 Biostatistical Inference I.

Master of Science in Public Health (M.S.P.H.): http://publichealth.usf.edu/msph.html

- All M.S.P.H. students are required to successfully complete 42+ credits depending on concentration requirements 9 credits of college core courses including Biostatics I and Epidemiology, plus one other core courses approved by the academic advisor
- Biostatistics II
- Courses in specialty areas as designated by advisory committee - 12 credits minimum
- Research Methods as determined by advisory committee
- Comprehensive Exam/Capstone Course

- Thesis for a minimum of 6 credits
- Electives (variable)

Doctor of Philosophy (Ph.D.): http://health.usf.edu/publichealth/degree_descriptions.html
The Doctor of Philosophy (Ph.D.) is granted in recognition of high attainment in a specified field of knowledge. It is a research degree and is not conferred solely upon the earning of credit or the completion of courses. It is granted after the student has shown proficiency and distinctive achievement in the specific field, has demonstrated the ability to do original, independent investigation, and has presented these findings with a high degree of literacy skills in a dissertation. This degree requires a minimum of 90 credits beyond the baccalaureate degree. Doctoral programs leading to Ph.D. are offered in all five departments and the five core areas of public health. Students have an opportunity to specialize within their department.

Each department has written specific guidelines and there are college-wide PhD student competencies. Students and their major advisor jointly create a written plan to meet all competencies via plan of study, research experience, departmental and professional activities, and other appropriate methods.

Ph.D. Course of Study:
The student's course of study will include the following:

Prerequisites:
A minimum of Biostatistics I, Epidemiology, and one other selected college core courses are required by all students who do not have a master's degree in public health. The doctoral committee or the department may require other prerequisites. These courses are not included in the minimum number of hours a student needs to complete the Ph.D. and are expected to be completed early in the course of study.

Required Coursework:
The courses and number of credit hours required are defined by the department and the doctoral committee and include coursework from another department or college. There must be minimum of 13 credits at the 7000 level. Generally, the doctoral degree requires a minimum of 90 credits beyond the bachelor's degree. Departments determine the number of credits accepted from previous master(s) degree. There is a mandatory doctoral student orientation that all new doctoral students must attend in the fall semester of their first academic year. All doctoral students take a minimum of three semesters (one credit each semester) of a college wide Advanced Interdisciplinary Seminar in Public Health.

Tools of Research:
Departmental Guidelines will address whether tools of research are required for doctoral students within that department (consistency within the department required). The student must complete a minimum of two of the "Tools of Research" options designated by the department, and approved by the doctoral committee before the student is eligible to take the doctoral qualifying examination.

Teaching:
All doctoral students will demonstrate or document proficiency in teaching academic courses at the university level.

Qualifying Exam:
When all required coursework is satisfactorily completed (including tools of research and prerequisites), the student must pass a written comprehensive qualifying examination covering the subject matter in the major and related fields.

Dissertation:
All students must follow the University's "Guidelines for Dissertations and Theses."

Doctor of Public Health (Dr.P.H.)

The **Doctor of Public Health (Dr.P.H.)** is a professional, practice-oriented degree which is granted in recognition of the attainment of a broad set of practice, analytic and evaluative skills, including demonstrated public health leadership skills. Emphasis will be placed on proficiency in policy development and health policy strategies, public health leadership and management of health programs. Demonstration of applied research skills and strength in evaluation methods via practice-based specialized study will be expected. The Dr.P.H. will require 90 semester hours beyond the baccalaureate degree. Candidates will have an M.P.H. or equivalent degree prior to admission, therefore the actual additional hours required for the Dr.P.H. beyond the Master's level will average 45 to 50 semester hours, depending upon the program designed by the student and his or her committee. Per University guidelines, all requirements for the doctoral degree must be completed within eight calendar years from the student's date of admission for doctoral study. Students have four years to complete all required coursework, pass the qualifying examination, and be admitted to doctoral candidacy. Students then have four years from the date of doctoral candidacy to complete degree requirements.

Mission
The mission of the Doctor of Public Health is to prepare practitioners for leadership and advocacy in public health practice through a scientific, interdisciplinary approach to understanding and solving public health problems in the public and private sectors, the United States, and worldwide. This mission relates directly to the University of South Florida mission which includes creating a community of learners together with significant and sustainable university-community partnerships and collaborations; and designing, strengthening and building sustainable healthy communities and improving quality of life.

Areas of Study
Community and Family Health
Global Health

OTHER INFORMATION

Comprehensive Examination (M.H.A., M.P.H., M.S.P.H.)
The Core Comprehensive Examination covering core courses is a requirement for all students seeking an M.P.H. or M.S.P.H. degree in the College of Public Health. (A capstone course substitutes for the comprehensive examination for the M.H.A. degree.) MPH students starting their degree program in Fall 2009 are required to take the Public Health Capstone course which includes the taking of the core exam.

The Department of Environmmental and Occupational Health also requires a concentration comprehensive examination covering the concentration courses. Each department has detailed written guidelines which are listed on department websites. Additional information may be found at http://health.usf.edu/publichealth/academicaffairs/compexam.html.

Please consult individual departments for information.

Field Experience
The type and length of the field experience varies. All students in the M.H.A., M.P.H., and M.S.P.H. in Industrial Hygiene are reguired to complete a field experience. Each department has written guidelines and a field experience website is available to assist students in this portion of their program at http://publichealth.usf.edu/academicaffairs/fe/

Special Project
The special project is an in-depth study of a selected issue in public health. A topic will be selected according to student's needs and interests.

Thesis (M.S.P.H.)
M.S.P.H. students MUST complete a Thesis.

Graduate Assistantships
Graduate assistants may perform research, teaching functions, assist in the production of seminars and workshops, or other work related to their specific disciplines. Graduate assistants are paid a biweekly stipend and may qualify to receive in-state tuition waivers. Assistantships are awarded on a competitive basis. Students must have a GPA of 3.0 or better in their upper division coursework, must be degree-seeking and enrolled full time.

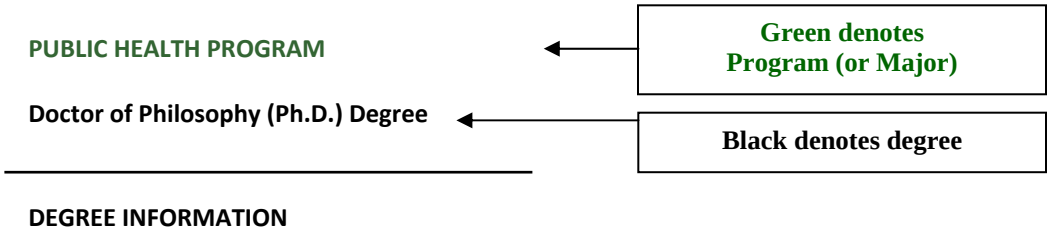
Additional information may be found at http://publichealth.usf.edu/financial.html
All positions are posted at http://publichealth.usf.edu/jobpostings.html

Scholarships and Aid
Sources of aid are limited to degree-seeking students only and include the following which are detailed at http://www.publichealth.usf.edu/FinAid.html: several named fellowships and scholarships, Florida Environmental Health Association Scholarships, Florida Public Health Association Scholarships, MCH Epidemiology Traineeships, among many others.

About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the College that offers them. For example, the Master of Science degree with a "program" (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or "concentrations" within a degree program.

PROGRAMS



CONCENTRATIONS

Concentration Requirements are listed separately under each Program.

The Program and Concentration are listed on the official transcript. Other areas, such as application tracks, are not listed on the transcript.

Example:
Doctor of Philosophy in Public Health
with a Concentration in Behavioral Health

HEALTH ADMINISTRATION PROGRAM

Master of Health Administration (M.H.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
~~Public Health has rolling admissions and no set deadline. A minimum of six (6) weeks is necessary after a completed application is received in order for the application to be fully processed~~.
Domestic Applicants
Fall: June 1
Spring: October 15
Summers: February15

International Applications:
Fall: January 2
Spring June 1
Summer: January 2

Minimum Total Hours: 56 plus field experience
Program Level: Masters
CIP Code: 51.0701
Dept Code: DEA
Program (Major/College): MHA PH

CONTACT INFORMATION

College: Public Health

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The M.H.A. program prepares students for private and public sector leadership positions. In addition to the five core areas of public health, the curriculum helps students develop skills and knowledge in basic business disciplines with application to health services; a clinical and community perspective and professional skills. Students develop an understanding of organizational models and management principles applied to health settings; health care financial management and economics; quality and performance improvement; health policy and policy analysis; strategic planning and marketing; and health law and ethics.

The Master of Health Administration has the following competencies in which the graduate will be able to:

Management Science and Technology

- Explain and demonstrate an understanding of scientific operational definitions and their measurement, e.g., efficiency, effectiveness and quality.
- Integrate operational planning and management tools for performance and quality improvement.
- Demonstrate the use of information systems and application software in health services, e.g., electronic medical records, GIS, and use of software tools for management decision-making.
- Explain and demonstrate the application of quantitative analysis, e.g., descriptive and inferential statistics, regression, forecasting.
- Build analytical thinking acumen, e.g., the ability to understand any issue by delving into its relevant components and formulating solutions.
- Manage and assess operational performance.

Leadership, Planning, and Communication

- Shape operational and strategic plans and integrate with marketing initiatives.
- Lead improvement upon organizational design and culture, e.g., formal and informal decision-making structures, and champion workforce diversity.
- Clarify human resources management and staff development.

- Demonstrate public health values and reinforce ethical decision-making.
- Integrate and demonstrate effective written oral communication.

Public Policies and Community Engagement

- Assess community needs and values and the role of external relations, e.g., demographic/population contexts for development and management of health services.
- Comprehend and explain the legal and regulatory environment for health services.
- Explain and identify the optimal quantity of health care services to provide, e.g., satisfying supply and demand constraints and resource limitations.
- Analyze public policy context and choices.
- Analyze the linkages between cultural competencies and diversity regarding health disparities.

Concepts of Economic and Financial Management

- Comprehend and create budgets (e.g., variance analysis and standards development) and apply contribution margin analysis as used by clinical revenue-generating personnel and for product line management.
- Explain the principles and applications of cost accounting, e.g., breakeven analysis, the costing process, measurement, and control.
- Understand and construct financial statements, applying ratio analysis and pro forma statement generation.
- Execute financial mathematics, e.g., time value of money calculations, capital budgeting, return on investment, and project risk analyses.
- Perform differential reimbursement calculations by payers (e.g., Medicare/Medicaid, self-pay, managed care) and describe the major principles of health insurance.
- Understand and explain economic evaluation, e.g. cost benefit/cost effectiveness analysis.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools. The College is fully accredited by the Council on Education in Public Health.

Major Research Areas:
Health care financial management, Health economics, Quantitative methods in health services, Health insurance, Health law, Quality management, Performance improvement, Community health assessment, Organizational theory and behavior applied to health settings, Health information management, Health policy, and Strategic planning.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Meeting these criteria per se shall not be the only basis for admission.

- Public health course prerequisites:
    - Suggested/preferred undergraduate majors: Life sciences, social sciences, business, or health professions.
- Prerequisite undergraduate courses: Micro-economics.
- Work experience: Preferred, but not required.
- Minimum undergrad GPA: 3.0 upper division (some exceptions made if GRE exceeds minimum subscores).
- Verbal GRE Score: 450 minimum
- Quantitative GRE Score: 550 minimum
- In lieu of the GRE, applicants may submit a minimum GMAT score of 500 for the MHA.

DEGREE PROGRAM REQUIREMENTS

Plan of Study Total minimum: 56 hrs plus field experience

CORE REQUIREMENTS		**(15)**
PHC 6102	Principles of Health Policy and Management	3
PHC 6000	Epidemiology	3
PHC 6050	Biostatistics I	3
PHC 6357	Environmental and Occupational Health	3
PHC 6410	Social and Behavioral Sciences Applied to Health	3

Management and Policy		**(19)**
PHC 6148	Strategic Planning and Healthcare Marketing	3
PHC 6147	Managing Quality in Health Care	2
PHC 6151	Health Policy and Politics	3
PHC 6114	Health Insurance and Managed Care	2
PHC 6180	Health Services Management	3
PHC 6181	Organizational Behavior inHealth Services	3
PHC 6420	Health Care Law, Regulation and Ethics	3

Finance, Economics and Decision Making Skills ~~Quantitative~~		**(17)**
ACG 6025	Financial Accounting for Managers	2
QMB 6305	Managerial Decision Making	2
PHC 6161	Managerial Health Care Finance and Costing	4
PHC 6191	Quantitative Analysis in Health Care Management	3
PHC 6196	Information Systems inHealth Care Management	3
PHC 6430	Health Economics I	3

Culminating Requirements **(6-7)**

PHC 6945 Supervised Field Experience 1-2

- Students with little or no professional experience: 2 hours minimum;
- Students with substantial work experience can negotiate a reduced number of hours with their advisor (e.g., 1 or 2 hours) if the student has meaningful experience (involving decision-making) in a health care or related organization

PHC 6977 Special Project 3

PHC 6183 Advanced Seminar in Health Care Management 2

(Case-based capstone course that includes the final comprehensive exam)

Total credits: 56 plus field experience

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PUBLIC HEALTH DUAL DEGREE PROGRAM

Master of Health Administration (M.H.A.) Degree
Master of Public Health (M.P.H.) Degree in Public Health with a Concentration in Health Policies and Programs

DEGREE INFORMATION

Program Admission Deadlines: Refer to each Program for admission deadline information

Minimum Total Hours: 72
Program Level: Masters
CIP Code:
Dept Code:
Program (Major/College): MHA PH
MPH PH

CONTACT INFORMATION

College: Public Health

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The M.H.A./M.P.H. dual degree provides a unique opportunity for students who are interested in both health administration and health policy to pursue both intersts, recognizing that the health care marketplace has professional opportunities that require both skill sets. For specific information on each degree, refer to that degree program's listing in the Catalog.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools. The College is fully accredited by the Council on Education in Public Health.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Meeting these criteria per se shall not be the only basis for admission.

- Public health course prerequisites:
  - Suggested/preferred undergraduate majors: Life sciences, social sciences, business, or health professions.
- Prerequisite undergraduate courses: Micro-economics.
- Work experience: Preferred, but not required.
- Minimum undergrad GPA: 3.0 upper division (some exceptions made if GRE exceeds minimum subscores).
- Preferred Verbal GRE Score: 450 minimum
- Preferred Quantitative GRE Score: 550 minimum
- In lieu of the GRE, applicants may submit a minimum GMAT score of 500 for the MHA.

DEGREE PROGRAM REQUIREMENTS

Plan of Study Total minimum: 72 hrs

M.H.A. ONLY COURSES (31 hours)

PHC 6147	Managing Quality in Health Care	2
PHC 6148	Strategic Planning and Health Care Marketing	3
PHC 6180	Health Services Management	3
PHC 6181	Organizational Behavior in Health Ssciences	3
ACG 6025	Financial Accounting for Managers	2
PHC 6161	Managerial Health Care Finance and Costing	4
QMB 6305	Managerial Decision Making	2
PHC 6196	Information Systems in Health Care Management	3
PHC 6191	Quantitative Analysis in Health Care Services	3
PHC 6945	Supervised Field Experience	1
PHC 6166	Advanced Seminar in Health Care Management	2

M.P.H. in Health Policies and Programs ONLY COURSES (14 hours)

PHC 6104	Management of Public Health Programs	3
PHC 6715	Research Foundations in Public Health	3
PHC 6760	Research Methods in Public Health Programs (Prev title: Health Program Evaluation)	3
PHC 6945	Supervised Field Experience	2
PHC 6936	M.P.H. Capstone Course	3

SHARED COURSES (27 hours)

Public Health Core Requirements:

PHC 6000	Epdemiology	3
PHC 6050	Biostatistics I	3
PHC 6102	Principles of Health Policy and Management	3
PHC 6945	Environmental and Occupational Health	3
PHC 6936	Social and Behavioral Science applied to Health	3
PHC 6977	Special Project	3

Health Policy and Management Requirements

PHC 6435	Perspectives on Health Insurance (Prev PHC 6114 Managed Care)	3
PHC 6151	Health Policies and Politics	3
PHC 6430	Health Economics I	3
PHC 6420	Health Care Law, Regulation and Ethics	3

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PUBLIC HEALTH PROGRAM

Master of Public Health (M.P.H.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
~~Public Health has rolling admissions and no set deadline. A minimum of six (6) weeks is necessary after a completed application is received in order for the application to be fully processed.~~
Domestic Applicants:
Fall: June 1
Spring: October 15
Summer: February 15

International Applications
Fall: January 2
Spring: June 1
Summer: January 2

* Global Health Practice admits in Fall term only.

Minimum Total Hours: 42
Program Level: Masters
CIP Code: 51.2201
Dept Code: DEA
Program (Major/College): MPH PH

Concentrations in:
See list below. Detailed descriptions are available at:
http://publichealth.usf.edu/programs_offered.html

Dual Degrees: See list below.

CONTACT INFORMATION

College: Public Health

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

Concentrations:
Accelerated Health Education (AHE) – *Only available through the BS/MSPH Program*
Behavioral Health (BHH)
Biostatistics (BST)
Environmental Health (EVH)
Epidemiology (EPY)
Epidemiology and Biostatistics (PEB)
Epidemiology and Global Communicable Diseases(EGD)
Epidemiology and Global Health (EGH)
Epidemiology and Maternal and Child Health (EMC)
Executive Program for Health Professionals (EPH)
Executive Program for MBA Physicians (EPP) *(this is being terminated)*
Global Communicable Diseases (TCD)
Global Disaster Management and Humanitarian Relief
Global Health Practice (GLO)
Global Health Informatics (GHI) *(this is being terminated)*
Health Care Organizations and Management (HCO)
Health Policies and Programs (HPP)

Maternal and Child Health (PMC)
Occupational Health (OCC)[7]
Occupational Medicine Residency (OMR)
Occupational Safety (SFM)
Public Health Administration (PHA)
Public Health Education (PHN)
Public Health Practice (PHO, PHP)[8,9]
Socio-Health Sciences (SHS)
Toxicology and Risk Assessment (TXY)

Accelerated Programs:

BS in Public Health and MPH in Public Health: Public Health Education Concentration (3+2 program)
. MS in Environmental Science & Policy And MPH/MSPH in Public Health
Fast Track MPH/MSPH for USF Honors Students

Dual Degrees Offered:

Public Health and Anthropology (M.P.H. with M.A. or Ph.D.) offered in the following concentrations:

- Environmental Health
- Epidemiology
- Global Communicable Disease
- Global Disaster Management and Humanitarian Relief
- Global Health Practice
- Health Care Organizations and Management
- Health Policies and Programs
- Maternal and Child Health
- Public Health Education
- Socio-Health Sciences

Public Health and Law (M.P.H./J.D.)—offered collegewide with Stetson Law School

Public Health and Medicine (M.P.H. / M.D.) for already enrolled USF College of Medicine Students

Public Health and Physical Therapy (D.P.T./M.P.H.)

- Designated for students in the DPT program in the School of Physical Therapy-M.P.H. availability collegewide

Public Health and Social Work (M.P.H. / M.S.W.)

- Behavioral Health
- Maternal and Child Health

Public Health (Occupational Health) and Nursing / Adult Nurse Practitioner (M.P.H. / M.S.)

Public Health and Biochemistry / Molecular Biology (M.P.H. / Ph.D.) offered in the following concentrations:

- Epidemiology
- Environmental Health
- Toxicology and Risk Assessment
- Global Communicable Disease

Masters International Peace Corps (MIPC) Program Offered in All Departments

The Masters International Peace Corps (MIPC) program is a college-wide program open to all students (excluding international students) within the COPH. MIPC students begin studies on campus, and then serve abroad with the Peace Corps for 27 months before returning to campus to complete graduation requirements for a Master of

[7] Only available to dual M.S. Adult Nursing Students
[8] Requires 3 years of health-related experience
[9] Offered (1) executive program and (2) online

Public Health (M.P.H.) degree. As an incentive, the College provides tuition and fee waivers for nine credit hours: the required Field Experience – 6 credit hours and the Special Project- 3 credit hours. MIPC students gain significant international practical experience and knowledge working in resource-poor settings, thereby enhancing their marketability for employment upon graduation

PROGRAM INFORMATION

The base of knowledge for public health comes from a variety of disciplines, ranging from social sciences to biological sciences and business, brought together by a commitment to improve the public's health. Thus, the field of public health is broad and is open to students from diverse academic disciplines including Health Sciences, Education, Engineering, Business, Communications, Mathematics, Social Sciences and Natural Sciences. Graduates are prepared for interdisciplinary focused public health professional careers as administrators, managers, educators, researchers, and direct service providers.

The College's five departments are: Community and Family Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global Health, and Health Policy and Management. In addition, Public Health Practice is a college-wide program. Core content is directly related to addressing and meeting public health issues.

The College accommodates the working professional as well as the full-time student by offering late afternoon and evening classes, online course delivery, partnerships with international schools to expand options, a variety of graduate certificates, and a professional M.P.H. for experienced health care professionals.

Accreditation:

Accredited by the Commission on Colleges of the Southern Association of College and Schools. The College is fully accredited by the Council on Education in Public Health and the Accreditation Board for Engineering and Technology.

DEPARTMENTS

Community and Family Health http://publichealth.usf.edu/cfh/

Adolescent health; Sexual Health; Reproductive and women's health; Family violence; Injury control and prevention; Aging and public health; Social marketing; Maternal and child health; Behavioral health; Health needs of special populations; Social determinants of health; Health disparities; Community-based interventions; Development; implementation and evaluation of programs to support healthy lifestyles; Application of technology in public health.

~~Adolescent health risk taking behavior, Community based prevention marketing, Reproductive and women's health, Health literacy, Health issues of developing countries, Family violence, Injury control and prevention, Social determinants of health, Aging and public health, and Social Marketing.~~

Environmental and Occupational Health http://publichealth.usf.edu/eoh/

Environmental and occupational toxicology and health risk assessment, Ergonomics and occupational heat stress, Occupational and environmental lung disease, inflammation and asthma, Environmental pollution assessment and modeling, bio-monitoring and management.

Epidemiology and Biostatistics http://publichealth.usf.edu/epb/

Epidemiology of dementia and Alzheimer's disease, Aging and occupational epidemiology, Cardiovascular disease epidemiology, Social epidemiology and public health geography, Cross-cultural studies, Cancer epidemiology, Perinatal epidemiology, Sleep disorders, Injury epidemiology, Osteoporosis and falls in aging population, Infectious disease epidemiology, Prevention science and prevention methodology, including design and analysis of preventive field trials, Prevention of conduct disorder and aggression, depression, and suicide and drug use/abuse, Analysis of behavior observation data, Multi-level and mixture modeling, Environmental statistics, Health outcome evaluation and medical surveillance, Maternal and child health epidemiology~~Detection of bioterrorism~~, Small area estimation, Missing data methods, Growth curve modeling, Risk assessment, and Bayesian inference.

Global Health http://publichealth.usf.edu/gh/

Surveillance of intestinal parasitic infections; Realtime syndromic surveillance of bioterrorist event; Biosafety of bloodborne pathogens; Serology of arboviruses; pathophysiology of arboviral infections; Health promotion against violence; Health promotion and education in HIV/AIDS; Surveillance of waterborne infections; Development of solar latrines for helminth eradication; Ecodynamics and environmental impact on health.

Health Policy and Management http://publichealth.usf.edu/hpm/

Health care financial management, Health economics, Quantitative methods in health services, Health insurance, Health law, Quality management, Performance improvement, Community health assessment, Organizational theory and behavior applied to health settings, Health information management, Health policy, and Strategic planning.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

All Applicants must take the Graduate Record Exam (except as noted below) or an equivalent taken within five years preceding application unless noted as exceptions and must meet the following criteria:

- shall have earned an undergraduate degree from an accredited institution;
- shall have earned a "B" average (3.0 on a 4 point scale) or better in all work attempted while registered as an upper division student working toward a baccalaureate degree **OR**[**]
- shall have a minimum Verbal Graduate Record Exam (GRE) General test score of 450 and a minimum Quantitative Graduate Record Exam (GRE) test score of 550**[*]
- In lieu of the GRE, only applicants to the Department of Health Policy and Management may submit a minimum GMAT score of 500 for the M.P.H..
- An MCAT score may be submitted in lieu of the GRE. A mean of 8 is required. The Department of Epidemiology and Biostatistics does not permit the substitution of the MCAT for the GRE.

Meeting of these criteria per se shall not be the only basis for admission.

** Health Care Organization and Management; Public Health Policies and Programs; Public Health Administration: Minimum GPA of 3.0 upper division undergraduate AND Preferred GRE of 450 Verbal and 550 Quantitive.

***~~NOTE:~~ **Some concentration areas require higher GRE subscores.**

~~Behavioral Health, Health Care Organization and Management; Public Health Policies and Programs; Public Health Administration:Minimum GPA of 3.0 upper division undergraduate AND minimum GRE of 450 Verbal and 550 Quantitive.~~

DEGREE PROGRAM REQUIREMENTS

Master of Public Health (M.P.H.): http://publichealth.usf.edu/mph.html

All M.P.H. students are required to successfully complete a minimum of 42 credits plus field experience:
Students must complete the Program core requirements and then the requirements as specified for the Concentration.

~~**Five college core courses** **15 credits**~~

~~Biostatistics I,~~
~~Epidemiology,~~
~~Principles of Health Policy and Management;~~
~~Environmental and Occupational Health, and~~
~~Social and Behavioral Sciences Applied to Health~~

Program Core Courses	15 credits
PHC 6000 Epidemiology	3
PHC 6050 Biostatistics I	3
PHC 6102 Principles of Health Policy and Management	3
PHC 6357 Environmental and Occupational Health	3
PHC 6410 Social and Behavioral Sciences Applied to Health	3

Concentration
Students select from one of the concentrations listed on the following pages.

Comprehensive Exam
Refer to concentration for specific requirements. In many instances the Culminating Experience serves in lieu of the comprehensive exam.

BEHAVIORAL HEALTH EDUCATION (BHH)

Offered from the Department of Community & Family Health

The~~is~~ M.P.H. in Public Health with a Concentration in ~~(~~Behavioral Health~~ Concentration)~~ ~~degree program~~ is offered jointly with the USF Louis de la Parte Florida Mental Health Institute with a focus upon behavioral health (mental health and substance abuse) services. This concentration examines community and family issues in evaluation of systems performance and outcomes of public mental health and substance abuse services as well as children's mental health, aging and mental, HIV and mental health services, and the planning, evaluation and accountability of mental health and substance abuse services. Graduates are prepared to work in mental health, alcohol and drug abuse organizations.

Concentration Admission Information

- Suggested/preferred undergraduate majors: Undergraduate majors may be admitted from a wide range of backgrounds, although majors from the health sciences such as nursing, pre-med and allied health sciences, and from the social and behavioral sciences (psychology, social work, anthropology, educational psychology, and sociology) are especially appropriate.
- Work experience: Work experience in the field of public health, health, psychology, nursing, counseling, education, social works, etc., is considered extremely desirable.
- Minimum undergraduate GPA 3.0 in upper division course work **OR**
- Verbal GRE score: minimum preferred 500
- Quantitative GRE score: minimum preferred 550
- Three letters of recommendation from academic and/or related professional sources.

Total Program requirements with this concentration: **45** hours minimum

Prerequisites:	(6 hours)
PHC 4101 Introduction to Public Health	3
HSC 4551 Survey of Human Disease	3

College Core **15 hours**
See program information above
During 2nd semester meet with advisor and begin planning field experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements	15 hours minimum
MHS 7740 Survey of Mental Health Planning, Evaluation, and Accountability	3
PHC 6542 Epidemiology of Mental Disorders	3
PHC 6543 Foundations in Behavioral Health Systems	3

PHC 6715 Research Foundation in Public Health 3
PHC 6031 Comorbidity of Mental and Physical Disorders 3

Electives: 6 hours minimum
(Examples of common elective options)
PHC 6413 Family & Community Violence in Public Health 3
PHC 6549 HIV & Mental Health 3
PHC 6547 Case Management in Community Mental Health 3
HSC 6552 Community-Based Prevention in Behavioral Health 3
PHC 6240 Cultural Competency in Children's Mental Health 3
PHC 6934 End of Life Care 3
PHC 6544 Children's Mental Health Services 3
PHC 6545 Evaluation in Mental Health 3
PHC 6934 Evidence-Based Practice in Behavioral Health 3
PHC 6548 Grant Writing in Mental Health 3
PHC 6401 Homelessness: Implications for Behavioral Healthcare 3
PHC 6934 Substance Abuse Treatment Services 3
MHS 6640 Mental Health Informatics 3
PHC 6934 Financing, Economics, and Policy in Behavioral Health 3

Culminating Experiences: **9 hours**

Supervised Field Experience:
PHC 6945 Supervised Field Experience 3-12
Students with little or professional experience 6 min
Students with relevant professional experience 3 min
Professional experience would include at least 2 years of supervised work at a mental health, alcohol, or drug abuse agency in a variety of specialty areas within behavioral health services. These experiences might include work in program planning, program evaluation, community prevention and education, etc.

Special Project
PHC 6977 Special Project 3

Capstone Course:
PHC 6936 Public Health Capstone Course 3

BIOSTATISTICS (BST)

Offered from the Department of Epidemiology and Biostatistics

The MPH program in Public Health with a Concentration in Biostatistics provides educational opportunities for students to acquire a broad knowledge in biostatistics and apply biostatistical methods to public health problems. The MPH program emphasizes the applications of quantitative methods to a broad range of public health problems. The intended audience of the program includes individuals with strong quantitative background and interests in a professional career in a public health setting. The program trains students to be able to design studies, to implement data collection and management plans, to formulate analysis plans and conduct analysis, and to report and communicate analytical results. The program will also provide students with knowledge in statistical and computational methods and public health.
Prerequisites

Concentration Admission Information

- Suggested/preferred undergraduate majors: mathematics, statistics, computer sciences, natural sciences, biological sciences, engineering, medical sciences, environmental sciences, management information systems.

- Prerequisite undergraduate courses: linear algebra, calculus, basic computer skills (e.g. operating system, internet, word processing, spread sheet).
- Work experience: Prior work experience is preferred, but not required.
- For admission requirements see the MPH Degree page.
- Other criteria: Academic background, goal statement, student's academic interest, references and availability of faculty and facility resources are also considered as part of the entrance evaluation.

Total Program requirements with this concentration: **46** hours minimum

Prerequisites (Not included in total program hours) **(6 hours)**
Public health course prerequisites:
- HSC 4551 Survey of Human Diseases
- PHC 4101 Introduction to Public Health
- Or an equivalent course is required for students who lack training in public health or biological sciences.

College Core* **15 hours**
See program information above
During 2nd semester meet with advisor and begin planning field experience. See http://health.usf.edu/publichealth/academicaffairs/fe/
*Students who have previously taken introductory statistics courses and have a strong mathematical background must take the more advanced level biostatistics course "PHC 6057: Biostatistical Inference I" instead of "PHC 6050: Biostatistics I". However, if a student does not have this prior training in introductory statistics coursework then she/he can take both PHC 6050 Biostatistics I and PHC 6057 Biostatistical Inference I.

Concentration Requirements	**15 hours**
PHC 6053 Categorical Data Analysis	3
PHC 6051 Biostatistics II	3
PHC 6060 Biostatistics Case Studies and Consulting I	3
HSC 6055 Survival Analysis	3
PHC 6020 Design and Conduct of Clinical Trials	3

Electives **9 hours**
- Examples of common elective options
  - HSC 6054 Design and Analysis of Experiments for Health Researchers
  - HSC 6056 Survey Sampling Methods in Health Sciences
  - PHC 6701 Computer Applications for Public Health Researchers
  - PHC 6xxx Public Health Data Base Management

Culminating Experiences **7-18 hours**
PHC 6945 Supervised Field Experience 1-12
No experience, or less than two years using biostatistical principles in a work setting: 3 credits minimum. Two or more years experience using biostatistical principles in a work setting: 1 credit minimum.

PHC 6977 Special Project	3
PHC 6936 Capstone Course	3

ENVIRONMENTAL HEALTH (EVH)

Offered from the Department of Environmental and Occupational Health
Students in the MPH program in Public Health with a Concentration in Environmental Health gain a broad perspective in the public health sciences and social sciences, and a fundamental education in the

technical sciences with an emphasis on the protection and improvement of our environmental and public health. Students enrolled in the MPH program are likely to be recent graduates of a biological science, environmental science or medicine undergraduate program; employees of county or state agencies; in a military education program; or involved in environmental health & safety management with a company. The motivation for an MPH student to complete an advanced degree is to become an environmental scientist or manager; and increased competence as an environmental scientist or manager; or as pre-medical training or an opportunity to take and pass the US medical boards. Many MPH students are now or will become community leaders, for example, as U.S. Armed Services or Public Health Service Officers; as State Health Officers; or as Agency or Laboratory Directors.

Concentration Admission Information

• Suggested/preferred undergraduate majors: biological, physical or chemical science; military science; engineering; nursing or medicine; environmental health and technology; environmental science and policy.
• Prerequisite undergraduate courses: introductory college-level algebra, chemistry, and biology (or related course); calculus and organic chemistry preferred.
• Work experience: None required: two years experience in environmental health preferred.
• Minimum undergraduate GPA: 3.0:
• ~~o~~ Verbal GRE score: minimum 450
• ~~o~~ Quantitative GRE score: minimum 550
• ~~o~~ GRE Score may be substituted with an MCAT Score averaging eight or higher.
• International applicants from non-English-speaking countries must provide a minimum TOEFL score of 213 (computer-based test) or 550 (written test), taken within 2 years of the desired term of entry.

Total Program requirements with this concentration: 45 hours minimum

Prerequisites (not included in total GPA hours) **(6 hours)**
PHC 4101 Introduction to Public Health 3
HSC 4551 Survey of Human Diseases 3

College Core **15 hours**
See program information above
During 2nd semester meet with advisor and begin planning field experience.
See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **16 hours minimum**
PHC 6301 Water Pollution and Treatment 3
PHC 6310 Environmental and Occupational Toxicology 3
PHC 6303 Community Air Pollution 3
PHC 6512 Vectors of Human Disease 3
PHC 6305 Environmental Analytical Lab 3
PHC 6930 Public Health Seminar 1

Electives **6 hours minimum**
Suggested Electives Related to Environmental Health:
PHC 6934 Food Safety ~~(~~ 3~~)~~
PHC 6510 Exotic & Emerging Infectious Diseases ~~(3)~~ 3
PHC 6934 Water Resources Mngt Principles ~~(3)~~ 3
PHC 6354 Safety and Health Administration ~~(2)~~ 2
PHC 6353 Environmental Risk Assessment ~~(2)~~ 2
PHC 6313 Indoor Environmental Quality ~~(2)~~ 2
PHC 6422 Environmental Health Law ~~(2)~~ 2
PHC 6934 Water & Wastewater Analysis Laboratory ~~(1)~~ 1

Culminating Experiences **8 hours minimum**
PHC 6945 Supervised Field Experience ~~(~~ 2-12 credits~~)~~

Students with little or no professional experience: 3 hours minimum. Students with two or more years of professional experience in an environmental health field or as an environmental health educator: 1 hour minimum.

PHC 6977 Special Project 3
PHC 6936 Public Health Capstone Course 3

EPIDEMIOLOGY (EPY)

Offered from the Department of Epidemiology & Biostatistics

The MPH program in Public Health with a Concentration in Epidemiology is a professional degree, intended for individuals who wish to obtain a broad understanding of public health, with an emphasis on epidemiologic principles and methods. The knowledge and skills obtained through the program will enable graduates to characterize the health status of communities, critically evaluate research on determinants of health-related events, formulate strategies to evaluate the impact of health related interventions and foster the application of epidemiologic methods for health promotion/disease prevention activities at the community level.

Concentration Admission Information

- Suggested/preferred undergraduate majors: Mathematics, statistics, computer sciences, natural sciences, biology, social sciences, nursing, medicine, dentistry, veterinary medicine, pharmacology, gerontology, allied health professions, environmental health, management information systems.
- Prerequisite undergraduate courses: College algebra, basic computer skills (e.g. operating system, internet, word processing, spread sheet), human structure and function, human health biology. Calculus is recommended.
- Work experience: Prior work experience is preferred, but not required.
- For admission requirements see the MPH Degree page.
- Other criteria: Academic background, goal statement, student's academic interests, references and availability of faculty and facility resources are also considered as part of the entrance evaluation.

Total Program requirements with this concentration: ~~43~~49 hours minimum

Prerequisites (Not included in total program hours ~~(6 hours)~~
PHC 4101 Introduction to Public Health 3
HSC 4551 Survey of Human Diseases 3

College Core 15 hours
See program information above

During 2nd semester meet with advisor and begin planning field experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements 18 hours
PHC 6051 Biostatistics II 3
PHC 6010 Epidemiology Methods I 3
PHC 6011 Epidemiology Methods II 3
PHC 6701 Computer Applications for Public Health Researchers 3
PHC 6190 Public Health Database Management 3
PHC 6053 Categorical Data Analysis ~~-~~3

Electives 9 hours
For Emphasis Area Support Courses, students will select additional coursework from the following categories:

- o 1 Course in Infectious Disease Epidemiology
- o 1 Course in Chronic Disease Epidemiology

o 1 Additional Elective

Culminating Experiences **~~1~~7-18 hours**

PHC 6945 Supervised Field Experience ~~(~~ 1-12~~):~~

No experience, or less than two years using epidemiologic principles in a work setting: 3 credits minimum, 6 preferred. Two or more years experience using epidemiologic principles in a work setting: 1 credit minimum.

PHC 6977 Special Project 3

PHC 6936 Public Health Capstone Course 3

EPIDEMIOLOGY AND BIOSTATISTICS (PEB)

Offered from the Department of Epidemiology and Biostatistics

This dual concentration program is a professional degree, intended for individuals who wish to obtain a broad understanding of public health, with a strong background in analytical skills and methods. The knowledge and skills obtained through this program will enable graduates to seek positions that characterize the health status of communities, critically evaluate research on determinants of health-related events, formulate strategies to evaluate the impact of health related interventions and foster the application of epidemiologic and biostatistical methods for health promotion/disease prevention activities.

Concentration Admission Information

- Suggested/preferred undergraduate majors: mathematics, statistics, computer sciences, natural sciences, biological sciences, engineering, medical sciences, environmental sciences, management information systems.
- Prerequisite undergraduate courses: linear algebra, calculus, basic computer skills (e.g. operating system, internet, word processing, spread sheet).
- Work experience: Prior work experience is preferred, but not required.
- For admission requirements see the MPH Degree page.
- Other criteria: Academic background, goal statement, student's academic interest, references and availability of faculty and facility resources are also considered as part of the entrance evaluation.

Total Program requirements with this concentration: **55** hours minimum

Prerequisites (not included in total GPA hours) **(6 hours)**

PHC 4101 Introduction to Public Health -3

HSC 4551 Survey of Human Diseases 3

College Core **15 hours**

See program information above

During 2nd semester meet with advisor and begin planning field experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **27 hours**

PHC 6051 Biostatistics II 3

PHC 6701 Computer Applications for Public Health Researchers 3

PHC 6053 Categorical Data Analysis 3

HSC 6055 Survival Analysis 3

PHC 6020 Design and conduct of Clinical Trials 3

PHC 6010 Epidemiology Methods I 3

PHC 6011 Epidemiology Methods II 3

PHC 6190 Public Health Database Management 3

PHC 6060 Case Studies and Collaboration I 3

Electives **6 hours**

For Emphasis Area Support Courses, students will select additional coursework from the following categories:

1 Course in Infectious Disease Epidemiology
1 Course in Chronic Disease Epidemiology

Culminating Experiences **7-12 hours**
PHC 6945 Supervised Field Experience ~~(~~ 1-6~~)~~

PHC 6977 Special Project 3
Must conduct data analysis project with both Epidemiology and Biostatistics features

PHC 6936 Public Health Capstone Course 3

Epidemiology and Global Communicable Diseases Concentration

Offered from the Department of Epidemiology and Biostatistics and the Department of Global Health
This dual concentration program is a professional degree, intended for individuals who wish to obtain a solid understanding of public health epidemiological practices, principles and applications, with an emphasis in global communicable disease issues, policies and programs. MPH dual concentration graduates will be prepared for positions in private agencies, non-governmental organizations (NGOs), international, federal and state health agencies that participate in the study of the spread and control of communicable diseases as well as policy and practice involved with the global aspects of epidemiologic issues.

As we face complex issues caused by rapid climate change, population growth, and highly mobile societies, outbreaks of communicable diseases, resulting in morbidity and mortality are an expanding threat to populations worldwide. Graduates from this dual concentration will have the tools to address epidemiologic spread of disease as well as the variety, frequency and location of vector borne and other communicable diseases. This dual program will provide graduates with the skills needed to function effectively in international as well as national and local public health arenas with knowledge of the global impact of communicable disease through epidemiological surveillance, and prevention programs to serve at risk populations.

Concentration Admission Information
Refer to the general MPH Program Admission information.
Students in this program require 2 advisors; One Epi., One Global Health.

Total Program requirements with this concentration: **75** hours minimum

College Core **15 hours**
See program information above

During 2nd Semester meet with Advisors and begin planning Field Experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **36 hours**
Global Comm. Diseases Required Courses (18)
PHC 6251 Disease Surveillance and Monitoring 3
PHC 6510 Emerging infectious Diseases 3
PHC 6560 The Public Health Laboratory System 3
PHC 6511 Public Health Immunology 3
PHC 6512 Vectors of Human Diseases 3
PHC 6513 Public Health Parasitology 3

Epidemiology Required Courses (18)
PHC 6051 Biostatistics II 3
PHC 6010 Epidemiology Methods I 3
PHC 6011 Epidemiology Methods II 3

PHC 6701 Computer Applications for Health Researchers 3
PHC 6190 Public Health Database Management 3
PHC 6053 Categorical Data Analysis 3

Electives **15 hours**
Examples of common Global Health options (~~9~~6)
PHC 6562 Microbiology for Health Care Workers
PHC 6314 Infection Control Program Design
PHC 6517 Infectious Disease Prevention Strategies
PHC 6514 Infectious Disease Control in Developing Countries
PHC 6934 ~~Public Health Laboratory Practicum~~Laboratory Techniques in Public Health

Epidemiology options (~~6~~9)
1 course in Infectious Disease Epidemiology
1 course in Chronic Disease Epidemiology
1 additional Departmental course from the following areas:
Infectious Disease Epidemiology
Epidemiology Methods or Biostatistics

Culminating Experiences **9 hours**
PHC 6945 Supervised Field Experience~~(~~ 3 hours minimum~~)~~
Field Experience must be Epidemiologic in content Or Peace Corp Experience.
PHC 6977 Special Project 3
Special Project must be epidemiological and have 2 readers (one from each dept.).
PHC 6936 Capstone Course 3

EPIDEMIOLOGY AND GLOBAL HEALTH (EGH)

Offered from the Department of Epidemiology and Biostatistics and the department of Global Health
In addition to the overall Master of Public Health degree competencies, Epidemiology and Global Health Practice dual concentration graduates will be able to meet the competencies from both the Epidemiology MPH and the Global Health Practice MPH.

Concentration Admission Information
Refer to the general MPH Program Admission information.
Students in this program require 2 advisors; One Epi., One Global Health.

Total Program requirements with this concentration: ~~63~~ 66 hours minimum

College Core **15 hours**
See program information above
During 2nd Semester meet with Advisors and begin planning Field Experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **30 hours**
Global Health Required Courses ~~(12)~~ (12)
PHC 6115 Global Health Principles and Contemporary Issues 3
PHC 6112 Global Health Assessment Strategies 3
PHC 6106 Global Health Program Development and Administration 3
PHC 6442 Global Health Applications in the Field 3

Epidemiology Required Courses (18)
PHC 6051 Biostatistics II 3
PHC 6010 Epidemiology Methods I 3
PHC 6011 Epidemiology Methods II 3
PHC 6701 Computer Applications for Health Researchers 3
PHC 6190 Public Health Database Management 3

PHC 6053 Categorical Data Analysis 3

Electives **9 hours**
Emphasis area options:
PHC 6074 Epi. Of Diseases of Maj. PH Importance or Chronic Disease course 3
PHC 6934 Infectious Disease Epidemiology 3
one of the following 3
PHC 6511 Public Health Immunology ~~3~~ OR
PHC 6513 Public Health Parasitology ~~3~~ OR
PHC 6512 Vectors of Human Disease ~~3~~

Culminating Experiences **12 hours**
PHC 6945 Supervised Field Experience ~~(~~ 6 hours minimum~~)~~
Field Experience must be international and Epidemiologic in content Or Peace Corp Experience.
PHC 6977 Special Project 3
Special Project must be epidemiological and have 2 readers (one from each dept.).
PHC 6936 Capstone Course 3

EPIDEMIOLOGY AND MATERNAL AND CHILD HEALTH (EMC)

Offered from the Department of Epidemiology and Biostatistics and the Department of Community and Family Health

In addition to the overall Master of Public Health degree competencies, Epidemiology and Maternal and Child Health dual concentration graduates will be able to meet the competencies from both the Epidemiology MPH and the Maternal and Child Health MPH.

Concentration Admission Information
Refer to the general MPH Program Admission information.
Students in this program require 2 advisors; One Epi., One Community and Family Health

Total Program requirements with this concentration: **69** hours minimum

College Core **15 hours**
See program information above
During 2nd semester meet with advisor and begin planning field experience. See http://health.usf.edu/publichealth/academicaffairs/fe

Concentration Requirements **30 hours**
Maternal and Child Health Required Courses (12)
PHC 6530 Maternal and Child Health Issues and Concepts 3
PHC 6537 Case Studies in MCH Programs, Policies, and Research 3
PHC 6505 Program Planning Methods in Community Health 3
PHC 6708 Evaluation Methods in Community Health 3
Epidemiology Required Courses (18)
PHC 6051 Biostatistics II 3
PHC 6010 Epidemiology Methods I 3
PHC 6011 Epidemiology Methods II 3
PHC 6053 Categorical Data Analysis 3
PHC 6701 Computer Applications for Public Health Researchers 3
PHC 6591 Reproductive and Perinatal Epidemiology 3

Electives **12 hours**
Emphasis Area Support Courses must be selected from the following categories:
o Epidemiology (6 credit hours)
o MCH (6 credit hours)

Culminating Experiences **12-18 hours**
PHC 6945 Supervised Field Experience (6-12)
PHC 6977 Special Project 3
PHC 6936 Capstone Course 3

EXECUTIVE PROGRAM FOR HEALTH PROFESSIONALS (EPH)

Offered from the Department of

The Executive Weekend MPH program is a unique and customized program to serve the needs of the busy health care practitioner. Past and current students have represented many health care fields and specialties including physicians, nurses, dentists, pharmacists, occupational therapists and many more. This diversity provides students with the opportunity to meet and collaborate with colleagues from other specialties and geographic areas while enhancing the student's ability to work in multi-disciplinary teams. Students gain strategic vision while participating on diverse teams with other students averaging three to 33 years of work experience in public health. Courses in this format are intensive, in-depth and offered one weekend a month on the Tampa campus. Small class sizes guarantee students individual attention and rich face to face interactions with experienced peers and faculty. Due to the customized nature of this program, additional fees are assessed and enrollment is limited. For more information, visit: http://publichealth.usf.edu/php/home.html.

Total Program requirements with this concentration: **43** hours minimum
College Core **15 hours**
See program information above
Concentration Requirements
Refer to Public Health Practice program below
Electives
Culminating Experiences
Capstone Course

GLOBAL COMMUNICABLE DISEASES (TCD)

Offered from the Department of Global Health

This concentration provides an opportunity for science-oriented students with an interest in communicable diseases to receive specialized training in the recognition, identification, diagnosis, surveillance, control, and prevention of public health problems related to communicable diseases throughout the world, with particular emphasis on the problems of Florida and underdeveloped nations. Several course offerings and areas of emphasis focusing on infection control have been added to this program to allow public health practitioners to expand their knowledge of infection control practices and procedures, particularly in hospital settings. Preference for admission is given to students with a background or demonstrated skills in the biological sciences. Prerequisites may be required.

Concentration Admission Information

- Suggested/preferred undergraduate majors: Biology, Zoology, Microbiology, Immunology
- Prerequisite undergraduate courses: None. Suggested undergraduate courses include general chemistry with laboratory, biology or zoology with laboratory, microbiology with laboratory, biochemistry with laboratory, immunology
- Work experience: None
- Minimum undergrad GPA: 3.0 OR Minimum GRE Score: Verbal 450 + 550 Quantitative
- Other criteria: International applicants - TOEFL of 550 for paper-based instrument or 213 for computer-based instrument
- Substitutions: Applicants may substitute an MCAT mean score of 8 for the required GRE Scores

Total Program requirements with this concentration: ~~58~~ **48** hours minimum

Pre-requisites (Not included in program total hours ~~(6~~ **3**
hours)
Public health course prerequisite:
o HSC 4551 Survey of Human Diseases (3) OR

o Equivalent education or work experience.

College Core **15 hours**

See program information above

During 2nd Semester meet with Advisor and begin planning Field Experience. see http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **18 hours**

PHC 6251 Disease Surveillance and Monitoring 3
PHC 6510 Emerging Infectious Diseases 3
PHC 6560 The Public Health Laboratory System 3
PHC 6511 Public Health Immunology 3
PHC 6512 Vectors of Human Diseases 3
PHC 6513 Public Health Parasitology 3

Electives **6 hours**

Examples of common elective options

- PHC 6562 Microbiology for Health Care Workers
- PHC 6314 Infection Control Program Design
- PHC 6517 Infectious Disease Prevention Strategies
- PHC 6514 Infectious Disease Control in Developing Countries
- PHC 6934 Public Health Laboratory Practicum
- PHC 6934 Laboratory Techniques in Public Health

Culminating Experiences **9 hours**

PHC 6945 Supervised Field Experience 3
PHC 6977 Special Project 3
PHC 6936 Capstone Course 3

GLOBAL DISASTER MANAGEMENT AND HUMANITARIAN RELIEF

Offered from the Department of Global Health

The field of disaster management and humanitarian relief plays an important role in global health, especially in areas of armed conflict and natural disasters. With the increase in weapons of mass destruction, including nuclear and biological threats from terrorist groups and radical states, the need for formal training and education has increased. Local and international organizations, governments and United Nation agencies are in need of highly trained professionals to manage and direct programs to reduce the global public health threats that continue to plague us. Where and when the next tsunami or earthquake will strike, or how the next terrorist group will respond is unknown. But the logic behind professionally mitigating and preparing for one of these incidences places us in a stronger position to respond.

This concentration builds on the existing framework of the College of Public Health core courses, field experience and special project. Combining this framework with the existing disaster management and humanitarian courses will provide graduates with the ability to recognize, assess, implement and evaluate a global or local disaster.

Concentration Admission Information

- science, engineering, management, administration, international, business, public health
- Work experience: None required; however disaster management or humanitarian assistance, especially in a global setting, will be considered when determining the number of credits required for the Field Experience.
- Minimum undergraduate GPA: Upper division 3.0 minimum
- Minimum GRE score: Verbal 450, Quantitative 550
- Other criteria: Two letters of recommendation
- Applicants that completed courses in either the Graduate Certificate in Disaster Management or in Humanitarian Assistance as a former non-degree seeking student may only transfer 12 credits into the MPH program.

Total Program requirements with this concentration: **48 hours minimum**

College Core **15 hours**
See program information above
During 2nd Semester meet with Advisor and begin planning Field Experience. see http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **24 hours**
PHC 6230 Foundations of Humanitarian Assistance 3
PHC 6231 Organizing Emergency Humanitarian Action 3
PHC 6232 From Emergency to Development and Prevention 3
PHC 6233 Current Challenges in the Humanitarian Field 3
PHC 6183 Overview of US & International Disaster Management 3
PHC 6185 Disaster Preparedness & Planning Concepts 3
PHC 6184 Disaster Recovery 3
PHC 6186 Public Health Emergencies in Large Populations 3

Culminating Experiences **9-12 hours**
PHC 6945 Supervised Field Experience 3-6
PHC 6977 Special Project 3
PHC 6936 Public Health Capstone Course 3

GLOBAL HEALTH PRACTICE (GLO)

Offered from the Department of Global Health (Fall term admission only)
This concentration will prepare students for achieving a professional position in the field of international public health, such as with international, bilateral, governmental and non-governmental agencies. The curriculum focuses on assessment and intervention strategies useful in resolving health problems of primarily undeveloped countries. Global Health Practice students have an opportunity to select courses that focus on areas such as epidemiology, maternal and child health, management and socio-cultural health. Students who choose to combine this program with the Peace Corps Master's International program will be able to obtain a long-term field placement experience that will enhance their marketability for employment.

Concentration Admission Information
- Suggested/preferred undergraduate majors: none
- Work experience: not required
- Minimum undergraduate GPA: 3.0 OR Minimum GRE score: Verbal 450 Quantitative 550
- An MCAT Mean of 8 may be substituted for the GRE
- Other criteria: Minimum technology requirements include intermediate computer skills, two letters of recommendation, resume, and goal statement.

Total Program requirements with this concentration: **51** hours minimum

College Core **15 hours**
See program information above
During 2nd Semester meet with Advisor and begin planning Field Experience. see http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **12 hours**
PHC 6764 Global Health Principles and Contemporary Issues 3
PHC 6761 Global Health Assessment Strategies 3
PHC 6106 Global Health Program Development and Administration 3
PHC 6442 Global Health Applications in the Field 3

Electives **12 hours**

Courses not included on the list below may be approved by the student's advisor.
PHC 6111 Global Primary Health Care Strategies
PHC 6146 Health Services Planning and Evaluation
PHC 6147 Managing Quality in Health Care (2)
PHC 6511 Public Health Immunology
PHC 6512 Vectors of Human Disease
PHC 6513 Public Health Parasitology
PHC 6074 Epidemiology of Diseases of Major Public Health Importance
PHC 6700 Research Methods in Epidemiology
PHC 6934 Intermediate Infectious Disease Epidemiology
PHC 6535 International Maternal and Child Health
PHC 6765 International Health Education
PHC 6536 Population and Community Health
PHC 6532 Women's Health Issues in Public Health
PHC 6121 Vaccines 3

Culminating Experiences **12 hours**
PHC 6945 Supervised Field Experience (eight weeks abroad) 6
PHC 6977 Special Project 3
PHC 6936 Public Health Capstone Course 3

HEALTH CARE ORGANIZATIONS AND MANAGEMENT (HCO)

Offered from the Department of Health Policy and Management

The Health Care Organizations and Management program is designed for individuals interested in the management of hospitals, group practices, health departments, and other provider organizations. The program focuses on the structure and management of health care organizations. Students develop knowledge and skills in management science, leadership, and decision-making. The curriculum does not require students to develop all health administration quantitative and analytic skill areas typically required of senior management positions.

Concentration Admission Requirements:

- Prerequisite undergraduate courses: Micro-economics, Accounting
- Undergraduate majors are diverse and include: Life sciences, social sciences, business, or health professions.
- Work experience: Preferred, but not required.
- Minimum undergrad GPA: 3.0 upper division (some exceptions made if GRE exceeds minimum requirements) **AND**
- Verbal GRE Score: preferred minimum 450 **AND**
- Quantitative GRE Score: preferred minimum 550
- In lieu of the GRE, only applicants to the Department of Health Policy and Management may submit a minimum GMAT score of 500 for the MHA, MPH, or MSPH.

Total Program requirements with this concentration: **42** hours minimum

College Core **15 hours**
See program section above
During 2nd Semester meet with Advisors and begin planning Field Experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **18 hours minimum**
PHC 6151 Health Policy and Politics 3
PHC 6180 Health Services Management 3
PHC 6430 Health Economics I 3
PHC 6160 Health Care Financial Management 3
Additional Requirements (choose two)
~~PHC 6160 Health Care Financial Management 3~~

PHC 6181 Org Behavior in Health Services	3
PHC 6148 Strategic Planning & Hlth Care Marketing	3
PHC 6196 Info Systems in Health Care Mgt	3

Electives ~~5-6~~ **2-3 hours minimum**

Examples of common elective options:
- o PHC 6146 Health Services Planning and Evaluation (3)
- o PHC 6147 Managing Quality in Health Care (2)
- o PHC 6435 Perspectives on Health Insurance (3)
- o PHC 6420 Health Care Law, Regulation and Ethics (3)

Culminating Experiences **7 hours minimum**

PHC 6945 Field Experience ~~1-12~~ 1-6
- o Students with little or no professional experience: 3 hours minimum.
- o Students with relevant professional experience: 1-3 hours minimum.
- o Students with substantial work experience can negotiate a reduced number of hours with their advisor (e.g., 1 or 2 hours) if the student has meaningful experience (involving decision-making) in a health care or related organization

PHC 6977 Special Projects	3
PHC 6936 Capstone Course	3
Comprehensive Exam	

HEALTH POLICIES AND PROGRAMS (HPP)

Offered from the Department of Health Policy and Management

The MPH in Public Health Program with a Concentration in Health Policy and Programs is designed for individuals interested in development, analysis and evaluation of public policy for health services and public health programs. Students develop knowledge of theory and methods in policy analysis and program evaluation. Students are prepared to pursue policy analyst and program evaluation positions with federal, state or local agencies or with professional associations.

Concentration Admission Requirements:

- Prerequisite undergraduate courses: Micro-economics, Accounting.
- Undergraduate majors are diverse and include: Life sciences, social sciences, business, or health professions.
- Work experience: Preferred, but not required.
- Minimum undergraduate GPA: 3.00 upper division (some exceptions made if GRE exceeds minimum requirements) **AND** Verbal GRE Score: minimum 450 **AND** Quantitative GRE Score: minimum 550
- In lieu of the GRE, only applicants to the Department of Health Policy and Management may submit a minimum GMAT score of 500 for the MHA, MPH, or MSPH.

Total Program requirements with this concentration: ~~42~~ **43** hours minimum

College Core **15 hours**

See program section above

During 2nd Semester meet with Advisors and begin planning Field Experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **18 hours minimum**

PHC 6151 Health Policy and Politics	3
PHC 6430 Health Economics I	3
PHD 6760 ~~Heatlh Program Evaluation~~ Research Methods in Public Health Programs	3
~~PHC 6193 Qualitative Methods in Communith Heatlh Research~~	~~3~~
PHC 6715 Research Foundations in Public Health	3

Additional Requirements (choose two)

PHC 6104 Management of Public Health Programs	3
~~PHC 6191 Quantiatiate Analysis in Heatlh Services~~	~~3~~
PHC 6195 Public Health Data, Informaiton & Decision Making	3

PHC 6421 Public Health Law and Ethics 3
PHC 6435 Perspectives on Health Insurance 4

Electives ~~6~~ 3 **hours**

Examples of common elective options
o PHC 6104 Management of Public Health Programs (3)
o PHC 6148 Strategic Planning and Health Care Marketing (3)
o PHC 6114 Managed Care (2)
o PHC 6420 Health Care Law, Regulation and Ethics (3)

Culminating Experiences **7 hours**

PHC 6945 Supervised Field Experience ~~1-12~~ 1-6
- o Students with little or no professional experience: 3 hours minimum.
- o Students with relevant professional experience: 1 hour minimum.
- o Students with substantial work experience can negotiate a reduced number of hours with their advisor (e.g., 1 or 2 hours) if the student has meaningful experience (involving decision-making) in a health care or related organization

PHC 6977 Special Projects 3
PHC 6936 Public Health Capstone Course 3

Comprehensive Exam

MATERNAL AND CHILD HEALTH (PMC)

Offered from the Department of Community and Family Health

The MPH in Public Health with a Concentration in Maternal and Child Health prepares health professionals and individuals in related fields for leadership roles in community based organizations that focus on major public health problems of women, children and families, especially among culturally diverse and underserved populations. Using multidisciplinary approaches, students develop analytical, advocacy, programmatic and evaluative skills to address health disparities, and to emphasize health promotion and disease prevention among populations in need.

Concentration Admission Information

- Suggested/preferred undergraduate majors: Undergraduate majors may be admitted from a wide range of backgrounds, although majors from the health sciences such as nursing, social work, counseling, pre-med, the natural sciences are desirable.
- Work experience: Work experience in the field of public health, health or natural sciences, counseling, communications, social work, etc. is considered extremely desirable.
- Minimum undergrad GPA: 3.0 in upper division courses OR
- Verbal GRE score: minimum 500; Quantitative GRE score: minimum 550
- Other criteria: Three letters of recommendation from academic and/or related professional sources,career goals statement

Total Program requirements with this concentration: **51 hours minimum**

Prerequisites (Not included in total program hours)
(6 hours)

Public health courses:
PHC 4101 Introduction to Public Health (3)
HSC 4579 Foundations of Maternal and Child Health (3)

College Core **15 hours**

See program information above
During 2nd semester meet with advisor and begin planning field experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **18 hours**

PHC 6530 Maternal and Child Health I: Issues and Concepts 3
PHC 6537 Maternal and Child Health II: Case Studies in MCH Programs Policies & Research 3
PHC 6197 Community Health Data Sources and Technology 3

PHC 6715 Research Foundations in Public Health 3
PHC 6505 Program Planning in Community Health 3
PHC 6708 Evaluation Methods in Community Health **3**

Electives **6 hours**

Examples of common elective options

PHC 6523 Policies and Practices in Maternal and Child Nutrition (3)
PHC 6532 Women's health Issues in Public Health (3)
PHC 6590 Reproductive Health Trends and Issues (3)
PHC 6535 International Maternal and Child Health (3)
PHC 6708 Evaluative Approaches to Community and Family Health Education Programs (3)
PHC 6414 Adolescent Health (3)
PHC 6934 Selected Topics in Maternal Child Health (3)

Culminating Experiences **12 hours**

PHC 6945 Supervised Field Experience 6-12

Students with little or no professional experience: 6 hours minimum. Students with relevant professional experience: 3 hours minimum. An expectation of 2-3 years of experience in an MCH-related clinical background or agency constitutes the term "previous professional experience" worthy of lesser field experience. Documentation required if less than 6.

PHC 6977 Special Projects 3
PHC 6936 Public Health Capstone Course 3

OCCUPATIONAL HEALTH (OCC)[10]

Offered from the Department of Environmental and Occupational Health

Note: The MPH in Public Health with a Concentration in Occupational Health is only available to dual MS Nursing Students or qualified health professionals.

The principal concerns of the occupational health professional are: the worker; the work environment and chemical, physical, and ergonomic and biological agents in the workplace. The curriculum is interdisciplinary in nature and scope, addressing topics in these broad areas. The MPH in Public Health with a Concentration in Occupational Health is a 43 credit program designed for either physicians in practice who are interested in the residency but can not spend 2 years away from their practice (They complete their MPH first while maintaining their practice and then spend only 1 year in the clinical residency program), or for other practicing health professionals.

Concentration Admission Information

- Suggested/preferred undergraduate majors: A clinical degree required e.g. medicine, nursing, physical therapy, occupational therapy
- Prerequisite undergraduate courses: Science related courses used in preparation for clinical professional degree
- Work experience: Two years of clinical experience preferred
- Minimum undergrad GPA: 3.0 in last 60 hours of undergraduate degree OR
- Verbal GRE score: minimum 450
- Quantitative GRE score: minimum 550
- Other criteria: Two letters of recommendation, computer skills, resume, goal statement

Total Program requirements with this concentration: **44 hours minimum**

College Core **15 hours**

See program information above

During 2nd semester meet with advisor and begin planning field experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

[10] Only available to dual M.S. Adult Nursing Students

Concentration Requirements **12 hours**

PHC 6356 Industrial Hygiene 2
PHC 6423 Occupational Health Law 2
PHC 6351 Occupational Medicine for Health Professionals 3
PHC 6360 Safety Management Principles and Practice 2
PHC 6930 Public Health Seminar 1
Selected One Toxicology Course from the following list
PHC 6310 Environmental Occupational Toxicology 3
PHC 6359 Xenobiotic Metabolism in Environmental and Occupational Health 3
PHC 6350 Occupational Health Risk Assessment 2

Electives **10 hours**

Examples of common elective options:
o PHC 7019 Occupational Epidemiology (3)
o PHC 6180 Health Services Management (3)
o ENV 5345 Solid Waste Control (3)
o PHC 6422 Environmental Health Law (2)

Culminating Experiences **7 hours**

PHC 6945 Supervised Field Experience 1-6
Students with little or no professional experience (one year or less) in occupational health: at least three credits, preferably 6 credits minimum. Students with relevant professional experience: 1 hour minimum.
PHC 6977 Special Project 3
PHC 6936 Public Health Capstone Course 3

OCCUPATIONAL MEDICINE RESIDENCY (OMR)

Offered from the Department of Environmental and Occupational Health

The Occupational Medicine Residency Program focuses both on the use of critical thinking and research approaches in investigations. Residents are trained to recognize, manage and prevent occupational disease and injury. Research focuses on:

1. Prevention of occupational asthma,
2. Newly emerging occupational infectious diseases from blood borne pathogens,
3. Repetitive motion injuries of the upper extremity and back (emphasizing ergonomic control and prevention),
4. Indoor air quality control, and
5. The changing economy and workplace, and its influence on worker safety and health.

The practicum includes at least four months of supervised real world of work training and includes rotations in utility and power industry, aeronautic and space industry, occupational medicine clinics and regulatory agencies. Rotation site locations are described below. Research time is required. We are proud of our faculty's educational and research accomplishments and we encourage faculty members and residents to work closely together in a supportive environment to refine professional skills in conducting research studies. It is our goal to provide you with an outstanding education that will lead to the greatest development of your skills in preparation of a lifetime of personal and professional gratification and to successful certification by the American Board of Preventive Medicine/Occupational Medicine. The residency is accredited by the Accreditation Council for Graduate Medical Education.

Total Program requirements with this concentration: hours minimum

College Core **15 hours**

See program information above

Concentration Requirements

Refer to the Concentration in Occupational Health for requirements

OCCUPATIONAL SAFETY (SFM)

Offered from the Department of Environmental and Occupational Health

The Occupational Safety Concentration is intended for students with backgrounds in science or engineering seeking a professional public health career in occupational safety. In addition to core public health courses, the program builds upon a variety of courses enabling the student to recognize, evaluate and control existing and potential safety hazards due to faulty equipment, process design, chemical storage and handling. Students are trained to apply these safety principles in assessing engineering controls, personal protective techniques, administrative practices, conducting facility audits and to know when to consult with other environmental and occupational health and safety professionals to prevent or control work related injuries, illnesses or discomfort in the workplace. The program is a collaborative effort between the College of Public Health and the College of Engineering.

Concentration Admission Information

- Suggested/preferred undergraduate majors: science, engineering, technology and management.
- Prerequisite undergraduate courses: No specific courses, however 60 credit hours of science, mathematics, engineering and technology with at least 15 credit hours in upper division classes.
- Work experience: None required; however occupational work experience is beneficial.
- Minimum undergrad GPA: Upper division GPA 3.0 or **GRE of 1000** [c1]combined Quantitative plus Verbal Score.
- Verbal GRE score: minimum 450; Quantitative GRE score: minimum 550
- Other criteria: Two Letters of recommendation

Total Program requirements with this concentration: 46 hours minimum

College Core 15 hours

See program information above

During 2nd semester meet with advisor and begin planning field experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements 20 hours

PHC 6356 Industrial Hygiene 2
PHC 6310 Environmental and Occupational Toxicology 3
PHC 6361 Industrial Ergonomics 2
PHC 6354 Safety and Health Administration 2
PHC 6423 Occupational Health Law 2
EIN 6215 Engineering System Safety 3
EIN 6216 Occupational Safety Engineering 3
PHC 6360 Safety Management Principles and Practice 2
PHC 6930 Public Health Seminar 1

Electives 4 Hours

PHC 6303 Community Air Pollutions 3
PHC 6350 Occupational Health Risk Assessment 3
PHC 6351 Occupational Medicine for Health Professionals 2
PHC 6422 Environmental Health Law 2
PHC 6364 Industrial Hygiene Aspects of Plant Operations 2
INP 6056 Industrial/Organizational Psychology 3
INP 7937 Occupational Health Psychology 3

Culminating Experiences 7 hours

PHC 6945 Supervised Field Experience~~(~~ 1-3~~)~~

Students with little or no professional experience: 3 hours minimum. Students with relevant professional experience: 1 hour minimum working in or associated with an occupational health and safety function with orientation in the recognition, evaluation and control of occupational hazards and disease for at least a year.

PHC 6977 Special Project 3
PHC 6936 Public Health Capstone Course 3

Comprehensive Exam
Concentration Exam (no credit, 2 credit hours enrollment requirement)

PUBLIC HEALTH ADMINISTRATION (PHA)

Offered from the Department of Health Policy and Management

The MPH in Public Health Administration program is designed for individuals interested in pursuing leadership and administrative positions in public health agencies or programs or in other initiatives focused on population health. The curriculum centers on management principles and methods to advance the health of communities. Students develop knowledge and skills in public health, management and planning, law and ethics, and financial management.

Concentration Admission Requirements:

- Undergraduate majors are diverse and include: Life sciences, social sciences, business, or health professions.
- Work experience: Two years of full-time, meaningful work experience in a health care or related organization are required.
- Minimum undergrad GPA: 3.0 upper division (some exceptions made if GRE exceeds minimum requirements) AND
- Verbal GRE Score: minimum 450 AND
- Quantitative GRE Score: minimum 550
- In lieu of the GRE, only applicants to the Department of Health Policy and ~~management~~ Management may submit a minimum GMAT core of 500 for the MHA, MPH, or MSPH.
  - This concentration also requires two years of full-time, meaningful work experience in a health care or related organization.

Total Program requirements with this concentration: **42** hours minimum

College Core **15 hours**

See program section above

During 2nd Semester meet with Advisors and begin planning Field Experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **17~~14~~ hours minimum**

PHC 6104 Management of Public Health Programs	3
PHC 6146 Health Services Planning and Evaluation	3
PHC 6147 Managing Quality in Health Care	2
PHC 6160 Health care Financial Management	3
PHC 6421 Public Health Law and Ethods	3

Additional Requirements (choose ~~two~~ one) ~~**6 hours**~~

Three credit hours must be from the list below. An additional three credits may be from the list or approved elective(s)

PHC 6110 International Health & Healt Care Systems	3
PHC 6195 Public Health Data, Information & Decision Making	3
PHC 6411 Introduction to Social Marketing in Public Health	3

Electives **3 hours**

Culminating Experiences **7-12 hours**

PHC 6945 Supervisory Field Experience ~~1-12~~ 1-6
PHC 6945 Supervisory Field Experience ~~1-12~~ 1-6

- Students with little or no professional experience: 3 hours minimum.
- Students with relevant professional experience: 1-3 hours minimum.

- Students with substantial work experience can negotiate a reduced number of hours with their advisor (e.g., 1 or 2 hours) if the student has meaningful experience (involving decision-making) in a health care or related organization

PHC 6977 Special Projects	3
PHC 6936 Capstone Course	3

Comprehensive Exam

PUBLIC HEALTH EDUCATION (PHN)

Offered from the Department of Community and Family Health

Health educators, using health promotion principles, assist individuals and communities in the adoption and maintenance of healthy lifestyles. This MPH program prepares health educators to collect and analyze data to identify diverse community needs prior to planning, implementing, monitoring and evaluating health promotion programs; communicate health and health promotion needs; and plan, implement and evaluate health promotion programs using ethical standards and theoretical frameworks and models. The curriculum helps students acquire relevant theoretical and practical knowledge in diverse fields of endeavor, such as the social and behavioral sciences, communication dynamics, educational theory and design, and community organization. Students who complete a degree in public health education are eligible to sit for the national Certified Health Education Specialist (CHES) examination.

Concentration Admission Information

- Suggested/preferred undergraduate majors: Undergraduate majors may be admitted from a wide range of backgrounds, although majors from nursing, the natural sciences, psychology, sociology, anthropology, and education are desirable.
- Work experience: Work experience in the field of public health and health education is appropriate, but not necessary.
- Minimum undergrad GPA - 3.0 OR Verbal GRE score: minimum 500, Quantitative GRE score: minimum 550
- Three letters of recommendation from academic and/or related professional sources.
- Career goal statement

Total Program requirements with this concentration: **50 hours minimum**

Prerequisites (Not included in program total hours)
(6 hours)

HSC 4551 Survey of Human Disease
PHC 4101 Introduction to Public Health

College Core **15 hours**

See program section above

During 2nd semester meet with advisor and begin planning field experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **~~17~~ 20 hours**

HSC 5036 Professional Foundations of Health Ed	1
PHC 6500 Theoretical and Behavioral Basis for Health Ed	4
PHC 6505 Program Planning in Community Health	3
~~PHC 6508 Case studies in Health Ed~~	~~3~~
PHC 6507 Health Education Intervention Methods	3*
PHC 6708 Evaluation Methods in Community Health	3
PHC 6715 Research Foundations in Public Health	3
Select one of the following:	
PHC 6412 Health Disparities, Diversity and Cultural Competenence	3
PHC 6441 Social Determinants of Health	3

Health Education Support/Elective ~~6~~ 3 *hours minimum*

Examples of common elective options

HSC 5036 Professional Foundations	1
HSC 6641 Prevention and Control of Unintentional Injuries	
~~PHC 6148 Strategic Planning & Hlth Care Marketing~~	~~3~~
~~PHC 6151 Health Policy and Politics~~	~~3~~
~~PHC 6160 Health Care Financial Management~~	~~3~~
~~PHC 6180 Health Services Management~~	~~3~~
~~PHC 6181 Org Behavior in Health Services~~	~~3~~
PHC 6193 Qualitative Methods in Community Health Research	
~~PHC 6196 Info Systems in Health Care Mgt~~	~~3~~
PHC 6411 Introduction to Social Marketing for Public Health	
PHC 6414 Adolescent Health	
~~PHC 6430 Health Economics I~~	~~3~~
PHC 6500 Theoretical and Behavioral Basis for Health Ed	4
~~PHC 6505 Program Planning in Community Health~~	~~3~~
PHC 6506 Community Health Education	
PHC 6507 Health Education Intervention Methods	3*
PHC 6533 Health Program Development and Change Process	
PHC 6705 Formative Research Methods in Social Marketing	
PHC 6706 Focus Group Research Strategies	
PHC 6708 Evaluation Methods in Community Health	3
PHC 6715 Research Foundations in Public Health	3
~~PHC 6715 Research Foundations in Public Health~~	~~3~~
PHC 6934 Health Message Design in Public Health	

*Students must take PHC 6500 and PHC 6505 prior to PHC 6507

Culminating Experiences **12 hours**

PHC 6945 Supervised Field Experience	6-12

Students with little or no professional experience: 6 hours minimum. Students with relevant professional experience: minimum 6 hours; in this case we try to find field experience in which the student lacks experience

PHC 6977 Special Project	3
PHC 6936 Public Health Capstone Course	3

PUBLIC HEALTH PRACTICE (PHO, PHP)[11,12]

Offered as a College Wide Program

The Master of Public Health with a Concentration in Public Health Practice is a college-wide interdisciplinary program designed to prepare experienced health professionals to assume leadership roles as members of multidisciplinary teams so that they are able to develop, implement, and evaluate programs that have an impact on the health of the public. The Public Health Practice MPH provides a broad spectrum of skills and knowledge important for effective health professionals working in public health settings. Students in the program will gain skills related to: public health practice; epidemiology; program analysis and inference from data; development of programs that take into account cultural, social, economic, ethical and legal factors; community-based health policy and program planning; and budgeting and management.

The MPH in Public Health with a Concentratino in Public Health Practice is offered in two formats: Online MPH Program via distance learning and Executive Weekend MPH program. The Online MPH via distance learning is primarily intended for off-campus students who are unable to come to campus for their education. The Executive MPH Program is a unique and customized weekend program to serve the

[11] Requires 3 years of health-related experience
[12] Offered (1) executive program and (2) online

needs of the busy health care practitioner. Classes in this format are offered one weekend a month. Each program has specialized staff to assist students. The program includes:
• Five core discipline areas (Biostatistics, Environmental Health Sciences, Epidemiology, Health Policy Management, and Social and Behavioral Sciences)
• An integrated interdisciplinary, cross-cutting set of overall competency domains (Communication and Informatics, Diversity and Culture, Leadership, Professionalism, Program Planning, Public Health Biology, and Systems Thinking)

Online MPH via Distance Learning
The Online MPH via Distance Learning offers a convenient and affordable avenue for off-campus health care professionals to earn a Master's degree through distance learning. The courses in the Online MPH in Public Health Practice are delivered using web-based technologies. With the help of skilled instructional designers, faculty create course content that is delivered using multimedia technologies such as the Internet, DVDs, CDs, videotape, streaming media, web-based tutorials, and so on. Faculty within these courses utilize email, web conferencing, discussion forums and virtual chat features to enhance instruction. Students can complete almost all degree requirements for the online MPH with minimal on-campus requirements of no more than one calendar week. Courses are available in the online format in the Fall, Spring and Summer semesters. The time required to complete the online MPH program ranges from approximately 2.5 to 5 years, depending on time of entry into the program, course sequence and availability, as well as student circumstances and academic status. Students must meet certain technology requirements and are required to pay a technology fee to participate in all online courses.

Total Program requirements with this concentration: **43** hours minimum

College Core **15 hours**
See program information above
During 2nd Semester meet with advisor and begin planning field experience.
See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements **12 hours**
PHC 6120 Community Partnerships and Advocacy 3
PHC 6421 Public Health Law and Ethics 3
PHC 6930 Public Health Seminar 3
Choose one of the following:
PHC 6104 Management of Public Health Programs 3
PHC 6146 Health Services Planning and Evaluation 3

Electives **12 hours**
Electives may be courses that apply towards a graduate certificate or from elective options.

Culminating Experiences **4 hours**
PHC 6945 Supervised Field Experience 1
PHC 6977 Special Project 3

Comprehensive Exam
Part of Public Health Seminar

SOCIO-HEALTH SCIENCES (SHS)

Offered from the Department of Community and Family Health
The MPH in Public Health with a Concentration in Socio - Health Sciences prepares students to apply the concepts and methods from social and behavioral sciences to public health research and practice in the areas of community needs assessment, analysis of the socio-behavioral context of health, development of culturally competent programs, evaluation of intervention outcomes, and formulation of social policies affecting health. Graduates are prepared for careers in public health agencies, educational settings, social and family services, private voluntary organizations, research and consulting

firms, and health-related industries. Examples of focus areas include social determinants of health, ethnographic and qualitative research, health needs of special populations, and community-based interventions.

Concentration Admission Information

- Suggested/preferred undergraduate majors: Undergraduate majors may be admitted from a wide range of backgrounds, although majors from the social and behavioral sciences (psychology, sociology, social work, anthropology, education) and the health sciences (nursing, pre-med, allied health) are especially appropriate.
- Prerequisite undergraduate courses: There are no prerequisites that are required, although courses from the above list of undergraduate majors are desirable
- Work experience : Work experience in the field of public health, health, psychology, nursing, counseling, education, social work, etc. is considered extremely desirable
- Minimum undergrad GPA 3.0 in upper division course work OR
- Verbal GRE score: minimum 500
- Quantitative GRE score: minimum 550
- Three letters of recommendation from academic and/or related professional sources.
- Career goals statement.

Total Program requirements with this concentration: 48 hours minimum

College Core 15 hours

See program information above

During 2nd semester meet with advisor and begin planning field experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements 15 hours

PHC ~~6934~~6441 Social Determinants of Health ~~1~~3
PHC 6412 Health Disparities, Diversity and Cultural Competence 3
PHC 6715 Research Foundations in Public Health 3
PHC 6505 Program Planning in Community Health 3
PHC 6931 Adv. Seminar in Social and Behe~~a~~avioral Sciences Applied to health 3*
*students must take PHC 6510 Social and Behavioral Sciences Applied to Heatlh as a Pre-requisite to the PHC 6931 course.

Electives 9 hours minimum

Suggested Support Courses (Select 3 to equal 9 credits ~~minimum~~)

~~*Select three of the following:*~~

PHC 6193 Qualitative Methods in Community Health Research 3
SYP 6008 Social Problems, Identity and Community 3
PHC 6413 Family and community Violence in Public Health 3
PHC 6418 Public Health and Aging 3
PHC 6419 Global Issues in Community and Family Health 3
ANG 6469 Selected Topics in Medical Anthropology 3
PHC 6411 Introduction to Social Marketing 3
PHC 6532 Women's Health Issues in Public Health 3
PHC 6240 Cultural Competency in Chlldren's Mental Health 3
PHC 6536 Population and Community Health 3
PHC 6543 Foundations in Behavioral Health Systems 3
PHC 7417 Family Systems and Public Health 3

Culminating Experiences 9 hours minimum

Field Experience:
PHC 6945 Supervised Field Experience 3-12

- Students with little or no professional experience: 6 hours minimum
- Students with relevant professional experience: 3 hours minimum

(Professional experience would included supervised wowrk at a mental health, alcohol, or drug abuse agency in a variety of special

areas with behavioral health services. These experiences might include work and programming planning, program evaluation, community prevention and educaiton, etc.)

PHC 6977 Special Project 3
PHC 6936 Public Health Capstone Course 3

TOXICOLOGY AND RISK ASSESSMENT (TXY)

Offered from the Department of Environmental and Occupational Health

This concentration area will provide a broad foundation in the biomedical sciences with general training in toxicology. The program is designed with a balanced curriculum in the areas necessary for understanding the response of organisms to chemical insult and to introduce individuals in the research approaches necessary for the evaluation of these responses. Students will be able to make decisions on the basis of available research findings on potential chemical hazards for humans and animals and to adapt to a rapidly growing body of new knowledge in toxicology.

Concentration Admission Information

- Public health course prerequisites: College requires HSC 4551 Survey of Human Diseases or comparable course for students who do not have public health or biology courses or experience.
- Suggested/preferred undergraduate majors: Sciences such as biology, chemistry, physics, and environmental science.
- Prerequisites undergraduate courses: Courses in biology and chemistry.
- Work experience: Not required.
- Minimum undergrad GPA: 3.0. OR
- Verbal GRE score: minimum 450
- Quantitative GRE score: minimum 550
- GRE score may be substituted with an MCAT Score averaging 8 or higher.
- Other criteria: TOEFL Score (International Students) 550.

Total Program requirements with this concentration: 45 hours minimum

Prerequisite (Not included in program total hours) (3 hours)
HSC 4551 Survey of Human Diseases ~~(3 hours)~~3

College Core 15 hours
See program information above
During 2nd semester meet with advisor and begin planning field experience. See http://health.usf.edu/publichealth/academicaffairs/fe/

Concentration Requirements 22 hours
HSC 6556 Pathobiology of Human Disease I 3
PHC 6353 Environmental Risk Assessment 2
PHC 6310 Environmental and Occupational Toxicology 3
PHC 6359 Xenobiotic Metabolism in Environmental and Occupational Health 3
PHC 6369 Industrial Toxicology 2
PHC 6350 Occupational Health Risk Assessment 3
PHC 6934 Special Topics in Public Health 2
PHC 6930 Public Health Seminar 1
HSC 6557 Pathobiology of Human Disease II 3

Culminating Experiences 8 hours minimum
PHC 6945 Supervised Field Experience ~~(~~ 2-12~~)~~
Students with little or no professional experience: 3 hours minimum. Students with relevant professional experience: 2 hours minimum. Has worked as a professional in the field of toxicology

for a period of at least one year constitutes the term "relevant professional experience" and is worthy of lesser field experience.

PHC 6977 Special Projects 3
PHC 6936 Public Health Capstone Course 3

Comprehensive Examination
A formal comprehensive exam is not required, with the Culminating Experiences serving in lieu of the formal comprehensive exam.

For information on program requirements, refer to the college website: www.publichealth.usf.edu

OTHER INFORMATION

Certificate Programs:
(for information click on the graduate certificates at http://www.outreach.usf.edu/gradcerts/)

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PUBLIC HEALTH / LAW DUAL DEGREE PROGRAM

Master of Public Health (M.P.H.) Degree
Doctorate of Jurisprudence (J.D.) Degree with Stetson University

DEGREE INFORMATION

Program Admission Deadlines:
Public Health has rolling admissions and no set deadline. A minimum of 6 weeks is necessary after a completed application is received in order for the application to be fully processed.

Minimum Total Hours: 42
Program Level: Masters
CIP Code: 51.2201
Dept Code: DEA
Program (Major/College): MPH PH

Concentrations:
See list below. Detailed descriptions are available at:
http://publichealth.usf.edu/programs_offered.html

CONTACT INFORMATION

Colleges: Public Health
Stetson Law School

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The core functions of public health include assessment, policy development, and assurance. Public health professionals can better perform these functions through not only obtaining the prerequisite knowledge but also through partnering with well-trained professionals in other fields such as law to develop and implement society's responses to public health needs. However, lawyers' effectiveness is often limited by their inadequate knowledge of public health and its scientific disciplines. The joint degree program is intended to supply this knowledge by giving public health and Stetson Law School graduates a sound education in both law and public health. A related goal is to increase the opportunities for inter-disciplinary research, teaching, and advocacy for the faculties at the College of Public Health and Stetson University College of Law.

Concentrations:

~~Accelerated Health Education (AHE) – this is being terminated~~
Behavioral Health (BHH)
Biostatistics (BST)
Environmental Health (EVH)
Epidemiology (EPY)
Epidemiology and Biostatistics (PEB)
Epidemiology and Global Communicable Diseases (EGD)
Epidemiology and Global Health (EGH)
Epidemiology and Maternal and Child Health (EMC)
Executive Program for Health Professionals (EPH)
~~Executive Program for MBA Physicians (EPP) *this is being terminated*~~Global Communicable Diseases (TCD)
Global Disaster Management and Humanitarian Relief (GDM)
Global Health Practice (GLO)
~~Global Health Informatics (GHI) *this is being terminated*~~
Health Care Organizations and Management (HCO)
Health Policies and Programs (HPP)
Maternal and Child Health (PMC)

Occupational Health (OCC)[13]
Occupational Medicine Residency (OMR)
Occupational Safety (SFM)
Public Health Administration (PHA)
Public Health Education(PHN)
Public Health Practice(PHO, PHP)[14,15]
Socio-Health Sciences (SHS)
Toxicology and Risk Assessment (TXY)

The College's five departments are: Community and Family Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global Health, and Health Policy and Management. In addition, Public Health Practice is a college-wide program.

Core content is directly related to addressing and meeting public health issues.

The College accommodates the working professional as well as the full-time student by offering late afternoon and evening classes, online course delivery, partnerships with international schools to expand options, a variety of graduate certificates, and a professional ~~MPH~~M.P.H. for experienced health care professionals.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools. The College is fully accredited by the Council on Education in Public Health and the Accreditation Board for Engineering and Technology.

Major Research Areas:
Faculty major research areas are listed at:
http://publichealth.usf.edu/facultyaffairs/facultyprofile.html

DEPARTMENTS

Community and Family Health http://publichealth.usf.edu/cfh/
Adolescent health; Sexual Health; Reproductive and women's health; Family violence; Injury control and prevention; Aging and public health; Social marketing; Maternal and child health; Behavioral health; Health needs of special populations; Social determinants of health; Health disparities; Community-based interventions; Development; implementation and evaluation of programs to support healthy lifestyles; Application of technology in public health.
~~Adolescent health risk taking behavior, Community-based prevention marketing, Reproductive and women's health, Health literacy, Health issues of developing countries, Family violence, Injury control and prevention, Social determinants of health, Aging and public health, and Social Marketing.~~

Environmental and Occupational Health http://publichealth.usf.edu/eoh/
Environmental and occupational toxicology and health risk assessment, Ergonomics and occupational heat stress, Occupational and environmental lung disease, inflammation and asthma, Environmental pollution assessment and modeling, bio-monitoring and management.

Epidemiology and Biostatistics http://publichealth.usf.edu/epb/
Epidemiology of dementia and Alzheimer's disease, Aging and occupational epidemiology, Cardiovascular disease epidemiology, Social epidemiology and public health geography, Cross-cultural studies, Cancer epidemiology, Perinatal epidemiology, Sleep disorders, Injury epidemiology, Osteoporosis and falls in aging population, Infectious disease epidemiology, , Prevention science and prevention methodology, including design and analysis of preventive field trials, Prevention of conduct disorder and aggression, depression, and suicide and drug use/abuse, Analysis of behavior observation data, Multi-level and mixture modeling, Environmental statistics, Health outcome evaluation and medical surveillance, Detection of bioterrorism, Small area estimation, Missing data methods, Growth curve modeling, Risk assessment, and Bayesian inference.

[13] Only available to dual MS Adult Nursing Students
[14] Requires 3 years of health-related experience
[15] Offered (1) executive program and (2) online

Global Health http://publichealth.usf.edu/gh/
Surveillance of intestinal parasitic infections; Realtime syndromic surveillance of bioterrorist event; Biosafety of bloodborne pathogens; Serology of arboviruses; pathophysiology of arboviral infections; Health promotion against violence; Health promotion and education in HIV/AIDS; Surveillance of waterborne infections; Development of solar latrines for helminth eradication; Ecodynamics and environmental impact on health.

Health Policy and Management http://publichealth.usf.edu/hpm/
Health care financial management, Health economics, Quantitative methods in health services, Health insurance, Health law, Quality management, Performance improvement, Community health assessment, Organizational theory and behavior applied to health settings, Health information management, Health policy, and Strategic planning.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Students will need to be accepted to both institutions and follow the admission standards of each setting. Students must complete the GRE and the LSAT for acceptance into this dual program. Refer to the ~~MPH~~M.P.H. listing for specific USF admission requirements.

DEGREE PROGRAM REQUIREMENTS

College of Public Health Students:
Students in the College of Public Health will enroll in the J.D./M.P.H. program, complete the M.P.H. degree, and meet the admission requirements of Stetson which includes taking the LSAT, and then enroll in the Stetson College of Law to complete the JD. Students in the dual degree program will be permitted to count nine hours of credit from the M.P.H. program toward satisfaction of JD credit requirements, and up to nine hours of credit from the JD program toward satisfaction of M.P.H. credit requirements. All students in the dual degree program must complete a field experience requirement. Students in Stetson Law must do mandatory pro bono work (20 hours). Some of these hours may qualify for the field experience however these must be done in a public health setting. This will be determined by the student's public health advisor and department. Credit hours for the M.P.H. may be more than 42 hours (i.e. 46 hours) depending on the concentration program.

Stetson Law Students:
Students already enrolled in Stetson College of Law will normally apply for the dual degree program in their first or second year. Students in the program will usually complete either one or two years of law school, after which they will spend a year completing the M.P.H. program in the College of Public Health. Students will have the ability to choose whichever concentration within the College that best meets their interests and needs and which they are formally accepted to by the College and Department. After completing their M.P.H., students will return to Stetson to complete their JD and prepare for the bar exam. The virtue of this study plan is that students will commence M.P.H. study with a sound foundation in law and legal process, and students will complete the elective portion of their legal study with a sound foundation in public health.

OTHER INFORMATION
Contact Public Health for a listing of curriculum requirements of both USF and Stetson Law.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PUBLIC HEALTH PROGRAM

Master of Science in Public Health (M.S.P.H.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

~~Public Health has rolling admissions and no set deadline. A minimum of 6 weeks is necessary after a completed application is received in order for the application to be fully processed.~~

Domestic Applicants:

Fall	June 1
Spring:	October 15
Summer:	February 15

International Applicants:

Fall:	January 2
Spring:	June 1
Summer:	January 2

* Global Health Practice admits in Fall term only.

Minimum Total Hours:	42
Program Level:	Masters
CIP Code:	51.2299
Dept Code:	DEA
Program (Major/College):	MSP PH

Concentrations:

See list below. Detailed descriptions are available at: http://publichealth.usf.edu/programs_offered.html

Concentrations:

Behavioral Health (PBH)
Bioinformatics (PBF) – is being terminated
Biostatistics (PBC)
Environmental Health (PEH)
Epidemiology (PEY)
Global Communicable Disease (PGD)
~~Health Policy and Management~~ ~~**Terminated**~~
Industrial Hygiene (PIH)
International Public Health Research, Policy and Planning (PIP)
Maternal and Child Health (PMH) – is being terminated
Occupational Health ~~for Health Professionals~~ (POH)[16]
Occupational Medicine Residency (POM)
Occupational Safety (POS)
Public Health Education (PPD) – is being terminated
Socio-Health Sciences (PSH) – is being terminated
Toxicology and Risk Assessment (PTX)

CONTACT INFORMATION

College:	Public Health
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you.usf.edu

[16] Only for health professionals

PROGRAM INFORMATION

Program Information
The base of knowledge for public health comes from a variety of disciplines, ranging from social sciences to biological sciences and business, brought together by a commitment to improve the public's health. Thus, the field of public health is broad and is open to students from diverse academic disciplines including Health Sciences, Education, Engineering, Business, Communications, Mathematics, Social Sciences and Natural Sciences. Graduates are prepared for interdisciplinary focused public health professional careers as administrators, managers, educators, researchers, and direct service providers.

The College's five departments are: Community and Family Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global Health, and Health Policy and Management. Public Health Practice is a college-wide program.

Core content is directly related to addressing and meeting public health issues.

The College accommodates the working professional as well as the full-time student by offering late afternoon and evening classes, online course delivery, partnerships with international schools to expand options, a variety of graduate certificate programs, and a professional ~~MPH~~M.P.H. for experienced Health Care professionals.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools. The College is fully accredited by the Council on Education in Public Health and the Accreditation Board for Engineering and Technology.

DEPARTMENTS

Community & Family Health http://publichealth.usf.edu/cfh/
Adolescent health; Sexual Health; Reproductive and women's health; Family violence; Injury control and prevention; Aging and public health; Social marketing; Maternal and child health; Behavioral health; Health needs of special populations; Social determinants of health; Health disparities; Community-based interventions; Development; implementation and evaluation of programs to support healthy lifestyles; Application of technology in public health.
~~Adolescent health risk-taking behavior, Community based prevention marketing, Reproductive and women's health, Health literacy, Health issues of developing countries, Family violence, Injury control and prevention, Social determinants of health, Aging and public health,.~~

Environmental & Occupational Health http://publichealth.usf.edu/eoh/
Environmental and occupational toxicology and health risk assessment, Ergonomics and occupational heat stress, Occupational and environmental lung disease, inflammation and asthma, Environmental pollution assessment and modeling, bio-monitoring and management.

Epidemiology& Biostatistics http://publichealth.usf.edu/epb/
Epidemiology of dementia and Alzheimer's disease, Aging and occupational epidemiology, Cardiovascular disease epidemiology, Social epidemiology and public health geography, Cross-cultural studies, Cancer epidemiology, Perinatal epidemiology, Sleep disorders, Injury epidemiology, Osteoporosis and falls in aging population, Infectious disease epidemiology, , Prevention Science and prevention methodology, including design and analysis of preventive field trials, Prevention of conduct disorder and aggression, depression, and suicide and drug use/abuse, Analysis of behavior observation data, Multi-level and mixture modeling, Environmental statistics, Health outcome evaluation and medical surveillance, Maternal and child health epidemiology~~Detection of bioterrorism~~, Small area estimation, Missing data methods, Growth curve modeling, Risk assessment, and Bayesian inference.

Global Health http://publichealth.usf.edu/gh/
Surveillance of intestinal parasitic infections; Realtime syndromic surveillance of bioterrorist event; Biosafety of bloodborne pathogens; Serology of arboviruses; pathophysiology of arboviral infections; Health promotion against violence; Health promotion and education in HIV/AIDS; Surveillance of waterborne infections; Development of solar latrines for helminth eradication; Ecodynamics and environmental impact on health.

Health Policy and Management http://publichealth.usf.edu/hpm/
Health care financial management, Health economics, Quantitative methods in health services, Health insurance, Health law, Quality management, Performance improvement, Community health assessment, Organizational theory and behavior applied to health settings, Health information management, Health policy, and Strategic planning.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
All Applicants must take the Graduate Record Exam (except as noted below) or an equivalent taken within five years preceding application unless noted as exceptions and must meet the following criteria:

- shall have earned an undergraduate degree from an accredited institution;shall have earned a "B" average (3.0 on a 4 point scale) or better in all work attempted while registered as an upper division student working toward a baccalaureate degree; AND
- shall have a minimum Verbal Graduate Record Exam (GRE) test score of 450 and a minimum Quantitative Graduate Record Exam (GRE) test score of 550;**
- In lieu of the GRE, only applicants to the Department of Health Policy and Management may submit a minimum GMAT score of 500 for the ~~MSPH~~M.S.P.H..
- An MCAT score may be submitted in lieu of the GRE. A mean of 8 is required. The Department of Epidemiology and Biostatistics and the Department of Health Policy and Management do not accept MCAT scores for M.S.P.H. degrees.

Meeting of these criteria per se shall not be the only basis for admission.

**** NOTE: Some Department concentration require higher GRE subscores.**

DEGREE PROGRAM REQUIREMENTS

All ~~MSPH~~M.S.P.H. students are required to successfully complete 42+ credits depending on concentration requirements:

Program Core Requirements~~:~~			9 hours
PHC6000	Epidemiology	____	3
PHC 6050	Biostatistics I*	____	3
Choose one			
PHC 6357	Environmental and Occupational Health	____	3
PHC 6102	Principles of Health Policy and Management		3
PHC 6410	Social and Behavioral Sciences Applied to Health		3

*Students in the Biostatistics M.S.P.H. program who have previously taken introductory statistics courses and have a strong mathematical background must take the more advanced level biostatistics course "PHC 6057: Biostatistical Inference I" instead of "PHC 6050: Biostatistics I". However, if a student does not have this prior training in introductory statistics coursework then she/he can take both PHC 6050 Biostatistics I and PHC 6057 Biostatistical Inference I.

Required Research Courses:			**9 hours**
~~PHC 6701~~	~~Computer Applications~~		~~3~~
~~PHC 6195~~	~~Public Health Data, Information and Decision Making (web)~~		~~3~~
PHC 6051	Biostatistics II	____	3
Two Research Methods courses as determined by advisory committee			6

Courses in specialty areas as designated by advisory committee - 12 credits minimum

~~Research Methods as determined by advisory committee~~

~~9 credits of college core courses including Biostatics I and Epidemiology, plus one other core courses approved by the academic advisor~~

- ~~Comprehensive Exam/Capstone Course~~
- ~~Thesis for a minimum of 6 credits~~

~~Electives (variable~~

Concentrations:

Students select from one of the following concentrations in addition to completing the program requirements:
Full requirements, as approved, may be viewed at the College website:
http://health.usf.edu/publichealth/programs_offered.html#cfh

Behavioral Health (PBH) Concentration
Bioinformatics (PBF) Concentration is being terminated
Biostatistics (PBC) Concentration
Environmental Health (PEH) Concentration
Epidemiology (PEY) Concentration
Global Communicable Disease (PGD) Concentration
~~Health Policy and Management Concentration Terminated~~
Industrial Hygiene (PIH) Concentration
International Public Health Research, Policy and Planning Concentration
Maternal and Child Health (PMH) Concentration
Occupational Health for Health Professionals (POH)[17] Concentration
Occupational Medicine Residency (POM) Concentration
Occupational Safety (POS) Concentration
Public Health Education (PPD) Concentration
Socio-Health Sciences (PSH) Concentration
Toxicology and Risk Assessment (PTX) Concentration

Electives ~~**11 hours minimum**~~**Vary by concentration**

Culminating Experiences:

Comprehensive Exam (must be registered for at least 2 credit hours of coursework)
~~/~~**or Capstone Course (3 credit hours)** ~~**1 hour**~~
~~Interdisciplinary Research Seminar~~

Thesis **6 credits**
PHC 6971 Thesis (6 hours minimum)

OTHER INFORMATION

Certificate Programs:
For information click on the graduate certificates at http://www.outreach.usf.edu/gradcerts/

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

[17] Only for health professionals

PUBLIC HEALTH PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: ~~December~~ November 15
Annually

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 51.2201
Dept Code: DEA
Program (Major/College): PPH PH
Concentrations available in:
See list below in Program Information. Detailed descriptions are available at:
http://publichealth.usf.edu/programs_offered.html

CONTACT INFORMATION

College: Public Health

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

Concentrations available in:

Behavioral Health (BHH) *(this is being terminated)*
Biostatistics (BST) ~~*(this is being terminated)*~~
Community and Family Health (CFH) *(see areas of focus in concentration section below)*
Environmental Health (EVH)
Environmental and Occupational Health (EOH)
Epidemiology (EPY)
Global Communicable Disease (TCD)
~~Health Policy and Management~~Health Services Research (HPM)
Industrial Hygiene (IHY)
International Health Management (IHM) *(this is being terminated)*
Maternal and Child Health (PMC)
Occupational Health for Health Professionals (OHP)
Public Health Education (HED)
Socio-Health Sciences (SHS)
Toxicology and Risk Assessment (TXY)

Program Information

The base of knowledge for public health comes from a variety of disciplines, ranging from social sciences to biological sciences and business, brought together by a commitment to improve the public's health. Thus, the field of public health is broad and is open to students from diverse academic disciplines including Health Sciences, Education, Engineering, Business, Communications, Mathematics, Social and Natural Sciences. Graduates are prepared for interdisciplinary focused public health professional careers as administrators, managers, educators, researchers, and direct service providers.

The College's five departments are: Community and Family Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global Health, and Health Policy and Management. Core content is directly related to addressing and meeting public health issues.

The College accommodates the working professional as well as the full-time student by offering late afternoon and evening classes, online course delivery, partnerships with international schools to expand options, a variety of graduate certificate programs, and a professional ~~MPH~~M.P.H. for experienced Health Care professionals.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools. The College is fully accredited by the Council on Education in Public Health.

Major Research Areas:
Faculty major research areas are listed at: http://publichealth.usf.edu/facultyaffairs/facultyprofile.html

DEPARTMENTS

Community and Family Health http://publichealth.usf.edu/cfh/
Adolescent health; Sexual Health; Reproductive and women's health; Family violence; Injury control and prevention; Aging and public health; Social marketing; Maternal and child health; Behavioral health; Health needs of special populations; Social determinants of health; Health disparities; Community-based interventions; Development; implementation and evaluation of programs to support healthy lifestyles; Application of technology in public health. ~~Adolescent health risk taking behavior, Community based prevention marketing, Reproductive and women's health, Health literacy, Health issues of developing countries, Family violence, Injury control and prevention, Social determinants of health, Aging and public health, and Social Marketing.~~

Environmental and Occupational Health http://publichealth.usf.edu/eoh/
Environmental and occupational toxicology and health risk assessment, Ergonomics and occupational heat stress, Occupational and environmental lung disease, inflammation and asthma, Environmental pollution assessment and modeling, bio-monitoring and management.

Epidemiology and Biostatistics http://publichealth.usf.edu/epb/
Epidemiology of dementia and Alzheimer's disease, Aging and occupational epidemiology, Cardiovascular disease epidemiology, Social epidemiology and public health geography, Cross-cultural studies, Cancer epidemiology, Perinatal epidemiology, Sleep disorders, Injury epidemiology, Osteoporosis and falls in aging population, Infectious disease epidemiology, , Prevention science and prevention methodology, including design and analysis of preventive field trials, Prevention of conduct disorder and aggression, depression, and suicide and drug use/abuse, Analysis of behavior observation data, Multi-level and mixture modeling, Environmental statistics, Health outcome evaluation and medical surveillance, Maternal and child health epidemiology~~Detection of Bioterrorism~~, Small area estimation, Missing data methods, Growth curve modeling, Risk assessment, and Bayesian inference.

Global Health http://publichealth.usf.edu/gh/
Surveillance of intestinal parasitic infections; Realtime syndromic surveillance of bioterrorist event; Biosafety of bloodborne pathogens; Serology of arboviruses; pathophysiology of arboviral infections; Health promotion against violence; Health promotion and education in HIV/AIDS; Surveillance of waterborne infections; Development of solar latrines for helminth eradication; Ecodynamics and environmental impact on health.

Health Policy and Management http://publichealth.usf.edu/hpm/
Health care financial management, Health economics, Quantitative methods in health services, Health insurance, ~~Health law~~Health services research, Quality management, Performance improvement, ~~Community health assessment,~~ Organizational theory and behavior applied to health settings, Health information management~~, Health policy, and Strategic planning~~.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Applicants to the doctoral program in Public Health must meet the following minimum criteria in order to be considered for admission. However, the meeting of these criteria per se, shall not be the only basis for admission.

- A minimum Verbal Graduate Record Examination (GRE) test score of 480 and a minimum Quanitative Graduate Record Examination (GRE) score of 620 taken within 5 years preceding the application and a grade point average of 3.0 are needed to be considered.

- A score of 600 or higher on the GMAT for applicants to only the Health Policy and Management Department will be considered.
- Each applicant must submit evidence of written/analytical skills to the College of Public Health which will take two-forms:
  - A graduate level term paper, thesis, or research paper of which the student is the sole author, publication on which the student is the first author; and
  - A detailed personal statement of less than five pages that describes why the applicant wishes to obtain a Ph.D. degree in Public Health.
- Applicants seeking consideration to the doctoral program must possess the M.P.H., M.S.P.H., or equivalent. Those who hold other graduate degrees will be considered, but as a prerequisite, they must complete the Epidemiology and Biostatistics core courses, one additional core course, and other courses as required and approved by their advisory committee.
- Each applicant must submit at least two formal Letters of Recommendation. The Department of Community and Family Health requires three Letters of Recommendation.
- In order to be considered for admission to the Ph.D. Program in Public Health, applicants must be fully prepared to register as full-time students for at least one full academic year (consecutive Fall and Spring semesters).

DEGREE PROGRAM REQUIREMENTS

Prerequisites:
A minimum of Biostatistics I, Epidemiology, and one other selected college core courses are required by all students who do not have a master's degree in public health. The doctoral committee or the department may require other prerequisites. These courses are not included in the minimum number of hours a student needs to complete the Ph.D. and are expected to be completed early in the course of study.

Required Coursework:
The courses and number of credit hours required are defined by the department and the doctoral committee and include coursework from another department or college. There must be minimum of 13 credits at the 7000 level. Generally, the doctoral degree requires a minimum of 90 credits beyond the bachelor's degree. Departments determine the number of credits accepted from previous master(s) degree. There is a mandatory doctoral student orientation that all new doctoral students must attend in the fall semester of their first academic year. All doctoral students take a minimum of three semesters (one credit each semester) of a college wide Advanced Interdisciplinary Seminar in Public Health.

Tools of Research:
Departmental Guidelines will address whether tools of research are required for doctoral students within that department (consistency within the department required). The student must complete a minimum of two of the "Tools of Research" options designated by the department, and approved by the doctoral committee before the student is eligible to take the doctoral qualifying examination.

Teaching:
All doctoral students will demonstrate or document proficiency in teaching academic courses at the university level.

Qualifying Exam:
When all required coursework is satisfactorily completed (including tools of research and prerequisites), the student must pass a written comprehensive qualifying examination covering the subject matter in the major and related fields.

Concentrations:

Students select from the following concentrations and must complete requirements as listed in addition to the general program requirements. The specific requirements, as approved, may be viewed on the College site: http://health.usf.edu/publichealth/programs_offered.html

---

BEHAVIORAL HEALTH (BHH)

Offered from the Department of Community and Family Health

The specific requirements, as approved, may be viewed on the College site:
http://health.usf.edu/publichealth/programs_offered.html

COMMUNITY AND FAMILY HEALTH (CFH)

Offered from the Department of Community and Family Health

Areas of focus include Behavioral Health, Maternal and Child Health, Public Health Education, and Socio-health Sciences.

Total Program requirements with this concentration: 90 hours minimum

Pre-Requisite PH Courses (Not included in total program hours)
PHC 6000 Epidemiology or Equivalent
PHC 6050 Biostatistics 1 or equivalent
PHC6500 Theoretical and Behavioral bases of HE or equivalent
PHC 6708 Evaluation Methods in Community Health or equivalent
PHC 6410 Social and Behavioral Sciences Applied to Health or equivalent
PHC 6193 Qualitative Methods in Community Health Research or equivalent

Concentration Requirements

Sciencetific knowledge and Theory

~~PHC 7xxx~~HSC 7267 Prof Foundations I: Becoming a doctoral student	1
PHC 7935 Prof Foundations: Ethics	1
PHC 7415 Family Theory (PR; PHC 6500 or equivalent)	3
PHC 7405 ~~Doctoral Theory~~Theoretical Applications to Public Health Issues	3

Evaluation and Research Methods

PHC 7xxx Adv Eval and Research Methods (PR: PHC 6708)	3
EDF 7437 Measurement I or MHS 7742 Measurement in Beh. Health	3
PHC 7708 Applied Research Methods	3
PHC 7937 Adv Grant Writing	3

Quantitative Methods

PHC 6701 Computer Applications	3
PHC 6053 Categorical Data Analysis	3
PHC 6051 Biostatistics II OR EDF 7408 Statistics II	3
EDF 7484 Statistics III OR STA 6746 Multivariate analysis	3

Qualitative Methods

PHC 7198~~xxx~~ Adv Qual Methods (PR PHC 6193)	3
Select ONE of the following*:	3

PHC 6706 Focus Groups
ANG 6676 Participartory Appraoches to research
ANG 6648 Collaborative Community Research
SPC 6934 Discourse Analysis
*or an approved qual methods course approved by major prof/committee

Additional Courses **3**
Select one advanced level quantitative course* such as:

EDF 7412 Structural Equation modeling
PHC 7056 Longitudinal Data Analsis
PHC 6055 Survival Analysis
SYA 6933 Social Network Analysis
Or select one advanced level qualitative analysis course approved by major prof/committee

Practice	**11**	
PHC 7934 Writnig for Scholarly Publication	3	
PHC 7583~~xxx~~ Community Based Health Promotion	3	
PHC 7152 Policy and Practice	3	
HSC 7268~~PHC 7xxx~~ Prof Foundations 3: Joining the academy		2
Teaching	**1**	
HSC 7260~~PHC 7xxx~~ Prof Foundations 2: Teaching methods		1
TA with Faculty		
Teaching requirement		
Focus Area Courses	**19 hours minimum**	
Qualifying Exam		
Dissertation	**18 hours minimum**	

ENVIRONMENTAL AND OCCUPATIONAL HEALTH (EOH)

Offered from the Department of Environmental and Occupational Health

The specific requirements, as approved, may be viewed on the College site:
http://health.usf.edu/publichealth/programs_offered.html

EPIDEMIOLOGY (EPY)

Offered from the Department of Epidemiology and Biostatistics

The specific requirements, as approved, may be viewed on the College site:
http://health.usf.edu/publichealth/programs_offered.html

GLOBAL COMMUNICABLE DISEASE (TCD)

Offered from the Department of Global Health

The specific requirements, as approved, may be viewed on the College site:
http://health.usf.edu/publichealth/programs_offered.html

HEALTH ~~POLICY AND MANAGEMENT~~ SERVICES RESEARCH (HSR)

Offered from the Department of Health Policy and Management

Total Program requirements with this concentration: **90 hours minimum**

Concentration Requirements

7000-level Courses:	13 hours minimum
QMB 7565 Advanced Research Methods	3
QMB 7566 Applied Multivariate Statistical Methods	3
PHC 7936 Seminar: Helath Outcomes Measurement	3
PHC 7437~~XXX~~ Applications in Health Economics	3
PHD 7935 Interdisciplinary Seminar	1
Advanced Statistics & Research Methods:	18 hours minimum
PHC 6051 Biostatistics II	3
PHC 6760 ~~Health Program Evaluation~~ Research Methods in Public Health Programs	3
PHC 6053 Categorical Data Analysis	3
PHC 6701 Computer Applications for Public Health Researchers	3
QMB 6375 Applied Linear Statistical Models	3
ECO 6424 Econometrics I	3
Health Policy Management:	12 hours minimum
PHC 6430 Health Economics I	3

PHC 6191 Quantitatiev Analysis in Health Care Management	3
PHC 6151 Health Policy and Politics	3
PHC 6180 Health Services Management	3

Speciality Area Courses 29 hours minimum

Dissertation 18 hours minimum

Additional coursework beyond 90 credits may be required of students as specified in the plan of study.

INDUSTRIAL HYGIENE (IHY)

Offered from the Department of Environmental and Occupational Health

The specific requirements, as approved, may be viewed on the College site:
http://health.usf.edu/publichealth/programs_offered.html

MATERNAL AND CHILD HEALTH (PMC)

Offered from the Department of Community and Family Health

The specific requirements, as approved, may be viewed on the College site:
http://health.usf.edu/publichealth/programs_offered.html

OCCUPATIONAL HEALTH FOR HEALTH PROFESSIONALS (OHP)

Offered from the Department of Environmental and Occupational Health

The specific requirements, as approved, may be viewed on the College site:
http://health.usf.edu/publichealth/programs_offered.html

PUBLIC HEALTH EDUCATION (HED)

Offered from the Department of Community and Family Health

The specific requirements, as approved, may be viewed on the College site:
http://health.usf.edu/publichealth/programs_offered.html

SOCIO-HEALTH SCIENCES (SHS)

Offered from the Department of Community and Family Health

The specific requirements, as approved, may be viewed on the College site:
http://health.usf.edu/publichealth/programs_offered.html

TOXICOLOGY AND RISK ASSESSMENT (TXY)

Offered from the Department of Global Health

The specific requirements, as approved, may be viewed on the College site:
http://health.usf.edu/publichealth/programs_offered.html

Tools of Research:
Departmental Guidelines will address whether tools of research are required for doctoral students within that department (consistency within the department required). The student must complete a minimum of two of the "Tools of Research" options designated by the department, and approved by the doctoral committee before the student is eligible to take the doctoral qualifying examination.

Teaching:
All doctoral students will demonstrate or document proficiency in teaching academic courses at the university level.

Qualifying Exam:
When all required coursework is satisfactorily completed (including tools of research and prerequisites), the student must pass a written comprehensive qualifying examination covering the subject matter in the major and related fields.

Dissertation:

All students must follow the University's "Guidelines for Dissertations and Theses." In addition, the Concentration in Biostatistics and the Concentration in Epidemiology have additional format requirements. Consult the Department for information on the format options and requirements for these two concentrations.

OTHER INFORMATION

Certificate Programs: (for information click on the graduate certificates at http://www.outreach.usf.edu/gradcerts/)

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

PUBLIC HEALTH PROGRAM

Doctor of Public Health (Dr.P.H.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: ~~December~~ November 15 annually

Minimum Total Hours: 90
Program Level: Doctoral
CIP Code: 51.2201
Dept Code: DEA
Program (Major/College): **DPH** PH

CONTACT INFORMATION

College: Public Health

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

The Dr.P.H. is an advanced professional degree that prepares practitioners for leadership and advocacy in public health practice through a scientific and interdisciplinary approach to understanding and solving problems in public and private sectors in Florida and the global community. The Dr.P.H. curriculum differs from the Ph.D. in that the Dr.P.H. requires all five public health core courses, whereas the Ph.D. requires only three. Dr.PH. students would be required to develop both quantitative and qualitative applied research skills, whereas PhD students may choose to develop either quantitative or qualitative research skills. Dr.P.H. students are required to complete 12 credit hours of policy, leadership and management courses, which is not required in most Ph.D. concentrations. Another difference from the Ph.D. is the culminating requirement of the Dr.P.H., a dissertation, must be practice based in addition to a requirement of 9 hours of field experience. Data and other information gathered through the field experience can be incorporated into the dissertation.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools. The College is fully accredited by the Council on Education in Public Health.

Major Research Areas:
Faculty major research areas are listed at: http://publichealth.usf.edu/facultyaffairs/facultyprofile.html

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements
Applicants must have an M.P.H., M.H.A. or equivalent degree from an accredited university, and a minimum of two years work experience in public health, a closely related field or as a health professional. Eligibility requirements regarding GPA and standardized test scores will be identical to the college's Ph.D. program which is 3.0 GPA AND at least 480 on the verbal section of the GRE and 620 on the quantitative section.

Applicants must identify a discipline-specific interest area and have a faculty sponsor from the discipline who agrees to serve as the major professor. The admissions decision is made by the faculty sponsor's department.

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours: **90**

At least 12 hours have to be at the 7000 level

Core Requirements

Pre-Requisite Public Health Courses

Public Health Core 15 credit hours

PHC 6000 Epidemiology
PHC 6050 Biostatistics I
PHC 6102 Principles of Health Policy and Management
PHC 6357 Environmental and Occupational Health
PHC 6410 Social and Behavioral Sciences Applied to Health

Required Coursework

7000 Level **12 credit hours**

Must include three terms of Interdisciplinary Doctoral Seminar 3

Applied Research **15 credit hours**

PHC 6051 Biostatistics II ~~2~~ 3

Evaluation course~~*~~

~~Qualitative Research Methods*~~

Quantitative Research Methods*

*Two mixed methods courses may substitute for the Quantitative and Qualitative research methods courses.

Choose one:

PHC 6010 Epidemiology Methods I
PHC 6011 Epidemiology Methods II
PHC 7001 Practical Issues in Epidemiology

Policy, Leadership and Management **12 credit hours**

Policy course*
Planning course*
Management/Leadership course*
One Elective

*Each department (or doctoral committee if department guidelines do not exist) should choose the appropriate policy, leadership, and management courses for the student's plan of study

Potential Courses

PHC 6104 Management of Public Health Programs
PHC 6180 Health Services Management
PHC 6181 Organizational Behavior
PHC 6146 Health Services Planning and Evaluation
PHC 6148 Strategic Planning and Health Care Marketing
PHC 6151 Health Policy and Politics
PHC 6191 Quantitative Analysis in Health Care Management
PHC 6760 Health Program Evaluation

~~**Electives** **18 credit hours**~~

~~Should choose the appropriate policy, leadership, and management courses for the student's plan of study~~.

Discipline-Specific **18 credit hours minimum**

Discipline-Specific courses should pertain to focal discipline and interest area. Hours can be transferred from Master's degree.

Culminating Requirements 18 credit hours

Written qualifying exam and Practice-Based Dissertation (requires 9 credit hours of PHC 7908 Specialized Study, which encompasses a field placement, and 9 credit hours of PHC 7980 Dissertation)

Tools of Research:
Departmental Guidelines will address whether tools of research are required for doctoral students within that department (consistency within the department required). The student must complete a minimum of two of the "Tools of Research" options designated by the department, and approved by the doctoral committee before the student is eligible to take the doctoral qualifying examination.

Written qualifying exam and Practice-Based Dissertation (Requires 9 credit hours of PHC 7908 Specialized Study, which encompasses a field placement, and 9 credit hours of PHC 7980 Dissertation).

Teaching:
All doctoral students will demonstrate or document proficiency in teaching academic courses at the university level.

Qualifying Exam:
When all required coursework is satisfactorily completed (including tools of research and prerequisites), the student must pass a written comprehensive qualifying examination covering the subject matter in the major and related fields.

Doctoral Committee
A student's doctoral committee must have a minimum of four members, which includes at least two faculty members from the sponsoring department and a public health professional or practitioner.

Dissertation:
All students must follow the University's "Guidelines for Dissertations and Theses."

Graduation Requirements
Students must be in good academic standing to graduate (minimum of an overall 3.0 GPA) and have completed all required and elective coursework, including successful defense of their doctoral dissertation and completion of the teaching requirement.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

College of The Arts

Changes to Note

The follow curricular changes for the College of The Arts were approved by the USF-Tampa Graduate Council on the date noted.

Program Changes

Urban and Community Design (M.U.C.D.) *revise curriculum*	1/24/11

Program Terminations

Dramatic Writing (M.A.)	2/24/11

New Courses

MUE 6493	Multimedia Methods in Music Education (Elective option)	1/24/11
UCD 6xxx	Community Design Studio	7/7/10
UCD 6xxx	Landscape and Ecology as Urbanism	7/7/10
UCD 6xxx	Life Between Buildings: Public Space in the City	7/7/10
UCD 6xxx	Special Topics in Urban and Community Design	7/7/10
UCD 6xxx	The Neighborhood	7/7/10

UCD Courses Approved 7/7/10; SCNS notified 7/8/10. UPDATE -- Issue with UCD Prefix – does not exist; courses are pending resolution of Prefix issue. Department submitted a proposal for the UCD prefix to be created. Pending state response. Courses being processed with ARC prefix for interim solution.

Course Changes

ARH 6055	Art History	*change from fixed to variable credit*	3/21/11
ART 6911	Directed Research	*change grading option to regular*	11/15/10

University of South Florida
College of The Arts
4202 E. Fowler Ave FAH110
Tampa, FL 33620

Web address: http://www.arts.usf.edu/
Email: n/a
Phone: 813-974-2301
Fax: 813-974-2091

Interim College Dean: Barton Lee
Interim Assistant Dean: Victor Fung
Graduate Coordinator: VIctor Fung

Accreditation:
The Commission on Colleges of the Southern Association of Colleges.

Mission Statement:
The mission of the USF College of The Arts is to conduct scholarly and creative research and to challenge and inspire students to make significant contributions in the arts. The College provides a learning environment that is engaged locally and nationally in contemporary issues and initiatives. The College offers graduate degree programs in Architecture, Art, Art History, Music, Music Education, and Urban and Community Design, as well as graduate certificates and advanced graduate certificates.

Major Research Areas: Contact College for information.

Degrees, Programs, Concentrations

Master of Architecture (M.Arch.)
- Architecture (ARC)

Master of Arts (M.A.)
- Art History (ATH)
- Music Education (MUE)

Master of Fine Arts (M.F.A.)
- Art (MFA)

Master of Music (M.M.)
- Music (MUS)
  - Chamber Music (MCL)
  - Composition (MMC)
  - Conducting (MMD) (*choral and instrumental)*
  - Electro-Acoustic Music (MEM)
  - Jazz Composition (MJC)
  - Jazz Perforamnce (MJP)
  - Performance (MMP)*
  - Piano Pedagogy (MPP)
  - Theory (MMT)

**Choral Conducting, Band/Wind Ensemble Conducting, Voice, Piano, Saxophone, Trombone, etc.*

Master of Urban and Community Design (M.U.C.D.)
Urban and Community Design (UCD)

Doctor of Philosophy (Ph.D.)
Music (DMS)
Music Education (MDE)

Graduate Certificates Offered:
See Graduate Certificates

COLLEGE REQUIREMENTS

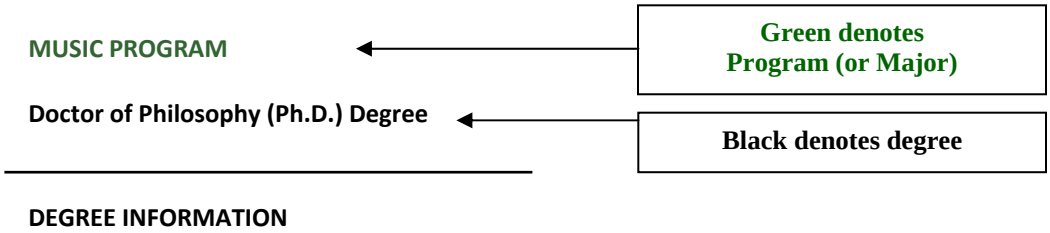
College Activities and Events

The College of Visual and Performing Arts arranges a full schedule of concerts, plays, lectures, exhibitions, and workshops featuring students, faculty, and visiting artists/scholars. Events are open to the general public and are presented both during the day and in the evening. Special ticket privileges are available to USF students. For more information, contact the CVPA Events Office. Refer to the College website for more information.

About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the College that offers them. For example, the Master of Science degree with a "program" (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or "concentrations" within a degree program.

PROGRAMS



CONCENTRATIONS

Concentration Requirements are listed separately under each Program.

The Program and Concentration are listed on the official transcript. Other areas, such as application tracks, are not listed on the transcript.

Example:
Doctor of Philosophy in Music
with a Concentration in Music Education

ARCHITECTURE PROGRAM

Master of Architecture (M.Arch.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall Deadline: February 1
Fall admissions only.

Minimum Total Hours: 105
Program Level: Masters
CIP Code: 4.0201
Department Code: DEA
Program (Major/Coll) Code: ARC AR
Approved: 1995

CONTACT INFORMATION

College: The Arts
Dept: School of Architecture and Community Design

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

School of Architecture and Community Design Mission Statement:
Our mission is to provide graduate level education that:

- Provides a holistic design curriculum and instruction through a variety of pedagogical approaches.
- Encourages individual and collaborative discoveries.
- Emphasizes continuity between design and construction.
- Builds technical and professional proficiency.
- Offers wide ranging global learning experiences.
- Provides opportunities for engagement with diverse communities.

and for students and faculty to conduct scholarly research and creative activity that:

- Is innovative, disciplinary, and interdisciplinary.
- Advances the understanding of the built environment as it relates to society and culture.
- Contributes to theory and practice in the disciplines of architecture and urbanism.
- Is relevant to local communities.
- Advances the contemporary state of critical practice.
- Provokes (stimulates/instigates) critical discourse on architecture and urbanism.
- Explores (embraces) emerging technologies.

Our aim is to graduate professionals who will be recognized for their design excellence in enhancing the quality of the built environment.

Program Information
The program leading to the accredited Master of Architecture degree is intended for students who have completed baccalaureate degrees in non-architectural majors or with a pre-professional undergraduate major in one of the design professions. The comprehensive and rigorous curriculum prepares graduates for a full range of professional activities. The course of study emphasizes urban architecture and related topics to take advantage of its diverse metropolitan setting in Florida's Tampa Bay.

The School of Architecture and Community Design (SACD) is home to the Florida Center for Community Design and Research, is a non-profit public service institute of the School of Architecture and Community Design. It was founded in 1986 to assist the citizens of Florida in the creation of more livable and sustainable communities through applied community design, multi-disciplinary research, and public education. The diverse staff includes architecture faculty and students, research scientists, and programmer analysts. In addition, the Center has affiliated faculty or graduate students from the Department of Anthropology, Biology, Fine Arts, Geography, and Social Work.

Accreditation and Licensure:
Applicants for architectural licensure in Florida, and most jurisdictions in the United States, normally must have:

- earned a professional degree from a School accredited by the National Architectural Accrediting Board (NAAB)
- completed the Intern Development Program (IDP)
- passed the Architect Registration Examination (ARE)

According to the 2004 edition of the of the NAAB Conditions and Procedures:"In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit US professional degree programs in architecture, recognized two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards. Masters degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree."

Major Research Areas:
Architecture and Community Design

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

In order to enroll in the M.Arch. Program, students must be accepted by the Graduate School and the School of Architecture and Community Design. These are separate admission processes that involve different application forms, supportive materials, and deadlines. For more detailed information, students should see Graduate Admissions online and visit the SACD website.

Program Admission Requirements
The Master of Architecture (M.Arch.) requires

- a 3.00 undergraduate GPA
- GRE Test Score
- Portfolio of creative work
- Completed 3 prerequisite courses: Physics, Calculus, and AutoCAD
- Written Statement of Intent
- Three letters of recommendation

DEGREE PROGRAM REQUIREMENTS

Minimum Hours Required: 105 hours

The M.Arch. Degree normally requires 105 credit hours of coursework for students with baccalaureate degrees in non-architectural subjects. In order to complete the program in a timely manner, students must complete 15-17 credit hours per semester. Students with undergraduate degrees in architecture or related fields may receive waivers for some required courses for which a grade of B or better was earned.

51 hrs* – Students with four-year pre-professional degrees must complete a minimum of 51 credit hours in the Master of Architecture program.

**The total required credit hours and courses are determined on an individual basis and are dependent upon the school's review of the student's individual portfolio and undergraduate transcript upon application for admission.*

30 hours** - Students with five or six year professional degrees from a NAAB/CAAB accredited program (U.S. and Canada) must complete a minimum of 30 credit hours in the program.

***The total required credit hours and courses are determined on an individual basis and dependent upon the school's review of the student's individual portfolio and accredited program professional degree upon application for admission.*

For more detailed information, interested students should contact the School directly or visit its website.

Course Requirements:
Students who are required to take the minimum of 105 hours must take all of the following:

Prerequisites:

College level:
- Physics***
- Calculus***
- Computer-aided Design
- Competence in design/graphics (portfolio)

Design/Graphics

ARC 5361 – Core Design I	9***
ARC 5362 – Core Design II	9***
ARC 5363 – Core Design III	6***
ARC 5364 – Advanced Design A	6***
ARC 5365 – Advanced Design B	6
ARC 5366– Advanced Design C	6
ARC 6367 – Advanced Design D	5
ARC 5256 – Design Theory	3***
ARC 5731 – Architectural History I	3***
ARC 5732 – Architectural History II	3***
ARC 6398 – Introduction to Community and Urban Design	3

Technology

ARC 5470 – Intro to Technology	3***
ARC 5467– Materials and Methods of Construction	3***
ARC 5587 – Structures I	3***
ARC 5588 – Structures II	3***
ARC 5689 – Environmental Technology	3***
ARC 6481– Design Development	3

Professional Practice

ARC 6287 – Professional Practice I	3
ARC 6288 – Professional Practice II	3

Research/Thesis

ARC 6936 – Research Methods in Architecture	2
ARC 6976 – Master's Project	5

Electives

ARC ___ - Elective 1	3
ARC ___ - Elective 2	3
ARC ___ - Elective 3	3
ARC ___ - Elective 4 Design	3
ARC ___ - Elective 5 Tech	3

***Courses marked by asterisks (*) may be completed in undergraduate pre-professional or similar programs with a grade of B or above and with approval of faculty advisor.

OTHER REQUIREMENTS

Computers

The School of Architecture and Community Design requires each student enrolled in the Advanced Design Studios level, or higher, to possess (through purchase or lease) a NOTEBOOK COMPUTER system.

The notebook computer requirement allows students to conduct the majority of digital work, which is an integral aspect of advanced architectural design education and professional practice, in the design studio. The studio is the primary place for the exchange of design ideas, critique, and synthesis, and the Architecture faculty believes that the student's regular presence in the studio is critical for maximizing her or his architectural design learning.

The notebook system is required in lieu of a desktop in order to address the limited design studio space available to each student. The mobility of the notebook allows the student to easily and quickly transform a relatively small desk space into a variety of configurations suitable for physical model-making, hand-drawing, hand-drafting, design research, and design writing as well as digital drawing, modeling, and graphic design. The battery-powered notebook allows for maximum computer use within environments with limited electrical power outlets.

The School will continue to maintain high-powered computer systems in the laboratory for intensive computing required for manipulating large digital models, renderings, etc. Students may begin their digital work on their laptops and, if needed, use removable storage and network connections to transfer files to the lab systems for final development. The School provides black and white printers, color and black and white plotters, and scanners in the computer laboratory.

Because the notebook computer system is an educational requirement of the School, the cost of a new computer purchase can be factored in determining a student's financial need. The student must contact the USF Office of Financial Aid (813-974-4700) to request additional information and a "Budget Adjustment for Computer Purchase" form prior to ordering a computer. The decision regarding a student's budget adjustment may take 6-8 weeks, so students are strongly encouraged to plan ahead. Only one financial aid budget adjustment up to $2,500 for a new computer can be issued during a three year period.

Portfolios

The faculty requires the submission of portfolios of academic work by each student at two formal portfolio reviews. Students must pass these portfolio reviews in order to advance in the program. The portfolio policy can be found on the School's website. Students are advised to prepare their design work for inclusion in their portfolios at the end of each design semester, instead of waiting until just before the portfolio due dates. Some expense, varying widely according to reproduction technique and/or ambition, should be anticipated.

Field Trips

Each year students in the fall term beginning students in take a field trip to Savannah, GA. Transportation, lodging and meals ($200-300) are paid by the students. Students in design studios take field trips to such cities as New York, Boston and Chicago in the spring. The cost of these trips may be $200-600 per student.

Student Work

Student work, submitted to the School in satisfaction of course or degree requirements, becomes the physical property of the School. This work may include papers, drawings, models, and other materials in either physical or electronic form. The School assumes no responsibility for safeguarding such materials. At its discretion, this School may retain, return, or discard such materials. The School will not normally discard the materials of currently enrolled students without giving the student a chance to reclaim them.

GPA of 3.00 in Design

In addition to the state-wide requirement that students maintain an overall grade point average(GPA) of 3.00 or better, the Architecture faculty also requires that students maintain a GPA of 3.00 or better in all design courses.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ART PROGRAM

Master of Fine Arts (M.F.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 15
Fall admission only

Minimum Total Hours: 60
Program Level: Masters
CIP Code: 50.0702
Dept Code: ART
Program (Major/College): MFA FA
Approved: 1967

CONTACT INFORMATION

College: The Arts
Department: School of Art and Art History

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The nationally ranked MFA Program in Studio Art has been carefully designed as a course of study that will maximize the student's potential for in depth investigation of his or her chosen artistic ideas, themes and /or media. Students are encouraged to acquire technical and conceptual skills in more than one medium or studio discipline and to work toward developing techniques that best communicate the content of their artistic pursuits.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools; National Association of Schools of Art and Design.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- A Bachelor's degree or equivalent from a regionally accredited university or art school
- Meet at least one of the following criteria
  - Earned a "B" (3.0 on a 4.0 scale) average or better in all upper division studies as an undergraduate student.
  - Earned a graduate degree from a regionally accredited institution.
- Approved portfolios are required for admission into the M.F.A. Studio Art Program (see program website).

DEGREE PROGRAM REQUIREMENTS

Specific program requirements include the following:

Total Minimum Hours			60
CORE REQUIREMENTS			**19**
ARH 6798	Contemporary Thought *(20th Century Art History or its equivalent is a prerequisite to ARH 6798 Contemporary Thought.)*	4	

ART 6890	Graduate Seminar I	3
ART 6891	Graduate Seminar II	3
ART 6999	Professional Practices	3
ARH 6798	Seminar in Art History	4
ART 6956	M.F.A. Research Project	2

ELECTIVE REQUIREMENTS

ART 5000 and 6000 Studio and Discretionary Electives 41 credits
(3 hours of electives must be taken from a program other than the School of Art and Art History – 4000 level coursework may be used to satisfy this requirement)

ART 6937	Graduate Instructor Methods	2
	(This course is an elective option for students who have not worked as a Teaching Assistant.	

M.F.A. RESEARCH PROJECT:
Exhibition/Orals/Written Document

OTHER REQUIREMENTS

A course in 20th Century Art History should have been successfully completed at the undergraduate level prior to entering the M.F.A. program. If not, new students must enroll in the USF course during the first year of graduate study. However, financial aid awards will not cover the cost of the course and it cannot be used to satisfy the 60 credits required for the M.F.A. degree.

The School of Art and Art History highly recommends that all students seeking an advanced degree in Art take a minimum of one course in Electronic Media.

The remainder of the program is discretionary and can be planned with the advice of the Graduate Art Advisor in its initial stages. After faculty acceptance of the student's M.F.A. Proposed Research Project, a Graduate Supervisory Committee selected by the student will serve in an advisory capacity to the student for planning the rest of his/her program.

DIRECTED STUDIES
As part of the student's studio and discretionary electives, he/she may register with a faculty member under a Directed Study Contract.

The descriptions for Directed Study are as follows:

ART 6940, Selected Topics in Art, Grading option Regular (For a grade), 1-4 credits
Suitable for coursework by contract in an area in which the student has prior skill.

ART 5910, Research, Grading option Regular, 1-4 credits
Suitable for coursework by contract in an area in which the student has little or no prior skill.

ART 6940 and ART 5910 are the only variable credit contracts that M.F.A. students should use until they have formed their Supervisory Committees, as they are the only variable credit contracts with the regular grading option. All M.F.A. students are required to take coursework for a grade until they have formed their Supervisory Committees.

ART 6907, Independent Study, Grading option S/U, 1-19 credits.
Suitable for graduate level coursework in any area for which the student does not wish a letter grade, or which justifies more than 4 hours of credit. May be used only after the student's Supervisory Committee is formed. (See S/U Grades)

ART 6911, Directed Research, Grading option S/U, 1-19 credits.
Suitable for graduate level coursework in any area for which the student does not wish a letter grade, or which

justifies more than 4 hours of credit. May be used only after the student's Supervisory Committee is formed. (See S/U Grades)

In practice, ART 6907 and ART 6911 are used interchangeably. As noted, they are not for use by M.F.A. students who have not yet established their Supervisory Committees. The other, media specific, course numbers such as Sculpture or Painting are not often used as they are fixed at 4 credit hours. When they are used it is the policy of the School that they be taken by contract.

Transfer Credits
Requests for use of transfer credits or credits earned under "special" (aka non-degree seeking) student status should be made when the student applies to the graduate program. The faculty will decide at the time of admission whether or not transfer credits and credits earned as a special student will be used toward the requirements for the M.F.A. degree. Transfer credit and credit earned as a special student to be used toward the students' M.F.A. degree is limited to 8 semester hours.

S-U GRADES
A Student may not take any course work for a grade of "S/U" until they have elected a supervisory committee, usually by the fourth semester. All course work taken during the first three semesters must be taken in course work assigning letter grades that designate quality points. Appropriate contract numbers would include graduate level studios such as Sculpture or Painting, and ART 5910 for an area in which a graduate student did not have prior skill, or ART 6940 for studies in an area where prior skill exists but the student requires variable credit or the research does not conform to clear categorization by discipline. ART 6907 Independent Study and ART 6911 Directed Research offer only the S/U grading option and are not to be used until after the student has elected a supervisory committee.

FACULTY EVALUATIONS AT THE END OF FIRST, SECOND AND THIRD SEMESTERS
At the end of the first, second and third semesters, students will receive a written evaluation from a faculty committee regarding their progress in the program based on a presentation of their work. A student receiving "unsatisfactory" grades for the first year and third semester evaluations will be dropped from the program.

M.F.A. RESEARCH PROJECT PROPOSALS
During the fourth semester students will present a proposal for their MFA Research Project. The student must present a body of work and written paper supporting the student's proposed direction.

If a student's proposal is satisfactory, he/she will select a graduate Supervisory Committee to oversee the realization of the research project. If a student's project proposal is not satisfactory, another proposal can be presented before the end of the fourth semester. If the student's proposal and re-proposal are voted unsatisfactory the student will be dismissed from the program.

GRADUATE SUPERVISORY COMMITTEES
The Graduate Supervisory Committee consists of a chair and two members from the Studio Art faculty. The Supervisory Committee must be approved by the MFA Program Director.

M.F.A. RESEARCH PROJECT
EXHIBITION/ORALS/WRITTEN DOCUMENT

The exhibition, written document and the orals conclude the student's graduate program and take place after all course work is completed. The exhibition is usually during the term the student plans to graduate, typically the second semester of the third year. M.F.A. Research Project exhibitions cannot be scheduled for the summer term.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

ART HISTORY PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Fall: January 15
Fall admission only.

Minimum Total Hours: 38
Program Level: Masters
CIP Code: 50.0703
Dept Code: ART
Program (Major/College): ATH FA
Approved: 1985

CONTACT INFORMATION

College: The Arts
Department: School of Art and Art History

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you

PROGRAM INFORMATION

The School of Art and Art History offers high quality M.A. studies in art history from the Middle Ages to the present. The focus of all art history courses and programs is on the intellectual and cultural history of art. Course work is supplemented by practical internships in galleries and museums as well as study-abroad programs. Proficiency in a foreign language relevant to the student's area of specialization is required. Students consult with their advisors to determine the foreign language most appropriate to their scholarly interests.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools; National Association of Schools of Art and Design.

Major Research Areas:
M.A. Art History students are guided by the art history faculty in selecting their area of research after completing a year of graduate study. Because the focus of the Art History M.A. Program is on the cultural and intellectual history of art, graduate thesis work is expected to address an area of art from a contemporary perspective that is complimentary. This program features an endowed chair in modern and contemporary art history.

ADMISSION INFORMATION

Admission is competitive. Student must at least meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Departmental Requirements plus a research paper dealing directly with Art History or a related discipline (literature, political history, psychology, philosophy or classical studies).
- Three letters of recommendation from people who can professionally assess the applicant's ability to do scholarly and academic work.
- A short essay of one to two pages explaining the applicant's research interests and goals for graduate study in art history.
- A personal interview by the Art History faculty may be requested.

Undergraduate Deficiencies in Art History

- Students pursuing graduate studies in Art History, who do not have an undergraduate degree in Art History will be expected to complete four undergraduate Art History survey courses plus two courses in critical studies.

- Exceptions can be granted only with consent of the Art History faculty.

Language Requirements

Reading knowledge of the foreign language most relevant for study and research in the student's area of specialization must be acquired before the end of the second semester of enrollment in the program. Please see the Academic Advisor for exceptions to this rule.

The student may take appropriate courses in the Division of Language or Classics Program. Whenever the courses are available, the student should be encouraged to take one of the special one semester foreign language courses designed for graduate students.

When these courses are not available, the student may take two semesters of a beginning foreign language course. These courses may not be taken pass/fail or audit. In order to fulfill the foreign language requirement, the student must receive a letter grade of "B" or better in both courses. Courses taken to fulfill the foreign language requirement will not count toward hours necessary for graduation and the grades in these courses will not be computed in the student's graduate GPA.

Students may elect to take the GSFLT (Graduate School Foreign Language Test). The student must achieve a score of 450 or above on the test in order to fulfill the foreign language requirement.

Students may take a proficiency exam in which they translate, from a foreign language into English, materials relevant to their particular disciplines. The form of these proficiency exams should be devised by the appropriate language professors from either of these two units.

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours		**38**
Qualifying Paper Option Course Requirements:		
ARH 6798 Seminar in Art History (4)		
Students take eight critical studies seminars in art history	32	
Electives (determined by individual consultation with Graduate Coordinator)	8	
ARH 6055 Art History (Writing the Qualifying Paper)	2	
Total Credit Hours		42
Thesis Option Course requirements:		
ARH 6798 Seminar in Art History (4)		
Students take six critical studies seminars in art history	32	
Electives (determined by individual consultation with Graduate Coordinator)	8	
ARH 6971 Thesis (Thesis Writing)	6	
Total Credit Hours		38

To learn about a range of art-historical methods, graduate students are required to take the critical studies seminars in a variety of historical periods and taught by different faculty. A student should, if possible, have at least one graduate class in these three areas:

1) Ancient/Medieval
2) Early Modern (15th-18th centuries)
3) Modern (19-21st centuries).

Museum experience is encouraged for all students, but course credit for museum internships is limited to those seeking a Certificate in Museum Studies.

Thesis and Qualifying paper options

Students either write a qualifying paper or thesis to complete the requirements of the M.A. program. Students should consult with the Director of the Graduate Program and the faculty to determine which option is the best for them; the final decision rests with the faculty. For either option, a B+ average or above is required in courses taken to fulfill Program graduate credits, for students to move on to this final phase of their graduate studies.

The M.A. in Art History is a two-year program for students who attend full time, but the thesis option often takes longer to complete.

Qualifying paper option

Requires 8 seminars in art history (32 hours), with 8 additional hours of electives, plus 2 hours for preparing the qualifying paper (in the fourth and final semester).

The qualifying paper should demonstrate the student's ability to do significant art-historical research, to persuade by effective use of evidence and argument, and to write fluently and clearly. The qualifying paper will usually be a substantially revised seminar paper and should be about 15-20 typed pages in length, excluding endnotes, bibliography, illustrations or other materials. Students choosing this option should form a qualifying paper committee by the end of the second semester of their first year. The Committee is composed of a major professor and a second faculty member. Members of the Committee are faculty in the School of Art and Art History, of which one must be tenured or tenure-earning. The major professor will usually be the professor who oversaw the writing of the original seminar paper. Students pursuing this option download the relevant form at http://www.arts.usf.edu/absolutenm/articlefiles/20-GradComApptFrm.pdf. Students are responsible for collecting committee members' signatures. The M.A. Program Director must authorize all committee assignments with his/her signature.

When submitting drafts of the qualifying paper to committee members, students must allow faculty members two weeks to read any given version. Remember that first drafts usually have to be extensively revised, often several times, before the qualifying paper is accepted. Faculty are not normally available during the summer to read qualifying paper drafts.

The qualifying paper committee must approve the qualifying paper before the student can graduate. Qualifying papers must be submitted two weeks before the last day of classes of the semester in which the student wishes to graduate. The major professor, in consultation with the other faculty member, notifies the Academic Advisor of the School of Art and Art History of approval of the paper before the end of the semester. If a paper is not approved, the student may revise and resubmit it a second time. It is the student's responsibility to stay abreast of Graduate School deadlines and registration requirements in the final semester, which are available online at http://www.grad.usf.edu.

Thesis option

Requires six seminars in art history (24 hours), with 8 additional hours of electives, plus 6 hours of thesis writing (4 hours in the third semester and 2 hours in the fourth and final semester). Students writing the thesis should work with faculty during the second semester to begin developing potential topics. By the end of the first year, students who wish to write the thesis should decide on a thesis topic with a major professor from the art history faculty. The topic is usually related to research done in a seminar. During the following summer students prepare the thesis proposal. The proposal should define a significant research problem and explain how the topic has the potential to contribute to scholarship in the field; it must include a research plan and a critical review of the scholarly literature on the subject area. Thesis proposals will be presented to faculty and fellow graduate students in a public forum at the beginning of the third semester. Each presentation is followed by discussion, which provides an opportunity for students to receive suggestions and recommendations from faculty and peers. If the proposal is declined, the student will be eligible to pursue a Qualifying Paper.

If the art history faculty approves the thesis topic, the student should form a thesis committee by the end of the semester in which they have successfully proposed a thesis topic, and have thereby achieved thesis candidacy.

The committee is composed of at least two members and the major professor. The major professor and at least one other committee member must be chosen from tenured or tenure-earning art history faculty, or otherwise as approved by the Director of the M.A. program. Students forming the thesis committee download the relevant form at http://www.arts.usf.edu/absolutenm/articlefiles/20-GradComApptFrm.pdf. Students are responsible for collecting committee members' signatures. The M.A. Program Director must authorize all committee assignments with his/her signature.

While moderate in length and considerably more limited in scope than a doctoral dissertation, the M.A. thesis must demonstrate the student's ability to do original, independent research of publishable quality. The thesis should be approximately 35-40 typed pages of text – the usual length of a journal article -- excluding notes, bibliography, illustrations or other materials. When submitting drafts of the thesis to committee members, students must allow faculty members two weeks to read any given version. Remember that first drafts will have to be extensively revised several times before the thesis is accepted. Faculty are not normally available during the summer to read thesis drafts. The thesis committee must approve the final thesis before the student may schedule a date for the M.A. thesis defense. The examining committee will consist of the thesis committee and at least two additional questioners who are chosen by the student in consultation with the thesis committee. Students should keep in mind that the questioners must also be allowed two weeks to read the draft of the thesis after it is accepted for the defense by the thesis committee. The oral defense is open to the public. No defenses are scheduled during the summer. Immediately after the orals, the examining committee meets to determine whether the student has passed the oral examination and whether the thesis is acceptable in its current form.

NOTE: It is usually necessary to make some changes in the thesis after the oral defense. Allow at least one week between the oral exam and the Graduate School deadline so that you will be able to make the changes.

Ideally, the student will complete the thesis and submit it in the fourth semester. It is the student's responsibility to stay abreast of Graduate School deadlines and registration requirements in the final semester. Check with the USF Graduate School for specific deadlines and requirements for the M.A. thesis and graduation. These are available online at http://www.grad.usf.edu/newsite/thesis.asp. All theses must be submitted electronically.

Transfer of Credit

There is no automatic transfer of special student credit or graduate credit earned at other institutions or from other graduate program in the university towards M.A. degree requirements. The School of Art and Art History has designated a six hour limit on all credit taken as special student status. Any transfer of credit or special student hours to be used toward M.A. degree requirements are only granted after a faculty review at the time the student has been accepted into the M.A. program.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MUSIC EDUCATION PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

U.S. Students:

Fall:	February 15
Spring:	October 15
Summer:	February 1

International Students:

Fall:	February 15
Spring:	October 1
Summer:	February 1

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	13.1312
Dept Code:	MUS
Program (Major/College):	MUE FA
Approved:	1962

CONTACT INFORMATION

College:	The Arts
Department:	School of Music
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

Music Faculty, Alumni, and Students

Perhaps the most compelling reason to study music at the University of South Florida is the opportunity to work with our superb music faculty. These gifted, dedicated artists/scholars are among the preeminent leaders in their fields and have been carefully chosen for their professional training, excellence in musical performance and research, and pedagogical expertise. They are featured on many professional recordings and appear in prestigious concert venues around the world. Their compositions are premiered globally. Their scholarship is published in the leading research journals, books, and monographs in their disciplines. The School of Music also invites guest composers, conductors, and performing musicians to enhance its performances and to provide master classes, symposia, and clinics for students and the public. Many USF music alumni are currently performers in a variety of concert settings and successful teachers in public schools, colleges, and universities around the country. The School of Music at USF offers the student the opportunity to study with distinguished faculty and to be in the company of other superior music students for an exciting and exacting period of study.

Master of Arts Program Description

Graduate education in music education at the University of South Florida is focused on research. The Master of Arts degree in music education empowers students to become thoughtful *consumers of research* in music education. This program captures a balanced array of courses in music education, research techniques, music theory/history/literature, and electives in music. It concludes with a comprehensive examination. Variability of the program depends on individual interests and needs. Many of the offerings for the Master of Arts degree in music education are offered via the internet in a distance learning format. It is possible to complete the entire degree through distance learning. Details on distance learning coursework are available at:
http://musiceducation.arts.usf.edu

Accreditation:

Commission on Colleges of the Southern Association of Colleges and Schools (S.A.C.S.); National Association of Schools of Music (N.A.S.M.). National Council for Accreditation of Teacher Education (N.C.A.T.E.)

Major Research Areas:
Alternate Methods, Community Collaboration, Contemporary Changes, Early Childhood, General Music, International Perspectives, Multicultural Issues, Technology, Teacher Behaviors, Philosophy, Psychology, Sociology.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Diagnostic Tests in music history/literature and theory must be taken prior to the first semester of study. Based upon the scores, the music faculty may require remediation in one or both areas of study. Graduate review courses are offered online each Fall semester.
- The Graduate Record Examination (GRE) is not required.
- An official **Transcript** for a completed undergraduate degree in music (from an accredited program) is required with the application..
- The overall Grade Point Average (GPA) for upper division credit hours must be at least 3.0, and the GPA for all music, music education, and education courses included in the undergraduate degree must be at least 3.0.
- A Résumé
- A minimum of three (3) current **Letters of Recommendation** from people qualified to speak on behalf of the applicant's professional capabilities must accompany the application.
- At least two years of K-12 music teaching experience, or the equivalent, are required.
- However, final approval for admission must be granted by the music education faculty.
- **International students** must include copies of graduation **Certificates** and/or **Diplomas** (in addition to official transcripts) with their applications. If English is not their primary language, they must have at least a score of 550 (or 213 for the computer version) on the Test of English as a Foreign Language (**TOEFL**), or they must have completed English Language Institute (**ELI**) Level 4 or Level 5 and have passed the ELI Exit Assessment.
- Credit hours earned in Certificate programs at USF may be applied toward a master's degree. M.A. students must successfully complete a Comprehensive Examination at the end of the program of study. Details regarding this examination may be obtained from the Director of Graduate Studies in Music.

It is important to enroll in the term of admission. If postponement is necessary, you should request that your application be updated for the term when you will register for classes.

DEGREE PROGRAM REQUIREMENTS

Sequence of Events and Protocols

Admission (see above)
Completion of Courses (see below)
Application For Graduation (due by beginning of final semester)
Comprehensive Examination

- Selection of Committee, including major professor (chair) and two other professors with whom they have studied. The student and the committee must sign a contract available from the Director of Graduate Studies in Music at the beginning of the final term.

- Written Examination
  - Collection of examination questions by chair from committee members
  - Presentation of questions to candidate with deadline of one week for completion
  - Candidate submits questions and answers to chair one week before oral examination
- Oral Examination (meeting for candidate and committee members scheduled by chair)
- Thesis submission and thesis defense (only for those who elect to write a thesis)
- Final recommendation with signatures presented to Program Director of Graduate Studies in Music

Total Minimum Hours **30**

CORE REQUIREMENTS

MUS 6793	Techniques of Research in Music and Music Education	3
Two MUL, MUT and/or MUH 6000 courses		6

Passing scores on appropriate diagnostic exams required

Required Courses

EDF 6432	Foundations of Measurement	3
MUE 6080	Foundations and Principles of Music Education	3
MUS 6910	Directed Research (PR: MUS 6793, EDF 6432, MUE 6080) A research project, such as an action research project in curriculum development, with the guidance of a music education faculty member. The final presentation must involve a written report of the project and a multimedia presentation. This project may be completed over two semesters if necessary (including summer)	6

ELECTIVE REQUIREMENTS 9

(Must include at least one MUE course/special topics)

The responsibility for seeing that all graduation requirements are met rests with the student.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MUSIC PROGRAM

Master of Music (M.M.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

U.S. Students:

Fall:	February 15
Spring:	October 15
Summer:	February 15

International Students:

Fall:	February 15
Spring:	October 1
Summer:	February 1

Minimum Total Hours:	30
Program Level:	Masters
CIP Code:	50.0903
Dept Code:	MUS
Program (Major/College):	MUS FA
Approved:	1984

Concentrations:

Chamber Music (MCL) *(Piano and Strings only)*
Composition (MMC)
Conducting (MMD) *(Choral or Instrumental)*
Electro-Acoustic Music (MEM)
Jazz Composition (MJC)
Jazz Performance (MJP)
Performance (MMP)
Piano Pedagogy (MMP)
Theory (MMT)

CONTACT INFORMATION

College:	The Arts
Department:	School of Music
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

Music Faculty, Alumni, and Students

Perhaps the most compelling reason to study music at the University of South Florida is the opportunity to work with our superb music faculty. These gifted, dedicated artists/scholars are among the preeminent leaders in their fields and have been carefully chosen for their professional training, excellence in musical performance and research, and pedagogical expertise. They are featured on many professional recordings and appear in prestigious concert venues around the world. Their compositions are premiered globally. Their scholarship is published in the leading research journals, books, and monographs in their disciplines. The School of Music also invites guest composers, conductors, and performing musicians to enhance its performances and to provide master classes, symposia, and clinics for students and the public. Many USF music alumni are currently performers in a variety of concert settings and successful teachers in public schools, colleges, and universities around the country in a variety of concert settings. The School of Music at USF offers the student the opportunity to study with distinguished faculty and to be in the company of other superior music students for an exciting and exacting period of study.

The Master of Music degree provides students with an opportunity to pursue intense, focused study in their music specialty, coupled with a vigorous, balanced curriculum in music theory, music literature, and electives. Students in this program are mentored expertly by senior faculty and exhibit mastery of their specialty at the end of the course of study by way of appropriate capstone experiences, including recitals or theses and comprehensive examinations. The provisions and balance of these experiences comport precisely with the curriculum guidelines required by the national Association of Schools of Music.

Accreditation:
Commission on Colleges of the Southern Association of College and Schools (SACS); full member, National Association of Schools of Music (NASM)

Major Research Areas:
Chamber Music, Composition, Conducting, Jazz Studies, Music Performance, Music Theory, Pedagogy, Electronic Music,

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Successful auditions and/or interviews are required for admission into chamber music, conducting, electro-acoustic music, performance, pedagogy, and theory programs. Approved portfolios are required for admission into composition (jazz or traditional).
- Diagnostic tests in music theory and history must be taken before classes begin in the first semester. Based upon the scores, the music faculty may require remediation in one or both areas of study in order to qualify the student for permission to enroll in certain courses. Graduate review courses are offered each fall semester.
- The Graduate Record Examination (GRE) is not required for the M.M. Degree program.
- Students who do not enroll in the semester for which they applied and were admitted must receive permission from the Director of Graduate Studies in music to enroll in courses in the following semester(s). This procedure is to determine the availability of applied and academic courses in music.
- An official undergraduate Transcript for a completed undergraduate degree in music (from an accredited program) is required with the application.
- The overall Grade Point Average (GPA) for upper division credit hours must be at least 3.0 and the GPA for all music courses included in the undergraduate degree must be at least 3.0 International students must include copies of graduation Certificates and/or Diplomas (in addition to official transcripts) with their applications.
- International students must have at least a score of 550 (or 213 for the computer version) on the Test of English as a Foreign Language (TOEFL), or they must have completed English Language Institute (ELI) Level 4 or Level 5 and have passed the ELI Exit Assessment.
- Credit hours earned in Music Certificate Programs at USF may be applied toward a master's degree.
- M.M. students must successfully complete a Comprehensive Examination at the end of the program of study. Details regarding this examination may be obtained from the Director of Graduate Studies in Music.

DEGREE PROGRAM REQUIREMENTS

ADMISSION

- Admission to USF Graduate Studies with acceptable transcript(s)

- Admission to School of Music through successful audition and/or interview (chamber music, conducting, electro-acoustic music , jazz performance, performance, pedagogy, and theory), or approved portfolio (classic and jazz composition)
- Diagnostic Music Tests taken prior to classes in first term. Students may be required to enroll in a remedial history and/or theory course as a consequence of their scores.

COMPLETION OF COURSES
(required for degree program): Common Core, Major Area, Electives (specifics follow)

APPLICATION FOR GRADUATION
(due by beginning of final semester)

FINAL PROJECT (according to major area)

- Composition(s) as required by composition faculty, or
- Recital (includes recital approval hearing one to two weeks in advance of recital), or
- Thesis (includes Oral Defense)

COMPREHENSIVE EXAMINATION
Selection of Committee, including major professor (committee chair) and two other professors from varying concentrations in music with whom they have studied. One member must be from the academic area. The student and the committee must sign a contract available from the Director of Graduate Studies in Music at the beginning of the final term.

- Written Examination
  1) Collection of examination questions by chair from committee members
  2) Presentation of questions to candidate with deadline of one week for completion (theory majors take a two-hour written examination.)
  3) Candidate submits questions and answers to chair one week before oral examination
- Oral Examination (meeting for candidate and committee members scheduled by chair)
- Final Recommendation with signatures presented to the Program Director of Graduate Studies in Music

The course outlines below are mandatory for the respective fields of study. Secondary applied music courses may be taken in conjunction with MUS 6976, Graduate Recital, if two semesters of four-credit hour major study have already been completed.

Master of Music Degree (M.M.)
Program requires a minimum of 30 credit hours.

CORE REQUIREMENTS

MUS 6793 Techniques of Research in Music and Music Education	3

In addition, students in all concentrations must choose 2 of the following 7 courses.
One must be a 20th/21st century course, as indicated by the asterisks.

MUT 6545 Analysis of 18th and 19th Century Music	3
MUT 6626* Analysis of 20th Century Music	3
MUL 6375* Twentieth Century Music Literature	3
MUL 6505 Symphonic Literature	3
MUT 6586 Critical Analysis/History	2
MUS 5905* Intercultural Composers	3
MUT 6665 Jazz Styles and Analysis	2

NOTE: Music Theory majors must take both MUT 6545 & 6626. MUT 6665 is required for Jazz Composition and Jazz Performance majors.

SPECIFIC CONCENTRATION REQUIREMENTS (beyond the requirements above)

CHAMBER MUSIC (MCL)	**30 credit hours**
MVK or MVS 6XXX - Applied Studio (for piano and string students, only) (4 credits; taken two terms)	8
MUS 6906 - Chamber Music Ensemble	6
MUS 6976 - Recital (Chamber Music, only)	2
Must Include: 1) Major standard sonata 2) Major standard work for 3 or more instruments 3) Major contemporary chamber work for 2 or more instruments	
Scholarship Requirement for Piano: STUDIO ACCOMPANYING	
Scholarship Requirement for Strings: USF ORCHESTRA	
Electives – (minimum 5 hours)	to complete 30 total hours

CHORAL CONDUCTING (MMD)	**34 credit hours**
MUG 6205 Advanced Choral Conducting *(2 credits; taken four terms; variable content)*	8
MUG 6930 - Advanced Choral Techniques	3
MUL 6655 - Choral Literature 1500-1800	3
MUL 6656 - Choral Literature 1800-Present	3
MUN 6XXX – Ensemble	2 *(1 credit; taken two terms)*
MUS 6976 - Recital	2
Electives – (minimum 4 hours)	to complete 34 total hours

INSTRUMENTAL CONDUCTING (MMD)	**30 credit hours**
MUG 6307 - Band/Wind Ensemble Conducting *(3 credits; taken two terms)*	6
MUL 6555 - Band/Wind Ensemble Literature	3
MUN 6XXX – Ensemble	2 (*1 credit; taken two terms)*
MUS 6976 - Recital	2
Electives – (minimum 8 hours)	to complete 30 total hours

JAZZ COMPOSITION (MJC)	**30 credit hours**
MUC 6626 - Jazz Composition	8 (*4 credits; taken two terms)*
MUC 6930 - Seminar: Jazz Compositional Styles	4 (*2 credits; taken two terms)*
MUN 6XXX – Ensemble	2 (*1 credit; taken two terms)*
MUS 6976 – Recital	2
Electives – (minimum 5 hours)	to complete 30 total hours

JAZZ PERFORMANCE (MJP)	**30 credit hours**
MVJ 6XXX - Applied Jazz	8 (*4 credits; taken two terms)*
MUT 6665 - Jazz Styles and Analysis	4 (*2 credits; taken two terms)*
MUN 6XXX – Ensemble	2 (*1 credit; taken two terms)*
MUS 6976 - Recital	2
Electives – (minimum 5 hours)	to complete 30 total hours

MUSIC COMPOSITION (MMC)	**30 credit hours**
MUC 6251 – Composition	8 (*4 credits; taken two terms)*
MUS 6976 - Recital (or MUS 6971, Thesis w/oral defense)	2
Electives – (minimum 11 hours)	to complete 30 total hours

MUSIC PERFORMANCE (MMP)	30 credit hours
MV? 6XXX - Applied Studio	8 (*4 credits; taken two terms)*
MUN 6XXX – Ensemble	2 (*1 credit; taken two terms)*
MUS 6976 – Recital	2
Electives – (minimum 9 hours)	to complete 30 total hours
Piano Majors must include:	
MUL 6410 Keyboard Repertory I	*(2 credits; Fall)*
MUL 6411 Keyboard Repertory II	*(2 credits; Spring)*

MUSIC THEORY (MMT)	30 credit hours
MUT 6545 - Analysis of 18th and 19th C. Music	3*
MUT 6586 - Critical Analysis: History	2
MUT 6626 - Analysis of 20th C. Music	3*
MUT 6627 - Schenkerian Analysis	3
MUT 6751 - Teaching of Music Theory	3
MUT 6760 - History of Music Theory	3
MUS 6971 - Thesis (Oral Defense required)	4
Electives – (minimum 6 hours)	to complete 30 total hours
*MUT 6545 and MUT 6626 included in Core Requirements)	

PIANO PEDAGOGY (MPP)	30 credit hours
MVK 5XXX - Applied Studio	4 (*2 credits; taken two terms)*
MUL 6410 Keyboard Repertory 1 *(Fall)*	2
MUL 6411 Keyboard Repertory 2 *(Spring)*	2
MVK 6650 Graduate Piano Pedagogy 1	2
MVK 6651 Graduate Piano Pedagogy 2	2
MUN 6XXX – Ensemble	2 (*1 credit; taken two terms)*
MUS 6976 – Recital	2
Electives –(minimum 5 hours)	to complete 30 total hours

ELECTRO-ACOUSTIC MUSIC (MEM)	30 credit hours
MUC 6444 Electronic Music: Analog/Digital Systems Research I	3
MUC 6445 Electronic Music: Analog/Digital Systems Research II	3
MUS 5905 Computer Music Research	6 (*3 credits; taken two terms)*
MUS 6976 - Recital	2
(or MUS 6971, Thesis w/oral defense)	
Electives – (minimum 7 hours)	to complete 30 total hours

Courses are subject to change. Summer and online courses may be offered. All inquiries should be directed to the Director of Graduate Studies in Music.

The responsibility for seeing that all graduation requirements are met rests with the student.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

MUSIC PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

U.S. Students:

Fall:	February 15
Spring:	October 15
Summer:	February 15

International Students:

Fall:	February 15
Spring:	October 1
Summer:	February 1

Minimum Total Hours:	60
Program Level:	Doctoral
CIP Code:	50.0901
Dept Code:	MUS
Program (Major/College):	DMS FA
Approved:	2003

Concentrations:

Music Education (MDE)

Doctoral applicants are encouraged to contact Dr. C. Victor Fung, Director of the Doctoral Music Education Program, as early as possible at fung@usf.edu

CONTACT INFORMATION

College:	The Arts
Department:	School of Music
Contact Information:	www.grad.usf.edu
Financial Aid Deadlines:	Fall Admissions Only

$13,000 to $22,000 per year plus Tuition Waiver	**Residency Requirement** One academic year of full-time study. Successive summers may be considered.	
Graduate Assistantships	Feb 15	Application form: http://music.arts.usf.edu/content/templates/?a=1514&z=154
Fellowships	Feb1	No application. By faculty recommendation only.

PROGRAM INFORMATION

Music Faculty, Alumni, and Students

Perhaps the most compelling reason to study music at the University of South Florida is the opportunity to work with our superb music faculty. These gifted, dedicated artists/scholars are among the preeminent leaders in their fields and have been carefully chosen for their professional training, excellence in musical performance and research, and pedagogical expertise. They are featured on many professional recordings and appear in prestigious concert venues around the world. Their compositions are premiered globally. Their scholarship is published in the leading research journals, books, and monographs in their disciplines. The School of Music also invites guest composers, conductors, and performing musicians to enhance its performances and to provide master classes, symposia, and clinics for students and the public. Many USF music alumni are currently performers in a variety of concert settings and successful teachers in public schools, colleges, and universities around the country in a variety of concert settings. The School of Music at USF offers the student the opportunity to study with distinguished faculty and to be in the company of other superior music students for an exciting and exacting period of study.

Ph.D. in Music Education Program Description

The Doctor of Philosophy in Music Education is the terminal degree in our field. At the University of South Florida, this program is intended for the aspiring pinnacle leader in music education research, teaching, and administration. The curriculum prepares the student to engage in original research in music education and related fields (arts education, music technology, music psychology, etc.). In coordination with faculty mentors, the student has great flexibility in designing a program that fits his/her interests and strengths. Admission requirements include an interview with the music education faculty and the submission of writing samples and GRE scores. A limited number of fellowships and assistantships are available to outstanding students.

Accreditation:
Commission on Colleges of the Southern Association of Colleges and Schools (S.A.C.S.); National Association of Schools of Music (N.A.S.M.); National Council for Accreditation of Teacher Education (N.C.A.T.E.);

Major Research Areas:
Alternative Methods, Community Collaboration, Contemporary Changes, Early Childhood, General Music, International Perspectives, Multicultural Issues, Philosophy, Psychology, Sociology, Teacher Behaviors, Technology, , Lifelong learning in music

Music Education Concentration in the Ph.D. in Music Program Description
The Ph.D. program varies, depending on individual interests and needs. All applicants are expected to have two or more years of teaching experience in a public or private school (or its equivalent). A dissertation and dissertation defense are required. The Ph.D. degree empowers students to become scholarly producers of research in music education.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Official Application to the USF Graduate School for the Ph.D. Program in Music (code DMS) with a concentration in Music Education (code MDE) in Music (code MUS) in COTA (code FA).
- Master's degree from an accredited institution. Official undergraduate and graduate transcripts must be received at the same time as the application for admission. Credits to be considered for transfer to this degree program, which are reflected on other transcripts besides the degree-bearing transcripts, must also be sent for consideration by the faculty.
- Minimum GPA of 3.0 for upper division of undergraduate degree (all credits beyond the first 60), and minimum GPA of 3.5 for master's degree.
- The GRE General Test (after October 1, 2002) must be taken and results must be delivered to Graduate Studies in the School of Music as part of the admission application process.
- Minimum of two years of teaching experience in elementary and/or secondary school(s), or the equivalent.
- Successful interview with the music education faculty, either in person or by other arrangement. ***Prior to the interview***, the following must be reviewed by the music education faculty:
    - At least three letters of recommendation from people qualified to speak on behalf of the applicant's academic and professional capabilities.
    - Sample of the applicant's best academic writing.
    - Curriculum vita.
    - 15-20 minute video recording of the applicant teaching music.
    - Personal goal statement.
- International students must include copies of graduation **Certificates and Diplomas** (in addition to official transcripts) with their applications. If English is not their primary language, they must have at least a score of 550 (or 213 for the computer version) on the Test of English as a Foreign Language (**TOEFL**), or they must have completed English Language Institute (**ELI**) Level 4 or Level 5 and have passed the ELI Exit Assessment.

DEGREE PROGRAM REQUIREMENTS

COMPLETION OF COURSES

- Appointment of Doctoral Committee
- Comprehensive Qualifying Examination
- Admission to Candidacy

SUBMISSION OF DISSERTATION
APPLICATION FOR GRADUATION (due by beginning of final semester)
DISSERTATION PROPOSAL
DISSERTATION DEFENSE
Final Oral Examination
Final recommendation with signatures presented to Program Director of Graduate Studies in Music

CORE REQUIREMENTS

Specialization			**21 hours**
MUE 7815	Psychology of Music	3	
MUE 7835	Philosophical and Historical Issues in Music Education	3	
MUE 7939	Center for Music Education Research (four semesters 1+1+1+2 hrs) Seminar	5	
Choose 5 of 6:			
MUE 7746	Measurement and Evaluation in Music	2	
MUE 7786	Qualitative Methods in Music Education	2	
MUE 7816	Music Cognition	2	
MUE 7855	International Perspectives in Music Education	2	
MUE 7937	Special Topics in Music Education	2-3	
MUE 7990	Seminar on Music in Higher Education	2	

Cognate **9 hours**
Choice of graduate courses in music from the following:
Jazz Studies, Music Composition, Music Conducting, Music History, Music Literature, Music Performance, Music Theory (Or an education-related field)

Statistics and Measurement			**12 hours**
EDF 6407	Statistical Analysis for Educational Research I	4	
EDF 7408	Statistical Analysis for Educational Research II	4	
EDF 7410	Design of Systematic Studies in Education	4	

Dissertation **18 hours**
Prerequisite: Comprehensive Qualifying Examination

MUE 7980	Dissertation	18	

Total Beyond the Master's Degree: **60 hours**

The responsibility for seeing that all graduation requirements are met rests with the student.

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

URBAN AND COMMUNITY DESIGN PROGRAM

Master of Urban and Community Design (M.U.C.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

U.S. Students:

Fall:	February 15
Spring:	October 15
Summer:	February 1

Minimum Total Hours:	45
Program Level:	Masters
CIP Code:	04.0401
Dept Code:	ARC
Program (Major/College):	UCD FA
Approved:	2008

CONTACT INFORMATION

College:	The Arts
Department:	School of Architecture and Community Design
Contact Information:	www.grad.usf.edu
Other Resources:	www.usf4you

PROGRAM INFORMATION

The Urban and Community Design program at USF is a rigorous "design-based" course of study (i.e. post professional degree for design students) leading to the Master of Urban and Community Design (M.U.C.D.) degree. The program focuses on the myriad physical, functional, visual, social and sustainable circumstances in contemporary urban contexts and stresses the amassing of knowledge, and the acquisition of design, research, analytical and other practical skills. The instructional scope of the MUCD program is both broad and diverse. The program builds on previous studies in architecture or landscape architecture as the foundation for involving students in crafting design interventions across the varied spectrum of scales of urbanism – from the urban street and block, up to the metropolitan region. Support courses in the program's curriculum infuse an understanding of the fundamentals of urban and community design, the historical and theoretical foundations of the discipline, the methods of research and analysis used in urban and community design, the major determinants of urban form, the evolution of urban contexts, and the different modes of contemporary urban design practice. The Program invites applications from prospective students who are interested in expanding their understanding of the physical dimensions of urbanism and the morphology of urban places, and amassing the skills necessary in crafting compelling design interventions that address the human experience and physical conditions of cities, towns and communities.

Accreditation

Accredited by the Commission on College of f the Southern Association of Colleges and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

Specific admission requirements for the M.U.C.D. program are as follows:

- Completed USF Graduate School application
- Professional undergraduate or graduate design degree (i.e. B.Arch., M.Arch., B.L.A., M.L.A.).
- Transcripts from all previous colleges (minimum grade point average (GPA) of 3.0 from most recent degree program).

- Portfolio of design and creative work (While work completed in a professional capacity is welcomed, academic work is preferred
  as the primary portfolio content).
- Graduate Record Exam (GRE preferred minimum score of 500 on verbal and 500 on quantitative sections. The GRE will only be
  waived for applicants who have already earned a Master's degree).
- Letter of intent
- Three letters of recommendation (At least one letter must be from a former instructor or faculty member).
- Test of English as a Foreign Language (TOEFL - for International students only, minimum sore of 213 on computer-based
  test; 550 on paper-based test; or 79 on Internet test)

DEGREE PROGRAM REQUIREMENTS

The curriculum for the M.U.C.D. program is intended to be completed in one full calendar year – Fall, Spring and Summer semesters. Each semester includes a design studio and up to three lecture courses, totaling 15 credit hours (The length of time to complete all degree requirements depends on individual course load during each semester of enrollment).

Total Minimum Hours		**45**
CORE REQUIREMENTS:		**33 hours minimum**
RESEARCH METHODS AND SKILLS		
UCD 6500 Reading and Representing the City	3	
HISTORY and THEORY		
UCD 6398 Introduction to Urban and Community Design	3	
UCD 6510 Current Issues in Urbanism	3	
UCD 6520 Creating Sustainable Communities	3	
UCD 6530 Landscape, Ecology and Sustainability	3	
PRACTICE		
UCD 6373 Community Design Studio	6	
UCD 6801 Urban Design Studio	6	
UCD 6803 Master's Studio	6	
DIRECTED ELECTIVES:		**12 hrs minimum**
HISTORY AND THEORY (Any Two from below): UCD 6540 The City*	3	
UCD 6550 Urban Design Seminar	3	
UCD 6560 Designing to Build Community	3	
UCD 6570 Urban Form	3	
UCD 6372 The Neighborhood	3	
UCD 6580 Architecture and Urbanism in China	3	
UCD 6590 Life Between Buildings – Public Space in the City	3	
UCD 6595 Social and Behavioral Factors in Urban Design	3	
DESIGN POLICY & REGULATION (Any ONE from below)		
UCD 6710 Urban Design Policy	3	
UCD 6720 Environmental Policy	3	
UCD 6730 Tools of Urban Design – land-use, zoning, PUD, overlays	4	
PROCESS (Any ONE from below)		
UCD 6810 Real Estate Development and Financing	3	
UCD 6820 Historic Districts, Downtown and Main Street Revitalization Strategies	3	

ADDITIONAL CORE REQUIREMENTS FOR NON-DESIGN STUDENTS:
(In addition to the 45 credits required to complete the M.U.C.D.)
Urbana Design Concepts and Skills for the Non-Designer 6

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SECTION 22

GRADUATE SCHOOL ADMINISTERED PROGRAMS

(COLLEGE OF GRADUATE STUDIES)

Changes to Note

2012-2013The follow curricular changes for the Graduate School Administered Programs in the College of Graduate Studies were approved by the USF-Tampa Graduate Council on the date noted.

Program Changes

Global Sustainability (M.A.)	*change curr—add two conc: Water and Entrepreneurship*	4/18/11
Global Sustainability (M.A.)	clarification of internship requirements	5/16/11

New Dual Degree Programs

Global Sustainability (M.A.) and Entrepreneurship in Applied Technologies (M.S.	4/18/11

New Course

CST 6990 Non-Credit Graduate Study	6/6/11

University of South Florida
Graduate School (College of Graduate Studies)
4202 E. Fowler Ave ~~BEH 304~~ADM 216
Tampa, FL 33620

Web address: http://www.grad.usf.edu/
Email: n/a
Phone: 813-974-2846
Fax: 813-974-5762

College Dean: Karen Liller, Ph.D.
Interim Associate Dean: ~~Rick Pollenz, Ph.D.~~ Peter Harries, Ph.D.

Accreditation:
The Commission on Colleges of the Southern Association of Colleges.

Mission Statement:
The University of South Florida Graduate School serves as the university hub of leadership for graduate education producing present day and future global leaders, one ~~student~~ scholar at a time.

College Information:
The College of Graduate Studies is housed in the Graduate School and serves as the College for the following degree program.

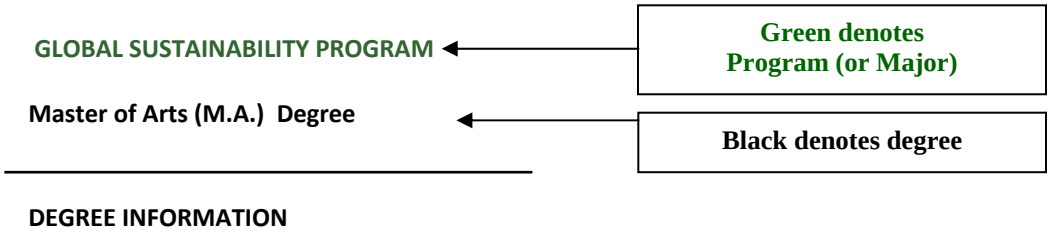
Degrees, Programs, Concentrations:

Master of Arts (M.A.)
- Global Sustainability (GBS)
  - Entrepreneurship (ETR)
  - Water (WTR)

About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the College that offers them. For example, the Master of Science degree with a "program" (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or "concentrations" within a degree program.

PROGRAMS



CONCENTRATIONS

Concentration Requirements are listed separately under each Program.

The Program and Concentration are listed on the official transcript. Other areas, such as application tracks, are not listed on the transcript.

Example:
Master of Arts in Global Sustainability
with a Concentration in Water

GLOBAL SUSTAINABILITY PROGRAM

Master of Arts (M.A.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	
U.S.	February 15
International:	January 2

Minimum Total Hours: 33
Program Level: Masters
CIP Code: 30.3301
Dept Code: GRS
Program (Major/College): GBS / GS

Concentrations:
Entrepreneurship (ETR)
Water (WTR)

CONTACT INFORMATION

College: Graduate Studies – Interdisciplinary
Department: School of Sustainability

Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

This innovative 33 credit hour Master of Arts Program will prepare students for careers in global sustainability that require teamwork and program planning skills to solve sustainability issues in developing and developed nations. The delivery method includes in-class and several online offerings. Students will be admitted as cohorts of 20-25 students and will interact with one another through various mechanisms, including residency requirements, Elluminate and a Blackboard Organization site.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: sustainability, global, program planning, green communities, entrepreneurship

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- GRE is not required
- GPA of at least 3.0 or greater
- At least two letters of recommendation
- 250-500 word essay that includes the student's academic and professional background, reasons for pursuing this degree, and their professional goals in terms of contributing to global sustainability.
- Portfolio – the applicant may provide a portfolio demonstrating prior work that focuses on sustainability populations
- Applicants whose native language is not English or who have not earned a degree in the United States must also submit TOEFL scores earned within two (2) years of the desired term of entry. A minimum total score of 79 on the internet-based test or 550 on the paper-based test are required. Applications submitted with TOEFL scores that do not meet the minimum requirements will be denied. The TOEFL requirement may be waived if the applicant meets one of the following conditions:
  - The applicant's native language is English, or

- Has scored 500 or higher on the GRE Verbal Test, or
- Has earned a college degree at a U.S. institution of higher learning, or
- Has earned a college degree from an institution whose language of instruction is
- English (must be noted on the transcript), or
- Has scored 6.5 on International English Language Testing System (IELTS) http://www.ielts.org/

DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours Required: **33 hours**

Core Requirements **~~15~~6 hours**

IDS 6215	Interdisciplinary Seminar in Global Sustainability	3
~~PHC 6934`~~	~~Public Health Topics in Global Sustainability~~	~~(3)~~
GEB 6930	Special Topics in Management and Sustainability	3
~~IDS 6946~~	~~Internship~~	~~(6~~

Students select one of two concentrations.
Required Internship ~~at a domestic setting or an International Partnering Institution done~~ will be completed in ~~within~~ the last few semesters of the P~~p~~rogram, normally 4-6 weeks or as advised by the Program.

~~**Focus Area****~~ ~~**15 hours**~~

~~ANG 6469~~	~~Foundations of Medical Anthropology~~	~~(3)~~
~~CGN 6933~~	~~Green Infrastructure for Sustainable Communities~~	~~(3)~~
~~ENV 6666~~	~~Aquatic Chemistry~~	~~(3)~~
~~EVR 6216~~	~~Advances in Water Quality Policy and Management~~	~~(3)~~
~~GEO 6286~~	~~Advances in Water Resources~~	~~(3)~~

~~***Other courses in global sustainability may be substituted for the proposed focus courses as approved by the program director.*~~

~~**Project**~~ ~~**3 hours**~~

~~IDS 6951~~	~~Project~~	~~(3)~~

CONCENTRATION REQUIREMENTS

Concentration in Entrepreneurship **21 hours**

PHI 6605	Environmental Ethics	3
OR		
EVR 5320	Environmental Management	3
OR		
ANG 6469	Foundations of Medical Anthropology	3

GMS 6095	Principles of Intellectual Property	3
ENT 6016	New Venture Formation	3
ENT 6186	Strategic Market Assessment for New Technologies	3
ENT 6116	Business Plan Development	3
ENT 6936	Special Topics in Entrepreneurship Internship	6

See below for Electives.

Concentration in Water		**21 hours**
PHI 6605	Environmental Ethics	3
OR		
EVR 5320	Environmental Management	3
OR		
ANG 6469	Foundations of Medical Anthropology	3
PHS 6934	Public Health Topics in Global Sustainability	3
GEO 6286	Advances in Water Resources	3
EVR 6216	Advances in Water Quality Policy and Management	3
IDS 6951	Global Sustainability Prjoect Proposal	3
IDS 6946	Global Sustainability Internship	6

Electives for both concentrations*		**6 hours**
Students select two courses from the following, with advising from the Program Director:		
ARC 5931	Special Topics in Architecture: Landscape & Ecology	3
~~CGN 6906~~	~~Independent Study~~	~~3~~
CGN 6933	Green Engineering for Sustainability	3
CGN 6933	Green Infrastructure for Sustainable Communities	3
CGN 6933	Sustainability Development Engineering	3
CGN 6667~~933~~	Water, the Chemical Element	3
CWR 6239	Waves and Beach Protection	3
CWR 6305	Urban Hydrology	3
ECH 5785	Sustaining the Earth: An Engineering Approach	3
EEL 6935	Sustainable Energy	3
ENG 6016	New Venture Formation	3
ENT 6415	Venture Capital and Private Equity in Entrepreneurship	3
ENT 6606	Product Development	3
ENV 4417	Water Quality and Treatment	3
ENV 6666	Aquatic Chemistry	3
ENV 6667	Environmental Biotechnology	3
EVR 6937	Seminar in Environmental Policy: Sustainability and Development	3
GLY 4734	Beaches, Coastal Environment	3
MAN 6746	Designing Sustainable Enterprise	3
MAR 6936	Sustainable Marketing	3
TTE 6270	Intelligent Transportation	3

** Other courses in global sustainability may be substituted for these electives as approved by the program director.*

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

GLOBAL SUSTAINABILITY AND ENTREPRENEURSHIP IN APPLIED TECHNOLOGIES DUAL DEGREE PROGRAM

Master of Arts in Global Sustainability (M.A.) Degree and Master of Science in Entrepreneurship in Applied Technologies (M.S.)

DEGREE INFORMATION

Program Admission Deadlines:

Fall:	February 15
Spring:	October 15
Summer:	February 15

Minimum Total Hours: 54
Program Level: Masters
CIP Code: **30.3301/**
Dept Codes: **GRS & DEA**
Program (Major/College): **GBS/GS & EAT/BA**

CONTACT INFORMATION

Colleges: Business and Graduate Studies
Departments: Center for Entrepreneurship and School of Sustainability

Contact Information: www.grad.usf.edu
Other Resources: www.usf4you.usf.edu

PROGRAM INFORMATION

The Dual Degree Program in Global Sustainability and Entrepreneurship combines two existing programs that allows students to attain two Master's degrees simultaneously rather than in a sequential effort. The time commitment will be about three years with a total of 54 credit hours. The combination of a Master's in Global Sustainability with a Master's in Entrepreneurship provides students with a comprehensive understanding of concepts, tools and skills of sustainability, and be able~~the ability~~ to apply these areas in a problem solving context. Students shall have the opportunity to focus on the areas of green technology and development, transport, energy and sustainable enterprise.

Accreditation:
Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements for each program. Students must satisfy the requirements for the two degrees separately. Refer to the individual program listings for the specific requirements for each degree.

DEGREE PROGRAM REQUIREMENTS

A total of 54 credits is required for graduation with a Dual Master's in Global Sustainability and Entrepreneurship.
Beyond the dual crediting of 9 credit hours, all graduation requirements of the individual programs apply.

Common Courses (9 credits may be counted toward both the GS and EAT degrees)

ENT 6016 New Venture Formation	3
ENT 6116 Business Plan Development	3
GMS 6095 Principles of Intellectual Property	1-3
ENT 6186 Strategic Market Assessment	3
ENT 6947 Applied Topics in Entrepreneurship	3
ENT 6606 Product Development	3
ENT 6415 Venture Capital and Private Equity	3

All Dual Master's in Global Sustainability and Entrepreneurship students must complete a 6 credit hour internship.

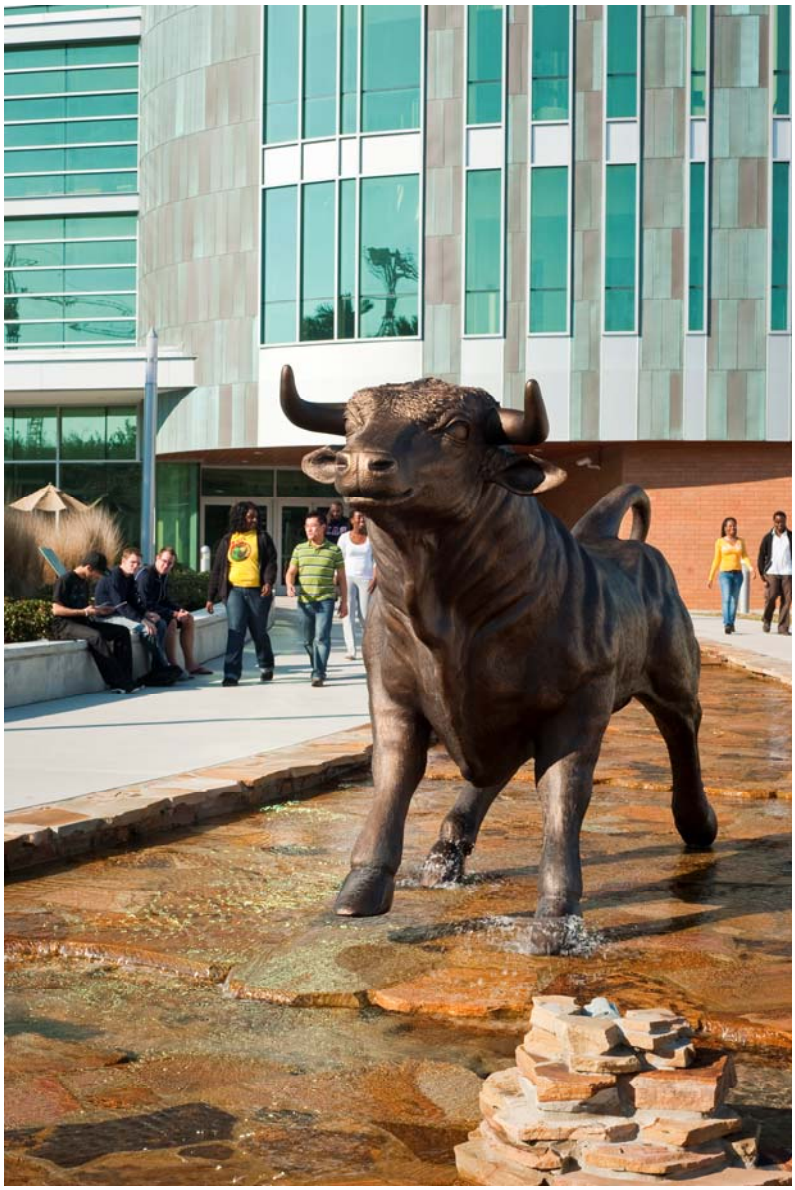
All Dual Master's in Global Sustainability and Entrepreneurship students must complete ENT 6016 (New Venture Formation), ENT 6186 (Strategic Market Assessment) and ENT 6947 (Applied Topics in Entrepreneurship).

COURSES

See http://www.ugs.usf.edu/sab/sabs.cfm

SECTION 23

UNIVERSITY COLLEGE[c1]



University of South Florida
University College
4202 E. Fowler Ave, SVC 1072
Tampa, FL 33620

Web address: http://uc.usf.edu
Phone: Toll-free: 1-888-873-4968
Locally: (813) 974-4926

College Dean: Judy Ashcroft
Interim Executive Director: Sandra Cooper

Accreditation:
The Commission on Colleges of the Southern Association of Colleges.

College Information:
USF University College supports the University's strategic efforts to ensure student success and program innovation by:

- Leading USF distance learning development, in collaboration with other University academic colleges
- Expanding market-based programs
- Advancing professional and workforce development
- Encouraging lifelong learning

Degrees, Programs, Concentrations
The following programs are offered either fully or partially online through University College, in addition to their home College. For more information, contact University College

Master of Arts (M.A.)
Adult Education (AAE)
Career & Technical Education (ACT)
Global Sustainability (GBS)
Water (WTR)
Library & Information Science (LIS)
Music Education (MUE)
Physical Education (APH)
Reading Education (K-12) (ARD)
Speech-Language Pathology (SPP)
Special Education: Gifted (AGI)

Master of Education (M.Ed)
Curriculum & Instruction (CUR)
Secondary Education: Instructional Technology (CCO)
Secondary Education: TESOL (CTL)

Master of Civil Engineering (M.C.E.)
Civil Engineering (ECE)

Master of Public Health (M.P.H.)
- Public Health (MPH)
  - Global Disaster Management and Humanitarian Relief (GDM)
  - Public Health Practice (PHP)
  - Public Health Administration (PHA)

Master of Sciences (M.S.)
- Nursing (NUR)
  - Nursing Education (NED)
  - Occupational Health (NOH)
  - Oncology (NON)
- Nursing – RN to MS

Master of Science in Electrical Engineering (M.S.E.E.)
- Electrical Engineering (EEL)

Master of Science in Engineering Management (M.S.E.M.)
- Engineering Management (EMA)

Master of Science in Medical Sciences (M.S.M.S.)
- Medical Sciences (MSG)

Education Specialist (Ed.S)
- Curriculum & Instruction (CUR)
  - Instructional Technology (SIT)

Doctorate (Ph.D)
- Curriculum & Instruction (CUR)
  - Career & Workforce Education (DVO)

Graduate Certificates

For a current list of graduate certificates offered through University College, refer to the website or contact the Graduate Certificates office at 813-974-2442.

Program Degree Requirements

For information on the degree requirements for the programs listed above, refer to the individual program listings in the Graduate Catalog or contact the Program.

Section 24~~3~~

Graduate Course Information

To view the Course Listing with Course Descriptions, see next section or
check the Search-a-Bull Database online at: http://www.ugs.usf.edu/sab/sabs.cfm.
SCNS website: http://scns.fldoe.org/scns/public/pb_inst_dtl.jsp

Courses offered for credit by the University of South Florida are listed with the program or college that offers them. The first line of each description includes the State Common Course prefix and number (see below), title of the course, and number of credits.

Florida's Statewide Course Numbering System
Courses in this catalog are identified by prefixes and numbers were assigned by Florida's Statewide Course Numbering System. This common numbering system is used by all public postsecondary institutions in Florida and by participating non-public institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions. Each participating institution controls the title, credit, and content of its own courses and 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 Statewide Course Numbering System (SCNS). The list of course prefixes and numbers, along with their generic titles, is referred to as the "SCNS taxonomy." Descriptions of the content of courses are referred to as "statewide course details."

Courses are created using the State Course wide Numbering System (SCNS). The following information is from the SCNS Handbook. For more information visit their website at: http://scns.fldoe.org/scns/public/pb_index.jsp#

The SCNS uses a course designation which consists of a three-letter prefix and a four digit number and, when necessary, a one-letter laboratory (L) or lecture/laboratory (C) suffix.

Example:

SCNS COURSE ID			
AML	**6**	**017**	**-**
Prefix	Level	Denotes Content	Laboratory Suffix

Explanation: AML 6017, Studies in American Literature to 1860

American Studies course taught at the graduate level (no lab).

A level code, which roughly corresponds to the year in college the course is normally taken (i.e., masters, doctoral, etc.), is placed between the course prefix and the course number. The level is recommended by the institution according to its own policies and the policies of the State of Florida, and approved by the faculty committee. **The level digit does not affect course equivalency – course equivalency is determined by the prefix and the last three digits**. The following are the level definitions:

0 PSAV, college prep, vocational prep

1-2 Lower-level undergraduate

3-4 Upper-level undergraduate

5-9 Graduate and Professional *(see definitions on the next page)*

Courses are numbered based on content, rather than by department or program. This means that a single program may have courses in several different disciplines and may consist of courses having several different prefixes.

Glossary of Course Description Terms
Credits separated by a colon indicate concurrent lecture and laboratory courses taught as a unit:

PHY 3040, 3040L PHYSICS AND LAB (3:1)

Credits separated by a comma indicate unified courses offered in different semesters:

AMH 2010, 2020 AMERICAN HISTORY I, II (4, 4)

Credits separated by a hyphen indicate variable credit:

MAT 7912 DIRECTED RESEARCH Var.

The following abbreviations are used in various course descriptions:

G	Graduate
PR	Prerequisite
CI	With the consent of the instructor
CC	With the consent of the chairperson of the department or program
CR	Co-requisite
Lec	Lecture
Lab	Laboratory
Dem	Demonstration
Pro	Problem
Dis	Discussion
ML	Master's Level
GS	Graduate Standing
Rpt	May be repeated
UL	Upper level
S/U	No grade, Satisfactory/Unsatisfactory Only

Graduate Course Level Variance Definitions

It is expected that the 5000-6000-7000 courses will have distinct syllabi demonstrating different depth and breadth of the subject matter as reflected in the course requirements. The courses presuppose different audiences, and the intention is to offer them at distinct levels.

5000-5999	Typically Introductory Graduate Level Courses
6000-6999	Typically Master's level Courses
7000-7999	Typically Doctoral level Courses

The University reserves the right to substitute, not offer, and add courses and programs that are listed in this catalog.

Example of Course Identifier

Prefix	Level Code (first digit)	Century Digit (second digit)	Decade Digit (third digit)	Unit Digit (fourth digit)	Lab Code
SYG	1	0	1	0	

Sociology, General	Freshman Level at this institution	Entry-level General Sociology	Survey Course	Social Problems	No lab in this 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. (Exceptions are listed below.)

For example, a survey course in social problems is offered by 34 different postsecondary institutions. Each institution uses "SYG_010" to identify its social problems 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, "SYG" means "Sociology, General," the century digit "0" represents "Entry-level General Sociology," the decade digit "1" represents "Survey Course," and the unit digit "0" represents "Social Problems." In science and other areas, a "C" or "L" after the course number is known as a lab indicator. The "C" represents a combined lecture and laboratory course. The "L" represents a laboratory course or the laboratory part of a course, having the same prefix and course number without a lab indicator, which may meet at a different time or place. Transfer of any successfully completed course from one 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, SYG 1010 is offered at a community college while the same course is offered at a state university as SYG 2010. A student who has successfully completed SYG 1010 at the community college is guaranteed to receive transfer credit for SYG 2010 at the state university upon transfer. The student cannot be required to take SYG 2010 again since SYG 1010 is equivalent to SYG 2010. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements on the same basis as credit awarded to the native students. It is the prerogative of the receiving institution to offer transfer credit for courses successfully completed which have not been designated as equivalent.

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

Authority for Acceptance of Equivalent Courses
State Board of Education Rule 6A-10.024(19), Florida Administrative Code, reads:
When a student 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 common course designation and numbering system, the receiving institution shall award credit for courses satisfactorily completed at the previous participating institutions when the courses are judged by the appropriate common course designation and numbering system faculty task forces to be 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 award of credit may be limited to courses that are entered in the course numbering system. Credits so awarded shall satisfy institutional requirements on the same basis as credits awarded to native students.

Exceptions to the General Rule for Equivalency
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:

- Courses in the *900*-999 series(e.g., HUM 2905)
- Internships, practica, clinical experiences, and study abroad courses
- Performance or studio courses in Art, Dance, Theater, and Music
- Skills courses in Criminal Justice
- Graduate courses
- Courses not offered by the receiving institution
- College preparatory and vocational preparatory course may not be used to meet degree requirements and are not transferable.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to Undergraduate Studies (for questions pertaining to graduate and undergraduate courses) 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 telephone number (850) 245-0427 or SunCom 205-0427.

Section 2~~5~~4

Graduate Course Descriptions[c1]

ACG	5205	Advanced Financial Accounting	3	BU	ACC	PR: ACG 3113	Accounting for business combinations, preparation of consolidated financial statements, home office/branch relationships, foreign operations and transactions, partnerships.
ACG	5505	Governmental/Not-For-Profit Accounting	3	BU	ACC	PR: ACG 3113. CR: ACG 4632.	Application of financial and managerial accounting, and auditing, principles and theory to both governmental and not-for-profit entities.
ACG	5675	Internal and Operational Auditing	3	BU	ACC	PR: ACG 3113 and ACG 3401. CR: ACG 4632.	The objective of Internal and Operational Auditing is to provide students with an opportunity to learn about the theory and practice of internal and operational auditing and to apply relevant audit principles and techniques to selected audit problems.
ACG	6025	Financial Accounting for Managers	2	BU	MBA	Not available for credit for graduate students in the Master of Accountancy program.	Study of (1) accounting concepts and standards applicable to presentation of financial information to interested users, (2) structure and interpretation of financial statements, especially issues of income determination and assessment measurement.
ACG	6028	Measuring Organizational Effectiveness	3	BU	ACC		This course provides a graduate level introduction to financial and non-financial performance measures. The course considers how stakeholders of private and public sector organizations use financial and non-financial measures to access how well, and at what cost, these organizations are able to achieve strategic/operating goals and objectives.
ACG	6075	Management Accounting and Control	2	BU	MBA	PR: ACG 6025. Not available for credit for graduate students in the Master of Accountancy program.	Deals with management accounting systems for different types of entities, cost behavior patterns, cost-volume-profit analysis, relevant information for decision making, and budgets and standard costs for planning and control.
ACG	6346	Contemporary Issues in Managerial Accounting	3	BU	ACC	PR: ACG 3341 or equivalent and admission to the MAcc program.	The evolution of cost accounting systems, and the impact of new managerial accounting philosophies in the modern international manufacturing environment, including a discussion of current issues and controversies involving managerial accounting.
ACG	6405	Advanced Accounting Information Systems	3	BU	ACC	PR: Admission to MAcc and ACG 6453.	This course focuses on business process modeling techniques for creating advanced enterprise-wide accounting systems. The course also focuses on information systems risks, controls and auditing, and enterprise

							resource planning systems.
ACG	6457	Accounting Systems Audit, Control, and Security	3	BU	ACC	PR: ACG 3401, ACG 6405 or equivalent.	An in-depth study of contemporary systems control security from an audit perspective. Course topics will include: IS audit standards, contemporary AIS technologies, and the development and maintenance of AIS integrity.
ACG	6476	Contemporary Issues in Accounting Information Systems	3	BU	ACC	PR: ACG 6405 or equivalent.	An in-depth study of current accounting information systems issue confronting the accounting profession. Graduate students research and study contemporary and emerging topics in the field.
ACG	6636	Contemporary Issues in Auditing	3	BU	ACC	PR: ACG 4632	This course explores contemporary auditing issues and advanced topics concerning the changing role of the audit assurance function and changing audit processes. Topics include audit reporting, auditing in advanced computerized environments, audit judgment, quality control, and regulation of the profession.
ACG	6637	Contemporary Issues in Accounting Information Systems	3	BU	ACC	PR: ACG 6405 or equivalent	An in-depth study of current accounting information systems issues confronting the accounting profession. Graduate students research and study contemporary and emerging topics in the field.
ACG	6835	Accounting Skills, Values, and Information Technology	3	BU	ACC	PR: Admission into MA Accountancy Program.	This course is designed to introduce Master of Accountancy students to the basic skills, competencies, and technologies of accounting.
ACG	6875	Financial Reporting and Professional Issues	3	BU	ACC	PR: Admission to MAcc program. CR: ACG 6453.	A study and evaluation of the evolution of current financial accounting theory. An examination of financial accounting objectives, measurement models, and controversial issues, from both a financial reporting and professional (auditing) perspective.
ACG	6905	Independent Study	1-19	BU	ACC	PR: CC. S/U.	Independent Study. Student must have a contract with an instructor.
ACG	6915	Directed Research	1-19	BU	ACC	PR: GR. M.L, CC. S/U.	
ACG	6932	Integrative Accounting Seminar	3	BU	ACC	PR: Enrolled in final semester of program	Use of case studies to explore the interaction of accounting and business topics that have been previously emphasized in separate courses.
ACG	6936	Selected Topics in Accounting	1-4	BU	ACC	PR: CC	The course content will depend on student demand and instructor's interest.
ACG	7156	Seminar in Financial Accounting	3	BU	ACC	PR: ACG 6875 or CI	This course investigates advanced research and methodological issues in financial accounting. It focuses primarily on research which uses financial information in contexts external to the firm.
ACG	7356	Seminar in Management Accounting	3	BU	ACC	PR: ACG 6346 or CI	Review and critical analysis of management accounting foundation with emphasis on the current

							research methods in organizational behavior aspects and multiple criteria decision methods.
ACG	7415	Seminar In Accounting Information Systems	3	BU	ACC	PR: ACG 6405 or CI.	Review and critical analysis of major topics and research methods in accounting information systems.
ACG	7646	Seminar in Auditing	3	BU	ACC	PR: ACG 6636 or equiv. or CI.	This course involves a study of state-of-the-art research techniques as applied to major auditing issues and a critical analysis of the reported research findings.
ACG	7936	Seminar On Special Topics In Accounting	1-4	BU	ACC	PR: CI.	Coverage of particular topics of interest to doctoral faculty and students during any given semester.
ACG	7980	Dissertation in Accounting	2-21	BU	ACC	PR: Completion of comprehensive exams and CI.	Research and writing of a dissertation on an accounting topic.
ADE	6070	International Adult Education	3	ED	EDV		Provides a survey of the field of international adult education. Current practices and historical efforts internationally will be explored.
ADE	6080	Adult Education in the United States	4	ED	EDV		A study of the adult education movement in the United States from its beginnings to the present lifelong learning enterprise it has become. Economic and cultural factors of the past are examined with a view toward implications for the future.
ADE	6160	Program Management in Adult Education	3	ED	EDV		An examination of the methods for establishing a productive adult education program, and the principles and procedures involved in designing, organizing, operating, and evaluating comprehensive adult education programs.
ADE	6161	Curriculum Construction in Adult Education	4	ED	EDV		Curriculum scope, the process of planning and organizing instructional programs with emphasis on task analysis and process evaluation. Concentrates on basic principles affecting the planning of Adult Education activities, including an overview of the human forces that both impinge on and motivate human behavior in an adult learning environment.
ADE	6197	Adult Basic Education	4	ED	EDV		An overview of adult basic education with an emphasis on current issues and problems of curriculum and instruction in program development and on culturally different adults.
ADE	6198	Effective Continuing Education for Professionals	3	ED	EDV	PR: ADE 6385 and ADE 6080 or Permission from Instructor.	This course will provide a description, explanation and critique of the goals, processes, outcomes, and issues related to the continuing education of professionals. The design, development and administration of these programs will be explored.
ADE	6280	Administration in Local Adult Education Programs	4	ED	EDV		A study of the organization, selection of personnel, assignment of duties and responsibilities, and establishment of policies and procedures to accomplish the objectives of the local program within federal, state, and local requirements.

ADE	6287	Supervision of Local Adult Education Programs	4	ED	EDV		A study of the factors involved in the supervision of instruction including plans for teacher education, improvement of instruction, coordination of activities, and personnel relations.
ADE	6360	Methods of Teaching Adult Education	3	ED	EDV		An exploration of different methods, techniques, and materials available to help adults learn. Concentration on the process of designing effective learning experiences for adults and developing the competencies of self-directed learning.
ADE	6370	Human Resource Development	3	ED	EDV		A study of learning, training, and education as it is practiced in the public, private and the non-profit sectors. Course covers HRD history, key competencies, and relevant theory.
ADE	6385	The Adult Learner	3	ED	EDV		An investigation of the physiological and psychological changes in the adult life span and the implications these have for adult learning capabilities. Concentration on the identification of principles of adult learning, differences between adults and youth as learners, and a review of research on adult learning.
ADE	6389	Adult Learning and Cognitive Styles	3	ED	EDV		The course focuses on a foundational knowledge of brain-based learning and its impact on adult learners, including critique and assessment of learning styles.
ADE	6906	Independent Study	1-19	ED	EDV		Independent Study in which students must have a contract with an instructor.
ADE	6931	Selected Topics in ADE and HRD	1-5	ED	EDV		Each topic is a course under the supervision of a faculty member. The title and content will vary according to the topic.
ADE	6946	Practicum in Adult Education	2-6	ED	EDV		A problem-centered field study in the local community, school, government, office, social agency, business, or industry setting.
ADE	6966	Final Master's Seminar	4	ED	EDV	PR: Students should be in the last few seminars of their master's degree program.	This course is designed to provide in-depth review of various areas of adult education. It is designed to prepare individuals for the comprehensive exams. Emphasis also will be on developing familiarity with formal research literature.
ADE	6971	Thesis: Masters/Education Specialist	2-19	ED	EDV	S/U. Ma/EdS Candidates only.	Thesis/Specialist project hours.
ADE	7076	Continuing Education in Higher Education	3	ED	EDV	PR: ADE 6385 and ADE 6080 or Permission from Instructor.	This course will explore the history, relevant research and the current practices in community college and higher education continuing education program and administrative units.
ADE	7169	Instructional Development Using Adult Education	3	ED	EDV		This course is designed to develop competencies in a systematic approach to instructional improvement including the knowledge and application of

							developing curriculum models applied to ACE and HRD.
ADE	7268	Leadership in Adult Continuing Education and HRD	3	ED	EDV		This course is a study of leadership theory, public policy analysis, best practices and related leadership research in adult continuing education and human resource development.
ADE	7269	Organization and Administration of ACE and HRD	3	ED	EDV		This course provides knowledge and examples of the organization of ACE and HRD and also examines management principles and practices applied to ACE and HRD units including the tasks, responsibilities and guidelines used to manage these units effectively.
ADE	7388	Adult Development and Learning	3	ED	EDV	PR: ADE 6385 or equiv.	This is an advanced, in-depth study of the distinctive characteristics of adult life and learning.
ADE	7676	Human Resource Development Policy Seminar	3	ED	EDV	PR: ADE 6370 or Permission of Instructor.	This course emphasizes complex skills, concepts and strategies related to the adult teaching/learning component and policy formation of human resource development in business, industry, government, education, and voluntary organizations.
ADE	7910	Directed Research In Adult Education	1-4	ED	EDV	PR: Advanced graduate level.	Directed research on topics related to adult education.
ADE	7930	Seminar in Adult Education	4	ED	EDV	PR: ADE 6385 and ADE 6080 or Permission from Instructor.	This is an intensive induction into doctoral studies in adult education stressing scholarly inquiry, professionalism, collegiality, and the doctoral degree process.
ADE	7937	Seminar In Adult Education	1-4	ED	EDV	PR: Advanced graduate level.	Seminar in advanced topics in Adult Education.
ADE	7947	Advanced Internship: Adult Education	2-4	ED	EDV	PR: Advanced graduate level only. S/U.	
ADE	7980	Dissertation	2-30	ED	EDV	PR: Admitted to Candidacy.	Dissertation hours.
AFA	5935	Issues in Africana Studies	1-4	AS	AFA		Variable topics course focusing on the history, culture, and lived experiences of Africans, African American, and/or other peoples of African descent worldwide. Rpt. Up to 12 hours as topics vary.
AFA	6108	Social Construction of Race and Racism	3	AS	AFA		Examinations of the social construction of race, racism, racial identities and cross-racial relationships in the US from the colonial period to present.
AFA	6120	Social Theory and Social Thought	3	AS	AFA		Course examines the nature of social theory as an analytical tool and its relevance for understanding social thought and the historical and contemporary experiences of peoples of African descent in Africa and the Diaspora.
AFA	6207	African American Historiography	3	AS	AFA		This course introduces graduate students to some of the major topics and texts in African American history. Readings will include both classic studies and recent innovative works in the field. The course is open to

							majors and non-majors.
AFA	6318	Black English	3	AS	AFA		Black English focuses on linguistic patterns among African Americans in the US, South Central America and the Caribbean. It examines language in relation to issues of domination, education, economics, social stratification, and political empowerment. It is open to majors and non-majors and is cross-listed with ISS.
AFA	6338	Black Women Writers	3	AS	AFA		Black Women Writers focuses on the literature of women of Africa and the African Diaspora. It examines the social, historical, artistic, political, economic, and spiritual lives of Africana women in context of a global community. The course is open to majors and non-majors and is cross-listed with Women's Studies, English and ISS.
AFA	6355	African American Community Research: Ethnography	3	AS	AFA		This course is designed to assist students in understanding the dynamics of African American communities and community research in urban settings.
AFA	6387	Seminar on Genocide and Human Rights	3	AS	AFA		Examines “genocide” and “human rights” as concepts and crimes; the debates that have developed around them and the circumstances in which perpetrators of these crimes deprive particular groups of people of their “right to life.”
AFA	6390	The Global Challenge of Diversity	3	AS	AFA		This course focuses on human differences arising from social, cultural, and genetic origins and how they lead to social inequality. Genocide and the depletion of natural resources, are used as models for ethical decision making.
AFA	6805	African Historiography	3	AS	AFA		The course deals with the history of the writing of African history. It pays attention to the sources and methods that Africanists use to study Africa and major themes in the continent's history, and the debates and interpretations they have generated.
AFA	6905	Independent Study	1-19	AS	AFA	PR: CI, MI.	Course consists of advanced graduate research on Africana studies topics selected by student and professor. The topics vary. The course allows students to develop research skills and independent work disciplines.
AFA	6910	Directed Research	1-12	AS	AFA	PR: CI, Departmental Approval.	Course consists of directed research on Africana studies topic selected by student and professor. The topics vary. The course allows students to develop research skills and independent work disciplines.
AFA	6932	Topics in Africana Studies	3	AS	AFA		Variable topics course focusing on the history, culture, and lived experiences of African, African-American, and/or other peoples of African descent worldwide. Rpt. Up to 12 hours as topics may vary.

AFA	6945	Internship	1-3	AS	AFA	PR: CI, Approval of Thesis Committee	This course involves working with a local agency (gov't., NGO, private, etc.) on topic related to the theme of the MA degree, researching and documenting the process and preparing the data for writing the masters thesis.
AFA	6971	Thesis	2-19	AS	AFA	PR: Department, Major professor and thesis committee approval.	Thesis.
AML	6017	Studies in American Literature to 1860	3	AS	ENG		Selected focused studies in American literature before 1860: the Puritans, Franklin, Cooper, Irving, Poe, Emerson, Hawthorne, Melville, and others.
AML	6018	Studies in American Literature 1860 to 1920	3	AS	ENG		Selected focused studies in American literature: Dickinson, Whitman, Twain, Howells, James, Jewett, Chopin, Crane, Dreiser, and others.
AML	6027	Studies in Modern American Literature	3	AS	ENG		Modern American drama, poetry, fiction, and literary criticism; authors include Faulkner, Hemingway, Fitzgerald, O'Neill, Miller, Anderson, Wolfe, Cummings, Frost, Pound, and Eliot.
AML	6608	Studies in African American Literature	3	AS	ENG		Focuses on varied topics in African American literature such as African American Fiction and the Harlem Renaissance. Topics will supply greatly needed coverage of increasingly important areas of American and African American literature, history, and culture.
AMS	6002	American Lives	3	AS	AMS	PR: GS, CI.	Open to non-majors. An interdisciplinary approach to the study of autobiography. Examines the relationship between identity and community in classic American autobiographies. Utilizes autobiography as a resource of social and cultural history which provides insights regarding the complex interaction between a life, a mind, and a text.
AMS	6156	Theories and Methods of Cultural Studies	3	AS	AMS	PR: GS.	This course examines the relationship between the arts and society by introducing various approaches to the study of literature, art, and culture that are of contemporary relevance to graduate students in the liberal arts and American Studies.
AMS	6254	Cultural Era	3	AS	AMS		Open to non-majors. Interdisciplinary analysis of American life during a specific cultural era.
AMS	6375	The American South	3	AS	AMS		Open to non-majors. Examines the region since Reconstruction through architecture, art, literature, photography, music, history and interdisciplinary perspectives.
AMS	6805	Major Ideas in American Civilization	3	AS	AMS		Open to non-majors. Investigates the role of one or more influential ideas in American culture, e.g., community, domesticity, democracy, slavery, progressivism, radical reform.
AMS	6901	Directed Readings in	1-	AS	AMS	PR: CI, CC. S/U.	Open to non-majors. A supervised

		American Studies	3				program of intensive reading.
AMS	6915	Directed Research	1-12	AS	AMS	PR: GR, ML. S/U.	
AMS	6934	Selected Topics	1-3	AS	AMS		Open to non-majors. Variable topics such as American Autobiography, Film in American Culture, and Photography in American Culture.
AMS	6938	Seminar in American Studies	3	AS	AMS		Open to non-majors. Advanced interdisciplinary research. Topics include Popular Culture, Material Culture, Native American Culture.
AMS	6940	Internship in American Studies	1-3	AS	AMS	PR: Majors only. S/U.	A structured, out-of-class learning experience providing first hand, practical training in American Studies-related professional careers.
AMS	6971	Thesis: Master's	2-19	AS	AMS	Z/U.	
ANG	5395	Visual Anthropology	3	AS	ANT	PR: Graduate standing.	This class will examine the major dimensions of visual anthropology with an emphasis on the visual means of presenting anthropology to the discipline and general public. The course will focus on visual documentation and study of visual images.
ANG	5486	Quantitative Methods in Anthropology	3	AS	ANT	PR: Graduate Standing.	This course is an introduction to quantitative methods for the anthropologist covering both classical statistical approaches and exploratory data analysis, using computers with statistical software.
ANG	5901	Directed Reading	1-4	AS	ANT	PR: DPR. S/U.	Individual guidance in concentrated reading on a selected topic in Anthropology. Contract required prior to registration.
ANG	5910	Individual Research	2-4	AS	ANT	PR: DPR. Contract required prior to registration. S/U.	Individual guidance in selected research project.
ANG	5937	Seminar In Anthropology	2-4	AS	ANT	PR: Senior or GS.	Topics to be chosen by students and instructor.
ANG	6081	Museum Methods	4	AS	ANT	PR: Graduate Standing or DPR.	The class introduces students to contemporary issues in exhibit practice in anthropology museums, and offers practical, hands-on experience in the design and fabrication of a museum exhibit based on anthropological concepts.
ANG	6100	Topics in Archaeological Science	3	AS	ANT	PR: Graduate Standing.	This course focuses on the application of scientific methods of analysis to archaeological materials, including bone, stone, pottery, and metal. Repeatable for up to 6 hours.
ANG	6110	Archaeology Theory and Current Issues	3	AS	ANT	PR: GS in Anthropology.	Methodology and theory in archaeology, analysis, interpretation of data.
ANG	6115	Seminar In Archaeology	3	AS	ANT	PR: Graduate Standing or DPR.	An advanced critical survey of archaeology emphasizing contributions to applied anthropology.
ANG	6153	Topics in North American Archaeology	3	AS	ANT	PR: Graduate Standing.	Comprehensive understanding of the prehistoric development of American Indian cultures in the main geographical regions, with emphasis

							on current issues in cultural resource management. Repeatable for up to 6 hours.
ANG	6155	Southeastern U.S. Archaeology	3	AS	ANT	PR: ANT 3101, Graduate standing or DPR.	The course examines the culture history and processes of change or continuity throughout the region of the Southeast, as well as the often differing record for various local areas, from prehistoric through historic times.
ANG	6163	Topics in Mesoamerican Archaeology	3	AS	ANT	PR: Graduate Standing.	This course explores the distinctive features of the evolving cultural traditions of Mesoamerica. This course identifies the major issues and methodological approaches of Mesoamerican archaeology. Repeatable for up to 6 hours.
ANG	6165	Topics in South American Archaeology	3	AS	ANT	PR: Graduate Standing.	This course introduces the prehistoric and early historic cultural chronology of the South American continent, with an emphasis on current research and controversies and perspectives from cultural ecology. Repeatable for up to 6 hours
ANG	6175	Topics in Mediterranean Archaeology	3	AS	ANT	PR: Graduate Standing.	A graduate seminar in Mediterranean archaeology, spanning prehistory and the early historical period, and will examine subsistence adaptations, island settlement, trade, technology, religion, rise of complex societies and early states. Repeatable to 6 hr.
ANG	6197	Public Archaeology	3	AS	ANT	PR: GS or DPR.	This graduate-level course surveys archaeological practice as part of applied anthropology, in the public and private sector, from local to international.
ANG	6198	Regional Problems in Methods of Public Archaeology	3	AS	ANT	PR: GS.	Contemporary problems in Public Archaeology in the context of a specific region. Open to non-majors.
ANG	6270	Chiefdoms	3	AS	ANT	PR: Graduate standing, instructor consent.	This course examines theory and data on the emergence of chiefly forms of social organization using case studies from both ethnography and prehistory, and focusing on classic works of cultural evolution and recent critiques of the chiefdom concept.
ANG	6302	Gender in Cross-Cultural Perspective	3	AS	ANT	PR: Graduate Standing or DPR.	Examines roles of women, men, other genders and social, economic, and political aspects of sex and gender, from a biocultural, 4-field anthropological perspective, emphasizing non-Western societies and cross-cultural comparison in past and present.
ANG	6393	Anthropology, Contemporary Culture and the Media	3	AS	ANT	PR: GS or CI.	Course entails the anthropological study of the roll of media in contemporary culture. Selected issues include the cultural impact of images and gender/ethnic stereotypes. Special attention will be paid to ethnographic studies of media audiences, and a central theme will be the roll of media in a global, multi-cultural context.
ANG	6436	Issues in Heritage	3	AS	ANT	PR: Graduate Standing	The purpose of this course is to

		Tourism				or DPR.	introduce students to the theoretical and practical issues in heritage tourism and the business of heritage resource management from an anthropological perspective.
ANG	6447	Selected Topics in Urban Anthropology	3	AS	ANT	PR: GS.	Current topical issues in Urban Anthropology. Open to non-majors.
ANG	6448	Regional Problems in Urban Anthropology	3	AS	ANT	PR: GS.	Contemporary problems in Urban Anthropology in the context of a specific region. Open to non-majors.
ANG	6463	Social Epidemiology Applied Anthropology	3	AS	ANT	PR: GS or CI.	An advanced medical anthropology course on the application of methods and concepts from social epidemiology as relevant to cultural analysis.
ANG	6465	Regional Problems in Medical Anthropology	3	AS	ANT	PR: GS.	Contemporary problems in Medical Anthropology in the context of a specific region. Open to non-majors.
ANG	6469	Selected Topics in Medical Anthropology	3	AS	ANT	PR: GS.	Current topical issues in Medical Anthropology. Open to non-majors.
ANG	6490	Seminar in Cultural Anthropology	3	AS	ANT	PR: GS in Anthropology.	A critical advanced survey of Cultural Anthropology emphasizing contributions to Applied Anthropology, required of all MA students.
ANG	6495	Oral History and Life History: Approaches to Qualitative Research	3	AS	ANT	PR: GS or CI.	A in-depth survey of the methods, concepts, and practical applications of narrative-based qualitative research, featuring critical readings in case studies, and individual and group projects.
ANG	6497	Qualitative Research Methods in Anthropology	3	AS	ANT	PR: Graduate Standing or DPR.	This course is designed to acquaint students with the philosophical foundations of qualitative research, and to provide the opportunity for students to develop skills in the variety of data collection methods and analysis typical of qualitative research.
ANG	6511	Seminar in Physical Anthropology	3	AS	ANT	PR: Graduate Standing or DPR.	A critical advanced survey of Physical Anthropology emphasizing contributions to Applied Anthropology.
ANG	6676	Seminar in Anthropological Linguistics	3	AS	ANT	PR: GS in Anthropology.	A critical advanced survey of Anthropological Linguistics emphasizing contributions to Applied Anthropology.
ANG	6701	Contemporary Applied Anthropology	3	AS	ANT	PR: GS.	A critical survey of Applied Anthropology as practiced today in the major branches of Anthropology, focusing on Applied, Medical, and Urban Anthropology. Open to non-majors.
ANG	6705	Foundations of Applied Anthropology I	3	AS	ANT	PR: Graduate standing in anthropology.	MA Foundations of Applied Anthropology I provides graduate students with an introduction to the philosophical basis of contemporary anthropology.
ANG	6706	Foundations of Applied Anthropology II	3	AS	ANT	PR: Graduate standing, ANG 6705.	This course is the second part of a two-course sequence required of all MA students in the anthropology department. This course provides students with foundational understandings of the epistemologies underlying contemporary applied

							anthropology.
ANG	6730	Socio Cultural Aspects of HIV/AIDS	3	AS	ANT	PR: Graduate Standing.	This course is designed to provide an overview of the different social, economic, cultural, political, and ethical issues surrounding the spread of HIV/AIDS around the world.
ANG	6731	Health and Disasters	3	AS	ANT	PR: Graduate Standing or DPR.	Disasters like Katrina and complex emergencies like Bosnia exacerbate social divisions and impact the health status of individuals, communities, and nations. This course considers mitigation policies and humanitarian responses.
ANG	6739	Applied Anthropology and International Health	3	AS	ANT		An advanced international anthropology course on the health issues, organization, people, policies and limitations of the arena of international health.
ANG	6766	Research Methods in Applied Anthropology	3	AS	ANT	PR: GS.	Research design, data collection, and data analysis for Applied Anthropologists with urban and medical interests. Emphasis will be on non-quantitative research methods. Open to non-majors.
ANG	6905	Independent Study	1-19	AS	ANT	Departmental approval required. S/U only.	Independent study in which students must have a contract with an instructor.
ANG	6915	Directed Research Internship	1-19	AS	ANT	PR: GR. ML. S/U. DPR.	
ANG	6971	Thesis: Master's	2-19	AS	ANT	Departmental approval required. S/U only.	
ANG	7487	Research Methods in Applied Anthropology	3	AS	ANT	PR: GS.	Critical review of specific approaches to the development, management, and analysis of sociocultural data. Emphasis on qualitative and quantitative applications of field oriented research designs. Open to non-majors.
ANG	7487	Advanced Quantitative Research Methods Applied Anthropology	3	AS	ANT	PR: GS or DPR.	Critical review of quantitative approaches to the development, management, and analysis of sociocultural data. Open to non-majors.
ANG	7703	History and Theory of Applied Anthropology	3	AS	ANT	PR: 6D in Anthropology.	The history and theoretical development of Applied Anthropology, including cultural resources management are discussed in the context of the overall development of Anthropology as a discipline and profession.
ANG	7704	Legal and Ethical Aspects of Applied Anthropology	3	AS	ANT	PR: 6D in Anthropology.	Development and nature of professional ethics in Applied Anthropology, including legal and quasi-legal regulations pertaining to human subjects research, cultural resources management, historic preservation, privacy, and freedom of information. Open to non-majors.
ANG	7708	Selected Topics in Applied Anthropology	3	AS	ANT	PR: Advanced Graduate Standing.	An overview of Applied Anthropology in its relation to a major mode of public/private activity, e.g., planning, clinical practice, policy process, or advocacy. Open to non-majors.

ANG	7709	Applied Anthropology and Human Problems	3	AS	ANT	PR: Advanced Graduate Standing.	Examination of specific problem areas of social significance and policy relevance. Typical offerings include: substance abuse, disease, mental health, international development, urban design, and education. Open to non-majors.
ANG	7905	Directed Individual Study	1-15	AS	ANT	PR: DPR. S/U.	An advanced reading program of selected topics in Applied Anthropology under the supervision of an anthropology faculty member. A written contract describing requirements must be signed by the student and faculty member prior to registration.
ANG	7910	Directed Research	1-15	AS	ANT	PR: DPR. S/U. A written contract describing requirements must be signed by the student and the instructor.	An advanced directed research program in a selected topic of Applied Anthropology under the supervision of an anthropology faculty member.
ANG	7934	The Clientele of Applied Anthropology	3	AS	ANT	PR: Advanced Graduate Standing.	Review of the literature and practice of Applied Anthropology focusing on a specific segment or interest group within contemporary society. Typical offerings include: ethnic minorities, age categories, communities, the poor, migrants, public/private organizations, and industry. Open to non-majors.
ANG	7938	Doctoral Proseminar in Applied Anthropology	3	AS	ANT		Emphasizing the process of doing "four-field" anthropology (biological, archeological, linguistic, and cultural), conceptualizing research questions, identifying, gathering and analyzing data. How application and theory are integrated and how this integration is vital to the conduct of good anthropology with a variety of anthropological ideas.
ANG	7940	Doctoral Internship in Applied Anthropology	1-15	AS	ANT	PR: Admission to Doctoral Candidacy, CI. S/U.	Supervised training in practicing Anthropology in a non-academic setting, focusing on the applications of Anthropology. A written contract describing requirements must be signed by the student, the faculty advisor, and the agency supervisor prior to registration.
ANG	7980	Dissertation: Doctoral	2-15	AS	ANT	PR: Admission to Candidacy.	
ARC	5175	Computer Technology	3	TA	ARC	PR: CC.	Introduction to the application of computer technology in current architectural practice. The exploration of available software, programs, and computer services for word processing, information handling, specification writing, feasibility analysis, cost estimating, economic performance and life cycle cost analysis, project management (network programming and analysis), computer graphics, computer aided design and drafting.
ARC	5216	The Building Arts	3	TA	ARC	PR: CC.	Introduction to the man-made environment. The study and

							profession of architecture. The various facets of the process of shaping the built environment as it manifests itself in the different roles and specialization of the experts involved the process, and in the various academic courses that prepare the architect for practice.
ARC	5256	Design Theory	3	TA	ARC	PR: DPR.	Survey of major schools of thought in design theory, methods of design and problem-solving, and design research. The nature of the design activity and its recurring difficulties. The nature and different types of problems. Traditional approaches to problem-solving and design in architecture; recent systematic as well as intuitive approaches to problem-solving based on developments in other fields. Scientific method; the systems approach and design.
ARC	5361	Core Design I	9	TA	ARC	PR: CC.	First of two semester Design Fundamentals/Design Graphics sequence focusing on design abstractions and analysis of the factors influencing conceptual design. Emphasis is placed on ordering principles, pattern recognition and utilization, and figure-ground relationships. Development of craftsmanship, drawing as a means to design, and perceptual acuity are stressed.
ARC	5362	Core Design II	9	TA	ARC	PR: ARC 5361, CC.	Second of a two semester Design Fundamentals/Design Graphics sequence focusing on synthesis of design concepts and application of ordering principles in architectural design. Emphasis is placed on developing an understanding and awareness of architectural elements and compositions. Students examine the work of significant architects and use it as a basis for design exploration. Graphic documentation, diagramming, and model studies are stressed.
ARC	5363	Core Design III	6	TA	ARC	PR: ARC 5362, ARC 5467, ARC 5587, ARC 5731. CO: ARC 5689.	Study of the various phases of the building delivery and design process, and of different approaches to ordering that process in a systematic fashion. The student will use one such systematic approach in the investigation and development of design solutions for a project of moderate scale and complexity. Studies of built form ordering principles, mass/void relationships, scale and proportion, color, texture, contextual relationships, meaning/imagery, and building technology (awareness of structural organization, services networks, construction processes and materials). Aspects of human behavior as design determinants.

ARC	5364	Advanced Design A	6	TA	ARC	PR: ARC 5363. CP: ARC 5588, ARC 5467.	Application of orderly design processes to building projects of moderate complexity and scale. Continued investigation of the relationship between human behavior and the environment. Analysis and integration of site relationships into the development of design solutions. Legal aspects of zoning, building codes, and regulations regarding access for accessibility, fire escape, etc.
ARC	5365	Advanced Design B	6	TA	ARC	PR: ARC 5363. CP: ARC 5588, ARC 5467.	Investigation of the interaction between user requirements, environmental determinants, site and urban context conditions, technological factors, and design intentions in the development of design solutions for projects of medium scale and complexity. The analysis, design, and coordination of the various resulting systems, including structural, circulation, service networks, space zoning and use, environmental control systems at the interface between interior and exterior of a building. Representation of these relationships and systems in diagrams and models, and their manifestation in design and construction details.
ARC	5366	Advanced Design C	6	TA	ARC	PR: ARC 5363. CP: ARC 5588, ARC 5467.	Design of multi-purpose buildings of medium to large scale and complexity. Issues of community and neighborhood design as they relate to the design of buildings. Restoration and adaptive re-use of existing historic buildings. Focus on thinking through as well as documenting the complete building system and process.
ARC	5467	Materials and Methods of Construction	3	TA	ARC	PR: ARC 5470, CC.	Overview of properties of primary construction materials and systems that make up building structures and enclosures. Emphasis on elements and assemblies relative to various climates, technologies, costs, building codes, and craftsmanship.
ARC	5470	Introduction to Technology	3	TA	ARC		Introduction to architectural technology, including structures, materials and methods of construction, and environmental controls. Overview of building systems and components and their integration into architectural design projects.
ARC	5587	Structures I	3	TA	ARC	PR: Calculus, Physics, and ARC 5470, CC.	Review of static and mechanical principles of materials. Analysis and evaluation for appropriate selection of structural systems and elements. Analysis and design of timber and steel structures, based on moment, shear, and deflection. Fundamentals of wind and seismic design as they apply to wood and steel construction.

							Truss analysis, beam and column behavior.
ARC	5588	Structures II	3	TA	ARC	PR: ARC 5587, CC.	Introduction to the concepts and theories of structural analysis and design of reinforced concrete systems and elements, including practical application in building construction. Prestressing, post-tensioning, hybrid assemblies. Fundamentals of wind and seismic design. Formwork, placement, and assembly techniques.
ARC	5689	Environmental Technology	3	TA	ARC	PR: ARC 5467 and ARC 5470.	Comprehensive overview of mechanical systems for buildings including: water and waste: fire protection and suppression; heating, cooling and controls; electric power distribution and illumination; communications; transportation systems, and acoustics.
ARC	5731	Architectural History I	3	TA	ARC		Overview of the built environment from prehistory through the Middle Ages. Buildings and cities in their geographical, topographical, political, aesthetic, social, technological and economic context. Varieties of methodological approaches to the analysis of historical architecture. The focus will be on the built environment of Europe and the Mediterranean basin.
ARC	5732	Architectural History II	3	TA	ARC		Overview of the built environment from the Renaissance to the present. Buildings and cities in their geographical, topographical, political, aesthetic, social, technological, and economic context. Study of various methodological approaches to the analysis of historic architecture, and development of student's own approach. Emphasis will be on the built environment of Europe and America.
ARC	5789	Modern Architecture History	3	TA	ARC	PR: CC, CI.	Exploration of the philosophic, economic, aesthetic, social, historical and moral imperatives used by modern architects and historians in their attempt to design the appropriate physical environment for a new social order. The course will investigate the writings and works of the proponents of the modern style of architecture and study the "New Architecture" as defined by those who broke tradition and expressed the new era using modern construction materials and techniques.
ARC	5793	History Abroad	3	TA	ARC	PR: CC.	Summer study abroad. Location and description varies from year to year.
ARC	5794	Florida Architectural History	3	TA	ARC		An examination of the environmental, sociological, technological, political, economic, cultural, and other factors that influenced the discovery, growth, and urbanization of Florida as manifested by its architecture.

ARC	5920	Architectural Design Studio Abroad	5	TA	ARC	PR: CC.	Summer study abroad. Location and description varies from year to year.
ARC	5931	Special Studies in Architecture	1-5	TA	ARC	PR: CC.	Variable titles offered on topics of special interest.
ARC	6176	Advanced Computer Technology	3	TA	ARC	PR: ARC 5175, CC.	Elective course dealing with further development of CAD skills, focusing on three-dimensional modeling. A wide range of software programs is included which explores painting and shading, surface textures, 3D detail studies, perspectives, and oblique representations.
ARC	6287	Professional Practice I	3	TA	ARC	PR: ARC 5216, ARC 5364, CC.	Introduction and overview of professional practice, emphasizing business, organization, management, and marketing. Legal, economic, and ethical aspects of project procurement, design services, and delivery. Contracts, owner-contractor-architect roles and responsibilities.
ARC	6288	Professional Practice II	3	TA	ARC	PR: ARC 6287, CC.	Continued overview of professional practice, emphasizing legal, economic, and ethical aspects of practice. Project planning, funding, administration, risk management, and performance. Topics include: estimating, financing, life-cycle cost analysis, information resources and management.
ARC	6367	Advanced Design D	6	TA	ARC	PR: ARC 5364, ARC 5365, ARC 5366	Comprehensive studio problems emphasizing the integration of disciplinary and professional skills through the formulation of architectural propositions grounded in critical, speculative, and creative research.
ARC	6397	Introduction to Urban Design Theory, Methods & Processes	3	TA	ARC	PR: CC.	Introduction to the concepts, methods, and manifestations of urban design and city-building. Focus on both traditional city and modern city conditions. Student will gain a basic understanding of the design structure, order, function and character of cities and towns and assess various qualitative aspects of these conditions. Relationships between processes of architecture, landscape architecture, site planning, preservation and other relevant acts of city-building will be considered as referential points-of view in assessing certain complexities of urban morphology.
ARC	6398	Introduction to Community and Urban Design	3	TA	ARC		Introduce community and urban design as an academic discipline and professional practice that incorporates architecture, planning, landscape architecture, real estate development, and engineering. Major topics include urban form, function, and perception.
ARC	6471	Advanced Topics in Materials and Methods	3	TA	ARC	PR: ARC 5175, ARC 5587, and ARC 5588, CC.	Analysis and design of advanced construction assemblies. Specific focus on application and integration

							of multiple systems and components. Research in new materials and methods. Documentation and model and analysis.
ARC	6481	Design Development	3	TA	ARC	PR: ARC 5689 and ARC 5364.	The summary course of the building technology sequence in which construction, structural and environmental technologies are integrated within an architectural design project. Emphasis is placed on poetic and technical aspects of building systems.
ARC	6692	Advanced Topics In Environmental Technology	3	TA	ARC	PR: ARC 5175, ARC 5689, CC.	Analysis and preliminary design of advanced environmental control systems; specific focus on architectural applications; integration with structural and construction systems. Research of special aspects of ET systems, computer simulation and analysis techniques.
ARC	6936	Research Methods in Architecture	2	TA	ARC	PR: ARC 6311, ARC 5365, and ARC 6481.	A seminar course with the primary purpose of providing tools to conduct the independent research necessary for the two-semester, independent Master's Thesis requirement.
ARC	6971	Master's Thesis	5	TA	ARC	PR: ARC 5364, ARC 5365, ARC 5366, ARC 6481, and ARC 6936.	This represents the most significant project and provides for a demonstration of the ability to synthesize learned skills into a convincing independent work of professional quality. 10 credit hours of ARC 6971 is required. See also the USF Graduate Catalog.
ARC	6974	Master's Project Planning	3	TA	ARC	PR: Two of ARC 5364, 5365, 5366	The Master's Project (ARC 6971) will call for the student's independent selection, organization, programming and design of a complex project. This course aims at preparing students for these tasks by exploring potential topics for master's projects and theses, introducing the concepts of architectural facility programming, methods of gathering, organization, analysis and evaluation of information needed for the project, and by studying the process of writing proposals for the master's project that clearly communicate the problem or task, goals and objectives, the proposed approach and procedure, the expected outcome, as well as the work plan and schedule for such a project and the time and resources required. At the end of the course, students will have prepared an acceptable master's project proposal which will allow them to proceed with the master's project during the following term.
ARC	6976	Terminal Master's Project	6	TA	ARC	PR: ARC 6970	Students will independently investigate an architectural topic of personal interest. The requirements the submission of a research and design document and the preparation of juried presentation of the work.

ARE	6262	Management Design for Art Institutions	3	TA	ART		Principles of administration and supervision of art programs in the school and art institutions.
ARE	6358	Art for the Elementary School Teacher	3	TA	ART		Exploration of various materials and techniques in relationship to current theories about art and the intellectual, creative, emotional, and aesthetic growth of children.
ARE	6746	Basis of Inquiry Into Artistic Mind	3	TA	ART		An in-depth study of the contemporary basis of inquiry into artistic mind including a multi-disciplined review of literature and research in art education. Includes a visual inquiry project.
ARE	6844	Experiential and Theoretical Basis of Artistic Mind	3	TA	ART		Experiential and theoretical explorations into past and contemporary philosophies and practices in art and art education.
ARE	6944	Field Work in Art Education	1-4	TA	EDA		For student with degree-seeking status. Supervised participation in activities related to art education in community centers, nonschool arts program, planned workshop and research.
ARH	5451	Cultural and Intellectual History of Modern Art	4	TA	ART	PR: CI.	A course in which theories of modern artists and of critics and historians of Modernism are treated as a part of general cultural and intellectual history.
ARH	5813	Methods of Art History	4	TA	ART	Must be taken during the student's first two semesters in the M.A. program	This course introduces students to various methods which art historians have used to analyze the form and content of individual works of art, and to various modes of historical explanation.
ARH	5836	Collection and Exhibition Management	3	TA	ART	PR: Art Advisor's Approval	This class will introduce students to the basic principles of collections care and management and to the intellectual and practical tasks of preparing an exhibition. Sessions will include art handling, registration and condition reporting, preparing works of art for transit, environmental standards for collections storage and exhibition, and the professional responsibilities of the curator.
ARH	6055	Art History	4	TA	ART	PR: CI. Registration by contract only.	A contract for research in any elective area of Art History.
ARH	6798	Seminar In Art History	4	TA	ART		Var. Specialized topics in art history.
ARH	6865	Current Historiography: Renaissance	4	TA	ART		This course explores current perspectives on problems of Renaissance historiography.
ARH	6866	Current Historiography: Baroque-Rococo	4	TA	ART		This course explores current perspectives on problems of Baroque and Rococo historiography.
ARH	6867	Current Historiography: 19th Century	4	TA	ART		This course explores current perspectives on problems in the historiography of 19th Century Art.
ARH	6868	Current Historiography: 20th Century	4	TA	ART		Cultural and intellectual history of modern art
ARH	6891	Paris Art History	4	TA	ART	PR: At least 8 hours art history at the undergraduate level	This course will explore issues central to the history and criticism of art through the rich and visual culture that Paris offers. The goal of this course is to provide students with an

							experience of the cultural life of the city through an exploration of its major art collections, monuments, art collections and historical sites. Thematically-organized topic will include: art and national identity, patronage, orientalism, the birth of the avant-garde and the role of the museum in the evolution of modernism and modern art.
ART	5390C	Drawing	4	TA	ART	PR: ART 4320C, CI, DPR.	Advanced problems in various drawing techniques. Emphasis on individual creative expression. Repeatable.
ART	5422C	Lithography	4	TA	ART	PR: ART 4402C, CI, DPR.	Advanced problems in various lithographic techniques. Emphasis on individual creative expression. Repeatable.
ART	5448C	Intaglio	4	TA	ART	PR: CI. Registration by contract only.	Investigations into more complex intaglio processes including photoengraving and color printing procedures. Emphasis on personal conceptual development in graphic media.
ART	5580C	Painting	4	TA	ART	PR: CI. Registration by contract only.	Research in painting
ART	5740C	Sculpture	4	TA	ART	PR: ART 2701C, DPR.	Advanced problems in the various techniques of sculpture. Emphasis on individual creative expression. Repeatable.
ART	5790C	Ceramics	4	TA	ART	PR: ART 2750C, DPR.	Advanced problems in the various ceramic techniques, including throwing and glaze calculation. Repeatable.
ART	5910	Research	1-4	TA	ART	PR: CI, DPR. Registration by contract only. Repeatable.	
ART	5936	Studio Techniques: Selected Projects	2	TA	ART	PR: DPR.	Concentration in specialized media or processes. Repeatable.
ART	6391C	Drawing	4	TA	ART	PR: CI. Registration by contract only.	Advanced graduate research in drawing.
ART	6423C	Lithography	4	TA	ART	PR: CI. Registration by contract only.	Advanced graduate research in lithography.
ART	6449C	Intaglio	4	TA	ART	PR: CI. Registration by contract only.	Advanced graduate research in intaglio process.
ART	6581C	Painting	4	TA	ART	PR: CI. Registration by contract only.	Advanced graduate research in painting.
ART	6688	Electronic Media	4	TA	ART	PR: GS, CI, proof of proficiency in media.	Advanced projects in the exploration of the issues and practices involved in the creation of experimental computer art at the graduate level. Emphasis on individual creative expression. May be repeated.
ART	6791C	Ceramics	4	TA	ART	PR: CI. Registration by contract only.	Advanced graduate research in ceramics.
ART	6792C	Sculpture	4	TA	ART		Advanced problems in the various techniques of sculpture. Emphasis on individual creative expression. Repeatable.
ART	6811	Paris Art Studio	3	TA	ART	PR: Dept Approval Required	This course will explore the experience of modern life in the city as a source for art making. Projects will encourage students to encounter the dense and varied space and time of Paris toward a better

							understanding of the part that this city has played in the shaping of modern and post modern sensibilities. We will draw upon a range of avant-garde strategies that have imagined and conceptualized Paris by movement through city spaces and close observation of the ordinary and extraordinary aspects of everyday life.
ART	6816	MFA Professional Practices	2	TA	ART		MFA students will analyze their experiences and explore options available to visual artists after completion of their degree. Restricted to majors; not repeatable for credit.
ART	6895	Graduate Seminar I	3	TA	ART		This seminar will expand students understanding of the complexities of contemporary art. Students will develop an awareness of current critical theories through readings, writings and discussions. Restricted to majors and is non-repeatable.
ART	6896	Graduate Seminar II	3	TA	ART	PR: Graduate Seminar I.	This course facilitates a critical awareness of the self-reflexive nature of artistic vision within a larger cultural context including the relevance of one's work in relationship to contemporary art theory. Restricted to majors and is non-repeatable.
ART	6897	Critical Writing Seminar	3	TA	ART	PR: Departmental Permission, Majors Only.	Significant texts of the 20th Century and contemporary criticism introduce multiple lenses through which art is encountered, inviting self identification within a broad range of engaged positions. This forms the core of the MFA Research Project Proposal.
ART	6907	Independent Study	1-19	TA	ART	PR: CI. Registration by contract only. Achieved candidacy. S/U.	Independent study in which student must have a contract with an instructor.
ART	6911	Directed Research	1-19	TA	ART	PR: CI. Registration by contract only. Achieved candidacy.	
ART	6937	Graduate Instruction Methods	1-4	TA	ART	S/U. CI. Registration by contract only.	Special course to be used primarily for the training of graduate teaching assistants.
ART	6940	Selected Topics In Art	1-4	TA	ART		Variable credit depending upon the scope and magnitude of the work agreed to by the student and the responsible member of the faculty.
ART	6956	MFA Research Project	2-19	TA	ART	PR: CI.	Development/Finalization of MFA Research Project, including the planning and realization of an exhibition and a written document articulating ideas, processes, and sources related to the project. Usually taken during last year.
ART	6971	Thesis: Master's	2-19	TA	ART	PR: CI, S/U. Registration by contract only.	
AST	5506	Introduction to Celestial Mechanics	3	AS	AST	PR: MAC 2313 or MAC 2283 and some knowledge of differential equations,	The two-body problem, introduction to Hamiltonian systems and canonical variables, equilibrium solutions and stability, elements of perturbation

						or CI.	theory.
AST	5932	Selected Topics in Astronomy	1-5	AS	AST	PR: Senior or advanced junior standing or CI.	Intensive coverage of special topics to suit needs of advanced students.
BCC	7114	Emergent and Urgent Care Clerkship	var	ME	MSG		Students participate in patients with emergent and urgent medical presentations and assist in the development of a differential diagnosis and preliminary diagnostic and therapeutic plans.
BCC	7134	Maternal and Newborn Health	var	ME	MSG		Students participate in maternal care and newborn care.
BCC	7144	Integrated Internal Medicine - Pediatrics	var	ME	MSG		This clerkship introduces students to basic principles and practices of hospital-based internal medicine and pediatrics. When possible, it integrates interdisciplinary principles of internal medicine and pediatric disease management.
BCC	7154	Neuropsychiatry Clerkship	var	ME	MSG		The Neuropsychiatry Clerkship is 4 weeks consultation liaison service, 4 weeks inpatient psychiatry, and 2 weeks outpatient neurology.
BCC	7164	Surgical Care Clerkship	var	ME	MSG		The Surgical Care clerkship focuses on the development of the fundamental principles in the surgical care of patients.
BCC	7184	Primary Care and Special Care Populations Clerkship	var	ME	MSG		The Primary Care and Special Care Populations Clerkship introduces students to the principles of primary care medicine (Internal Medicine, Family Medicine, and Pediatrics)in the ambulatory setting.
BCC	8116	Skin and Bones Medicine Clerkship	var	ME	MSG		The Skin and Bones Medicine clerkship is 4 weeks in duration dealing with the content areas of musculoskeletal and dermatology.
BCC	8117	Interdisciplinary Oncology	var	ME	MSG		This is a four-week block in which all students will be expected to learn the fundamental principles of oncology and the multidisciplinary approach to the prevention, diagnosis, treatment, and rehabilitation of cancer patients.
BCH	5045	Biochemistry Core Course	3	AS	CHM	PR: Either CHM 2211, CHM 2211L, and CHM 3400 or CHM 4410 or graduate standing.	A one-semester survey course in biochemistry for graduate students in chemistry, biology, and other appropriate fields and for particularly well-qualified undergraduates.
BCH	5105	Biochemistry Laboratory Rotations	1-3	AS	CHM		A course in which first year graduate students rotate through selected professor's laboratories to learn techniques, become familiar with ongoing research in the Department and facilitate the selection of a mentor.
BCH	6135C	Methods in Molecular Biology	4	ME	MSG		An introduction to modern molecular biological techniques and instrumentation. Lec. Lab.
BCH	6411	Biomedical Genomics and Genetics	4	ME	MSG	PR: GMS 6001 or GMS 6200C or CC or CI.	An overview of Biomedical Genomics & Genetics and current and potential applications in biology & medicine, including identification of gene defects and the use of genetic tools for diagnosis and treatment of disease.
BCH	6506	Advances in	3	ME	MSG		A discussion of the theory and

		Enzymology					mechanism of enzymological reactions with emphasis on enzymological techniques. Offered every other year.
BCH	6627	Metabolic and Genetic Basis of Human Diseases	3	ME	MSG	PR: GMS 6200C.	The course will deal with the genetic, molecular, and biochemical basis of human diseases.
BCH	6746	Proteomics and Structural Biology	3	ME	MSG	PR: GMS 6200C or CC.	The theory and application of modern physical biochemical techniques.
BCH	6806	Biochemical Endocrinology	2	ME	MSG		A study of the biochemical mechanisms of polypeptide, thyroid, and steroid hormones, including sites of action. Offered every other year.
BCH	6888	Bioinformatics	3	ME	MSG		An introduction to computer software applications for research in Biochemistry and Molecular Biology. Emphasis on database searching and submission, data analysis and graphical presentation, DNA and protein sequence analysis and molecular modeling. Lec./Pro.
BCH	6889	Bioinformatics II	3	ME	MSG	PR: BCH 6888.	Bioinformatics II focuses on four aspects: genome analysis; software suites; homology modeling and DNA micro arrays; all of which have become essential tools in modern day analyses of both genome organization and protein structure-function relationships.
BCH	6935	Scientific Writing and Ethics	2	AS	CHM		
BCH	6942	Bioinformatics Internship I	2	ME	MSG	PR: BCH 6888.	This course focuses on applications of bioinformatics and computational biology principles in a practical environment necessary for an "in-depth" understanding of how the methodologies of bioinformatics can be applied to solve bioscience problems.
BCH	6943	Bioinformatics Internship II	2	ME	MSG	PR: BCH 6888.	This course focuses on applications of bioinformatics and computational biology principles in a practical environment necessary for an "in-depth" understanding of how the methodologies of bioinformatics can be applied to solve bioscience problems.
BME	5040	Pharmaceutical Engineering	2	EN	ECH	PR: Senior or graduate standing in engineering or CI.	Introduction to pharmaceutical engineering, including dosage forms (tablets, capsules, powders, liquids, topical forms, and aerosols), excipients, regulatory issues, clinical studies, and good manufacturing practices.
BME	5320	Theory and Design of Bioprocesses	3	EN	ECH	PR: Senior standing in engineering or CI. Open to majors and non-majors with CI.	Introduction to biotechnology, including applied microbiology, enzyme technology, biomass production, bioreactor design, and transport processes in biosystems.
BME	5748	Selected Topics in Biomedical Engineering	1-3	EN	ECH		Selected topics in biomedical engineering, including biomedical engineering, biomedical materials, biodynamics of circulation, separation processes in biomedical systems, and artificial organ systems.

BME	5910	Directed Research in Bioengineering	1-3	EN	ECH	PR: CI.	Directed research in an area of biomedical engineering or engineering biotechnology.
BME	5937	Selected Topics in Biomedical Engineering	1-3	EN	ECH	PR: Senior or GS standing in Engineering or CI. Open to non-engineering students with CI.	Selected topics in biomedical engineering, including biomedical engineering, biomedical materials, biodynamics of circulation, separation processes in biomedical systems, and artificial organ systems. May be taken by non-engineering students with CI. Repeatable as subjects vary.
BME	6000	Biomedical Engineering	3	EN	ECH	PR: Graduate standing in engineering or CI.	Biomedical engineering analysis, including biomedical thermodynamics, biomechanics, biomaterials, medical imaging, biomedical instrumentation, tissue/cellular engineering, clinical engineering, prosthetic/medical devices, and regulatory issues.
BME	6107	Biomaterials I: Material Properties	3	EN	EGX		Properties and characterization of biomaterials, including ceramics, glasses, metals, natural materials, polymers, and composites. Applications include dental, orthopedic, soft tissue, and tissue scaffolds. Design and sterilization issues.
BME	6108	Biomaterials II Biocompatibility	3	EN	ECH	PR: Graduate standing in engineering or CI.	Biocompatibility issues of biomaterials, including inflammation, wound healing, foreign body response, toxicity, blood coagulation, tumorigenesis, infection, and related issues including testing. Degradation of materials in the biological environment.
BME	6235	Tissue Biomechanics	3	EN	ECH	PR: Graduate standing in engineering or CI.	Biomechanical properties of hard and soft tissues, including measurement procedures, influences on properties (gender, aging, physical conditioning, disease processes), tissue repair, and implant devices. Open to non-majors with CI.
BME	6340	Biomedical Fluids and Cardiovascular Engineering	3	EN	ECH	PR: Graduate standing in engineering or CI.	Roles of mechanics & transport phenomena in pathology, diagnosis & treatment of cardiovascular disease. Intro to methods for assessing hemodynamics & cardiovascular health -Doppler echocardiography & MRI. Cardiovascular devices. Open to non-majors.
BME	6420	Human Sensory Processes	3	EN	ECH	PR: Graduate standing in engineering or CI.	Biological and engineering aspects of the human sensory system (vision, hearing, taste, smell, touch, pain, etc.), including normal and impaired performance, engineering models, and prosthetic device design considerations.
BME	6430	Cardiovascular Systems for Engineers	3	EN	ECH	PR: Graduate standing in engineering or CI.	Cardiovascular basic and medical science from an engineering viewpoint. Topics explored: cardiovascular anatomy and physiology, physical and mathematical aspects of current therapies and diagnostics, imaging, hemodynamics, and cardiovascular

							disease.
BME	6634	Biotransport Phenomena	3	EN	ECH	PR: Graduate standing in engineering or CI.	Analysis and applications of biofluids, including non-newtonian and particulate systems, bioheat transfer, including energy balances, and biomass transport, including mass balances and membrane processes. Open to non-majors with CI.
BME	6911	Research Methods in Biomechanics	1-3	EN	ECH	PR: Graduate standing in engineering or CI.	Research methods in biomechanics, including materials testing, gait analysis, modeling techniques, and related issues. Open to majors and non-majors. May be repeated for credit as the subject varies up to six total credits.
BME	6920	Seminar in Biomedical Engineering	1	EN	ECH	PR: Graduate standing in biomedical engineering or CI.	Seminar in biomedical engineering. Speakers will address current research topics in biomedical engineering, including biomechanics, cardiovascular engineering, sensors, tissue engineering, and drug delivery. Can be repeated up to 3 total credits.
BME	6931	Selected Topics in Biomedical Engineering	1-3	EN	ECH	PR: Graduate standing in engineering or CI.	Selected topics in biomedical engineering, including focused topics in biomechanics, biomedical imaging, biomaterials, biomedical instrumentation and sensors, tissue and cellular engineering, and clinical engineering & health systems.
BMS	5005	Professions of Medicine: Foundations of Doctoring	1-19	ME	MSG		This three-week course placed at the beginning of the medical school curriculum will introduce the students to principles that will be used through the entire medical school education and beyond. Basic scientists and clinicians present information in an integrated approach. Topical areas include: use of information resources (library/computer), the medical article, intro to evidence based medicine, effective study techniques, intro to the physical exam, cultural diversity, ethics and professionalism, and state of the art presentation. The course will use both large and small group learning techniques and students will demonstrate achievement of knowledge.
BMS	5015	Clinical Diagnosis and Reasoning	var.	ME	MSG		This course aims to provide the student with the opportunity to "think like a physician." It will provide the venue to integrate clin diagnosis/reasoning strategies with complementary aspects of clin problem solving/phys diagnosis/evidence based medicine.
BMS	5190	Anatomy by Diagnostic Testing	1-20	ME	MSG		Describing normal human anatomy in three dimensions (frontal, coronal, and axial), using contrast medical and imaging modalities available for diagnostic radiologists. Course will be oriented to organ systems describing anatomy of the organ and its vasculature and topographic anatomy. It will include didactic

							lecture series and a standing display of images for self-studies. Plain radiographs, contrast studies of gastrointestinal and urinary tract, arteriograms, computed tomograms, magnetic resonance, and ultrasound scans of body organs will be displayed.
BMS	6100C	Gross Anatomy	5-10	ME	MSG	PR: Anatomy Students only.	
BMS	6110	Microscopic Anatomy	5-10	ME	MSG	PR: Anatomy Students only.	
BMS	6206	Molecular Medicine	1-20	ME	MSG		Emphasis of biochemistry, cell biology, and genetic that have immediate relevance for clinical medicine while also providing a fundamental foundation of understanding that will permit life-long learning. The pathogenesis of disease will be understood based on a practical understanding gained from the students address in this course.
BMS	6300	Principles of Immunology and Infectious Diseases	var.	ME	MSG		This course consists of lectures, laboratory, and small-group conferences. Principles of infectious disease are presented with emphasis on both the characteristics of the causative agent and the host response to colonization activities.
BMS	6825	On Doctoring	var	ME	MSG		On Doctoring is a course that presents topics that make relevant connections between the Med 1 core curriculum courses and faculty clinical practice experiences as well as relevant insights from ethics and humanities.
BMS	6835	Evidence Based Clinical Practice	var.	ME	MSG		This course allows students to use an evidence-based approach as they develop the H&P exam skills to formulate a differential diagnosis & develop a diagnostic process to make a diagnosis & formulate a treatment plan for the patient.
BMS	7303	Clinical Microbiology and Immunology	var.	ME	MSG		This course will focus on an experiential approach to issues in clinical microbiology and immunology of relevance to the practicing physician.
BMS	7304	Review of Immune and Infectious Diseases	var.	ME	MSG		This course will focus on a review of the major immune and infectious diseases that may be encountered by the general physician.
BOT	5185C	Marine Botany	4	AS	BIN	PR: BOT 3373C, PCB 3043 and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023 and CI. CP: CHM 2211.	A field course in marine plants with emphasis on ecology and functional morphology. Fieldwork will stress the ecological aspects of plants in the subtropical marine environment of Florida. Fieldwork required. Lecture and Laboratory.
BOT	5725C	Evolution of Flowering Plants	3	AS	BIN	PR: BOT 3373C and BOT 4152C or CI.	A study of the evolution and phylogeny of the Angiosperms; the origin and nature of early angiosperms, "primitive" angiosperms

							today; evolutionary processes leading to the origin of genera, families and orders, trends of specialization in the angiosperms; phylogenetic analysis, cladistics, traditional approaches, new approaches; readings from the current and historical literature. Lec/Lab.
BSC	5420	Genetic Engineering and Recombinant DNA Technology	3	AS	BCM	PCB3023, PCB3063, either PCB3023L or PCB3063L	This lecture-based course will use a problem solving approach, provide fundamental knowledge of scientific concepts and principles that form the basis of experimental methodologies in genetic engineering and recombinant DNA technology. For majors/nonmajors.
BSC	5444	Genomics	4	AS	BIN	PR: BSC 2011, CHM 2046, PCB 3063.	We will be using genomic data available from multiple bioinformatics databases to answer an open-ended question fundamental to organismal evolution. The emphasis is to hone scientific inquiry skills in fledgling researchers.
BSC	5931	Selected Topics in Biology	1-4	AS	BIO	PR: CI.	
BSC	6436	Introduction to Biotechnology	3	ME	MSG	PR: BS in Biochemistry, Biology or Chemistry of CI.	The course focuses on biotechnology, the integration of biology and technology and its applications in genomics, forensics, agriculture, engineering and medicine that have resulted in new products and services and solved biological/biomedical problems.
BSC	6437	Biotechnology and Bioethics	3	ME	MSG		Provides students a basic understanding of what biotechnology is and how it is employed throughout the world. Students are to learn the ethical and legal issues facing this technology, and how biotechnology is regulated. Course is not repeatable.
BSC	6457	Modern Basic Tools of Research	4	AS	BCM	PR: CI or CC.	An introduction to modern core research facilities and methodologies used in cancer research. Lec., Lab., Dem. Department Approval Required.
BSC	6905	Independent Study	1-19	AS	BIO	PR: CI. S/U.	Independent study in which student must have a contract with an instructor.
BSC	6910	Directed Research	1-19	AS	BIO	PR: CI. S/U.	
BSC	6930	Lectures in Contemporary Biology	1	AS	BIN	PR: CC. S/U only.	This Biology lecture series includes a diversity of contemporary topics including: molecular regulatory mechanics, evolutionary genetics, organismal physiology and community ecology.
BSC	6931	Development and Physiology Seminar	1	AS	BIO		A critical examination and discussion of current literature of physiology and development of living organism, including cells.
BSC	6932	Selected Topics in Biology	1-4	AS	BIO	PR: CI.	
BSC	6935	Graduate Seminar in Biology	1	AS	BIO	PR: CI. S/U.	

BSC	6936	Scientific Grant Writing	3	AS	BIO		Course provides instruction on becoming a successful grant writer as well as understanding the grant proposal writing and review process. Responsibilities of the principle investigator for compliance, fiscal matters, and scientific management of the funded grant will also be covered with guest lecturers from the Division of Sponsored Research.
BSC	6939	Selected Topics in Cancer Biology	1-4	AS	BIO	PR: Permission of department.	Provides in-depth study of a single aspect of cancer biology. Topics offered vary by semester.
BSC	6945	Graduate Instruction Methods	1-3	AS	BIN	PR: CI. S/U only.	Special course to be used primarily for the training of teaching assistants.
BSC	6971	Thesis: Master's	2-19	AS	BIO	PR: CI.	Thesis: Master's
BSC	7910	Directed Research	1-19	AS	BIO	PR: CI. Ph.D. level. S/U.	
BSC	7911	Directed Research in Cancer Biology	1-12	AS	BCM	PR: CI.	Student research will be performed under the guidance of Ph.D. prior to formation of dissertation committee.
BSC	7936	Doctoral Seminar	1	AS	BIO	PR: 90 semester hours post B.S.	Graduating Ph.D. students will present a formal seminar based upon their dissertation to the Department of Biology and the public. Restricted to majors.
BSC	7980	Dissertation: Doctoral	2-19	AS	BIO	PR: CI.	
BTE	5171	Curriculum Construction: Business Education	3	ED	EDV		Curriculum scope, the process of planning and organizing instructional programs with emphasis on task analysis and process evaluation.
BTE	6944	Practicum: Business Education	3-6	ED	EDV		A problem-centered field study in the local community, school, government, office, social agency, business, or industry.
BUL	5332	Law and the Accountant	3	BU	GBA	PR: BUL 3320 or CI.	A comprehensive study of commercial law as it affects the practice of accounting.
CAP	5400	Digital Image Processing	3	EN	ESB	PR: EEL 4851C or GS.	Image formation, sources of image degradation, image enhancement techniques, edge detection operators and threshold selection, low-level processing algorithms for vision, image data compression.
CAP	5625	Introduction to Artificial Intelligence	3	EN	ESB	PR: EEL 4851C or GS.	Basic concepts, tools, and techniques used to produce and study intelligent behavior. Organizing knowledge, exploiting constraints, searching spaces, understanding natural languages, and problem solving strategies.
CAP	5682	Expert And Intelligent Systems	3	EN	ESB	PR: EEL 4851C or GS.	Basic concepts, techniques and tools for the design and implementation of expert and intelligent systems. Knowledge representation, inference methods, knowledge acquisition methods, and some advanced concepts. Tools to facilitate construction of expert and intelligent systems.

CAP	5771	Data Mining	3	EN	ESB	PR: Undergraduate Statistics.	An introductory course to mining information from data. Scalable supervised and unsupervised machine learning methods are discussed. Methods to visualize and extract heuristic rules from large databases with minimal supervision is discussed.
CAP	6100	Human Computer Interface	3	EN	ESB	PR: CI.	Introduction to the design and evaluation of the interface between a computer based application and a human user.
CAP	6415	Computer Vision	3	EN	ESB	PR: CAP 5400.	Techniques for description and recognition of objects, use of stereo, texture, and motion information for scene segmentation and description, consistent labeling and matching, use of knowledge and planning in computer vision.
CAP	6455	Advanced Robotic Systems	3	EN	ESB	PR: Control Systems, Intro to Robotics, MatLab	Unmanned ground, aerial and underwater robots. Modeling, kinematics dynamics and control; navigation and collision avoidance; sensor fusion; vision-based navigation; sensor fault detection and isolation; system architectures and robot swarms.
CAP	6615	Neural Networks	3	EN	ESB	PR: CAP 5600.	Defines models of artificial neural networks, compares these models, and investigates the relationship of neural network learning to other symbolic learning methods.
CAP	6672	Robot Intelligence and Computer Vision	3	EN	ESB	PR: COP 2400 or equiv.	An introduction to robotic systems with emphasis on the computational aspects of robot control. Topics for discussion: overview of the robotics field, analysis of robot arm kinematics and coordinate transformation, real-time computer control of robot arms, and computer vision. Practical experience in programming robotic systems will be included.
CAP	6736	Geometric Modeling	3	EN	ESB	PR: Data Structures, Programming in a higher level language.	The course deals with the representation, design, analysis, processing and visualization of shape information used in a variety of fields of science and engineering.
CCE	5035	Construction Management & Planning	3	EN	EGX	PR: EGN 3613C.	Fundamentals of construction management. Topics include: general definitions, organizational roles, types of contracts, analysis of labor and equipment, cost estimating, contractor cash flow analysis, planning and scheduling, project control, construction administration, quality and safety management, and use of computer software in construction management.
CCJ	6050	Pro Seminar in Criminology	1	BC	CJP	PR: CI. Should be taken during the first semester.	Provides a forum for presentation and discussion of research ideas by faculty, students, and guests, with a view toward the development of thesis topics.
CCJ	6605	Theoretical Approaches to Criminal Behavior	4	BC	CJP	PR: CI.	An introduction to, and comparison of, major historical and contemporary theories that seek to explain criminal

							behavior.
CCJ	6406	Theory, Practice, and Research in Law Enforcement	3	BC	CJP	PR: CI	This issue-oriented course explores the relationships among theory, practice, and research as these are reflected in the problems and challenges that confront law enforcement.
CCJ	6705	Research Methods in Criminology	4	BC	CJP	PR: CCJ 6920, CI	Introduction to the basic methods of criminological research; overviews philosophy of science, research ethics, research design issues such as sampling and measurement, and methods of data collection, including survey, experimental, and evaluation research.
CCJ	6706	Quantitative Analysis in Criminology I	4	BC	CJP	PR: CCJ 6705, CI.	Introduction to data management utilizing computer statistical packages and elementary statistical techniques used in criminological research: descriptive and inferential statistics, group comparisons, measures of association, linear regression.
CCJ	6707	Quantitative Analysis in Criminology II	4	BC	CJP	PR: CCJ 6706, CI.	Intermediate-level data analysis and statistical techniques applied to problems in criminology. Emphasis on multivariate techniques, including multiple regression, path analysis, and nonlinear models.
CCJ	6708	Quantitative Analysis in Criminology III	3	BC	CJP	PR: CCJ 6707 or equivalent.	This course familiarizes students with advanced multivariate linear and nonlinear statistical procedures appropriate for analyzing criminological data.
CCJ	6709	Qualitative Methods in Criminology	3	BC	CJP	PR: CCJ 6705.	An in-depth analysis and discussion of several qualitative perspectives and corresponding methodological designs as they pertain to criminological research and inquiry.
CCJ	6716	Evaluation Research in Criminology	3	BC	CJP	PR: CCJ 6705.	This course provides basic and advanced methods of evaluation research in a real world environment, paying particular attention to the idiosyncrasies of working with and within the Criminal Justice System. Grant preparation, survey techniques, and research design will be covered along with the policies, pressures, and peculiarities associated with evaluating agencies.
CCJ	6905	Directed Independent Study	1-12	BC	CJP	Majors only.	Independent study in which student must have contract with instructor.
CCJ	6910	Directed Research	1-19	BC	CJP	PR: CI. S/U.	
CCJ	6930	Current Issues in Corrections	3	BC	CJP	PR: CI. Repeatable with different subject matter.	This course is designed to review and analyze the major issues and dilemmas that confront corrections today, including overcrowding, inmate rights, privatization, control of gangs, control of inmates, and the availability or programs and services. Attention will also focus on the strategies and/or controversies associated with these issues.

CCJ	6931	Seminar in Criminological Theory	3	BC	CJP	PR: CCJ 6605. Repeatable with different subject matter.	This course is designed to provide an in-depth analysis of specific theoretical issues in criminology.
CCJ	6935	Topics in Criminology and Criminal Justice	3	BC	CJP	PR: CI.	Analysis and discussion of topics of major concern in criminology and criminal justice that are not covered in regular courses.
CCJ	6936	Current Issues in Law Enforcement	3	BC	CJP		This course will focus on some of the most significant issues facing law enforcement agencies today. Some topics included will be: police use of deadly force; review of police conduct; police unionization; police corruption; media relations; civil liability; and community/problem-oriented policing.
CCJ	6971	Thesis: Master's	2-19	BC	CJP	PR: CI.	
CCJ	6974	Area Project	1-12	BC	CJP	PR: GS in the Department and CI. Required of students not using the thesis option. Maximum of 3 hours toward the Master's degree. S/U.	
CCJ	7057	Ethics in Criminology	4	BC	CJP		This course is designed to review and analyze the various ethical issues and dilemmas that confront the criminal justice system and the discipline of criminology. Because of the unique characteristics of the people and problems dealt with in criminology, the ethical issues in the area often are novel when compared to those in other fields.
CCJ	7910	Advanced Research	1-12	BC	CJP	Doctoral Students only.	Course is designed to give students an opportunity to conduct independent research under the supervision of a faculty member. May be repeated.
CCJ	7980	Doctoral Dissertation	2-12	BC	CJP		
CDA	5416	Introduction to Computer-Aided Verification	3	EN	ESB	PR: CDA 3201, COT 3100, COT 4400, EEL 4851C.	This course introduces basic concepts of formal verification. Topics include formal specification, algorithms, and methodologies for scalable verification. It is only for CSE majors or non-majors with permission from the instructor, not repeatable.
CEG	5115	Foundation Engineering	3	EN	EGX	PR: CEG 4011 or CI.	Design of shallow foundations, cantilevered and anchored retaining walls, piling, drilled piers and special foundations. Computer applications to geotechnical engineering are covered.
CEG	5205	Laboratory Testing for Geotechnical Engineers	3	EN	EGX	PR: CEG 4011 or CI.	Both routine and advanced forms of soil testing are covered. Emphasis is placed on procedures and application of results to design.
CEG	6015	Advanced Geotechnical Topics	3	EN	EGX	PR: CEG 4011, CEG 4011L, CEG 5205.	Advanced concepts of shear strength and consolidation of soils; slope stability, nonlinear and secondary consolidation, numerical methods.

CEG	6065	Soil Dynamics	3	EN	EGX	PR: CEG 4011, CEG 4011L, CEG 4012.	Fundamentals of vibrations, wave propagation, design of foundations, retaining walls and slopes to resist vibrations, liquefaction of soils.
CEG	6415	Seepage and Subsurface Drainage	3	EN	EGX	CR: CEG 4011 or CI.	Design of underdrains, wells, soil filters, fabric filters, and dewatering systems with special emphasis on case studies.
CES	5105C	Advanced Mechanics of Materials I	3	EN	EGX	PR: EGN 3331, MAP 2302	Analytical study of the mechanical behavior of deformable solids. Basic concepts, stress and strain transformations, special topics in beams, theory of elasticity, criteria of failure, beams on elastic foundation.
CES	5209	Structural Dynamics	3	EN	EGX	PR: CES 3102, EGN 3321.	Behavior of structural components and systems when subjected to periodic dynamic loads.
CES	5715C	Prestressed Concrete	3	EN	EGX	PR: CI, majors only.	Fundamental principles of prestressing; calculation of losses; stress analysis and design of simple beams for flexure and shear. Examples of pressures applications.
CES	6103	Experimental Stress Analysis	3	EN	EGX	PR: EGN 3331, EGN 3373	This course will provide the tools of research necessary to design experiments and/or instrumentation schemes for directed studies. It is intended for structural and geotechnical engineering graduates conducting master's or doctoral research.
CES	6107C	Advanced Mechanics Of Materials II	3	EN	EGX	PR: CES 5105C.	Continuation of CES 5105C. Structural stability of beam-columns and frames, calculus of variations and energy methods, introduction to viscoelasticity and plasticity.
CES	6116	Finite Element Analysis II	3	EN	EGX	PR: CES 4141	Finite Element method for structural analysis. Weighted residual and variational methods. Analysis of frame, plane stress/strain, axisymmetric, torsion, plate bending, shell and 3-dimensional elastic problems. Analysis of heat conduction, fluid flow, and electric and magnetic potential problems.
CES	6117	Finite Element Analysis III	3	EN	EGX	PR: CES 6116.	Nonlinear geometric and material finite element for formulation for trusses and frames. P-Delta and large deformation theories. Solution strategies for static and dynamic loads. Displacement and Flexibility approach for solution of problems. Mixed variational principles. Computational plasticity. Transient analysis of structures.
CES	6326	Design of Concrete Bridges	3	EN	EGX	PR: CES 4702, CES 5715C.	Bridge Classification, AASHTO loads and load combinations, load distribution, design of typical superstructures and substructures for concrete and prestressed bridges.
CES	6586	Design of Structures to Resist Natural Hazards	3	EN	EGX		Study of natural hazards (wind, earthquakes & ocean waves) and their interaction with structures. Use of exact and approximate methods of analysis, computer modeling, and design provisions for structures to

							resist the aforementioned loads.
CES	6609	Advanced Steel Design	3	EN	EGX	PR: CES 4605.	Advanced topics in steel design. Topics covered include connection design, torsion of wide range sections, and optimum structural design.
CES	6706	Advanced Concrete Design	3	EN	EGX	PR: CES 4702, majors only.	Advanced topics in concrete designs. Topics include torsion two way floor systems, composite construction, slabs on grade, and deep beams.
CES	6716	Design of Continuous Post-Tensioned Structures	3	EN	EGX		Methods of analysis and design of post-tensioned statically indeterminate structures. Emphasis will be on the design of two-way slabs for floor systems using the equivalent frame method and load balancing.
CES	6835	Design of Masonry Structures	3	EN	EGX	PR: CES 4702.	This course provides an overview of the design of masonry structures using concrete masonry units. It covers both working stress and strength design of typical elements such as walls and lintels and simple structures.
CES	6841	Infrastructure I: Repair/Rehab of Structures	3	EN	EGX	PR: CES 4702. CR: CES 5715C.	This course focuses on the repair of structures using fiber reinforced polymers.
CGN	5933	Special Topics in Civil Engineering and Mechanics	1-5	EN	EGX	PR: CI.	New technical topics of interest to civil engineering students.
CGN	6720	Electrochemical Diagnostic Techniques	3	EN	EGX	PR: EGN 3365 or equivalent basic Materials Science course.	Fundamentals and applications of electrochemical diagnostic techniques. Focus on electrochemical impedance spectroscopy to evaluate reaction rates in corrosion and interfacial phenomena of materials. Includes research project.
CGN	6906	Independent Study	1-19	EN	EGX	PR: CI. S/U.	Independent study in which students must have a contract with an instructor.
CGN	6915	Directed Research	1-19	EN	EGX	PR: GS, CI. S/U.	Course consists of directed research on topics selected by student and professor. The topics vary. The course allows students to develop research skills and independent work disciplines.
CGN	6933	Special Topics in Civil and Environmental Engineering	1-4	EN	EGX	PR: CI	Topics to be chosen by students and instructor permitting newly developing subdisciplinary special interests to be explored.
CGN	6941	Graduate Instruction Methods	1-5	EN	EGX	PR: GS, CC. Majors only. S/U.	Special course to be used primarily for the training of graduate teaching assistants.
CGN	6971	Thesis: Master's	2-19	EN	EGX	PR: GS, CI. Majors only.	Thesis/Specialist project hours.
CGN	7915	Directed Research	1-19	EN	EGX	PR: GS, CI. Ph.D. level. S/U.	Course consists of directed research on topics selected by student and professor. The topics vary. The course allows students to develop research skills and independent work disciplines.
CGN	7980	Dissertation Doctoral	2-19	EN	EGX	PR: GS, CI, Admission to Candidacy, majors only. S/U.	Research and writing of a dissertation.
CGS	5765	Introduction to Unix	3	EN	ESB	No credit for	Unix operating system. Internet

		and C				Department of Computer Science & Engineering majors.	resources. Netscape, WWW and HTML. ANSI C language, syntax. Arrays and pointers. Iterations and recursions. Header files and macros. C libraries. Structuring data. File I/O.
CGS	6210	Computer Hardware Systems for Education	3	ED	EDK	PR: Computer literacy	This course focuses on the development of an understanding of microcomputer hardware that allows individuals to teach as well as make decisions concerning purchase, repair, and appropriate use. Topics include: basic concepts of digital electronics, the operation of a digital computer system, major categories of computer peripherals, historical development of electronic computers, and selection and maintenance of computers in an educational setting.
CHM	5225	Intermediate Organic Chemistry I	3	AS	CHM	PR: CHM 2211, CHM 2211L, or equivalent or CI or GS.	This course will extend organic chemistry beyond the undergraduate level and will emphasize concepts of stereochemistry and reaction mechanisms.
CHM	5226	Intermediate Organic Chemistry II	3	AS	CHM	PR: CHM 5225 or CI.	An introduction to synthetic organic chemistry for graduate students and advanced undergraduates. Semester II.
CHM	5425	Applications in Physical Chemistry	3	AS	CHM	PR: CHM 4412 and CHM 4410 or CI or GS.	Applications of chemical theory to chemical systems.
CHM	5452	Polymer Chemistry	3	AS	CHM	PR: Either CHM 2211, CHM 2211L, and CHM 3400 or CHM 4410 or graduate standing.	Fundamentals of polymer synthesis, structure, properties, and characterization.
CHM	5621	Principles of Inorganic Chemistry	3	AS	CHM	PR: CHM 4411, CHM 4610 or CI or GS.	Chemical forces, reactivity, periodicity, and literature in organic chemistry; basic core course.
CHM	5931	Selected Topics in Chemistry	1-3	AS	CHM	PR: CI.	The following courses are representative of those that are taught under this title: Natural Products, Stereochemistry, Reactive Intermediates, Photochemistry, Instrumental Electronics, Advanced Lab Techniques, Heterocyclic Chemistry, etc.
CHM	6150	Advanced Analytical Chemistry	3	AS	CHM	PR: CI	A study of complete analytical process, including sample handling, separations, the analysis step, and statistical interpretation of data. Emphasis placed on separations and statistics. Lec.
CHM	6250	Advanced Organic Chemistry I: Synthesis	3	AS	CHM	PR: CHM 5225 or CI.	Detailed consideration of modern synthetic methods. Lec.
CHM	6260	Advanced Organic Chemistry II: Physical-Organic	3	AS	CHM	PR: CHM 5225 or CI.	Organic reaction mechanisms emphasizing the interpretation of experimental data. Lec.
CHM	6280	Advanced Organic Chemistry III: Natural Products	3	AS	CHM	PR: CHM 5225 or CI.	A study of any of several of the following topics: terpenes, steroids, vitamins, alkaloids, prophyrins, purine, and antibiotics.
CHM	6460	Statistical Thermodynamics	3	AS	CHM	PR: CI.	Application of statistical mechanics to the thermodynamics; relation of molecular structure to thermodynamic properties. Lec.
CHM	6480	Quantum Chemistry	3	AS	CHM	PR: CI.	Introduction to elementary quantum

							mechanism. Atomic structure and spectra. Lec.
CHM	6650	Structural Inorganic Chemistry	3	AS	CHM	PR: CHM 5621 or CI.	Modern theories of bonding and structure of inorganic compounds, including coordination theory, stereo-chemistry, solution equilibria, kinetics, mechanisms of reactions, and use of physical and chemical methods. Lec.
CHM	6907	Independent Study	1-19	AS	CHM	S/U.	Independent study in which students must have a contract with an instructor.
CHM	6935	Graduate Seminars in Chemistry	1	AS	CHM	PR: Admission to graduate program in Chemistry. S/U.	Required every semester (when offered) for all students enrolled in Chemistry graduate program. Requires participation in and attendance at the weekly departmental seminar.
CHM	6936	Chemistry Colloquium	1	AS	CHM	PR: Admission to graduate program in Chemistry. S/U.	Frequent (usually weekly) small-group analysis of current developments.
CHM	6938	Selected Topics in Chemistry	1-3	AS	CHM	PR: CI.	Representative titles taught include: Symmetry and Group Theory, Photochemical Kinetics, Quantum Mechanical Calculations, Advanced Chemical Thermodynamics, Reaction Mechanisms, Advanced Instrumentation, Separations and Characterizations, Spectroscopy, etc.
CHM	6946	Graduate Instruction Methods	1-4	AS	CHM	S/U.	Special course for the training of teaching assistants.
CHM	6971	Thesis: Master's	2-19	AS	CHM	PR: GR. M.L. S/U.	
CHM	6973	Directed Research	1-19	AS	CHM	PR: GR. M.L. S/U.	
CHM	7820	Directed Research	1-19	AS	CHM	PR: GR. Ph.D. level. S/U.	
CHM	7980	Dissertation: Doctoral	2-19	AS	CHM	PR: Admission to Candidacy. S/U.	
CIS	6900	Independent Study	1-19	EN	ESB	PR: GS, majors only. S/U.	Independent study in which students must have a contract with an instructor. Requires completed contract prior to enrollment.
CIS	6910	Computer Science Graduate Project	3	EN	ESB	PR: CI, majors only. S/U.	Computer science engineering project that may be taken by graduate students in place of Master's thesis. Requires completed contract prior to enrollment.
CIS	6930	Special Topics	1-5	EN	ESB	PR: CI.	
CIS	6940	Graduate Instruction Methods	1-4	EN	ESB	Majors only. S/U.	Special course to train graduate teaching assistants.
CIS	6971	Thesis: Master's	2-19	EN	ESB	PR: GS, majors only. S/U.	
CIS	7910	Directed Research	1-19	EN	ESB	PR: GR. Ph.D. level, majors only. S/U.	Requires completed contract prior to enrollment.
CIS	7980	Dissertation: Doctoral	2-19	EN	ESB	PR: Admission to Doctoral Candidacy.	

CJC	6020	Theory, Practice, and Research in Corrections	3	BC	CJP	PR: CI	Examination of the interrelationships between theory and practice in corrections, as these are affected by empirical research and systematic program evaluation.
CJL	6421	Law, Crime and Justice	4	BC	CJP	PR: CI	An exposition of historical and contemporary legal principles, procedures, and issues as reflected in Constitutional provision, statutes, and case law.
CLP	6166	Psychopathology	3	AS	PSY	PR: Admission to graduate program in Psychology or CI	Exploration of current approaches to the understanding of pathological behavior and implications for theories of personality. A survey of treatment methods is included.
CLP	6438	Psychological Assessment: Theory and Research	1-4	AS	PSY	PR: CI.	Courses cover theory, research, and applications of psychological assessment in areas, such as interviewing, intellectual and cognitive functioning, neuropsycho-diagnostics, and personality testing.
CLP	6937	Topics in Clinical Psychology	1-3	AS	PSY	PR: CI.	Courses on topics, such as humanistic psychology, community psychology, and clinical neuropsychology.
CLP	7188	Clinical Psychology Interventions	1-4	AS	PSY	PR: CI.	Study of the theoretical, empirical, and applied foundations of the major systems of therapeutic intervention.
CLP	7379	Graduate Seminar in Clinical-Community Psychology	1-3	AS	PSY	PR: CI.	Seminars on topics, such as psychopathology, community psychology, clinical issues, personality, and developmental psychology.
CNT	6215	Computer Networks	3	EN	ESB	PR: Graduate standing in the department.	Design and analysis of data communication networks with an emphasis on the Internet and its protocols. Key topics include protocol models, HTTP, TCP, IP, local area networks, routing, flow control, multimedia networking, and performance evaluation.
COM	5930	Topics in Communication Studies	3	AS	SPE		Topical issues in communication.
COM	6001	Theories and Histories of Communication	3	AS	SPE	Required of all M.A. and Ph.D. students.	An introduction to the history and theory of communication as a discipline: its relationship to the arts and sciences, and a survey of the historical development of the field, emphasizing current issues in theory, research, and practice.
COM	6017	Gender in the Workplace	3	AS	SPE	PR: Graduate Standing.	This course focuses on the workplace as a site of gendered communication practices. A variety of work settings will be analyzed in terms of how they construct gender identities, reinforce public-private distinctions and maintain traditional career models.
COM	6025	Health Communication	3	AS	SPE	PR: GS.	Application of communication theory and research to the health context including provider-patient communication, health information campaigns, and health beliefs and behavior. Special attention to the value issues in health communication.
COM	6045	Communicating Leadership	3	AS	SPE	PR: Graduate Standing.	Effective leadership today focuses less on control and more on the

							strategic use of communication to build relationships and guide behavior. This course examines the various ways leaders can communicate more effectively in contemporary organizations.
COM	6121	Organizational Communication	3	AS	SPE		A study of communication theory and behavior within organizational settings: role of communication, communication climates, communication networks, leadership.
COM	6248	Historical Perspectives on Communication	3	AS	SPE	PR: Graduate Standing.	Explores prominent figures and theoretical movements in area of Communication (Interpersonal or Organizational Communication, Cultural Studies, Rhetorical Studies, or Performance Studies). [Repeatable for credit as topics vary.]
COM	6306	Action Research	3	AS	SPE	PR: Graduate Standing.	Action research is rooted in engagement, involving collaboration with community or organizational partners who will be affected by the research. Through hands-on projects we learn principles of action research and explore communication and ethical issues.
COM	6313	Interpreting Communication Research	3	AS	SPE	PR: Graduate Standing.	This course is designed to give students tools to help them interpret the mainstream research literature in communication and to judge research on a quality continuum. No assumptions are made about student understanding of quantitative research methods.
COM	6345	Contemporary Cultural Studies	3	AS	SPE	PR: GS.	Examines theoretical issues and interpretive approaches for exploring questions of knowledge, identity, experience, meaning and value in modern culture through the study of communication.
COM	6400	Communication Theory	3	AS	SPE	PR: COM 6001.	An examination of communication theory through selected reading in the works of major theorists past and present.
COM	6418	Communication and Systems Practice	3	AS	SPE	PR: Graduate Standing.	Systems theories offer possibilities for understanding interconnections and emergence, identities and environments, and stability and change, with communication processes being central. We explore social systems principles by linking theory and praxis.
COM	6605	Media Studies	3	AS	SPE	PR: GS.	Study of the impact of mass and mediated forms of communication on individuals, groups, societies, and cultures. Several theoretical and critical perspectives are considered.
COM	6724	Communication Training in Organizations	3	AS	SPE	PR: Graduate Standing.	Provides holistic understanding of how communication training is developed and conducted in organizations. Students learn to assess communication training needs, design/deliver effective communication training programs, and evaluate their effectiveness.

COM	7325	Seminar in Communication Research Methods	3	AS	SPE	Required of all Ph.D. students. Also required of all M.A. students wishing to pursue the thesis option.	Examines the research practices and methodologies of communication as a discipline, including bibliographical resources, research designs, research techniques, and forms of scholarly presentation.
COM	7933	Seminar in Communication Studies	3	AS	SPE	PR: GS.	Variable topics course.
COP	6611	Operating Systems	3	EN	ESB	PR: CC, majors only	Operating systems functions and design, resource management, protection systems, process communication, and deadlocks.
COP	6621	Programming Languages and Translation	3	EN	ESB	PR: CI, majors only	Grammars and languages, symbols, strings, syntax, parsing, the design of a compiler, storage organization and symbol tables, translator writing systems.
COT	6405	Introduction to the Theory of Algorithms	3	EN	ESB	PR: COT 3100, COT 4400, or equiv. GS or CI.	Analysis techniques for algorithms. Characterizing algorithms in terms of recurrence relations, solutions of recurrence relations, upper and lower bounds. Graph problems, parallel, algorithms, NP completeness and approximation algorithms, with relationship to practical problems.
CPO	5934	Selected Topics in Comparative Politics	3	AS	POL	Sr./GS.	Studies specific substantive areas in Comparative Politics, such as political economy or the politics of specific countries or regions.
CPO	6036	Politics of Developing Areas	3	AS	POL	Sr./GS	Advanced study of ideologies, politics, political institutions, and the socio-economic conditions that influence them in developing nations.
CPO	6091	Seminar in Comparative Politics	3	AS	POL	GS.	Extensive examination of the major theories and approaches used in the study of Comparative Politics. Seminar format.
CRW	6025	Special Topics in Creative Writing	3	AS	ENG		This course will offer coverage of current topics in creative writing based on student demand and instructor interest. Topics offered may include memoir, novel writing, screenwriting, and editing and publishing.
CRW	6130	Fiction Writing	3	AS	ENG		A study of the process of fiction writing and the artistic demands associated with its forms, from microfiction to the novel.
CRW	6164	The Craft of Fiction	3	AS	ENG	PR: Dept. Approval Required.	A study in the forms and technique of fiction writing. Students will examine how novels and stories are constructed, analyze craft (plotting, characterization, point of view) and the relationship of form and craft, and study the variety of approaches to storytelling (realism, magic realism, minimalism, and metafiction).
CRW	6236	Nonfiction Writing	3	AS	ENG		An exploration of the different types of nonfiction writing, such as memoir, travel, nature, commentary, book review, essay, and biography.
CRW	6331	Poetry Writing	3	AS	ENG		A study of the process of poetry writing and the demands associated with its form, both free verse and metrical.

CRW	6352	The Craft of Poetry	3	AS	ENG	PR: Dept. Approval Required.	An intensive examination of established schools of poetic writing: their themes, imagery, and approach to subject matter. Students also will write and submit original poetry for private and group constructive evaluation.
CST	6934	Special Topics in Graduate School: Research Practicum	3	AS	IDS	PR: Graduate Standing.	Variable titles offered on topics of special interest pertaining to research practices.
CST	6935	Special Topics in Graduate School: Professional Development	3	AS	IDS	PR: Graduate Standing.	Variable titles offered on topics of special interest pertaining to professional development.
CWR	6235	Free Surface Flow	3	EN	EGX	PR: CWR 4202 or CI, majors only.	Fundamental and applied aspects of free surface flow, including river hydraulics, canal flow, and open channel design.
CWR	6239	Waves and Beach Protection	3	EN	EGX	PR: CWR 6820, majors only.	A study of the fundamentals of shoreline dynamics including distribution of wave energy, motion of beach sand, stable configurations and protective measures.
CWR	6305	Urban Hydrology	3	EN	EGX	PR: CI, majors only.	A study of the quantity and quality problems and solution techniques associated with urban runoff.
CWR	6533	Water Quality Modeling	3	EN	EGX		This course will develop the fundamental principals and concepts of water quality modeling and apply water quality models in a variety of contexts. The mathematical representations of environmental transport and transformation processes will be elucidated. Models of different complexity will be applied to a variety of environmental contexts.
CWR	6534	Coastal and Estuary Modeling	3	EN	EGX	PR: CI, majors only.	Digital modeling of coastal and estuary systems, currents tide heights, sediment transport, erosion, data collection, temperature distribution, source and sinks. Special emphasis on Florida regions.
CWR	6535	Hydrologic Models	3	EN	EGX	PR: CI, majors only.	A study of the theoretical principles of hydrologic modeling and an examination of various numerical hydrologic models available. Students will be required to develop and apply computer models.
CWR	6538	Advanced Hydrologic Models	3	EN	EGX	PR: CWR 6535 and GLY 6739.	To present the theoretical and applied concepts of advanced hydrologic modeling and especially integrated surface water/ground water modeling and to examine various numerical hydrologic models used in engineering practice.
CWR	6820	Coastal Waves And Structures	3	EN	EGX	PR: CI, majors only.	Fundamentals of wave motion and the mutual interaction of waves and structures. A design project is included.
DEP	6058	Developmental Psychology	3	AS	PSY	PR: Admission to graduate program in Psychology or CI.	Basic survey of research and theory in human developmental processes.
DEP	6136	Language Development	3	AS	PSY	PR: Admission to graduate program in	Explores the course of and processes underlying normal language

						Psychology or Communication Sciences and Disorders or CI.	development. Presents data and theory on phonological, semantic, syntactic, and pragmatic development, with emphasis on recent research.
EBD	6215	Advanced Theories and Practices in Behavior Disorders	3	ED	EDS	Introductory course in special education.	In-depth study of specific behavioral disorders of children and youth, with an emphasis on educational implications and interventions.
EBD	6216	Educational Strategies for Students With Behavior Disorders	3	ED	EDS		Advanced methods and materials for planning, implementing, and evaluating educational interventions with students with behavior disorders. For certification.
EBD	6246	Educating Students with Autism	3	ED	EDS	PR: GS.	This course provides an overview of the characteristics, etiology, and prevalence of autism spectrum disorders, along with the knowledge and skills necessary to support the learning of children with autism spectrum disorders.
EBD	6943	Supervised Practicum in Behavior Disorders	1-12	ED	EDS	PR: CI. S/U.	Supervised graduate practicum experiences with children who have behavior disorders. For students seeking certification only.
ECH	5320	Chemical Process Engineering I	4	EN	ECH	PR: Bachelors degree in science, math, or engineering.	The course presents the principles of mass balances, classical thermodynamics, phase equilibria, energy balances, and psychrometrics. The student will learn by doing many case studies. Computer software will be used to obtain solutions to many problems.
ECH	5321	Chemical Process Engineering II	4	EN	ECH	PR: Bachelors degree in science, math, or engineering.	Basic concepts of fluid mechanics, including viscous fluids, pipe flow with minor losses, simple fluid machinery, momentum and external flow. Steady state conductive and convective heat transfer. Not available for chemical engineering students.
ECH	5322	Chemical Process Engineering III	4	EN	ECH	PR: Bachelors degree in science, math, or engineering.	Basic concepts of fluid phase equilibrium, chemical equilibrium, separation processes, and chemical reactors. Not available for chemical engineering students.
ECH	5324	Automatic Process Control II	3	EN	ECH	PR: ECH 4323C or CI, majors only / 2 hrs lec., 3 hrs. lab/week.	The course covers the root locus and frequency response methods to study stability of control loops. The techniques of ratio, cascade, feed forward, selective, override, and multi-variable control techniques are discussed in detail and shown how to utilize to design control systems, z-transforms and discrete controllers including PID, Dahlin and deadline compensation.
ECH	5327	Chemical Process Control	4	EN	ECH	PR: Bachelors degree in science, math, or engineering.	Basic concepts of feedback control, process dynamics, process controllers (PID)including tuning, control loop stability, cascade, ratio, selective, override, feedforward, and multivariable control. Not available for chemical engineering students.
ECH	5740	Theory and Design of	3	EN	ECH		Introduction to biotechnology,

		Bioprocesses					including applied microbiology, enzyme technology, biomass production, bioreactor design, and transport processes in biosystems.
ECH	5747C	Selected Topics in Chemical Engineering Biotechnology	1-3	EN	ECH	PR: Senior or GS standing in engineering or CI. Open to majors and non-majors with CI.	Selected topics in engineering in biotechnology, including cell separation technology, immobilized enzymes and cells, food engineering, biohazardous waste, and bioseparations.
ECH	5748	Selected Topics in Biomedical Engineering	1-3	EN	ECH		Selected topics in biomedical engineering, including biomedical engineering, biomedical materials, biodynamics of circulation, separation processes in biomedical systems, and artificial organ systems.
ECH	5785	Sustaining the Earth: An Engineering Approach	3	EN	ECH	PR: CI.	An approach of global perspective on ecological principles revealing how all the world's life is connected and sustained within the biosphere and how engineering provides the tools to design solutions engaging materials science & environmental ethics.
ECH	5786	Green Engineering	3	EN	ECH	PR: Senior or Graduate Standing in Engineering, Public Health, Science	Synthesis and design of green chemical, biological and energy conversion processes and products. Environmental impact analysis; green chemistry and materials; life cycle analysis; industrial ecology; systematic methods and real-life examples.
ECH	5820	Product Development	2	EN	ECH	PR: Senior or GS in Engineering or CI.	Introduction to the development of consumer products, including the history of innovation, creativity development, the product development environment, and a detailed examination of several product areas.
ECH	5930	Special Topics III	1-4	EN	ECH	PR: CI.	
ECH	5931	Special Topics IV	1-4	EN	ECH	PR: CI.	
ECH	6105	Advanced Thermodynamics I	3	EN	ECH	PR: CC, Majors only.	Selected topics in classical and irreversible thermodynamics.
ECH	6107	Selected Topics in Advanced Thermodynamics	3	EN	ECH	PR: GS or CI.	Advanced selected topics in Ch.E. Thermodynamics such as: molecular and statistical thermo, adv. phase and chemical equilibria, etc.
ECH	6230	Advanced Mass Transfer	3	EN	ECH	PR: ECH 5285 or equiv.	Advanced topics in mass transfer, including the mathematical description and solution of homogeneous and heterogeneous reacting systems, unsteady state, simultaneous heat and/or fluid transfer, particulate processes, and interfacial transport.
ECH	6285	Advanced Transport Phenomena	3	EN	ECH		Formulation of flux equations for fluid, heat & mass transport. Development & resolution of unsteady state and multidimensional models in various co-ordinate systems. Analytical & numerical techniques to solve the resulting equations will be presented.
ECH	6412	Processes Analysis and	3	EN	ECH	PR: CI.	Computer-controlled data acquisition

		Modeling					and analysis aimed at development and evaluation of empirical and physical models of chemical and mechanical engineering processes.
ECH	6417	Bioseparations	3	EN	ECH	PR: Graduate standing in engineering or CI.	Design and analysis of bioseparation processes, including crystallization, membrane separations, chromatography, liquid-liquid extraction, electrophoresis, and emerging technologies. Open to non-majors with CI.
ECH	6515	Reacting Systems	3	EN	ECH	PR: ECH 4415C or CI.	Economic factors in the design of chemical reactors. Simulation of complex reacting systems.
ECH	6616	Computer-Aided Process Engineering I	3	EN	ECH	PR: ECH 4615.	Plant and process design with emphasis on computer-aided design.
ECH	6749	Biomaterials and Biocompatibility	3	EN	ECH	PR: CI	Physical and chemical properties of biomaterials, failure mechanisms, performance in vivo, interfacial phenomena and biocompatibility, including host response to implants. Also will discuss the regulatory aspects of biomaterials.
ECH	6840	Mathematical Methods for Chemical Engineering	3	EN	ECH		Mathematical modeling of chemical engineering systems. Numerical and analytical solution methods for algebraic equations, ordinary differential equations, coupled differential and algebraic equations and partial differential equations.
ECH	6906	Directed Research	1-19	EN	ECH	PR: GR. ML. S/U.	
ECH	6907	Independent Study - Variable Title	1-19	EN	ECH	PR: GR. S/U.	Independent study in which students must have a contract with an instructor.
ECH	6930	Special Problems I	1-3	EN	ECH	PR: CC.	
ECH	6931	Special Problems II	1-3	EN	ECH	PR: CC.	
ECH	6939	Graduate Research Methods	1-4	EN	ECH	PR: CC. S/U.	Special course to be used for training of graduate research assistants.
ECH	6971	Thesis: Master's	2-19	EN	ECH	PR: CC	
ECH	7915	Directed Research	1-19	EN	ECH	GR Ph.D. level. Rpt. S/U. PR: CC	
ECH	7980	Dissertation: Doctoral	2-19	EN	ECH	PR: Admission to Candidacy	
ECO	6115	Microeconomics I	3	BU	ECN	PR: ECO 3101 or ECO 6114, ECO 4401 or CC.	Microeconomic behavior of consumers, producers, and resource suppliers, price determination in output and factor markets, general market equilibrium.
ECO	6120	Economic Policy Analysis	3	BU	ECN	PR: ECO 3101 or ECO 6114 or CC.	Conditions for efficient resource allocation in a market economy; how inefficiency arises in markets and government; ways to reestablish efficiency; social welfare and equity. Introduction to benefit-cost analysis.
ECO	6205	Macroeconomic Theory and Policy	3	BU	ECN	PR: For Master of Accountancy students only.	Determination of income, employment, wages, prices, and interest rates, contemporary policy

							issues, long-run economic growth.
ECO	6206	Aggregate Economics	3	BU	ECN	PR: ECO 3203 or ECO 6204	Advanced macroeconomic analysis of income, employment, prices, interest rates and economic growth rates.
ECO	6305	History of Economic Thought	3	BU	ECN	PR: ECO 3101 or ECO 6114 or CI	Currents of modern economic thought in the last hundred years.
ECO	6405	Mathematical Economics I	3	BU	ECN	PR: ECO 3101, ECO 3203, ECP 6702, ECO 6708	This course provides the basic mathematical background necessary to undertake graduate-level work in economics. Several topics from calculus and linear algebra are covered.
ECO	6424	Econometrics I	3	BU	ECN	PR: ECO 3203 or ECO 6204, QMB 3200, QMB 6305, or CI.	Theory and use of multiple regression to estimate relations in causal models, use of standard software packages.
ECO	6425	Econometrics II	3	BU	ECN	PR: ECO 6424	Advanced econometric techniques; model building, estimation and forecasting; design and execution of research projects.
ECO	6505	Public Finance	3	BU	ECN	PR: ECO 3101 or ECO 6114	Effects of tax and expenditure policies on resource allocation and income distribution.
ECO	6525	Public Sector Economics	3	BU	ECN	PR: ECO 3101 or ECO 6114.	The economic role of government in the allocation of resources in the presence of market failure.
ECO	6705	International Economic Issues	3	BU	ECN	PR: ECO 6114 and ECO 6204 or equivalent.	Analysis of international economic relations and institutions. Analysis of the effects of changing economic conditions and policy on the climate for international business and investment.
ECO	6706	International Trade: Theory and Policy	3	BU	ECN	PR: ECO 3101 or ECO 6114.	Causes of international trade, international trade policy, economic integration, trade problems of developing countries, role of multinational corporations in world trade.
ECO	6708	Global Economic Environment of Business	2	BU	MBA		Determination of prices, employment, and output in domestic and international settings.
ECO	6716	International Monetary Economics	3	BU	ECN	PR: ECO 3203 or ECO 6204.	International macroeconomic relationships, foreign exchange market, the international monetary system, balance of payments adjustments, macroeconomic policy in the open economy.
ECO	6906	Independent Study	1-19	BU	ECN	PR: CC. S/U.	Independent study. Student must have a contract with an instructor.
ECO	6917	Directed Research	1-19	BU	ECN	PR: GR, ML, CC. S/U.	
ECO	6936	Selected Topics in Economics	1-4	BU	ECN	PR: GS and CI.	The course content will depend on student demand and instructor's interest.
ECO	7116	Microeconomics II	3	BU	ECN	PR: ECO 6115.	Topics in advanced microeconomic theory, including general equilibrium, welfare economics, intertemporal choice, uncertainty, information, and game theory.
ECO	7406	Mathematical Economics II	3	BU	ECN	PR: ECO 6115, ECO 6405	1. This course provides a continuation of ECO 6405, Mathematical Economics I. Students will become familiar with certain

							additional mathematical tools needed to pursue a graduate degree in economics.
ECO	7426	Econometrics III	3	BU	ECN	PR: ECO 6425, ECO 6405 or CC.	The aim of this course is to provide students several important advanced econometrics techniques and how they can be used in empirical research and practical applications. Emphasis will be on cross-sectional and panel data models.
ECO	7427	Econometrics IV	3	BU	ECN	PR: ECO 7426 or CC.	Advanced econometric techniques with emphasis on applying the proper method to actual data and to situations where various techniques are appropriate.
ECO	7980	Dissertation	2-19	BU	ECN	PR: Advancement to Candidacy	Dissertation Research
ECP	6205	Labor Economics I	3	BU	ECN	PR: ECO 3101, ECO 6114, or ECO 6115	Labor demand and supply, unemployment, discrimination in labor markets, labor force statistics.
ECP	6305	Environmental Economics and Policy	3	BU	ECN	PR: ECO 2023 or ECO 6114	An economic analysis of business's and the government's approach to managing environmental issues. The focus of the course is on the analysis of case studies of specific environmental issues using fundamental efficiency analysis.
ECP	6405	Industrial Organization I	3	BU	ECN	PR: ECO 6115	Structure of industry and its effect on economic efficiency.
ECP	6406	Seminar in Industrial Organization	3	BU	ECN		
ECP	6415	Issues in Regulation and Antitrust	3	BU	ECN	PR: ECO 3101 or ECP 3703 or GEB 6114.	Issues concerning rationale, structure and performance of government regulation and antitrust policy.
ECP	6456	Law and Economics	3	BU	ECN	PR: ECO 3101 or ECO 6114	Impact of Tort, Criminal, Property, and Contract Law on the allocation of resources.
ECP	6535	Analysis of Health Care Issues	3	BU	ECN	PR: ECO 6114 or equivalent.	Evolution of medical care industries and government healthcare policies. International comparisons. Measures of cost benefit and of cost-effectiveness.
ECP	6536	Economics of Health Care I	3	BU	ECN	PR: ECO 3101 or ECO 6114.	Analysis of the supply and demand for health care, health insurance and the pharmaceutical industry.
ECP	6614	Urban Economics	3	BU	ECN	PR: ECO 3101 or ECO 6114.	Economics of growth and development of urban areas, interurban location patterns.
ECP	6624	Regional Economics	3	BU	ECN	PR: ECO 3101 or ECO 6114	Geographical allocation of resources within and among regions, location of households and firms, interregional migration of labor and capital, regional growth and development, regional policy.
ECP	6702	Managerial Economics	2	BU	MBA		This course presents the microeconomic theory of price determination in an exchange economy with special emphasis on the behavior of firms in various market structures.
ECP	7207	Labor Economics II	3	BU	ECN	PR: ECP 6205.	Advanced study of labor economics including analysis of the wage structure, labor unions, labor mobility, and unemployment.

ECP	7406	Industrial Organization II	3	BU	ECN	PR: ECO 6115, ECO 6424, ECP 6405	This course will introduce students to advanced topics in empirical industrial organization. Particular emphasis will be placed on techniques to estimate the behavior of firms, market equilibrium, and the impact of economic policy on markets.
ECP	7537	Economics of Health Care II	3	BU	ECN	PR: ECO 6536 or CC.	Advanced analysis of health economics with emphasis on recent empirical studies of health care.
ECT	5386	Preparation and Development for Teaching	4	ED	EDV		The development of selected instructional materials, use of new educational media, performance evaluation instruments, and counseling techniques.
ECT	6197	Enhancing Career and Technical Education Curriculum	3	ED	EDV		Enhancing career & technical education curriculum including broadening mission, goals & outcomes, integration with academics, work-based learning, contextual learning, appropriate technology & certifying student mastery. Open to majors & non-majors.
ECT	6661	Trends and Issues in Career and Technical Education	3	ED	EDV		Historical influences and current trends and issues in career and technical education. Emphasis on forces significantly shaping the course of CTE and its relationship with workforce development and academic education. Open to majors and non-majors.
ECT	6766	Emerging Workplace Competencies	3	ED	EDV		An interactive exploration of emerging workplace competencies through research, analysis, and work-based experiences for the purpose of professional development and program improvement.
ECT	6926	Staff Development	1-5	ED	EDV		Implementation of new procedures addressed to discrete developmental needs of the staff as identified by an educational agency.
ECT	6930	Seminar	3	ED	EDV		Focuses on special topics, interaction with visiting scholars, recent research and major initiatives within the profession.
ECT	6948	Practicum: Industrial-Technical Education	3-6	ED	EDV	S/U.	A problem-centered field study in the local community, school, government, office, social agency, business, or industry.
ECT	7168	Instructional Development For Vocational, Technical, And Adult Education	4	ED	EDV		The systematic approach to vocational, technical, and adult education curriculum improvement and instructional development. Students will apply an instructional systems approach to the development of practical solutions to critical teaching and learning problems.
ECT	7910	Directed Research in Vocational Education	1-19	ED	EDV	PR: CI.	This course permits a doctoral student to conduct advanced research and to pursue specific areas of interest with a faculty member as supervisor. A contract is required

							with the faculty member.
ECT	7980	Dissertation	2-30	ED	EDV	PR: Admitted to Candidacy.	
ECW	5315	Program Management: Diversified Cooperative Training	3	ED	EDV		Organization, coordination, and budgeting of adult, cooperative, and special programs.
ECW	6205	Administration Of Local Programs: Vocational	3	ED	EDV		Organization, personnel selection and assignment, and establishment of policies and procedures for local vocational programs within federal, state and local requirements.
ECW	6206	Supervision Of Local Programs: Vocational Education	3	ED	EDV		A study of the factors involved in the supervision of instruction including plans for teacher education, improvement of instruction, coordination of activities, and personnel relations.
ECW	6695	School Community Relations	3	ED	EDV		Maintaining positive relations between career and technical education programs and stakeholders, enhancing CTE image, interacting positively with customers, positive relations with businesses and marketing the program. Open to majors and non-majors.
ECW	6696	Equity and Access in the New Economy	3	ED	EDV		Examine workplace/workforce education regarding equity and access issues of gender, race, class and age through reflective practice, research, dialogue, field experience, product development with implications for education, training, personal and systems change.
ECW	7066	Foundations And Philosophy Of Vocational, Technical And Adult Education	3	ED	EDV	PR: Preliminary admission to the advanced graduate program and/or CI.	Historical development and contemporary philosophies, cultural bases and practices of Vocational, Technical, and Adult Education.
ECW	7105	Vocational And Adult Education Program Planning And Implementation	3	ED	EDV		Knowledge and skills necessary to participate in the initial determination, planning, organization, and implementation of new or expanded adult, vocational and technical education institutions or programs.
EDA	6061	Principles of Educational Administration	3	ED	EDB		Educational administration as a profession. Consideration of organization, control, and support of the educational system.
EDA	6106	Administrative Analysis and Change	3	ED	EDB	PR: EDA 6061.	Change and change strategies in formal and informal organizations are foci. Students will develop change strategies and will apply them to selected situations.
EDA	6192	Educational Leadership	3	ED	EDB	PR: EDA 6061.	Administration course that addresses change, influences, and planning systems. Also examines personnel functions for administrators.
EDA	6194	Educational Leadership II: Building Capacity	3	ED	EDB	PR: EDA 6192	Three major themes to improve schools within a clear/compelling moral purpose: 1) communities of differences; 2) teacher development through professional community building; and 3) learners and learning through capacity building at the

							school level.
EDA	6195	Policy Development	3	ED	EDB	PR: EDA 6061.	Contemporary research on diffusion of innovations, political power in policy decision making. Role of establishing educational policies.
EDA	6232	School Law	3	ED	EDB	PR: GS, EDA 6061, or CI.	Basic essentials of School Law. A review of court decisions affecting American education with emphasis on Florida State statutes.
EDA	6242	School Finance	3	ED	EDB	PR: GS, EDA 6061, or CI.	Financial support of education by local, state, federal sources, with emphasis on Florida; introduction to educational budgeting.
EDA	6262	Planning Educational Facilities	3	ED	EDB	PR: GS, EDA 6061, or CI.	Problems in the planning, construction, and use of educational facilities. Visitation and/or evaluation of selected schools.
EDA	6503	The Principalship	3	ED	EDB	PR: EDA 6061.	Organization and administration of the school. Emphasis on the competencies necessary for leadership and management by the principal as the administrator and instructional leader.
EDA	6910	Directed Research	1-19	ED	EDB	PR: GS or ML, EDA 6061. S/U.	
EDA	6931	Case Studies in School Administration	3	ED	EDB	PR: GS, EDA 6061 or CI.	Helps prospective administrators understand administrative problems, propose feasible solutions, and evaluate courses of action. Develops skill in decision making.
EDA	6945	Administration Practicum	3-8	ED	EDB	PR: GS, EDA 6061 and completion of a significant amount of the student's program.	Field experiences in school systems for identifying and analyzing educational problems and their solutions. Application of concepts developed in the student's program.
EDA	6971	Thesis: Masters/Educational Specialist	2-19	ED	EDB	S/U.	
EDA	7069	Ethics and Educational Leadership	3	ED	EDB		The purpose of this course is to read about, examine, discuss, and critique competing theories of ethics and educational leadership. Students will construct critical cases & statements of responsibility in terms of ethics applied to leadership.
EDA	7222	Administration Of School Personnel Policies And Practices	3	ED	EDB	PR: GS, EDA 6061 or CI.	Administration of school personnel policies and practices relating to professional staff, supporting staff, and students.
EDA	7233	Legal Dimensions Of School Administration	3	ED	EDB	PR: GS, EDA 6232, CI.	Historical perspective in law and education with in-depth reviews of case law showing the evolution of courts as educational policy makers.
EDA	7247	Advanced School Finance	3	ED	EDB	PR: GS, EDA 6242 or CI.	Advanced treatment of school finance. Development, implementation, and evaluation of financial resource and allocation systems. Emphasis is on intradistrict allocation.
EDA	7980	Dissertation	2-30	ED	EDB	PR: Admitted to Candidacy.	
EDE	6205	School Curriculum: Elementary	3	ED	EDC	PR: EDG 4620, EDG 6627.	Organization, curriculum, and instruction of the elementary school

							with emphasis on the nature of the students served. Open to all education graduate students.
EDE	6225	Problems in Curriculum and Instruction: Elementary	1-3	ED	EDC	PR: EDG 4620, EDG 6627.	For teachers, supervisors, and administrators. Curricular and instructional problems of the elementary school. Common problems or problems of special interest to the participants. Normally, for certification requirements only.
EDE	6326	Planning and Organizing for Instruction in the Elementary School	3	ED	EDE		Introduction to the theories and practices that support children's learning. Includes accessing resources that support teaching, developing lessons, designing appropriate assessments, and the elements that influence instructional decision-making.
EDE	6458	Reflecting on Instructional Decision Making	1-3	ED	EDE	CR: For first hour: EDE 6946. For second hour EDG 6947.	Develops the students' abilities to reflect upon teaching practice and evaluate instructional decisions on K-6 student learning. The first hour is taken with the practicum. The second hour is to be taken in conjunction with final internship.
EDE	6506	Classroom Management, School Safety, Ethics and Law	3	ED	EDE		Examines the legal issues affecting classroom/school management, school safety and professional ethics. Explores research and knowledge of best practices and a variety of teaching and management strategies for a diverse elementary classroom setting.
EDE	6906	Independent Study: Elementary/Early Childhood Education	1-6	ED	EDE	S/U.	Independent study in which students must have a contract.
EDE	6946	Practicum in the Elementary School	3	ED	EDE	PR: RED 6514, FLE 5345, and 9 additional credits in program courses. CR: EDE 6458-I.	This intensive practicum experience is designed to complement foundational MAT course work and is completed during the second block of the MAT program. This course is restricted to majors and is not repeatable. S/U only..
EDE	6971	Thesis: Masters/Educational Specialist	2-19	ED	EDE	S/U, MA/EdS Candidates only.	
EDE	7910	Directed Research in Elementary Education	1-19	ED	EDE	PR: Advanced graduate standing.	Independent student-faculty research course.
EDE	7980	Dissertation	2-30	ED	EDE	PR: Admitted to Candidacy.	
EDF	5607	Trends in the Social-Political Foundations of Schooling in the US	3	ED	EDF		Current debates re: purpose and practice of formal schooling in the U.S. with historical and sociological perspectives. Satisfies social foundations requirements for Fla. Teacher certification and ESL competency in knowledge of intercultural issues in education.
EDF	6120	Child Development	4	ED	EDF	PR: EDF 6211 or DPR.	Educational, emotional, hereditary, intellectual, social, and physical factors influencing child growth and development.
EDF	6165	Group Processes for	1-	ED	EDF		Application of group process research

		Educational Personnel	3				to the needs of professional educators and training officers.
EDF	6166	Consulting Skills for Staff Development	1-3	ED	EDF	PR: DPR.	Knowledge and skill training for consulting with organizational clients to solve educational problems and design learning environments or programs.
EDF	6211	Psychological Foundations of Education	3	ED	EDF		Selected topics in psychology of human development and learning, related to schools and educational settings.
EDF	6213	Biological Bases for Learning Behavior	3	ED	EDF	PR: One course in Educational Psychology.	Human biological development and its influence upon learning and behavior.
EDF	6215	Learning Principles Applied to Instruction	4	ED	EDF	PR: CI.	Learning principles and their application to classroom instruction.
EDF	6217	Behavior Theory and Classroom Learning	4	ED	EDF	PR: EDF 6215 or DPR.	Theory and practical applications of behavior modification; introduction to experimental methods for behavior modification; operant methods in behavior and development; analysis and field work.
EDF	6281	Workshop and Conference Design	3	ED	EDF		Knowledge and skills to design, conduct and/or administer, and evaluate both workshops and conferences.
EDF	6284	Problems in Instructional Design for Computers	3	ED	EDK	PR: Computer literacy.	This course focuses on the systematic design of instructional courseware, including analysis, media selection, and evaluation. Topics include instructional strategies, screen design, response analysis, feedback and interactivity.
EDF	6288	Instructional Design I	3	ED	EDF	PR: EDF 6215 or DPR.	Instructional design models/theories and their systematic application to instructional goals.
EDF	6354	Human Development and Personality Theories	4	ED	EDF		A study of psycho-social and cognitive development throughout a person's life span with an analysis of the major personality theories.
EDF	6407	Statistical Analysis For Educational Research I	4	ED	EDQ		Theory and application of statistical procedures to problems in education: (1) descriptive statistics, (2) Probability-sampling distributions, (3) Inferential statistics-interval estimation, tests of significance (z, t, F-one way ANOVA). Coordinated use of computer included.
EDF	6432	Foundations Of Measurement	3	ED	EDQ		Basic measurement concepts, role of measurement in education, construction of teacher-made tests and other classroom assessments, interpretation of standardized tests, and fundamental descriptive statistics for use in test interpretation.
EDF	6446	Development and Validation of Tests in Education	3	ED	EDQ	PR: EDF 6432, EDF 6407. DPR.	Design, construction, and validation of state-wide tests. Special emphasis on domain sampling, item response theory, item scaling, item fit, and constructing, maintaining, and updating item banks.
EDF	6481	Foundations of Educational Research	3	ED	EDQ	PR: EDF 6432, or DPR.	Analysis of major types of educational research designs, including experimental, correlational, ex post facto and case studies.

EDF	6492	Applied Educational Program Evaluation	3	ED	EDQ	PR: EDF 6432, EDF 6446. DPR.	Design, development, implementation, interpretation, and communication of both formative and summative educational program evaluation studies.
EDF	6517	Historical Foundations of American Education	4	ED	EDF		History of the origins and development of American education, events, and movements that have shaped school policies and practices, and their relationship to contemporary developments.
EDF	6531	History of Childhood, Disability, and Deviance	3	ED	EDF	PR: Department approval required.	Historical development of the idea and experience of modern childhood. Social construction of age categories and age related institutions such as schools. Issues of diversity including concepts of deviance, ability and disability in historical perspective. Social policies and inequality by social class, race/ethnicity/culture and gender.
EDF	6544	Philosophical Foundations of American Education	3	ED	EDF		Major philosophies of education relevant to an understanding of contemporary educational issues.
EDF	6606	Socio-Economic Foundations of American Education	4	ED	EDF		Socio-economic factors as they relate to the work of professional educators and the role of public education in American society.
EDF	6705	Gender and the Educational Process	3	ED	EDF		Course is designed to enable public school personnel, teachers, counselors, administrators, and other professionals to identify those aspects of public education that perpetuate sex role stereotyping. Emphasis will be placed on how the law and formal and informal affirmative action activities can be employed to correct sexism in schools.
EDF	6736	Education, Communication, and Change	3	ED	EDF	PR: CI.	Developments in communication as a process of social change as it affects students, teachers, and traditional school arrangements.
EDF	6765	Schools and the Future	4	ED	EDF		Estimates of future demands upon schools; critique of current paradigms, techniques, and literature.
EDF	6810	Comparative Education	3	ED	EDF		Comparison of contemporary educational systems of selected countries with that of the United States.
EDF	6812	Seminar in Comparative Education	4	ED	EDF		Policies and practices in education in selected countries.
EDF	6883	Issues in Multicultural Education	4	ED	EDF	PR: DPR.	Lecture/discussion course, open to both majors and non-majors; address both fundamental concepts and timely issues in multicultural education and working with culturally diverse students.
EDF	6885	Internship in Community Agency Counseling	6 or 3	ED	EDG	PR: All required MHS courses.	Field experience involving one semester of full-time participation or two semesters of part-time participation in the counseling and related activities of a public or private agency providing mental health services to the community.

EDF	6906	Independent Study: Educational Foundations	1-6	ED	EDF	S/U.	Independent study in which students must have a contract with an instructor.
EDF	6935	Wellness Programming Seminar	2	ED	EDF	PR: CI.	This course familiarizes students with the array of extant programs to facilitate wellness and prevent problems that often affect college students. Through review and critique of such programs, participants will be able to design and administer wellness programs in their professional roles.
EDF	6938	Selected Topics	1-4	ED	EDF	PR: CC	Exploration and demonstration of knowledge in an area of special interest to the student and/or in an area for which the student needs to demonstrate a higher level of competence. Designed to fit the needs of each student.
EDF	6941	Practicum in Measurement, Evaluation, and Research	1-4	ED	EDQ	PR: Pursuing the M. Ed. Program in Measurement And Evaluation or Graduate Certificate in Research Methods and CI.	Practicum provides individuals in the M.Ed.in Measurement and Evaluation opportunities to apply research and evaluation skills in applied settings (e.g., local school districts, Centers within the University). May be repeated up to 8 hours.
EDF	6944	Field Experience	1-4	ED	EDF	PR: CI.	Demonstrate skills in the practice of the student's specialty. Objectives will be defined by the needs of the individual student.
EDF	6971	Thesis: Masters/Educational Specialist	2-19	ED	EDQ	S/U.	
EDF	7143	Measurement of Cognitive Functioning in Childhood and Adolescence	4	ED	EDF	PR: A course in measurement.	Investigation of theories and measurement of cognitive functioning in childhood and adolescence.
EDF	7145	Cognitive Issues in Instruction	4	ED	EDF	PR: Admission to doctoral program and EDF 6215.	Selected cognitive models of intelligence, memory, problem solving, thinking, and motivation applied to instructional strategies.
EDF	7167	Experiential Learning: Theory and Methods	3	ED	EDF		Theory and methods of experiential learning in both formal and organizational contexts.
EDF	7227	Topics in Behavior Analysis and Automated Instruction	1-12	ED	EDF	PR: EDF 6215 or EDF 6217 or Advanced Graduate Standing, CI	Seminar in experimental analysis of functional relationships between behavior and relevant environmental variables. Interpretation of complex human behavior and formulation of procedures which expedite instruction in educational procedures for computer delivery.
EDF	7239	Supervised Experience in College Teaching	2	ED	EDF		A seminar to increase knowledge and competencies in college instruction. Students must have advanced graduate standing, be currently teaching a college level course, willing to be observed, and able to discuss ongoing classroom practices and problems. Open to all doctoral level Education majors, other doctoral students if space available. S/U optional.
EDF	7265	Psychology of Oral and Written Language	4	ED	EDF	PR: Doctoral Student.	The course focuses on theoretical and empirical perspectives of monolingual

		Development					and bilingual language and literacy development. A foundational understanding of language and literacy allows a student the ability to critically analyze practical implications.
EDF	7408	Statistical Analysis For Educational Research II	4	ED	EDQ	PR: EDF 6407 or equiv. or DPR.	Theory and application of statistical procedures to problems in education: (1) ANOVA-factorial; ANCOVA; (2) multiple correlation and regression -- a specific technique and a general approach to data analysis. Coordinated use of computer included.
EDF	7410	Design Of Systematic Studies In Education	4	ED	EDQ	PR: EDF 6407, EDF 7408 or equiv. or DPR.	Theory and application of major design models to systematic inquiry, from experimental to naturalistic models. Nature and role of sampling in systematic studies.
EDF	7412	Application of Structural Equation Modeling in Education	3	ED	EDQ	PR: EDF 7408 or equivalent.	Application of structural equation modeling in educational research, including path models, confirmatory factor analysis, structural modeling with latent variables, and latent growth curve models.
EDF	7437	Advanced Educational Measurement I	3	ED	EDQ	PR: EDF 6432 or equiv.; EDF 6407 or equiv.	Logical, empirical, and statistical models of measurement processes. Examination of issues relative to scaling with a focus on reliability of measurement. Critique of available instruments for measurement in psychology and education. Examination of issues relative to scaling with a focus on reliability of measurement. Critique of available instruments for measurement in psychology and education.
EDF	7438	Advanced Educational Measurement II	4	ED	EDQ	PR: EDF 7437 or DPR.	Scaling techniques in educational and psychological measurement. Item analytic theories and practices. Validation theory, and construction and validation of instruments for measurements in education.
EDF	7439	Foundations of Item Response Theory	3	ED	EDQ	PR: EDF 6432.	Basic foundation underlying Item Response Theory (IRT) as well as most common applications in educational and psychological measurement, in terms of the theoretical basis, practical aspects, and specific applications.
EDF	7469	Introduction to Computer-Based Testing	3	ED	EDQ	PR: EDF 6432.	This course should serve as an introduction to the field of computer-based testing. The material covered will be applicable to most operational educational, psychological, credentialing and licensure assessments, for research and measurement.
EDF	7477	Qualitative Research in Education Part I	4	ED	EDQ	PR: Advanced GS or DPR.	First of two sequenced seminars examining the theoretical and pragmatic aspects of conducting qualitative research in educational settings.
EDF	7478	Qualitative Research in Education Part II	4	ED	EDQ	PR: Advanced GS and EDF 7477.	Second of two sequenced seminars examining the theoretical and

							pragmatic aspects of conducting qualitative research.
EDF	7484	Statistical Analysis For Educational Research III	4	ED	EDQ	PR: EDF 7408 or DPR.	Theory and application of selected multivariate statistical procedures, including Canonical Correlation, Discriminate Analysis, Multivariate Analysis of Variance, Factor Analysis, and Path Analysis.
EDF	7485	Theory and Practice of Education Evaluation	3	ED	EDQ	PR: EDF 7493. DPR.	Comparative analysis of contemporary evaluation approaches; theory and scientific basis of evaluation; social and political impact of evaluation on educational decision making; and the design, implementation and reporting of evaluation studies.
EDF	7488	Problems in Educational Data Analysis	2	ED	EDQ	PR: EDF 7408 or DPR.	Strategies and techniques for data processing and quantitative analysis using statistical software, including data screening, transformation, diagnostic indices, and interpretation.
EDF	7493	Systems Approaches for Program Planning, Evaluation and Development	4	ED	EDQ	PR: Advanced GS or DPR.	Systems theory applied to problems in program planning, evaluation, and development. Analysis of evaluation models and policy analysis. Application of Networking, PERT, and Modeling procedures to selected problems in education. Emphasis on decision oriented research.
EDF	7530	History of Higher Education in the United States	3	ED	EDF	PR: EDF 6517, its equivalent, or permission of the instructor.	Historical overview of American higher education from Colonial period to present. History of undergraduate curriculum, changing purpose of higher ed, and growth in hierarchical categorization of higher ed as college became more accessible to students.
EDF	7555	Moral Development and Education	3-4	ED	EDF	PR: Doctoral enrollment or upper year Masters level with permission of instructor.	This course will examine the dynamics of moral development. We will study the psychological foundations of moral education through examining the empirical research and philosophical work underlying social scientists' conceptions of morality.
EDF	7586	Classics in Educational Research	4	ED	EDF	PR: GS; EDF 6517, EDF 6544, EDF 6606, or CI.	Examination of the context, methods, and significance of selected research studies in education.
EDF	7649	Analysis of Educational Issues	3	ED	EDF		Socio-cultural, historical, and axiological examination of selected issues in public education.
EDF	7655	Organization Development in Educational Institutions	4	ED	EDF		Application of social and behavioral science theory to the organizational and developmental problems of schools and school systems.
EDF	7682	Education in Metropolitan Areas	4	ED	EDF	PR: EDF 6517, EDF 6544, EDF 6606, or DPR.	Modern public education and its relationship to national development.
EDF	7910	Directed Research in Measurement and Evaluation	1-19	ED	EDQ	PR: CI.	Independent student-faculty research course.
EDF	7934	Seminar in Social Foundations of Education	4	ED	EDF	PR: GS; EDF 6517, EDF 6544, or EDF 6606, or DPR.	Significant research on socio-cultural issues in Education.
EDF	7940	Practicum In Educational Planning, Evaluation, And Development	1-8	ED	EDQ	PR: EDF 7408, EDF 7493. S/U.	Supervised practicum in which the student assumes major responsibility for significant planning, evaluation, research, or development activity.

EDF	7980	Dissertation	2-30	ED	EDQ	PR: Admission to Candidacy.	
EDG	6285	School Curriculum Improvement	3	ED	EDC	PR: Workshop for the improvement of the curriculum of an elementary or secondary school, CC. Open only to teachers in service.	Open only to teachers in service. Complete faculty participation required.
EDG	6329	Creative Drama in a Developmental Context	3	TA	EDD		Theories and methods of applying three major approaches of creative drama to the use of improvised drama from kindergarten through secondary school. The course will involve students in applying the drama process as a teaching method which can be applied by classroom teachers of elementary, middle and high school.
EDG	6344	Project T.E.A.C.H. (Teacher Effectiveness and Classroom Handling)	3	ED	EDR	PR: CC.	Topics and techniques in verbal communication skills, questioning, paraphrasing, positive support skills, problem solving, counseling techniques, non-confrontation strategies, group dynamics, and discipline decision making.
EDG	6415	Project P.R.I.D.E. (Professional Refinements In Developing Effectiveness)	3	ED	EDE		Topics in academic questioning techniques, nonverbal communication, motivating changes in behavior, managing critical incidents in the classroom, and analyzing typical classroom practices for positive or negative impact.
EDG	6417	Teaching Through Learning Channels	3	ED	EDE		Focus on the area of teaching effectiveness in the cognitive domain and skill training on the identification and use of student learning channel strengths; analysis of curriculum based on learning channels to identify the skills necessary to complete learning tasks; the development of alternative strategies to meet the needs of all students.
EDG	6627	Foundations Of Curriculum And Instruction	3	ED	EDC	PR: EDG 4620.	Open to all graduate students. Introductory course in curriculum and instruction at the graduate level, basic to all specialized courses in the field. Emphasis on foundations, design, basic concepts, theory, and trends of curriculum from early childhood through secondary levels.
EDG	6906	Independent Study	1-19	ED	EDV	S/U.	Independent study in which students must have a contract with an instructor.
EDG	6931	Selected Topics in Education	1-4	ED	EDC	PR: DPR.	Each topic is a course under the supervision of a faculty member. The title and content will vary according to the topic.
EDG	6935	Seminar in Curriculum Research	1-3	ED	EDE		Critical evaluation of current research and curriculum literature, design and analysis of individual research topics leading to satisfaction of research requirements.
EDG	6947	Internship	1-	ED	EDC	PR: DPR. S/U only.	Open to graduate degree candidates

			9				only. Supervised teaching at the secondary or junior college level as appropriate.
EDG	6971	Thesis: Masters/Education Specialist	2-19	ED	EDC	S/U. Master's students only. Interdisciplinary Studies only.	
EDG	7357	Mentoring Theory and Leadership Practice	3	ED	EDH		This cross-disciplinary doctoral course is for students interested in the topic and process of mentoring in education. Students from inside and outside the College of Education are eligible.
EDG	7667	Analysis of Curriculum and Instruction	3	ED	EDC	PR: EDG 6627.	Various theoretical frameworks for analyzing curriculum and instruction. Emphasis on rational models of curriculum inquiry.
EDG	7692	Issues in Curriculum and Instruction	3	ED	EDC	PR: EDG 6627.	Identification and analysis of major problems and issues in curriculum and instruction. Critical examination of efforts to deal with these issues.
EDG	7910	Directed Research	1-19	ED	EDC	S/U only.	
EDG	7931	Selected Topics	1-4	ED	EDC	PR: DPR.	Selected topics in advanced Education.
EDG	7937	Graduate Seminar	1-4	ED	EDC	PR: CC.	Seminar in advanced Education.
EDG	7980	Dissertation	2-19	ED	EDC	PR: Admitted to Candidacy. S/U. Interdisciplinary Studies only.	
EDH	6051	Higher Education in America	3	ED	EDH		For current and prospective faculty, administrators, policy analysts, and staff seeking to learn about American higher education. The topics addressed include the history, recent developments, and projections for the future of various aspects of higher education, including its missions, purposes, students, faculty and staff, administration, finance, organization, governance, and role in American society.
EDH	6081	Junior College in American Higher Education	3	ED	EDH		Philosophical and cultural bases for definition of its role and contemporary issues, such as control, financing, and curricular patterns. Emphasis on the place and problems of the community junior college.
EDH	6406	Ethics and Higher Education	3	ED	EDH		The purpose of this course is to assist students in developing a detailed ethical framework that will guide their actions and decision-making as they serve in leadership and teaching positions in higher education. Areas of emphasis include (a) learning selected philosophies of ethics; (b) exploring student, faculty, and classroom ethical issues; (c) discussing administrator/board ethical issues; (d) examining the college or university as an ethical organization.
EDH	6906	Independent Study	1-1	ED	EDH		Independent study in which students must have a contract with an

			9				instructor. Rpt. S/U.
EDH	6938	Seminar in College Teaching	3	ED	EDH		Implications of learning theory and student characteristics for teaching at the college level. Types of teaching procedures, innovation, evaluation, student freedom, and responsibility for learning.
EDH	6947	Internship in Higher Education	1-6	ED	EDH		This course provides higher education program graduate students with an extensive, semester-long, field experience in a two- or four-year college, under the dual guidance of a campus-based supervisor and a USF higher education program faculty member. The internship experience must relate to the student's goals in the doctoral program. Students should be at or near the end of their graduate program.
EDH	7225	Curriculum Development In Higher Education	3	ED	EDH	PR: GS or CI.	Emphasis on curriculum perspectives, procedures, and practices in higher education; principles of curriculum and instruction in higher education; theory and practices in goal setting, curriculum planning, instructional improvement, and curriculum design.
EDH	7405	Policy and Legal Dimensions in Higher Education	3	ED	EDH		This course is a doctoral level course with primary focus on the interface of policy and law as they address the nature, process and product of community college and higher education in the United States and Florida. Constitutional, statutory and contract law is also discussed, as are critical legal and policy issues in higher education, including governance, academic freedom, student rights, discrimination, tort liability, contracts and collective bargaining.
EDH	7505	Higher Education Finance	3	ED	EDH	PR: GS or CI.	Emphasis on financial policies, planning, and budgeting; allocation; financial analysis and management, patterns of expenditure, sources of income. Relationships between educational objectives and resource allocations.
EDH	7632	Leadership in Higher Education	3	ED	EDH	PR: Previous graduate work at the Master's level.	This cross-disciplinary doctoral course is for students interested in the topic and process of mentoring in education. Students from inside and outside the College of Education are eligible.
EDH	7633	Governing Colleges and Universities	3	ED	EDH		Students in this course will examine and compare existing models of state and local college and university governance structures Demographic, social, legal, financial, and planning issues and forces that effect how colleges and universities are governed will also be explored. Policy analysis and research will be explored as it relates to governance in higher education.
EDH	7635	Organization And	3	ED	EDH	PR: GS or CI.	Examines the concepts about higher

		Administration Of Higher Education					education organizations and administration, the behaviors of those organizations and administrators, and the relationships between concept and practice.
EDH	7636	Organizational Theory and Practices in Higher Education	3	ED	EDH		Explores theories and models of organizations and their applicability to colleges and universities and the work done in the influence of internal and external actors. Also examines many of the administrative practices and processes common in colleges and universities today.
EDH	7910	Directed Research	1-19	ED	EDH		This course provides higher education program graduate students with an opportunity for directed research, under the supervision of a higher education program faculty member.
EDH	7930	Higher Education Seminar	1	ED	EDH		Topics of general and special concern in higher education, restricted to advanced graduate students.
EDH	7935	Higher Education Capstone Seminar	3	ED	EDH		The course is designed to encourage students' integration and synthesis of theories, concepts and themes in previous coursework; to critique research in the field; and to provide some in-depth study of selected areas in higher education. Advanced Graduate Standing. Instructor approval required – majors only.
EDH	7980	Dissertation	2-30	ED	EDH	PR: Admitted to Candidacy.	
EDM	6235	School Curriculum: Middle	3	ED	EDC	PR: EDG 4620, EDG 6627.	Open to all education graduate students. Examines the organization, curriculum, and instruction of the middle school with special emphasis on the nature of the students served.
EDM	6256	Problems In Curriculum And Instruction: Middle School	1-3	ED	EDC	PR: EDG 4620, EDG 6627.	For teachers, supervisors, and administrators. Curricular and instructional problems of the middle school. Common problems or problems of special interest to the participants. Normally, for certification requirements only.
EDM	6622	Client Centered Middle Schools	3	ED	EDM	Majors Only.	Combination lecture/discussion/independent study course that examines in depth the current research on needs/characteristics of the early adolescent and its implications for both organization of the middle grade school and its delivery of curriculum and instruction.
EDM	6623	Responsive Middle School Programs	3	ED	EDM	PR: EDM 6622.	Combination lecture/discussion/individual study course that examines in depth the current research on both the interdisciplinary team/advisory concepts and how these organizational patterns can promote thinking skills and integration of subject matter throughout the curriculum.
EDM	6624	Effective Instruction for	3	ED	EDM	PR: EDM 6622 and EDM	Combination

		Middle Schools				6623.	lecture/discussion/individual study course that examines in depth the current research on both alternative instructional strategies and assessment practices that are successful with middle level students.
EDM	6935	Middle School Issues Seminar	1-3	ED	EDM		Combines discussion/individual study seminar modeling the advisory concept in a university setting and examining the current research on a variety of important trends/issues affecting middle level education.
EDS	6131	Clinical Supervision	3	ED	EDB	PR: GS, EDS 6050.	Trains administrators, supervisors, and peer teachers in observing and diagnosing teacher classroom performance, writing remedial plans, conducting post observation conferences, and evaluating performance.
EDS	6239	Problems In Supervision	3	ED	EDB	PR: GS, EDS 6050 or CI.	Analysis of instructional problems in schools. Emphasis on supervisory tasks, case studies, and the application of problem solving techniques and strategies.
EDS	7130	Teacher Evaluation: Process and Instruments	3	ED	EDB	PR: EDA 6061, EDF 6432, CI.	Examines procedures for establishing content validity, reliability, norms, and predictive validity of teacher evaluation systems. Examines the psychometric qualities of selected instruments.
EEC	6055	Advocacy and Leadership in Early Childhood Education	3	ED	EDU		This course focuses on developing leadership skills and knowledge necessary to help individuals build coalitions and design effective public policy/advocacy initiatives. This course is open to graduate non-majors and is repeatable for 3 hours credit.
EEC	6205	E.C.: Curriculum and Authentic Assessment	3	ED	EDU		This course focuses issues, strategies and research associated with curriculum and authentic assessment. This course is open to graduate non-majors and is repeatable for three hours credit.
EEC	6261	Advanced Programs In Early Childhood Education	3	ED	EDU	PR: EDF 6432, EEC 4203 or DPR.	Innovative curriculum designs in Early Childhood Education, with emphasis given to related research.
EEC	6265	Early Childhood Programs and Advanced Curriculum	3	ED	EDU		Historical traditions and contemporary programs and curriculum models analyzed with an emphasis on dominant practices, methodologies, and current research that influences curriculum development in programs serving young children. Open non-majors/RTHC.
EEC	6405	Home - School - Community Interaction In Early Childhood Education	3	ED	EDU	PR: EDF 6432, EEC 4203 or DPR.	Roles of parents, teacher aides, and community agencies involved in the education of the young child.
EEC	6406	Social Growth In Childhood	3	ED	EDU		Principal factors that influence the social development of young children with particular emphasis upon those cultural influences that affect both child development and the

							educational programs for the young child.
EEC	6415	EC: Diversity in Home and School	3	ED	EDU		Focuses on issues of diversity that affect classroom practices with emphasis on analyzing and synthesizing pertinent literature and research. This course is open to graduate non-majors and is repeatable for three credit hours.
EEC	6517	Social Justice in Early Childhood Education	3	ED	EDU		This course uses a social justice lens to examine the impact of diversities on social functioning and development of young children. Research skill development includes analysis of social policies. Course is open to non-maj and is rpt for 3 credit hours.
EEC	6525	Early Childhood Program Development and Administration	3	ED	EDU		An analysis of current educational programs for young children with emphasis on designing, developing, and administering a program commensurate with the needs of young children. This course is open for non-majors and is repeatable for 3 credit hours.
EEC	6626	EC: Play and Learning	3	ED	EDU		This course includes an analysis of play theories, the role of play in the total development of young children, and the role of play as a curricular tool and implications for program planning and evaluation. Open non-majors/RTHC.
EEC	6678	Research Seminar: Issues and Trends in Early Childhood Education	3	ED	EDU		This course is designed to create an awareness of developing trends and issues facing the field of early childhood education. Relevant research is reviewed and possible avenues for advocacy are explored. Course open to non-majors, repeatable for 3 credit hours.
EEC	6705	Intellectual Growth In Childhood	3	ED	EDU		Intellectual development of the normal child with particular emphasis on the studies of Jean Piaget and how they relate to curriculum for children, ages 0-8. Child study through observation required.
EEC	6926	Workshop In Early Childhood Education	3	ED	EDU		Individual problems and innovations related to methods and materials of instruction in early childhood.
EEC	6971	Thesis: Masters/Educational Specialist	2-19	ED	EDU		
EEC	7056	Leadership and Advocacy: Issues Affecting Young Children	3	ED	EDU		This course focuses on developing leadership and advocacy knowledge and skills necessary for designing public policy/advocacy initiatives directly affecting children and families. Open to all adv. grad stud & may not be repeated for credit.
EEC	7057	Critical Perspectives in Early Childhood Education	3	ED	EDU		An exploration of how philosophical ideas of education impact today's practice in early childhood education. Open to all adv. grad stud & may not be repeated for credit.
EEC	7306	Teaching and Learning	3	ED	EDU		Policies and research focusing on

		in Early Childhood					teaching and learning in Early Childhood Education with an naturalistic inquiry / action research component. Course is open to all adv. grad students and may not be repeated for credit.
EEC	7416	Ecological Approaches to work with Children, Family, Community	3	ED	EDU		Focuses on issues relevant to young children within the context of their families and communities. Foundational and current research is examined in light of social policies. Open to all adv. grad stud & may not be repeated for credit.
EEC	7613	Assessment in Early Childhood Education	3	ED	EDU		Focuses on the goals, benefits & uses of assessment for young children & their teachers. It explores evaluation and accreditation of programs serving young children & EC teacher educators. Open to all adv. grad stud & may not be repeated for credit.
EEC	7615	Trends and Issues in Early Childhood Education	3	ED	EDU		This course will focus on current issues and trends in the field of Early Childhood Education, which serves young children from birth to age 8. Open to all adv. grad stud & may not be repeated for credit.
EEC	7910	Directed Research in Early Childhood Education	1-19	ED	EDU	PR: Advanced graduate standing.	Independent student-faculty research course.
EEC	7980	Dissertation	2-30	ED	EDU	PR: Admission to Candidacy	
EEE	5344C	Digital CMOS/VLSI Design	3	EN	EGE	PR: EEL 4705 or GS.	Design, layout, simulation, and test of custom digital CMOS/VLSI chips, using a CMOS cell library and state-of-the-art CAD tools. Digital CMOS static and dynamic gates, flip flops, CMOS array structures commonly used in digital systems. Top down design example of a bit slice processor.
EEE	5356	Integrated Circuit Technology	3	EN	EGE	PR: EEL 4351 or GS.	Physics and Chemistry of integrated circuit and discrete device fabrication, materials limitations, processing schemes, failure and yield analysis. A laboratory is integral to the course.
EEE	5357	Analog CMOS/VLSI Design	3	EN	EGE	PR: EEE 4301 or GS.	Design of analog circuits for CMOS/VLSI design. Op amps, comparators, D to A and A to D converters. Switched capacitor filters. Analog simulation.
EEE	5382	Physical Basis Of Microelectronics	3	EN	EGE	PR: EEL 4471 or GS.	Quantum mechanics with emphasis on electronic properties in atoms, molecules, and crystals; quantum statistics; energy band theory; crystal structures; defect chemistry; semiconductor properties.
EEE	6273	Chemical/Biological Sensors and Microfabrication	3	EN	EGE		This course discusses general concepts of MEMS, microfabrication and chem/bio sensors. The course concentrates on basics of MEMS, different processes involved and principles of sensing and understanding systems approaches to problems that require Sensors/MEMS.

EEE	6318	Characterization of Semiconductors	3	EN	EGE		Electrical, optical, chemical, and physical methods used to characterize semiconductor materials and devices; includes surface and near surface spectroscopes. Available to non-majors.
EEE	6345	VLSI for Signal Processing	3	EN	EGE		VLSI applications in signal processing and telecommunications. General purpose DSP architectures. ASIS architectures: systolic arrays, data-flow multiprocessing, wavefront arrays. Case histories: modems, echo cancelers, digital PLL, etc. High-speed arithmetic and algorithms.
EEE	6353	Semiconductor Device Theory I	3	EN	EGE		Theory of operation and application of circuits and devices.
EEE	6355	Compound Semiconductor Technology	3	EN	EGE		Bulk crystal and epitaxial growth technologies of III-V and II-VI compound semiconductors. The properties, characterization, and device applications of these compounds will be emphasized.
EEE	6358	Semiconductor Device Theory II	3	EN	EGE	PR: EEL 6353.	Theory of operation and application of circuits and devices.
EEE	6425	Introduction to Nanotechnology	3	EN	EGE	PR: Physics I, Chemistry I and Calculus I and II.	Basic nanotechnology fabrication and characterization techniques. Nanomaterials, Top-down and bottom-up assembly processes. Applications of nanotechnology.
EEL	5250	Power System Analysis	3	EN	EGE	PR: EGN 3375.	Analysis and design technique for AC power systems.
EEL	5462	Antenna Theory	3	EN	EGE	PR: EEL 4471 or GS.	Antenna theory beginning with fundamental parameter definitions and continuing with mathematical concepts, elemental antennas and arrays.
EEL	5572C	Local and Metropolitan Area Networks	3	EN	EGE	PR: EEL 4512C or GS.	Basics of data communication exchange of digital information over communication media; Basics of LANs/MANs and its components: media topologies, access methods, etc.; LAN/MAN architectures and protocols-IEEE 802.xLAN Standards; High speed LANs such as FDDI, IEEE 802.6 MAN, etc., Internetworking; LAN/MAN Design and selections.
EEL	5594L	Wireless Circuits and Systems Laboratory	2	EN	EGE	PR: EEL 4471.	This class will provide introductory tutorial learning, plus hands-on experience in analysis, design and measurement in the field of wireless communications.
EEL	5631	Digital Control Systems	3	EN	EGE	PR: EEL 4657 or GS.	Sample data and digital control processes
EEL	5754C	Microprocessor Based Digital Signal Processing	3	EN	EGE	PR: EEL 4705 or CI.	Arithmetic systems, processing structures, efficient algorithms. DSP hardware, TI, NEC and other DSP microprocessors; multiprocessing hardware and software. System development. Application to telecommunications and voice processing.
EEL	5771	Introduction to Computer Graphics I	3	EN	ESB	PR: EEL 4851C.	An introduction to the evolution of computer graphics including point-plotting, line drawing, two-dimensional transformations and

							graphics software packages.
EEL	5935	Special Electrical Engineering Topics I	1-3	EN	EGE		
EEL	5936	Special Electrical Engineering Topics II	1-3	EN	EGE		
EEL	5937	Special Electrical Engineering Topics III	1-3	EN	EGE		
EEL	6151	Advanced Circuit Theory II	3	EN	EGE	PR: EEL 6150.	Network fundamentals; network characterization, frequency analysis; superposition integrals; signal-flow techniques, stability problems; real and imaginary relations.
EEL	6226	Microsystems and MEMS Technology	3	EN	EGE		This course provides an overview of the MEMS Technology, focusing on devices and systems that can be developed using standard processing approaches.
EEL	6391	Noise in Electrical Devices	3	EN	EGE	PR: EEL 6387.	Characteristics, measurements and generation mechanisms of noise sources observed in electronic materials and devices. Materials and devices to be considered include thin and thick films, superconductors, semiconductors and semiconductor devices.
EEL	6425	RF & Microwave Measurements	2	EN	EGE	Wireless Circuits Systems Lab.	Concentrates on the theory and applications of modern radio frequency and microwave measurements. Topics include network analyzer, spectrum analyzer, noise, power and non-linear distortion measurements.
EEL	6426	RF and Microwave Circuits I	3	EN	EGE	PR: EEL 4471 and ELR 4316L or Graduate Standing.	Provides an introduction to passive RF/microwave/wireless circuit design. Topics to be covered include distributed transmission line theory, lumped circuit and network analysis, impedance matching, and the design of various microwave components.
EEL	6427	RF and Microwave Circuits II	3	EN	EGE	PR: EEL 6426.	This course presents the design theory and analysis of microwave transistor amplifiers and oscillators. Lectures, homework, and CAD projects develop an understanding of the design and performance issues for this class of circuits.
EEL	6434	Active Microwave Structures and Devices	3	EN	EGE	PR: EEL 5437	Theory and design of solid state low noise and high power amplifiers, solid state oscillators and high power tubes for waveguide, coax and integrated circuit applications.
EEL	6447C	Optoelectronics	3	EN	EGE		Basic principles and operations of lasers and analyses of power output and frequency pulling in laser oscillators.
EEL	6463	Advanced Antenna Theory	3	EN	EGE	PR: EEL 5462.	Electromagnetic radiating systems studied by analytical and numerical methods.
EEL	6481C	Numerical Techniques In Electromagnetism	3	EN	EGE	PR: EEL 5462, EEL 6486CC.	Review of Maxwell's equations. Finite differences, finite elements, boundary elements method of moments. Introduction to geometric theory of optics and diffraction.
EEL	6486C	Electromagnetic Field Theory	3	EN	EGE		Time harmonic electromagnetic fields emphasizing problems in transmission

							lines and electric power transmission.
EEL	6487C	Advanced Electromagnetic Field Theory	3	EN	EGE	PR: EEL 6486C.	Time harmonic fields emphasizing problems with exact solutions in the rectangular, cylindrical and spherical coordinate systems. Solutions by methods, Green's functions and vector methods.
EEL	6502	Digital Signal Processing I	3	EN	EGE		Digital signals and Fourier transforms. Z-transforms, digital filter networks; DFT, DCT, and fast transforms. Design of IIR and FIR filters; quantization effects. Multi-rate processing; interpolation and decimation.
EEL	6506C	Broadband Communication Networks	3	EN	EGE	PR: EEL 6534.	Objectives of networking, circuit and packet switching, queuing theory. Topologies, layered architectures, protocols and network performance. Local and wide area networks. Broadband networks: SONET, SHD, ATM and BISDN. ATM: cell concept, visual paths and channels, layer functions, interfaces and protocols; switch fabrics; CBR, VBR, ABR traffic, QOS. Current trends and internet. Applications to data/voice/video/multimedia traffic.
EEL	6509	Satellite Communication	3	EN	EGE	PR: EEL 6534.	Satellite characteristics, link calculations, earth station, frequency management, large and small mobile earth terminals. Digital communication for satellites: modulation coding and multiple-access techniques. Examples including the INTELSAT series.
EEL	6519	Ultra High Speed Communications	3	EN	EGE	PR: EEL 6535.	Ultra high-speed channels; radio, microwave, and lightwave. High-order constellations. Multiplexing, demultiplexing, and framing. Adaptive equalization for inter-symbol interference and multi-path fading. Switching space and time for UHS streams.
EEL	6534	Digital Communication Systems	3	EN	EGE		Digital communication & info. theory. Random processes. Digital modulation and demodulation. Source & channel coding. Detection theory: matched filter and sequence detection. Multiple access techniques. Spread spectrum & multi-user radio communications.
EEL	6545	Random Processes in Electrical Engineering	3	EN	EGE		Review of probability theory, functions of random variables; examples in electrical engineering. Sequences of random variables. Concepts in random processes, correlation functions, power spectrum, random inputs to linear systems. Spectral analysis. Applications to engineering systems.
EEL	6563	Optical Fiber Communication	3	EN	EGE	PR: EEL 6545.	A study of fiber-optic technology as applied to communications systems.
EEL	6586	Speech Signal Processing	3	EN	EGE	PR: EEL 6502.	Speech models: acoustic tube, source-filter. Time and frequency domain properties. Linear prediction analysis of speech. Speech coding:

							APCM, DPCM, ADPCM, sub-band, VQ, etc. Speech synthesis and recognition. Speech processing hardware.
EEL	6592	Digital Video and Multimedia	3	EN	EGE		Principles of video transmission and television. Digital video standards. Multimedia principles (including video, image, and sound) and their applications. Enhanced definition and high definition television principles, standards, and technology.
EEL	6593	Mobile and Personal Communication	3	EN	EGE	PR: EEL 6534.	Characteristics of wireless mobile channels indoor and outdoor ; multipath and shadow fading, frequency reuse; micro and pico cells; base-station and portable units. Cell coverage, blocking, and co-channel interference. TDMA, FDMA, CDMA and hybrid approaches to multiple access. Protocols, hand-over. Voice, data, and multi-media over wireless indoor channels.
EEL	6597	Wireless Network Architecture and Protocols	3	EN	EGE	PR: EEL 6593 or CI.	Wireless systems and standards. Network fundamentals. Channel characteristics, models. Modulation/coding, spread spectrum. Multiple access control: TDMA/FDMA/CDMA. Mobility/resource management. Wireless network architecture-cellular, satellite, broadband.
EEL	6613	Modern Control Theory	3	EN	EGE		A study of modern control techniques including optimum and adaptive control.
EEL	6614	Systems and Control Theory I	3	EN	EGE		Analysis of multi-variable linear systems continuous and discrete time, state-space methodology and transfer functions description . Analysis and design of feedback control systems. Effects of plant and measurement noise. Optimal control.
EEL	6615	Systems and Control Theory II	3	EN	EGE	PR: EEL 6614.	Continuation of EEL 6614.
EEL	6620	Nonlinear Control Systems	3	EN	EGE		Principles of state-variables, phase-plane and describing functions.
EEL	6640	Random Processes in Control Systems	3	EN	EGE		Analysis and design of control systems subject to random inputs and disturbances.
EEL	6706	Testing And Fault Tolerance In Digital Systems	3	EN	ESB	PR: COP 2400, CDA 4201 or CI, majors only.	Test generation for combinational and sequential digital circuits, fault analysis and diagnosis. Methods for reliability improvement through fault tolerant and testable circuit design. Introduction to software reliability.
EEL	6707	Advanced Digital Systems	3	EN	EGE		Principles of combinational circuit analysis, duality, hazards, IC gates, circuit design. Analysis of fundamental mode sequential circuits, sequential circuit synthesis, design for testability, using MSI and standard cells. Register transfer design and hardware description languages.
EEL	6752	Digital Signal Processing II	3	EN	EGE	PR: EEL 6502.	Fast algorithms, FFT, fast convolution; DCT, CZT. Random signals. Linear prediction, application to speed

							coding. Spectrum estimation. Quantization effects. Pencil-of-functions method. Adaptive filtering and equalization.
EEL	6753	Digital Signal Processing III	3	EN	EGE	PR: EEL 6502 or EEL 6752.	Advanced topics in digital signal processing, e.g. a Adaptive arrays, beam forming, and applications to radar and sonar, b Multi-rate filtering, multi-resolution analysis, sub-band analysis, wavelet transforms, and applications to images and other large-scale measurements, c Noise cancellation, and d inverse problems, such as CT reconstruction.
EEL	6764	Principles Of Computer Architecture	3	EN	ESB	PR: CDA 4100 or CI.	Arithmetic algorithms, CPU speedup techniques, memory hierarchies, virtual memory, input-output. Study of the number systems and the algorithms used for digital arithmetic computation with emphasis on their implementation, speed and reliability considerations.
EEL	6766	Advanced Computer Architecture	3	EN	ESB	PR: EEL 6764 or CI.	Control unit and microprogramming, reduced instruction set computers RISC , object oriented systems, multiprocessor systems, supercomputers. The macrostructure of computers is considered in this course, ranging from the orthodox von Neumann design to multiprocessors, stack processors, pipeline systems, and associative computers.
EEL	6820	Image Processing	3	EN	EGE		Two-dimensional signals including random, convolution and system functions. Fourier transform and FFT in two dimensions. Digitization of two-dimensional signals, quantization and aliasing errors. Filtering, restoration, and low bit-rate coding of images. Application to video-conferencing.
EEL	6846	Coding Theory	3	EN	EGE	PR: EGN 5423.	Error-correcting codes, algebraic block codes, linear codes and feedback shift registers; BCH codes; convolutional codes; burst error correcting codes; arithmetic codes; decoding methods.
EEL	6908	Independent Study	1-19	EN	EGE	S/U.	Independent study in which students must have a contract with an instructor.
EEL	6932	Advanced Engineering Seminar	1-3	EN	EGE		
EEL	6935	Selected Electrical Topics	1-3	EN	EGE		
EEL	6936	Special Electrical Problems	1-3	EN	EGE		
EEL	6971	Thesis: Master's	2-19	EN	EGE	S/U.	
EEL	7910	Directed Research	1-19	EN	EGE	PR: GR. Ph.D. level. S/U.	
EEL	7931	ST in Communication	3	EN	EGE	PR: EEL 6535.	Advanced topics in communications such as synchronization, spread-

							spectrum communications, fading channels, large constellation signaling schemes, mobile radio, statistical multiplexing, performance measurement, etc.
EEL	7980	Dissertation: Doctoral	2-19	EN	EGE	PR: Admission to Candidacy. S/U.	
EEX	5705	Seminar in Preschool Handicapped	2	ED	EDS		Intended to familiarize the education student with the wide range of needs and services of the preschool children with disabilities and their families and how they coordinate with educational services.
EEX	5752	Working With Families: A Pluralistic Perspective	3	ED	EDS	PR: Introductory course in special education, GS.	The impact of the socio/cultural environment on the education of at-risk children and children with disabilities; family systems theory, principles of multi-cultural education, strategies for working effectively with families of school-age children, diverse cultures and family structures represented in school populations today.
EEX	6025	Trends and Issues in Special Education	3	ED	EDS	Fall Semester. DPR.	Survey of all exceptionalities including current trends and issues related to the field of special education.
EEX	6051	Creating Positive Learning Environments for Students with Disabilities	6	ED	EDS	PR: Admission to the MAT.	This course presents an overview of assessment, behavior management, and instructional planning for students with disabilities. It also incorporates content about the historical and legal foundations of special education and theories and research that focus on defining, describing and intervening with students who have learning disabilities, behavior disorders, mild-moderate mental retardation, mild to moderate developmental disabilities, and physical disabilities.
EEX	6065	Collaborative Transition and Career Planning for Students with Low Incidence Disabilities	3	ED	EDS	PR: Graduate Standing.	This course offers an analysis of collaborative, interdisciplinary transition planning strategies and explores issues surrounding the development and use of functional, community-based curriculum for adolescents with severe or profound disabilities.
EEX	6222	Advanced Psychoeducational Assessment of Exceptional Students	3	ED	EDS	PR: GS, introductory courses in exceptional student education and educational assessment.	Theory and methodology associated with norm-referenced, criterion-referenced, curriculum-based, ecological, and psychoneurological assessment procedures for exceptional students.
EEX	6224	Developing Individualized Educational Programs for Students with Disabilities	6	ED	EDS	PR: EEX 6051 and admission to the MAT.	This 6-hour course reinforces and extends competencies in assessment, behavior management, legal and ethical foundations of special education, instructional planning, working with families, collaboration, and characteristics of disabilities. Content emphasizes knowledge and skills needed by teachers who are working with students who have mild

							disabilities and those from diverse cultural, socioeconomic and ethnic areas.
EEX	6234	Identification and Assessment of Individuals with Low Incidence Disabilities	3	ED	EDS	PR: Graduate Standing.	This course offers a critical analysis of the processes in place to identify students with low incidence disabilities. Subsequent influences on development, learning and curriculum assessment in a least restrictive environment is explored.
EEX	6245	Transitional Programming for the Adolescent and Young Adult Exceptional Student	3	ED	EDS	PR: GS, introductory course in educating exceptional students.	Procedures for implementing educational programs with exceptional adolescents. Includes educational programming, alternative programs, community resource coordination, career/occupational education, and advocacy.
EEX	6247	Implementing Programs for Students with Disabilities	6	ED	EDS	PR: EEX 6224.	Course emphasizes instructional approaches for implementing reading, math, language arts and social skills instruction in conjunction with classroom management for students with emotional, learning and/or cognitive disabilities. Majors only. Not repeatable
EEX	6248	Instructional Approaches for Exceptional Populations	3	ED	EDS	PR: Introductory course in special education, GS.	In-depth study of instructional strategies that are effective when teaching students with emotional disturbance, mental retardation, and learning disabilities. Content includes techniques for curriculum adaptation, IEP development; direct, data-based and metacognitive strategy instruction; and micro-computer applications.
EEX	6476	Curriculum and Instruction for Students with Low Incidence Disabilities	3	ED	EDS	PR: Graduate Standing.	Analysis of current issues and best practices in assessment for teaching, curriculum content, and instruction for students with severe disabilities and the provision of educational services within inclusive general education settings and home communities.
EEX	6511	Administration of Exceptional Student Programs	3	ED	EDS	Fall Semester.	Procedures that local, state, and national administrators may use to implement services for exceptional students.
EEX	6526	Grantsmanship	3	ED	EDS	PR: Advanced GS.	Fundamental skills for obtaining external funding of training, service, and research projects in education and the social sciences. Includes locating and communicating with sponsors, developing proposals, and preparing budgets. Emphasis is on grantsmanship in an academic environment.
EEX	6602	Observational Methods and Functional Assessment	3	ED	EDS		Provide students with instruction in functional assessment procedures and direct observation methods to be used consistent with the principles of applied behavior analysis in mental health and education settings.
EEX	6612	Management and Motivation of Exceptional and At-Risk	3	ED	EDS	PR: Introductory course in special education, GS.	Available to non-majors. Focuses on approaches to classroom management and motivational

		Students					strategies when working with exceptional students. Content includes applied behavior analysis techniques, psychoeducational approaches, and social skills training.
EEX	6619	Positive Behavior Support	3	ED	EDS	PR: GS.	Knowledge and skills to develop, implement, and evaluate the impact of positive behavior support. Understanding the communicative function of challenging behaviors, the teaching of new skills and the prevention of the reoccurrence of challenging behaviors.
EEX	6706	Education of the Preschool Handicapped Child	3	ED	EDS	Fall Semester.	Education of children ages birth through five with special needs. Basic concepts, curricular intervention strategies, and organizational structures are covered.
EEX	6732	Consultation and Collaboration in Special Education	3	ED	EDS	PR: Introductory course in special education, GS.	Theories of consultation and collaboration. Overview of service delivery models in special education.
EEX	6906	Independent Study: Special Education	1-6	ED	EDS	S/U.	Independent study in which students must have a contract with an instructor.
EEX	6936	Seminar in Integrating Exceptional Students in Regular Educational Environments	3	ED	EDS		Designed for non-special education graduate students. Surveys the characteristics of exceptional student populations, identification procedures, and systems for providing appropriate services for "mainstreamed" student in academic and non-academic settings.
EEX	6939	Advanced Seminar: Paradigms, Practices, and Policies in Special Education	3	ED	EDS	PR: DPR. Students should be in the last semester of coursework for master's degree.	An advanced graduate seminar stressing cross-categorical relationships. Topics include research that deals with paradigms for providing service, service models, and legal mandates.
EEX	6943	Practicum in Exceptional Student Education	1-4	ED	EDS	PR: Admission to Master's Degree Program in Special Education and DPR. S/U.	Supervised field work in exceptional student education with children (including preschool handicapped) who have learning disabilities, mental handicaps, emotional and behavioral disabilities, physical disabilities, or multiple disabilities.
EEX	6971	Thesis: Masters/Educational Specialist	2-19	ED	EDS	S/U.	
EEX	7203	Educational Implications of Psychosocial Aspects of Exceptional Children	1-5	ED	EDS	DPR.	This course will be concerned with the identification of the psycho-social needs and characteristics of exceptional children; opportunity of analysis of the educational implications of these needs and characteristics.
EEX	7301	Selected Topics in Special Education	1-8	ED	EDS	PR: EEX 7341 or DPR.	Identification and study of ethical and research issues in special education. Opportunity will be provided for the student to gather and process data, as appropriate, culminating in a written report and/or oral presentation to fellow student researchers.
EEX	7341	Research Studies and Their Implications in the	3	ED	EDS	PR: EDF 6431, EDF 6481, or equiv., DPR.	This course will involve a study of current research and research

		Education of Exceptional Children					methods used in exceptional child education. The transition from theory to practice will be made through the examination and discussion of implications in the field of special education that can be drawn from the research.
EEX	7428	Teacher Education in Special Education: Conceptual	2	ED	EDS	PR: Admission to the PH.D. program in Special Education.	This four-semester seminar focuses on teacher education in special education.
EEX	7741	Philosophy and Theory in the Preparation of Special Education Specialists	3	ED	EDS	PR: Admission in the Program for Ed.S. or Ph.D. in Education. DPR.	In-depth exploration of the philosophy and theory in special education. A theoretical basis for the preparation of specialists in the field of exceptional child education.
EEX	7743	Philosophies of Inquiry	3	ED	EDS	PR: EDF 6481 or Equivalent, or permission of instructor	The purpose of this course is to introduce doctoral students to different approaches to educational research and to alternative frames for criticism, including postpositivism, constructivism, poststructuralism, pragmatism, critical theory, narrative, race and gender, ethics, and aesthetics.
EEX	7744	Curriculum and Instructional Issues in Urban Special Education	3	ED	EDS		The purpose of this course is to review and critically examine the theoretical and research literature on the interactions of race, culture, class, and disability on the schooling experiences of urban (ethnic minority and impoverished) children and their families. The course also takes into account that ethnic minority and poor children may or may not reside in urban areas and as a result of school and community desegregation movements, those learners may also attend suburban and rural schools, in addition to urban schools. The course will provide varied formats for graduate students to identify and address critical issues and trends in urban special education and related services areas that impact outcomes for minority learners across social classes and impoverished learners from majority cultural backgrounds.
EEX	7745	Historical, Ethical, and Disciplinary Foundations of Special Education	3	ED	EDS		Historical, Ethical, and Disciplinary Foundations of Special Education provides doctoral students a critical understanding of the social, political, ethical, and legal contexts that shaped the research, policies, and practices in the field of Special Education during the twentieth century.
EEX	7815	Research Seminar	2-3	ED	EDS	PR: Admission to Doctoral Program	This seminar, taken each semester of the first and second years of the doctoral program, will contribute to the development of the skills and values that lead to the creation of new knowledge and its application to the field of special education in order to improve outcomes for students who have disabilities and their

							families. Issues in urban schools will be emphasized.
EEX	7868	Fieldwork With Exceptional Students	1-5	ED	EDS	DPR.	Practical field experience in curriculum development, classroom teaching, supervision, and/or administrative areas in special education.
EEX	7910	Directed Research	1-19	ED	EDS		
EEX	7911	Specialized Study In: Mental Retardation, Behavior Disorders, Specific Learning Disabilities, and Gifted Education	1-8	ED	EDS	DPR.	The specialized study enables advanced exploration of knowledge in an area of interest to the student in special education.
EEX	7980	Dissertation	2-30	ED	EDS	PR: Admission to Candidacy.	
EGI	5051	Nature and Needs of the Gifted	3	ED	EDS		This survey course examines the characteristics and educational needs of children and youth who are gifted, including those from special populations. Emphasis is on giftedness as defined historically, nationally and locally. The course also explores changing views of intelligence and talent development related to policy and practice in gifted education as well as the processes of identification and programming.
EGI	5307	Theory and Development of Creativity	3	ED	EDS		Exploration of the concept of creativity, its factors, measurement, and application to education. Opportunities are given to work with children in a laboratory setting and to prepare materials to be used with small groups of children.
EGI	6232	Advanced Educational Strategies for the Gifted	3	ED	EDS	PR: EGI 5051.	Curriculum adjustments, methods and techniques, as well as classroom organizations necessary for teaching students who are gifted will be the focus of this course. Emphasis will also be on curriculum in gifted programs within the context of school reform and restructuring.
EGI	6415	Consultation, Counseling, and Guidance Skills for Gifted Students	3	ED	EDS		Primary emphasis of this course will be to provide an awareness, knowledge, and understanding of the unique guidance and counseling needs of students who are gifted and talented or from special populations.
EGI	6936	Seminar in Education of the Gifted: Special Population	3	ED	EDS		This seminar will provide a critical survey of the research, issues, policy, ethics, and practices related culturally diverse, economically disadvantaged, limited, English proficient, twice exceptional, highly gifted, or very young.
EGI	6943	Supervised Practicum in Gifted Education	1-12	ED	EDS	PR: CC. S/U.	Planned experiences working with students who are gifted, program development and administration, or an individualized inquiry of a specific issue related to gifted education.
EGM	6656	Theory of Elasticity	3	EN	EGX	PR: CES 6116	Classical and contemporary elasticity

							theory with applications to engineering problems.
EGN	5421	Engineering Applications for Vector Analysis	3	EN	EGB		Vector methods in electromagnetism and fluid mechanics. Vector operators, line and flux integrals, potential and transport theorems, applications.
EGN	5422	Engineering Applications of Partial Differential Equations	3	EN	EGB		Power series solutions for ordinary differential equations, Sturm-Liouville theory, special functions. Vector methods with generalized coordinates. Separation of variables for partial differential equations. Green's functions. Calculus of variations. Numerical methods.
EGN	5423	Neural Networks and Mathematics for Communication	3	EN	EGB	PR: Basics of differential equations and matrix algebra.	Advanced matrix algorithms: LU and QR factorizations, least-squares, pseudoinverse. Techniques for optimization.
EGN	5424	Engineering Applications of Complex Analysis	3	EN	EGB		Analytic functions, conformal mapping, residue theory, Laurent series, transforms. Applications to various problems in engineering and physics.
EGN	5425	Engineering Applications of Advanced Matrix Computations	3	EN	EGB		Survey of theory and software for matrix computations: factorization methods, least squares and pseudoinverses, eigenvector algorithms. Special matrices and representations for control system and finite element applications.
EGN	6426	Engineering Analysis VI	3	EN	EGB	PR: EGN 4420.	Application of computational and mathematical techniques and principles to advanced engineering problems.
EIN	5174	Total Quality Management Concepts	3	EN	EGS		This course will examine the methodology and procedures that companies use to improve quality and its operational benefits, including the management transformation (paradigm shift) that is evolving. Unrestricted. Nonrepeatable for credit.
EIN	5182	Principles of Engineering Management	3	EN	EGS		Introduction to the fundamentals of planning, organizing and leadership as needed by engineers, scientists, and other professionals considering managerial positions.
EIN	5275	Work Physiology and Biomechanics	3	EN	EGS	PR: CC, majors only.	Human physiological limitations encountered in design, analysis and evaluation of man-machine systems.
EIN	5350	Technology and Finance	3	EN	EGS		A course for technical managers that focuses on how financial and economic principles are utilized to make technical investments and manage technical enterprises.
EIN	5357	Engineering Value Analysis	3	EN	EGS	PR: EIN 5219 or equiv., majors only	Statistical models for analyzing engineering alternatives from an economic viewpoint. The use of advanced engineering economy concepts in solving industrial problems.
EIN	5510	Manufacturing Systems Analysis	3	EN	EGS	PR: CC, majors only.	The study of systems of manufacturing entities such as machine tools, robots, and materials

							handlers. Emphasis is on mathematical description of integrated systems and system optimization.
EIN	6106	Technology and Law	3	EN	EGS	PR: CI.	Selected topics related to the relationships between and among technology, law and social policy, including governmental regulation, products liability, professional liability, contract negotiation and formation, and developments and trends affecting engineering professionals.
EIN	6107	Professional Behavior and the Engineer	3	EN	EGS	PR: CI..	A study of professional ethics and morals as faced by technical managers in the development, production, and marketing of industrial products and services. Emphasis on case studies, class discussions, and guest lecturers regarding ethical issues in managerial decision making.
EIN	6108	EM-Human Relations	3	EN	EGS		Human relations, understanding oneself, understanding other people, influencing and motivation performance, improving moral and discipline, and self appraisal and analysis for the technical manager.
EIN	6112	Information Systems Design for Engineers	3	EN	EGS		This course introduces students to the design and implementation of information systems, with special emphasis on industrial applications. The topics to be covered include the relational database model, structured query language, and design methodologies.
EIN	6119	Decision Support Systems in Engineering Management	3	EN	EGS	Majors only	Conceptual foundations of decision support systems with focus on the needs of engineering managers and effective decision making in technological and scientific organizations.
EIN	6121	Technology and Markets	3	EN	EGS		Marketing strategy and its relationship to the development of technology from the viewpoint of interaction between the technical enterprise and its industrial and government customers.
EIN	6145	Project Management	3	EN	EGS	PR: EGN 3443 or equivalent.	Provide principles and techniques for planning, scheduling and managing projects in engineering and related environments. Applies analytical tools and techniques including software to solve project management problems. Not restricted. Non-repeatable.
EIN	6154	Technical Entrepreneurship	3	EN	EGS		A comprehensive study of developing and starting an engineering venture. Student teams work out a business plan for a company to develop, manufacture, and distribute a technical product or service.
EIN	6178	ISO 9000/14000	3	EN	EGS	PR: EIN 5174.	Study and analysis of ISO 9000/14000 publications with a view to understanding the documentation process and auditing process for

							registration purposes and the relationship to other quality systems and programs. Unrestricted. Nonrepeatable for credit.
EIN	6179	Advanced Total Quality Management Methods	3	EN	EGS	PR: EIN 5174.	This course is a presentation of Six Sigma in industry: details of the methodology that comprise it, and how it relates to Total Quality Management. This course is restricted to students pursuing majors in the IMSE Department. Nonrepeatable for credit.
EIN	6183	Engineering Management Policy And Strategy	3	EN	EGS	Majors only.	Strategic planning and policy formulation in technical and scientific organizations. General managers in the middle. Translation of strategic plans into action plans and implementation of the strategic change process. This is a capstone course in the EM program to be taken during the last semester of the student's program.
EIN	6215	Engineering System Safety	3	EN	EGS	PR: Statistics.	The theory and practical implications of the concept of systems safety as these relate to the life cycle of a product or system. Analysis of the fundamental concepts, design implications, and specifications of safety in human machine environments.
EIN	6216	Occupational Safety Engineering	3	EN	EGS	PR: GS in Public Health or Engineering or CI.	Introduction to the principles of designing, maintaining, and managing a workplace free from hazards. Covers mechanical hazards, fall and lifting hazards, climatic and environmental hazards, fire and explosive hazards, and pressure hazards. Considers design issues, warnings, and personal protective equipment. Term project required.
EIN	6217	Construction Safety Engineering	3	EN	EGS	PR: CI.	Course based on OSHA course 510; covers applicable standards to industry's most common violations; examples of accidents resulting from ignoring standards; documented incidents are researched. Completion of course includes receipt of 30-hour OSHA Card.
EIN	6225	Total Quality Management Seminar	3	EN	EGS	PR: EIN 5174.	Study and analysis of TQM Principles through discussion, guest lecturers, critiques of published articles. A variety of quality techniques will be examined to determine their level of adoption and effectiveness. Unrestricted. Nonrepeatable for credit.
EIN	6247	Engineering Information Processing	3	EN	EGS	Majors only.	A study of human information processing theories and measurement techniques as applied to engineering problems emphasizing perceptional, cognitive, and learning aspects of interpersonal and human-computer communication.
EIN	6258	Human/Computer Interaction	3	EN	EGS	PR: EIN 5275, majors only.	Application of human factors in the design and operation of

							man/machine systems. Analysis of the use of microprocessors and computer-controlled devices in man/machine systems.
EIN	6265	Industrial Mental Health	3	EN	EGS	Majors only.	Theories and concepts of mental hygiene and positive mental health as applied to organizational settings. Review of research studies related to industrial mental health; stress management; strategies for improving mental health and employee performance.
EIN	6319	Work Design And Productivity Engineering	3	EN	EGS	Majors only.	Foundations of motivated work performance, job satisfaction and organizational productivity. Analysis of job content and job context, comparison of different concepts for improving organizational effectiveness; suggestions for productivity improvements through effective work redesign.
EIN	6336	Production Control Systems	3	EN	EGS	PR: CC, majors only.	Forecasting models, development of production plans, loading and scheduling models and basic inventory models. Use of MRP. Design and evaluation of production control systems.
EIN	6386	Management of Technological Change	3	EN	EGS	Majors only.	A study of problems encountered by managers in the planning, organizing, directing, and controlling of resources in technology-based organizations.
EIN	6430	Overview of Regulated Industries	3	EN	EGS		This course provides students with basic information on regulated industries, emphasizing challenges experienced in medical device development, manufacture and commercialization with regard to regulatory requirements. Unrestricted. Nonrepeatable.
EIN	6431	Regulated Quality Systems and Control	3	EN	EGS	PR: EIN 6430 or CI.	This course provides students with information to design quality systems for regulated industries, emphasizing medical device manufacturing. The application of various statistical techniques to the control of industrial processes will be used.
EIN	6432	Regulated Product Approval Process	3	EN	EGS	PR: EIN 6430 or CI.	The course provides students with information to collaborate effectively with the FDA to navigate the product approval process, emphasizing medical devices. The underlying scientific, regulatory and quality processes for submission will be reviewed.
EIN	6433	Human Factors Engineering in Medical Devices	3	EN	EGS	PR: EIN 6430 or CI.	The course provides students with information for the ergonomic design and operability of medical devices. These systematic designs are critical in improving the safety of medical devices by reducing the probability of user error.
EIN	6434	Design Controls for Medical Devices	3	EN	EGS	PR: EIN 6430 or CI.	The course provides students with information to establish procedures to effectively control the design requirements and specifications for

							medical devices. The design process will be examined to apply the best approaches for verification and validation.
EIN	6435	International Regulations for Medical Devices	3	EN	EGS	PR: EIN 6430 or CI.	The course provides students with information regarding the major global compliance issues related to medical devices. The initiatives of the Global Harmonization Task Force to facilitate international trade without compromising safety will be explored.
EIN	6605	Robotics And Assembly Automation	3	EN	EGS	Majors only.	The use of robots in manufacturing assembly; coordinated use of robots, machine tools, feeders, holding devices, and material handling systems.
EIN	6934	Special Industrial Topics I	1-3	EN	EGS	PR: CC, majors only.	
EIN	6935	Special Industrial Topics II	1-3	EN	EGS	PR: CC, majors only.	
EIN	6936	Special Industrial Topics III	1-3	EN	EGS	PR: CC, majors only.	
EIN	6971	Thesis: Master's	2-19	EN	EGS	Majors only. S/U.	
ELD	6015	Advanced Theories and Practices in Specific Learning Disabilities	3	ED	EDS	PR: Introductory course in exceptional child education, GS.	Various conceptual and/or theoretical models are reviewed; current trends and issues related to education of children with specific learning disabilities.
ELD	6147	Educational Strategies for Student With Specific Learning Disabilities	3	ED	EDS	PR: ELD 6015, EEX 6222.	Advanced educational procedures and materials development for the student with specific learning disabilities. For certification.
ELD	6943	Practicum With Learning Disabilities	1-12	ED	EDS	PR: CC. S/U.	Supervised experiences with children who have learning disabilities.
EMA	5326	Corrosion Control	3	EN	EGX	PR: EGN 3365.	Provide understanding of corrosion fundamentals. Introduce design for corrosion detection, protection, and control. Acquire research project experience.
EMA	6001	Advance Materials	3	EN	ECH	PR: Graduate Standing or CI.	Principles of structure, structure modification and properties of materials with emphasis on structure-property relationships and modern theory of solids.
EME	5403	Computers in Education	3	ED	EDK		A survey course designed to introduce practicing teachers to microcomputer technology and its function in the classroom to augment the teaching and learning processes. Objectives include the use and evaluation of educational software, classroom use of computers, instructional computing research, generic applications software (word processors, database managers, etc.), programming, disk operating systems, and microcomputer hardware.
EME	6425	Technology For School Management	3	ED	EDK		This course provides information and skills necessary for administrators and teachers to effectively use the computer and application software to manage information. Students use

							programs such as word processors, database managers, and spreadsheets to facilitate management tasks at the school and classroom level. In addition, general computer education topics are covered which provide for the computer literacy of school administrators.
EME	6613	Development of Technology-Based Instruction	3	ED	EDK	PR: EDF 6284 or DPR.	Application of computer-based instructional design principles to the development of technology-based instruction. This course also incorporates state-of-the-art materials and methods involving digital technologies.
EME	6906	Independent Study in Instructional Technology	1-6	ED	EDI		Independent study under the direction of an IT faculty member. Student must have contract with instructor.
EME	6930	Programming Languages for Education	3	ED	EDK	PR: Computer literacy	Development of concepts, strategies, and materials for using programming languages in educational settings. Separate sections will focus on different programming languages such as LOGO, BASIC, Hyperscripting, Pascal, Advanced Pascal.
EME	6936	Applications of Computers as Educational Tools	3	ED	EDK	PR: Computer literacy	Selected topics in the application of computing and related technology to the teaching and learning processes. Separate sections will focus on topics such as telecommunications, image and sound processing, interactive media, artificial intelligence, data acquisition, and information systems.
EME	6971	Thesis: Masters/Ed. Specialist	2-9	ED	EDI		The purpose of the thesis/project(Education Specialist student requirement)is to provide an opportunity for the student to apply knowledge gained in the program to the resolution of significant needs arising from professional practice.
EME	7458	Research in Distance Learning	3	ED	EDI	PR: Graduate Standing; computer and e-mail access	An on-line course about distance learning designed to provide an integrated framework to explore theory within practice. Topics include distance technologies; implications for teaching and learning; issues and trends; and research.
EME	7631	Research in Technology Project Management	3	ED	EDI	PR: Graduate Standing; EDF 6284 or CI	A graduate level course that examines project management and provides tools and process to apply sound project management principles to the field of instructional design and technology. Topics include project management issues related to time, resources, technical, and people skills.
EME	7910	Directed Research in Instructional Technology	1-19	ED	EDI	PR: CI.	This course permits a doctoral student to conduct advanced research and to pursue specific areas of interest with a faculty member as supervisor. A contract is required with the faculty member. S/U.
EME	7938	Computer-Augmented	3	ED	EDK	PR: Admission to	Seminar examining theory and

		Instructional Paradigms in Education				program or DPR.	application of computers and related technology in teaching and learning.
EME	7939	Research in Technology-Based Education	3	ED	EDK	PR: Admission to program or DPR.	Seminar examining in-depth research on the uses of computers and related technology on teaching and learning. Also includes investigation on role of computers and related technology as research instrumentation.
EME	7980	Dissertation	2-30	ED	EDK	PR: Admission to Candidacy	
EML	5930	Special Topics III	1-4	EN	EGR	PR: CC.	
EML	6069	Advanced Mathematics for Mechanical Engineers	3	EN	EGR	PR: Undergraduate Calculus, Undergraduate Differential Equations.	Basic theory of ordinary and partial differential equations useful in applications. First- and second-order equations, separation of variables, Fourier series, Laplace transforms.
EML	6105	Advanced Thermodynamics and Statistical Mechanics	3	EN	EGR	PR: ECH 3023C or EML 4106C or CI	Topics in classical thermodynamics, some elementary subjects in statistical mechanics and some applications in combustion.
EML	6145	Numerical Methods in Heat Transfer	3	EN	EGR	PR: CI, majors only	Application of finite difference and finite element techniques to problems of conduction and convection. Cartesian, cylindrical and spherical systems. Steady and transient solutions.
EML	6154	Advanced Conduction Analysis	3	EN	EGR	PR: EML 4124, EML 3041, majors only	Multi-dimensional heat transfer. Emphasis on solution techniques, exact and numerical.
EML	6157	Radiation	3	EN	EGR	PR: EML 4124, majors only	Review of basic principles of radiation, grey bodies and real surfaces, calculation of shape factors, absorbing gases.
EML	6223	Synthesis of Vibrating Systems	3	EN	EGR	PR: EML 4220, majors only	Advance topics in vibration. Random vibration in mechanical systems. Auto-correlation and power spectral density. Response of single and multidegree of freedom systems to random excitation. Frequency response function and coherency measurements. Contents variable.
EML	6232	Composite Laminated Materials	3	EN	EGR	PR: EML 3500, majors only.	Fundamental relationships for predicting the mechanical and thermal response of multi-layered materials and structures. Micromechanical and macromechanical relationships are developed for laminated materials with emphasis on continuous filament. Material, structural and strength optimization to design laminated composite materials using user-friendly software.
EML	6273	Advanced Dynamics of Machinery	3	EN	EGR	PR: EML 3624 or CI, majors only	Detailed study of velocities, accelerations and forces in machines with parts having rotating, reciprocating, and combined motion.
EML	6375	Dir Dig Ctrl I		EN	EGR		
EML	6570	Principles of Fracture Mechanics	3	EN	EGR	PR: EML 3500.	Introduction to the mechanics of brittle and ductile fracture. Linear elastic fracture, elastic-plastic fracture, testing, metals and non-metal materials, and fatigue fracture.

EML	6606	HVAC Systems Design	3	EN	EGR	PR: EML 4601 or CI, majors only	Criteria for selection of systems types; performance, characteristics of single zone, multizone, double duct and variable volume systems; energy conservation in HVAC design; HVAC controls; computer models of HVAC systems; solar energy used in HVAC.
EML	6653	Applied Elasticity	3	EN	EGR	PR: EML 3500	Students will apply the fundamentals of elasticity to engineering problems. Practical problems will be solved and advantages of using particular methods will be illustrated.
EML	6713	Advanced Fluid Mechanics	3	EN	EGR	PR: CI, majors only	Introduction to computational problem solutions in fluid mechanics and heat and mass transfer as applied to mechanical engineering. The emphasis is on the formulation and solution of computational engineering problems.
EML	6801	Robotic Systems	3	EN	EGR	PR: CI, majors only	Overview of existing industrial and specialized robot types and operation; vision systems; tactile sensors; ranging and proximity techniques; actuation/transmission methods; power sources; autonomous vehicle mobility and navigation methods; and artificial intelligence.
EML	6808	Mechanics and Control of Robotic Manipulators	3	EN	EGR		The purpose of this course is to understand the mechanocs and control of robot manipulators. Topics include: Spatial descriptions and transformations; manipulator kinematics; manipulator dynamics; path planning and trajectory generation; position and force control implementation.
EML	6907	Independent Study	1-6	EN	EGR	PR: GR, majors only S/U.	Independent study in which students must have a contract with an instructor.
EML	6930	Special Problems I	1-3	EN	EGR	PR: CC, majors only	
EML	6931	Special Problems II	1-3	EN	EGR	PR: CC, majors only	
EML	6971	Thesis: Master's	2-6	EN	EGR	PR: CC, majors only	
EML	7915	Directed Research	1-6	EN	EGR	PR: CC and GR. Ph.D. level, majors only. S/U.	
EML	7980	Dissertation: Doctoral	2-12	EN	EGR	PR: Admission to Candidacy	
EMR	6052	Advanced Theories and Practices in Mental Retardation	3	ED	EDS	PR: GS; introductory course in exceptional student education.	In-depth study of the complex social and biological aspects of mental retardation with particular reference to effects on education.
EMR	6255	Educational Strategies for the Mentally Retarded	3	ED	EDS		In-depth study of the specific curriculum and methodological problems in teaching students with mental retardation. For certification.
EMR	6943	Graduate Supervised Practicum in Mental Retardation	1-12	ED	EDS	PR: CC. For students seeking certification only. S/U.	Supervised graduate practicum encompassing teaching and supervising experiences in public school classes for students with mental retardation.
ENC	6319	Scholarly Writing for	3	AS	ENG		Methods of writing and publishing

		Publication in English Studies					scholarly articles, monographs, and textbooks in rhetoric and composition, literary scholarship, and criticism. Required for Literature majors.
ENC	6336	Studies in the History of Rhetoric	3	AS	ENG		Examines the evolving relationship between rhetoric and composition from antiquity to the present.
ENC	6421	Studies in Rhetoric and Technology	3	AS	ENG		Examines the intersection of Rhetoric and technology, with emphasis on contemporary critical issues in composition studies.
ENC	6700	Studies in Composition Theory	3	AS	ENG		Major theories and models of composing. Selected theorists include Rohman, Emig, Sommers, Flowers, and Hayes.
ENC	6720	Studies in Composition Research	3	AS	ENG		Examines and evaluates a broad range of important research studies conducted in composition and a variety of research techniques such as descriptive statistics, qualitative research design, and measurement and evaluation. Instruction in how to conduct composition research.
ENC	6740	Theory and Development of Writing Programs	3	AS	ENG		Operating theories of and administrative procedures for implementing writing programs on various levels; focuses on remedial, freshman, advanced, and technical writing programs as well as writing centers.
ENC	6745	Teaching Practicum	3	AS	ENG		To supplement and deepen theoretical and practical experiences during the first teaching semester. To combine and apply different theoretical approaches to teaching writing in actual classroom practice.
ENG	6005	Scholarly Research and Writing	3	AS	ENG		PhD students will improve their skills with advanced research methods in preparation for writing the prospectus and dissertation, work on conference papers and journal articles, and research the job market and the challenges that face new faculty.
ENG	6009	Introduction to Graduate Study	3	AS	ENG		New graduate students will read about the discipline, learn the methods of scholarly research and inquiry, and adjust their academic skills for graduate-level work. The course will also introduce them to some key research databases and resources.
ENG	6018	Studies in Criticism and Theory I	3	AS	ENG		This course examines selected controversies in literary criticism and scholarship from the classical period to 1800, including problems of imitation, the quarrel between Ancients and Moderns, the ethics of the imagination, and the roles of women critics.
ENG	6019	Studies in Criticism and Theory II	3	AS	ENG		This course focuses on important trends in contemporary literary criticism with the major theoretical texts that inform these trends.

ENG	6067	History of the English Language	3	AS	ENG		This course traces the evolution of the English Language from its early Germanic and Scandinavian roots to its emergence in time as tantamount to a universal language. The course uses literary works to show the stages of dramatic change.
ENG	6916	Directed Research	1-19	AS	ENG	PR: GR. M.A. Level, CC. S/U.	
ENG	6939	Graduate Seminar in English	3	AS	ENG	PR: Consent of graduate advisor.	Intensive small-group discussion as well as shared and individual guided research in one of the student's areas of concentration.
ENG	6971	Thesis: Master's	2-19	AS	ENG	PR: CC. S/U.	
ENG	7916	Directed Research	1-19	AS	ENG	PR: GR. Ph.D. level. S/U.	
ENG	7939	Doctoral Seminar	1	AS	ENG	PR: Admission to Ph.D. Program.	Individual guided research in a student's area of doctoral specialty. Restricted to majors. Repeatable once for credit (total of 2 credits) counting as requirements toward the degree.
ENG	7980	Dissertation: Doctoral	2-19	AS	ENG	PR: Admission to Candidacy. S/U.	
ENL	6206	Studies in Old English	3	AS	ENG		A study of Old English language, prose style, poetry.
ENL	6216	Studies in Middle English	3	AS	ENG		Selected focused studies in language and in various authors and writings, 1100-1500; Chaucer, the Pearl poet, Everyman, ballads, drama.
ENL	6226	Studies in Sixteenth-Century British Literature	3	AS	ENG		Selected focused studies in sixteenth-century British literature; Shakespeare, Sidney, Spenser, Marlowe, and others.
ENL	6228	Studies in Seventeenth-Century British Literature	3	AS	ENG		Selected focused studies in British literature, 1600-1660; Bacon, Donne, Jonson, Herbert, Milton, and others.
ENL	6236	Studies in Restoration and Eighteenth-Century British Literature	3	AS	ENG		Selected focused studies in Restoration and Eighteenth-Century British literature: Dryden, Defoe, Pope, Swift, Fielding, Sheridan, Johnson, Boswell, and others.
ENL	6246	Studies of the English Romantic Period	3	AS	ENG		A study of pre-Romantic and Romantic prose, fiction, nonfiction, and poetry.
ENL	6256	Studies in Victorian Literature	3	AS	ENG		A study of Victorian poetry, fiction, non-fictional prose, and drama.
ENL	6276	Studies in Modern British Literature	3	AS	ENG		A study of Irish and English drama, the modern novel, poetry, criticism, and the short story.
ENT	6126	Strategies in Technology Entrepreneurship	3	BU	MAN		Students will learn that entrepreneurial opportunities are both identified in the existing socioeconomic environment and created through innovation. Students will learn theory based models and their application through case studies and a final project.
ENT	6186	Strategic Market Assessment	3	BU	MAN		This course is designed to enable the student to gain an in-depth understanding of the techniques used

							to analyze market opportunities for new inventions and intellectual properties.
ENT	6415	Fundamentals of Venture Capital and Private Equity	3	BU	MAN		The purpose of the course is to convey five primary areas of knowledge: learning to think like an investor, the capital raising process, how to perform business valuations, securities law, and what venture capitalists do.
ENT	6606	New Product Development	3	BU	MAN		This course is designed to prepare both business and engineering students to contribute to the development of strategies and tasks relevant to new product introductions. The skills developed will enable students to analyze and develop product strategies.
ENT	6947	Advanced Topics in Entrepreneurship	3	BU	MAN		Provides students the opportunity to apply the skills and knowledge acquired in previous entrepreneurship courses. Students gain practical experience through an internship or writing a business plan.
ENV	5103	Air Pollution Control	3	EN	EGX	PR: EGN 3353.	Behavior and effects of atmospheric contaminants and the principles of making measurements in the air environment. Basic concepts of meteorology and control technology are discussed. Regulatory aspects and air pollution standards are covered.
ENV	5334	Hazardous Waste Management and Remedial Action	3	EN	EGX	PR: ENV 5345 and one of the following: ENV 6347, ENV 6519, ENV 6558; or CI, majors only. Undergraduate preparation in environmental engineering or an environmental science program.	Introduction to hazardous waste management and remediation: RCRA regulatory concepts, definitions, aspects of hazardous waste management from within the plant to final disposal. History of hazardous waste cleanup leading to CERCLA and its amendments, site investigations; site control; those aspects of treatment that are unique to remedial action.
ENV	5345	Solid Waste Control	3	EN	EGX	PR: CI. Undergraduate preparation in environmental engineering, or graduate standing in environmental engineering or an environmental science program.	Introduction to solid waste management, including its definition as an umbrella for hazardous waste: regulatory concepts; waste types, quantities, and characterization; collection and recycling; facility siting; disposal; thermal treatment.
ENV	5504C	Environmental Engineering Processes	3	EN	EGX	PR: ENV 4001, ENV 4004L, ENV 4417	Theory, experimental investigation, and modeling of operations and processes in engineered and natural systems. Laboratory evaluation of unit operations and process used in water and wastewater treatment including chlorination, activated carbon adsorption, biological treatment, gas/liquid mass transfer, filtration, coagulation, flocculation, and settling. This course is restricted to majors, has no external laboratory section associated with the course, is not available on an S/U basis only, is

							not cross-listed with another department or college.
ENV	6002	Physical and Chemical Principles in Environmental Engineering	3	EN	EGX	PR: B.S. in engineering or consent of instructor.	Investigates how chemical properties, physical processes, and environmental characteristics all influence the fate and transport of chemicals in natural and engineered systems. Includes theory, practical examples, and laboratory experiments.
ENV	6347	Materials Recovery Engineering	3	EN	EGX	PR: ENV 5345 or CI, majors only	Analysis of materials for purposes of processing. Unit operation and plant analysis. Thermal treatment and energy recovery. Unit operations in materials processing and separation. Applications to resource recovery, recycling, mineral, and agricultural materials. Field trip.
ENV	6438	Natural & Small Scale Treatment Systems	3	EN	EGX	PR: CI, majors only.	A study of the theory, analysis and design of natural aquatic systems to treat wastewater. Emphasis is on use of treated and partially treated wastewater or residues to enhance, restore, or create wetlands, as well as land application.
ENV	6519	Advanced Physical/Chemical Processes	3	EN	EGX	PR: ENV 6666 or CI, majors only	Theory and design of processes used in advanced water and wastewater treatment, including membrane processes, absorption, electrodialysis, ozonation, irradiation.
ENV	6539	Sludge Treatment & Disposal	3	EN	EGX	PR: ENV 6667 or CI, majors only	Examines the physical, chemical, and biological unit operations and processes utilized in treating and disposing of sludges produced at water and wastewater treatment facilities.
ENV	6558	Industrial and Hazardous Waste Treatment	3	EN	EGX	PR: ENV 6667 or CI, majors only	Industrial waste surveys; contemporary industrial wastewater treatment and control methods; characteristics of industrial wastes and their effects on receiving streams.
ENV	6614	Quantitative Environmental Risk Analysis	3	EN	EGX	PR: Graduate standing in engineering or environmental science discipline; elementary knowledge of programming.	Quantitative approach to the determination of risk. Focus is on environmental and control and protection, but techniques apply widely. Covers assessment of risk factors, failure, contaminant transport, and health effects. Includes discussion of significance, implementation, and policy. Course project involves the development of small risk analysis model.
ENV	6666	Aquatic Chemistry	3	EN	EGX	PR: CI.	An introduction to the form, structure, and chemical activities of the important processes essential to treatment of domestic and industrial wastewater.
ENV	6667	Environmental Biotechnology	3	EN	EGX	PR: CI.	Study of biochemical relations and processes in treatment of pollutants with emphasis on control of effluents for the protection of water quality. CI.
ENY	5505C	Aquatic Entomology	4	AS	BIN	PR: ENY 3004C and CHM 2210 and MAC	Taxonomy, development, and ecology of aquatic insects with emphasis on

						1105 or higher-level MAC course or STA 2023 and CI. CP: PCB 3023 or PCB 3043 or PCB 3063 or PCB 3712 and CHM 2211.	local forms. Fieldwork required. Lecture and Laboratory.
EPD	5051	Advanced Theories in Motor and Physical Disabilities	3	ED	EDS	PR: EEX 4012 or DPR.	Biological and functional aspects of motor and physical health disabilities, including dysfunctions in central nervous system covering motor, sensory, language and psychological disorders.
EPD	5321	Educational Strategies for Physically and Multi-handicapped Students	3	ED	EDS	PR: EPD 5051.	Educational management of students with cerebral palsy, motor disabilities and multihandicapped conditions including rehabilitation and other community services.
EPD	6944	Supervised Practicum in Motor Disabilities	3-12	ED	EDS	PR: EEX 4012 or CI. For students seeking certification only. S/U.	Supervised graduate practicum encompassing teaching and supervising experiences in public/private educational or vocational programs for students with physical disabilities in the classroom, hygiene, and educational implications.
ESE	5342	Teaching the Adolescent Learner	3	ED	EDI		Emphasis is placed on adolescent developmental and learning needs linking them to practices in the classroom appropriate to the diverse secondary education population (ESOL, special education, multicultural, at-risk, etc.) in preparation for planning responsive standards-based instruction.
ESE	5344	Classroom Management for a Diverse School and Society	3	ED	EDI		This course covers practical, theoretical, philosophical and ethical aspects of school and society, the education profession, and secondary schools with particular focus on classroom management, school violence, school safety, educational law and other critical social issues.
ESE	6215	School Curriculum: Secondary	3	ED	EDC	PR: EDG 4620, EDG 6627	Open to all education graduate students. Examines the organization, curriculum, and instruction of the secondary school with special emphasis on the nature of the students served.
ESE	6256	Problems In Curriculum Instruction: Secondary	1-3	ED	EDC	PR: EDG 4620, EDG 6627.	For teachers, supervisors, and administrators. Curricular and instructional problems of the secondary school. Common problems or problems of special interest to the participants. Normally, for certification requirements only.
ESE	6906	Independent Study: Secondary Education	1-6	ED	EDI	S/U.	Independent study in which students must have a contract with an instructor.
ESE	7220	Curriculum Frameworks in Teacher Education	3	ED	EDC	PR: Doctoral standing or permission of the instructor.	This course introduces and informs advanced graduate students about the conceptions of curriculum development related to teacher preparation, exploring topics related to the comprehensive process of certification, standards, governance,

							and accreditation.
ESE	7415	Teaching and Learning in the Content Area	3	ED	EDI	PR: Admission to Ph.D. program in College of Education or Permission of Instructor.	Examine aspects of sec reform movement & effect on various content fields associated with sec sch. Attention is given to motives for school reform, public policy issues associated, effect of reform, & how school reform movements affect teaching & learning.
ESE	7910	Directed Research in Secondary Education	1-19	ED	EDI	PR: CI.	Directed research under the direction of a faculty member in Secondary Education. Student must have contract with instructor.
ESI	5219	Statistical Methods For Engineering Managers	3	EN	EGS	Not open to students who have had EGN 3443.	Study of statistical methods applied to engineering management problems involving estimation and prediction under conditions of uncertainty.
ESI	5236	Reliability Engineering	3	EN	EGS	PR: ESI 5219 or equiv., majors only PR: EGN 3443 or equivalent.	Fundamental concepts of reliability. Estimation of reliability of systems and components. Measures of availability, maintainability and reliability.
ESI	5306	Operations Research For Engineering Management	3	EN	EGS	Not open to students who have had ESI 4312. ESI 5219 or equiv., majors only.	Linear programming, non-linear programming, queuing, inventory, network analysis.
ESI	5522	Computer Simulation	3	EN	EGS	PR: ESI 4521 or equiv., majors only.	Design of discrete and continuous simulation models. Model validation and verification. Statistical analysis of simulation model output.
ESI	6213	Stochastic Decision Models I	3	EN	EGS	PR: ESI 5219 or equiv.	Study of the theory behind the statistical techniques applied to the solving of engineering problems.
ESI	6225	Quality Assurance Plans	3	EN	EGS	PR: ESI 5219 or equiv., majors only	Advanced techniques in quality control systems. Includes study of articles in current journals.
ESI	6247	Statistical Design Models	3	EN	EGS	PR: ESI 5219 or equiv., majors only	Design of experimental mathematical models. Application of advanced analysis of variance techniques as applied to industrial problems.
ESI	6291	Special Topics in Statistics	3	EN	EGS	PR: CC, majors only.	Special topics in statistics related with research in engineering.
ESI	6324	Engineering the Supply Chain	3	EN	EGS	PR: ESI 4312 or equivalent.	The course will focus on the discussion of analytical optimization models and tools. To learn how logistical decisions impact the performance of a firm as well as an entire supply chain. To understand supply chain structures and logistical capacities.
ESI	6448	Integer Programming	3	EN	EGS	PR: EEL 6491.	The course will present the theory and algorithms of integer programming, with emphasis on its applications in engineering. The tentative topics include integer programming formulation and relaxation and decomposition algorithms.
ESI	6491	Linear Programming and Network Optimization	3	EN	EGS	PR: ESI 4312 or equivalent.	To provide students with the general theory and characteristics of linear programming, network flows and integer programming as well as effective solution algorithms that can be used to support effective decision

							making.
ESI	6555C	Topics in Automation	3	EN	EGS	PR: CC, majors only.	Study of recent advances in automated systems, automation concepts, control methods, numerical control, adaptive control.
ESI	6605	Engineering Date Mining	3	EN	EGS	PR: ESI 6247 or equivalent.	The course will present the theory and methods of data mining, with emphasis on applications in engineering. The topics include linear models, classification, smoothing and kernel methods, model selection and inference, and support vector machines, etc.
ESI	6906	Independent Study	1-19	EN	EGS	Majors only. S/U.	Independent study in which students must have a contract with an instructor.
ESI	6911	Directed Research	1-19	EN	EGS	PR: GR. ML, majors only. S/U.	
ESI	7911	Directed Research	1-19	EN	EGS	PR: GR. Ph.D. level, majors only. S/U.	
ESI	7980	Dissertation: Doctoral	2-19	EN	EGS	PR: Admission to Candidacy.	
EVR	6101	Geomorphology for Environmental Scientists	3	AS	ESP	PR: Introductory background in Geology or Physical Geography.	Course will explore the evolution of landscapes, natural processes that alter Earth's surface, and rates of change in the surficial environment. The course will emphasize topics relevant to environmental scientists in Florida - esp. soils, karst, & coasts.
EVR	6216	Advances in Water Quality Policy and Management	3	AS	ESP	PR: Graduate standing in EVR, ENV, GEO, GLY, GPY, PCB or PHC; or consent of instructor.	Conceptual structure and practical implementation of U.S. watershed-based water quality regulations and policies. Practical application of scientific information and quantitative methods in management/policy decisions for water quality protection.
EVR	6320	Environmental Management	3	AS	ESP	PR: Graduate Standing	This course introduces the students to environmental management from technical and non-technical perspectives. The major topics covered will be water and air quality, environmental sustainability, collaboration and building consensus.
EVR	6408	Wildlife Ecology	3	AS	ESP	PR: Graduate standing. Undergraduate students may enroll under co-listed undergraduate number.	Population ecology, animal behavior, food resources, habitat resources, wildlife diseases, predation, competition, wildlife and water, wildlife and soils, hunting and trapping, exotic wildlife, urban wildlife, and conservation.
EVR	6921	Scholarly Presentation of Environmental Research	1-2	AS	ESP	PR: Advanced standing in ESP Department Masters program. CR: EVR 6971 or consent of instructor.	Discussion and practice in methods of writing, presenting, and defending cross-disciplinary environmental research. Written and oral assignments on communicating research objectives, methods, results, theory, and analysis of policy relevance.
EVR	6922	ESP Capstone Seminar	3	AS	ESP	PR: Departmental approval required.	A capstone graduate course that integrates issues related to science, policy and management in making

							decisions. Each semester, the program selects an environmental issue to serve as a case study. Some anticipated themes include global warming, water quantity and quality, air pollution and restoration.
EVR	6930	Research Colloquium in Environmental Science and Policy	1	AS	ESP	PR: Graduate standing in Environmental Science and Policy or consent of instructor.	Scholarly presentations by invited academic researchers and leading policy decision-makers.
EVR	6936	Seminar in Environmental Science	3	AS	ESP		A seminar course that reviews a major theme or themes in environmental science that integrates knowledge and research from various scientific disciplines.
EVR	6937	Seminar in Environmental Policy	3	AS	ESP	PR: Graduate standing in EVR, ENV, GEO, GLY, GPY, PCB, or PHC; or consent of instructor.	Critical assessment of environmental policy and regulatory formulation, implementation, evaluation, and revision in the context of scientific, technological, institutional, political, social and economic factors; case studies of major U.S. policies.
EVR	6971	Thesis: Master's	2-19	AS	ESP	PR: CC. S/U	
EVR	7921	Doctoral Dissertation Preparation	3	AS	ESP	PR: Graduate standing and consent of instructor.	This course will assist students in developing dissertation topics; to think creatively about their topics; to draft a dissertation proposal and a dissertation outline. Students should register for either EVR or GEO 7921 depending on his/her subject area.
EVR	7980	Doctoral Dissertation Research	2-15	AS	ESP	PR: Accepted into the GEP Doctoral program; EVR 7920 is completed by all students that designate Environmental Science and Policy as their subject area; and permission of the student's major professor.	The dissertation is an original contribution to scholarship. The research is performed under the guidance of the major professor, which determines how many dissertation hours are completed (maximum 42 hours).
EVT	6500	Individualized Instruction	3	ED	EDV		Emphasis given to individualized instruction to include the special needs student, the slow learner, and the more capable student.
EVT	6504	Placement of Severely Handicapped People	3	ED	EDV		A study of the purpose, methods, processes, and procedures used to plan, implement, and operate a Vocational Rehabilitation Cooperative School Counseling Program.
EVT	6769	Methods, Procedures, and Processes of Vocational Evaluation	3	ED	EDV		A study of the purposes, methods, processes and procedures used to plan, implement, and operate a vocational evaluation program.
EVT	6971	Thesis: Masters/Educational Specialist	2-19	ED	EDV	S/U. Ma/Des Candidates only.	
EVT	7155	Career Development in Vocational, Technical, and Adult education	3	ED	EDV	PR: Preliminary admission to the advanced Graduate Program and CI.	Development of a career model designed to facilitate career development of students and articulate vocational education and career guidance.
EVT	7761	Research Seminar In	3	ED	EDV	PR: Completion of	Examination and critical evaluation of

		Vocational, Technical, And Adult Education				program requirements in measurement and research or DPR. Available to majors only.	research in a particular specialization area of Vocational, Technical, or Adult Education. Preparation of an individual research prospectus.
EXP	6307	Motivation and Emotion	3	AS	PSY	PR: CI.	A detailed examination of human motivation and emotion from both the physiological and psychological viewpoints.
EXP	6526	Human Memory	3	AS	PSY	PR: Admission to graduate program in Psychology or CI.	Review of methods, findings, and theoretical interpretations associated with the acquisition and retention of information.
EXP	6608	Cognitive Psychology	3	AS	PSY	PR: Admission to graduate program in Psychology or CI.	A survey of the research and theory dealing with higher memory, language, and the higher mental processes. Core requirement for all graduate students in Psychology.
EXP	6643	Psychology of Language	3	AS	PSY	PR: GS.	Historical survey of relations between psychology and linguistics leading to the emergence of psycholinguistics as a field of study. Current status of theory and research in the field.
EXP	6930	Topics in Experimental Psychology	3	AS	PSY	PR: CI.	Electrophysiological methods and psychophysiology.
EXP	7099	Graduate Seminar in Experimental Psychology	1-3	AS	PSY	PR: CI.	Seminars on topics, such as learning, perception, memory, cognitive processes, and quantitative methods.
FIL	5469C	Cinematography	4	TA	ART	PR: PGY 4520C.	Advanced studio work using black and white, color and sound as technical and aesthetic factors in visual, artistic productions.
FIN	6246	Advanced Money and Capital Markets	3	BU	FIN	PR: ECO 6204	The study of the role of financial markets, instruments, and institutions in the economy. It includes the study of flow of funds, interest rate determination, and the pricing of capital assets.
FIN	6326	Bank Management	3	BU	FIN	PR: FIN 6406	Theory, policy and practice of commercial bank management with emphasis on strategic issues and decision making in an expanding financial services environment.
FIN	6406	Financial Management	3	BU	MBA	PR: ACG 6025 and ECO 6114	The study of processes, decision structures, and institutional arrangements concerned with the acquisition and utilization of funds by a firm. The course includes the management of the asset and liability structures of the firm under both certainty and uncertainty.
FIN	6416	Advanced Financial Management	3	BU	FIN	PR: FIN 6406 or equivalent.	A synthesis of the theory and the practice of corporate finance. Particular attention is given to the role of the agency problems and agency cost in explaining why the observed consequences of financial decisions often deviate from those predicted by traditional theory.
FIN	6418	Working Capital Management	3	BU	FIN	PR: FIN 6406	This course is designed to provide the student with an understanding of short-term financial management which includes decision making concerning sources and uses of cash flows to support short-term

							operations.
FIN	6425	Financial Policy	3	BU	FIN	PR: FIN 6406 or CI	A case study approach to financial policy and strategy with emphasis on the firm's major financial decisions.
FIN	6515	Investments	3	BU	FIN	PR: FIN 6406, CC	An examination of the risks and returns of alternative investment media within the framework of various valuation models. Special attention is given to the investment process and the criteria for investment decisions.
FIN	6605	International Financial Management	3	BU	FIN	PR: FIN 6406 or equiv., CC	The course provides a foundation for the understanding of financial management of international business. The subjects covered relate to: international finance, multinational business finance, and financial market theory.
FIN	6804	Theory of Finance	3	BU	FIN	PR: FIN 6406 or CI	A systematic and rigorous course in the theory of finance. Topics will include the theory of choice and the allocation of financial resources, the theory of optimal investment decisions and the theory of risk and uncertainty in financial decisions. It will also cover the theoretical concepts underlying financing decisions and the cost of capital.
FIN	6906	Independent Study	Var.	BU	FIN	PR: CC. S/U.	Students must have a contract with an instructor.
FIN	6915	Directed Research	Var.	BU	FIN	PR: GR, ML, CC. S/U.	
FIN	6934	Selected Topics in Finance	1-4	BU	FIN	PR: GS and CI.	Depending upon the scope and magnitude of the work required. Includes special lecture series.
FIN	7808	Advanced Micro Finance	3	BU	FIN	PR: FIN 6406, FIN 6804, ECO 6424 or Departmental approval.	The study of advanced theoretical and empirical works in finance primarily relating to financial decisions at the level of the firm.
FIN	7817	Financial Markets	3	BU	FIN	PR: FIN 6246, FIN 6515, or Departmental approval.	The study of advanced theoretical and empirical works in finance primarily relating to financial institutions and markets.
FIN	7930	Selected Topics in Finance	3	BU	FIN	PR: FIN 7808, QMB 7566, or Departmental approval.	A study of selected topics of current issues on the frontiers of financial thought.
FIN	7935	Finance Research Seminar	3	BU	FIN	PR: One semester of FIN 7930.	Theoretical and/or empirical research on finance related problems. This course will require research papers to be written and presented. It is designed to aid the student in developing a thesis and the research methodology necessary for the doctoral dissertation.
FIN	7980	Dissertation	2-19	BU	FIN	PR: Admission to Candidacy.	
FLE	5145	Language Principles, Acquisition and Teaching	3	ED	EDX	PR: FLE 5345	Restricted to Education majors and not repeatable for credit. Overview of applied SLA theory and components of language. Methods & techniques of comprehensible instruction and the development of oral proficiency

							and literacy skills for LEP children.
FLE	5291	Technology in the Foreign Language Classroom	3	ED	EDX	PR: FLE 5313 and FLE 5331.	This course is intended to prepare foreign/second language teachers to provide pedagogically sound and technologically enhanced instruction for foreign language and second language students in the K-16 realm. Basic computer literacy is recommended.
FLE	5313	Methods of Teaching Foreign Language and ESOL in the Elementary School	3	ED	EDX		This course is designed to provide training in the theory and methods of teaching foreign languages and ESOL in the elementary school (FLES) to both pre- and in-service teachers.
FLE	5331	Methods of Teaching Foreign Language and ESOL in the Secondary School	3	ED	EDX	PR: FLE 5313.	This course provides for the development of knowledge and skills necessary to prepare students to assume roles as foreign language (FL) and ESOL teachers at the secondary school level. It represents the second part of a sequence of methods courses.
FLE	5345	Teaching English Language Learners K-12	3	ED	EDX		This course is restricted to Education majors and is not repeatable for credit. It is designed to prepare preprofessional teachers to provide linguistically and culturally appropriate instruction, assessment, and learning opportunities for LEP students.
FLE	5366	ESOL Education in Content Areas	3	ED	EDX		Enables participants to meet the special linguistic & cultural educational needs of limited English proficient (LEP) students in content area classes. Provides a theoretical & practical foundation for ESOL competencies in courses include ESOL infusion.
FLE	5895	Dual Language Education	3	ED	EDX		This course is for teachers who are interested in bilingual education. The aim is to deconstruct the philosophical, theoretical, political, social and educational underpinning of instruction (K-16) when it is delivered through two languages.
FLE	5946	Practicum in Foreign Language/ESOL Teaching	3	ED	EDX	PR: FLE 5313. CR: FLE 5331.	This course prepares students for their internship by providing a structured pre-internship experience while meeting regularly in a university class. Opportunity to see teachers in action.
FLE	6167	Cross-Cultural Issues in Teaching ESOL	3	ED	EDX		Designed for K-12 & adult educ environment to help participants develop awareness & understanding of the major cultures represented by the different language groups within the State of Florida (teach cultural awareness & cross-cultural understanding).
FLE	6371	Instruct Methods and Strategies for Teaching ESOL	3	ED	EDX		Effective use of ESOL methods and strategies. Conceptual focus of this course is based on the teacher as self-directed, reflective practitioner and problem solver who is able to facilitate learning and change within

							diverse populations and environments.
FLE	6434	Assessment and Progress Management for Teaching ESOL	3	ED	EDX		Designed to develop knowledge 7 skills necessary to prepare students to select, adapt, design assessment instruments & testing techniques reflective of instructional goals & needs of linguistically & culturally diverse students in ESOL or mainstream class.
FLE	6665	Current Trends in Secondary Foreign Language Education	3	ED	EDX	PR: FLE 4314/FLE 4333 or teaching experience. Fluency in the target language and in English.	Designed for experienced classroom teachers, theoretical and practical implications of recent programs and methodology. Instructional practices in the teaching of foreign languages. Individual projects.
FLE	6829	Graduate Instruction Methods	1-4	ED	EDX	PR: CC. S/U only.	Special course to be used primarily for the training of graduate teaching assistants.
FLE	6906	Independent Study in Foreign Language Education	1-6	ED	EDX		Independent Study in which students must have a contract with an instructor. Rpt. S/U
FLE	6932	Selected Topics in Second Language Acquisition	3	ED	EDX	PR: Approval of graduate advisor.	This course would provide a flexible format to offer specialized courses in second language acquisition not available in the regular curriculum. This would allow faculty to address issues at the frontiers of the field in second language acquisition. Repeat as topics vary
FLE	6947	Internship	6	ED	EDX	PR: CI.	Provides students with an extended school-based experience, under the guidance of a cooperating teacher and university supervisor, for a full semester at or near the end of their graduate program. Open to graduate degree candidates only. S/U (PR: CI)
FLE	7939	Advanced Seminar in Foreign Language Education	3	ED	EDX	PR: FLE 6665	Advanced readings and discussion of theories, perspectives and issues in foreign/second language education from K-20, including examination of current practices, action research, accreditation, certification, teacher development, and assessment in the field.
FOL	5906	Directed Study	1-3	AS	WLE	PR: FOL 4101 or equivalent.	
FOW	6805	Bibliography	1	AS	WLE	S/U.	Research methods. Includes familiarity with major journals and bibliographies, with a practicum.
FRE	5425	Advanced Written Expression	3	AS	WLE	PR: FRE 4421, or equivalent.	Course is designed to give advanced training in free composition in French.
FRE	5566	Contemporary France	3	AS	WLE	PR: FRE 3500 or equivalent or graduate standing.	An advanced course in French civilization and culture including a study of recent social, artistic and political trends as well as various current intellectual movements. Text and discussions in French.
FRE	6910	Directed Research	1-19	AS	WLE	PR: GR. ML, CC. S/U. Departmental approval required.	
FRE	6971	Thesis: Master's	2-19	AS	WLE	PR: CC. S/U. Departmental approval required.	
FRW	5222	Classical Prose and	3	AS	WLE	PR: FRW 4101.	Emphasis on Malherbe, Descartes,

		Poetry					Pascal, La Fontaine, and Boileau.
FRW	5226	20th Century Poetry and Theatre	3	AS	WLE	PR: FRW 4101.	Valery, Claudel, Anouilh, Motherland, Sartre, Ionesco.
FRW	5286	The 20th Century Novel	3	AS	WLE	PR: FRW 4100.	Proust, Gide, Mauriac, Malraux, Camus, Robbe-Grillet.
FRW	5314	Classical Drama	3	AS	WLE	PR: FRW 4101.	Corneille, Moliere, and Racine.
FRW	5415	Literature of the Middle Ages	3	AS	WLE	PR: FRW 4100 or FRW 4101.	Major genres, including epics, Arthurian romances, drama and lyric poetry. Reading in modern French translation.
FRW	5425	Literature of the Renaissance	3	AS	WLE	PR: FRW 4100 or FRW 4101.	A study of Renaissance French humanism including Rabelais, Montaigne, and Pleiade poets.
FRW	5445	18th Century Literature	3	AS	WLE	PR: FRW 4100.	The classical tradition and the new currents of thought in the Age of Enlightenment.
FRW	5528	Pre-Romanticism	3	AS	WLE	PR: FRW 4100 or FRW 4101.	The precursors of romanticism. Emphasis on Rousseau, Bernardin de St. Pierre, Chenier, and Chateaubriand.
FRW	5535	Romanticism and Early Realism	3	AS	WLE	PR: FRW 4101.	A study of the romantic and early realistic movements with emphasis on Lamartine, Vigny, Musset, Hugo, and Balzac.
FRW	5556	Naturalism and Realism	3	AS	WLE	PR: FRW 4100 or FRW 4101.	A detailed study of realism and naturalism with emphasis on Flaubert, Zola, les Goncourt, Maupassant, and Daudet.
FRW	5745	French Literature of Quebec	3	AS	WLE	PR: A survey of Francophone literature and cultures is recommended.	Overview of the main representative literary works in French from Quebec in all genres (poetry, drama, novel, short story) as well as a survey of the main traits of Quebec history & culture. Open to non-majors. Not repeatable for credit. Taught in French.
FRW	5755	African and Caribbean Literature	3	AS	WLE	PR: A survey of French literature.	An overview of the main representative literary works in French from North and SubSahara Africa as well as the Caribbean. Open to non-majors and not repeatable for credit. Course taught in French.
FRW	5829	An Introduction to Modern French Literary Criticism	3	AS	WLE		A graduate elective 3 credit course entirely taught in French, which offers a survey of the main trends and methods in 20th Century literary criticism, the French having been at the avant-garde of the field.
FRW	5934	Selected Topics	1-3	AS	WLE	PR: Upper-level or graduate standing.	Study of an author, movement or theme.
FRW	6315	Seminar on Classical Drama	3	AS	WLE		An in-depth study of the works of one or more of the following dramatists: Corneille, Racine, or Moliere.
FRW	6405	Old French	3	AS	WLE		An introduction to the Old French language and literature. Readings from representative texts.
FRW	6938	Graduate Seminar	3	AS	WLE		Topics vary.
GEA	6195	Seminar in Advanced Regional Geography	3	AS	GPY	PR: GS in Geography.	Analytic study of a selected region of the world.
GEA	6215	Seminar in North American Geography	3	AS	GPY	PR: GS in Geography or CI.	Advanced survey of historical and contemporary issues in North American geography including: west and non-west exchange, revolutionary transformation, nation-building, regional disparities, and

							continental relations among states.
GEA	6252	Seminar in the Geography of the American South	3	AS	GPY	PR: GS in Geography or CI.	Intensive examination of regional geographic studies and their application to the American South, including concepts related to the physical and cultural landscapes, economic growth and change, urbanization, and cultural diffusion processes.
GEA	6406	Seminar in Latin American and Caribbean Geography	3	AS	GPY	PR: GS in Geography or CI.	Readings and discussions organized around an examination of regional and systematic analysis of selected topics of Latin American and Caribbean geography. Emphasis is on combining physical and cultural analysis of this region.
GEA	6504	Seminar in European Geography	3	AS	GPY	PR: GS in Geography or CI.	Readings and discussions organized around an examination of regional and systematic analysis of selected topics of European Geography. Emphasis is on combining physical and cultural analysis of this region.
GEA	6745	Asian Geography Seminar	3	AS	GPY	PR: GS in Geography or CI.	Analysis of regional divisions and spatial variations within Asia. Examines the significance of Asia in the global context. Focus on political, economic, cultural, and historical geographies, including development, environment, religion, and gender.
GEB	6115	New Venture Formation	3	BU	MBA	PR: ACG 6025, MAR 6815, or CI.	An introductory entrepreneurship course. Students learn to develop venture ideas, evaluate venture opportunities and understand financial, marketing, and managerial needs of a venture.
GEB	6116	Business Plan Development	3	BU	MBA	PR: ACG 6025, MAR 6815, or CI.	Course is designed to enable students to prepare and present a business/venture plan. Students can prepare a plan for their own venture or a "client organization."
GEB	6117	Consulting Field Project	3	BU	MBA	PR: ACG 6025, MAR 6815 or CI.	Student will be teamed with an entrepreneurial organization and will learn to prepare a business plan, feasibility study, strategic marketing plan or some other work agreed upon by client, student and instructor. Third course in entrepreneurship Track.
GEB	6445	Social, Ethical, Legal Systems	2	BU	MBA	PR: GS.	A study of the influence of social, cultural, legal, and political environment of institutional behavior, including the changing nature of the business system, the public policy process, corporate power, legitimacy and managerial autonomy, and organizational reactions to environmental forces.
GEB	6895	Integrated Business Applications I	3	BU	MBA	PR: CC.	Part I of advanced study of business decision-making processes under conditions of risk and uncertainty, including integrating analysis and policy formation at the general management level.
GEB	6896	Integrated Business Applications II	3	BU	MBA	PR: GEB 6895.	Part II of advanced study of business decision-making processes under

							conditions of risk and uncertainty, including integrating analysis and policy formation at the general management level.
GEB	6930	Selected Topics	3	BU	MBA	PR: GS.	The content and organization of this course will vary depending on student demand and faculty interest.
GEB	6949	Consulting Field Project	3	BU	GBA	PR: ACG 6025; MAR 6815 or CI.	Student will be teamed with an entrepreneurial organization and will learn to prepare a business plan, feasibility study, strategic marketing plan or some other work agreed upon by client, student and instructor. Third course in Entrepreneurship Track.
GEB	6971	Thesis: Master's	1-19	BU	MBA		
GEO	6058	Geographic Literature and History	3	AS	GPY	PR: Senior or graduate standing in geography, or CI.	The origins and development of the discipline as revealed through an examination of the principal written sources. Special attention paid to leading personalities and modern periodicals.
GEO	6115	Advanced Field Techniques	3	AS	GPY	PR: GS in Geography or CI.	Field examination of one region. Students will complete field work in human and physical geography in a selected area.
GEO	6116	Perspectives on Environmental Thought	3	AS	GPY	PR: GEO 6058 or CI.	Analysis of the evolution of the major schools of environmental thought from antiquity to present-day green analysis, deep ecology, ecofeminism, and post-modern ecology.
GEO	6119	Geographical Techniques and Methodology	3	AS	GPY	PR: GS in Geography.	Analytic study of a technique or investigation into an aspect of methodology.
GEO	6166	Multivariate Statistical Analysis	3	AS	GPY	PR: GS in Geography or CI, GEO 3164C.	Examination of advanced statistical approaches used by geographers. Descriptive, spatial and inferential statistics and multi-variate analysis are highlighted.
GEO	6209C	Physical Geography Seminar	3	AS	GPY	PR: GS in Geography or CI	Analytic study of one or more topics from physical geography. Selected problems may include hydrology, physiography, meteorology, climatology, soils, vegetation, etc.
GEO	6215	Geomorphology Seminar	3	AS	GPY	PR: GEO 4372 or CI.	An advanced examination of geomorphic processes and landforms with an emphasis placed on concepts related to the formation and evolution of landscapes on a variety of scales.
GEO	6217	Karst Geomorphology	3	AS	GPY	PR: GS in Geography or CI.	An in-depth examination of the geomorphic aspects of karst landforms. The objectives, methods and results of karst geomorphic studies in which both field and laboratory analysis have been applied to geomorphic problems are reviewed.
GEO	6255	Weather, Climate and Society	3	AS	GPY		This course explores the societal impacts of weather as well as the human impact on weather and climate. Students lead and participate in discussions on topics

							such as weather hazards, extreme temperature and human physiology, historical civilization and extreme climate, economic value of forecasts, weather modification, urbanization and other land use change, anthropogenic aerosols, past and future climates.
GEO	6263	Soils Seminar	3	AS	GPY	PR: GEO 4372 or CI.	Examination of how earth systems influence soil formation and variation. Details analysis of soils climosequences, biosequences, toposequences, lithosequences, chronosequences, and anthrosequences.
GEO	6286	Advances in Water Resources	3	AS	GPY	PR: GS in Geography or CI.	Water resources policies are viewed from theoretical and practical perspectives focusing on management strategies in different physical and human environments.
GEO	6288	Hydrological Systems	3	AS	GPY	PR: GEO 4372 or CI.	A systematic approach to hydrology using the drainage basin as the fundamental unit of analysis is used to explore form and process, while modeling stream flows.
GEO	6345	Technological Hazards and Environmental Justice	3	AS	GPY		Examination of theories, debates, methods, and models that improve our understanding of human vulnerability to technological hazards and risks, with emphasis on issues of fairness and equity in the distribution and impact of hazards.
GEO	6347	Natural Hazards	3	AS	GPY	PR: GEO 4372 or CI.	Analysis of natural hazards integrating principles of physical, social, economic, political, and technical forces that affect extreme geophysical events.
GEO	6428	Seminar in Advanced Human Geography	3	AS	GPY	PR: GS in Geography, CI	Analytic study of a problem selected from aspects of the human landscape (urban, political, economic, population, settlement).
GEO	6475	Political Geography Seminar	3	AS	GPY	PR: GEO 4471 or CI.	Advanced investigation of geopolitical issues including: the human construction of territoriality, ethnic relations, the making of nations and states, the geopolitics of localities, and environmental policy making.
GEO	6545	Economic Geography Seminar	3	AS	GPY	PR: GEO 4502 or CI.	An intensive examination of selected issues in economic geography including: regional development and decline; spatial labor market trends; business locational analysis; and comparative economic policy.
GEO	6605	Contemporary Urban Issues	3	AS	GPY	PR: GEO 3602; GEO 4604; or CI.	Advanced survey of urban issues such as: industrial restructuring and urban development, inner-city ethnic relations, the geopolitics of urban governance, and urban culture.
GEO	6627	Site Feasibility Analysis	3	AS	GPY	PR: GS in Geography or CI.	A project-oriented geographic examination of urban real estate development and site feasibility practices. Hands-on course including concepts of real estate development patterns, urban growth, and site specific factors related to feasibility of

							specific developments.
GEO	6704	Advanced Transportation Geography	3	AS	GPY	PR: GEO 4114; GEO 4700; or CI.	Review of transportation issues and analysis, focusing on modeling and planning for flows of goods and people. Provides a hands-on approach to use of GIS for such analysis.
GEO	6908	Independent Study	1-19	AS	GPY	S/U.	Independent study in which students must have a contract with an instructor.
GEO	6918	Directed Research	1-19	AS	GPY	PR: GR. ML, CC. S/U.	
GEO	6944	Internship in Geography	3	AS	GPY	PR: GS in Geography, CC. S/U.	The internship in Geography is designed to provide students the opportunity to work in an appropriate governmental agency to gain practical field experience.
GEO	6947	Directed Teaching	1-6	AS	GPY	PR: GS, CI.	
GEO	6970	Geographic Research Design	3	AS	GPY	PR: Graduate standing and consent of instructor.	This course stresses conducting geographic research within the scientific method. It includes both quantitative and qualitative research. Specific topics include sample design, data collection, oral presentations, written proposals and a thesis.
GEO	6971	Thesis: Master's	2-19	AS	GPY	PR: CC. S/U.	
GEO	7021	Doctoral Dissertation Preparation	3	AS	GPY	PR: Graduate standing and consent of instructor.	This course will assist students in developing dissertation topics; to think creatively about their topics; to draft a dissertation proposal and a dissertation outline. Students should register for either EVR or GEO 7921 depending on his/her subject area.
GEO	7606	Seminar in Urban Environments	3	AS	GPY	PR: Graduate standing and consent of instructor.	This seminar will explore topics in the study of urban environments such as global restructuring, race and ethnic relations, and the geopolitics of urban policy, by way of readings, discussion, and research.
GEO	7980	Doctoral Dissertation Research	2-15	AS	GPY	PR: Accepted into the GEP Doctoral program; GEO 7920 (Doctoral Dissertation Preparation) is completed by all students in the program that designate Geography as their subject area; and permission of the student's major professor.	The dissertation is an original contribution to scholarship. The research is performed under the guidance of the major professor, which determines how many dissertation hours are completed (maximum 42 hours).
GER	5605	Goethe	3	AS	WLE		Selected novels, poems: Werther, Wahlverwandtschaften, Wilhelm, Meister, Westostlicher, Divan.
GER	5845	History of the German Language	3	AS	WLE		A diachronic approach to the study of the German language. The course traces the history and development of the language from Indo-European through Germanic, Old, Middle, and New High German.

GER	6060	German for Reading	3	AS	WLE		Designed to provide a reading ability in German that will support research in other disciplines.
GER	6908	Independent Study	1-19	AS	WLE	PR: CC. S/U.	Independent study in which student must have a contract with an instructor.
GEW	5475	20th Century Literature to 1945	3	AS	WLE		A study of major styles in German literature from 1900 to WW II with emphasis on Hauptmann, Schnitzler, Hofmannsthal, George Rilke, Kaiser, Heym, Trakl, Thomas Mann, Hesse, Kafka, Benn, Brecht.
GEW	5489	20th Century Literature: 1945 to Present	3	AS	WLE		Study of major trends in German literature since WW II with emphasis on Borchert, Frisch, Durrenmatt, Boll, Uwe, Johnson, Grass, Aichinger, Eich Enzensberger, Bachmann.
GEW	5515	The Enlightenment	3	AS	WLE		Selected dramas and critical writings by Lessing, Wieland, Kant.
GEW	5545	Romanticism	3	AS	WLE		Jenaer circle and Heidelberger circle; the late romantic period, the writers between Classicism and Romanticism.
GEW	5555	Realism	3	AS	WLE		Selected works by Grillparzer, Grabbe, Buchner, Hebbel, Heine, Immerman, Stifter, Keller, Meyer, Storm, Raabe, Hulshoff, and Morike.
GEW	5606	Faust	3	AS	WLE		Sources, form, content, and literary significance of Urfaust and Faust.
GEW	5615	Schiller	3	AS	WLE		Selected dramas, philosophical, and aesthetical writings.
GEW	5934	Selected Topics	1-3	AS	WLE	PR: Upper-level or graduate standing.	Study of an author, movement or theme.
GEY	5620	Sociological Aspects Of Aging	3	BC	GEY		Examines, within a sociological frame of reference, the interrelationships between the aged (or aging) and the structure and function of the social system and its major institutionalized subsystems.
GEY	5630	Economics and Aging	3	BC	GEY		Examines basic economic systems as they impact the aged. Emphasis is on applied aspects of economic planning, pensions, insurance, social security and other support systems.
GEY	5642	Perspectives on Death and Dying	3	BC	GEY		Study of the various psychological, medical, legal, and religious problems caused by dying and death, and how individuals and groups have responded in the past and present.
GEY	6206	Family Caregiving in Aging and Chronic Illness	3	BC	GEY		The course will address the mental and physical health consequences, cultural diversity issues, and stress process models of caregiving, as well as clinical and public policy interventions to assist family caregivers of adults with chronic illness.
GEY	6230	Principles of Health Care Risk Management and Patient Safety	3	BC	GEY		This course provides an overview of the various aspects of health care risk management and how the risk varies by health care setting. Case studies and exercises provide students with "real world" situations they are likely to encounter.
GEY	6321	Gerontological Case Management	3	BC	GEY		This course examines the function of case management in meeting the

							care needs of the older adult. Elements of the case management process as well as ethical and legal issues in case management are covered. Not repeatable; not restricted to majors.
GEY	6325	Social Policy and Planning for Gerontologists	3	BC	GEY		This course is designed to provide an empirical and analytical base for understanding the major issues and trends involved in existing and proposed programs and services in the field of aging at local, state, and federal levels.
GEY	6326	Geriatric Interdisciplinary Team Training	3	BC	GEY		This course addresses the importance of interdisciplinary teams in today's health care and social service delivery systems for older adults. Issues include formation of teams, critical issues of aging, team care plans, and monitoring team functioning.
GEY	6340	Housing for the Elderly	3	BC	GEY		Major issues and aspects of conventional and planned housing for the elderly. Several field trips will be taken.
GEY	6402	Statistical and Qualitative Methods in Aging Research	3	BC	GEY		The major goal of this course is to deliver fundamental quantitative and qualitive research concepts that are useful in aging research. Other goals include hands-on exposure to secondary data analysis.
GEY	6403	Multivariate Statistical Analysis for Aging Research	3	BC	GEY		This course will give students experience with many of today's advanced statistical techniques. Primary emphasis will be on the description of these methods of analysis, situations in which their application is most appropriate, and hands-on experience.
GEY	6450	Gerontological Research and Planning	3	BC	GEY	PR: CI.	Social research and planning methods in the field of gerontology. Directed to the consumers of research findings-person whose positions call for the ability to interpret, evaluate, and apply the findings produced by others.
GEY	6461	Retirement and Long Term Care Housing for Elderly	3	BC	GEY		This course will focus on population trends, housing and environment theory, need and availability of affordable housing with services, adapting homes for elders, and a number of age-related housing solutions. Not restricted to majors; not repeatable.
GEY	6500	Seminar in Principles of Administration	3	BC	GEY		This course deals with management problems and practices in the administration of institutions in the field of aging. Consideration is given to federal and state legislation, the management of people, and fiscal management.
GEY	6600	Human Development and Aging	3	BC	GEY		Normal aging, change and basic psychological processes will be examined from a human development perspective. Emphasis will be on middle aged and older

							adults in relation to Life Cycle Changes and Counseling Approaches.
GEY	6607	Alzheimer's Disease Management	3	BC	GEY		This course will provide instruction on effective approaches for providing care to persons with Alzheimer's disease and related disorders, successful behavior management, and operating a dementia program. Not restricted to majors; not repeatable.
GEY	6613	Physical Change and Aging	3	BC	GEY		Common, normal and pathological physical changes associated with aging will be discussed as they affect behavior. Aspects of physical and mental illness and pharmacology with gerontological relevance will be surveyed.
GEY	6614	Aging and Mental Disorders	3	BC	GEY		Examination of the basic principles of abnormal psychopathology and basic concepts of psychopathology. Major theories about behavior and behavior change will be explored. Common gerontological mental health issues will be studied with particular focus upon adjustment to change and loss.
GEY	6615	Psychopathology and Aging II	3	BC	GEY		A continuation of Psychopathology and Aging I. It familiarizes the student with the psychopathology of aging. Major topics in the DSM-IV will be covered.
GEY	6616	Mental Health Assessment of Older Adults	3	BC	GEY	PR: GEY 6614 or CI.	Designed to provide the mental health counselor with a basic understanding of evaluation principles and the application of assessment approaches to older adults.
GEY	6617	Gerontological Counseling Theories and Practice	3	BC	GEY	PR: GEY 6614 or CI.	Examination of mental health treatment modalities and approaches to counseling with older adults. Personality theories and their relationship to counseling will be included emphasizing the development of a treatment plan through the integration of assessment data.
GEY	6618	Gerontological Group and Family Counseling	3	BC	GEY	PR: GEY 6614 or CI.	An advanced course directed at clinical practice with older adults. Appropriate techniques and skills will be integrated with models of psychotherapy, counseling, and personality development. Primary focus will be on intervention with groups, families, and couples.
GEY	6626	Health, Ethnicity, and Aging	3	BC	GEY		This course addresses aging among diverse racial and ethnic populations, cultural competency and health disparities inaccess to and utilization of services among persons from diverse racial and ethnic populations. Not restricted to majors; not repeatable.
GEY	6627	Women and Aging	3	BC	GEY		The purpose of this course is to examine older women's lives from a feminist perspective. Factors such as longer life expectancy and gender

							differences in health trajectories result in a disproportionate share of older women in the United States.
GEY	6643	End of Life Care for Dementia Patients	3	BC	GEY		This course addresses progressive degenerative dementias: Alzheimer's disease, dementia with Lewy bodies, vascular and fronto-temporal dementia, and will address treatment, medical, ethical and legal questions. Not restricted to majors. Not repeatable.
GEY	6646	Gerontological Issues and Concepts	3	BC	GEY		This course presents the concepts, theories, and issues relevant to our aging society. Emphasis will be placed on generalized knowledge of the aging process, and implications for the individual, family, government, and society in general. Students will engage in spirited debate and gain important background that will prepare them for their other graduate work in Gerontology. Social Work, and related fields.
GEY	6647	Ethical and Legal Issues in Aging	3	BC	GEY		A consideration of major ethical and legal issues in aging and their implications for policies, priorities, and services.
GEY	6901	Directed Reading	1-4	BC	GEY	PR: CI. S/U.	A reading program of selected topics under the supervision of a faculty member.
GEY	6910	Directed Research	1-4	BC	GEY	PR: CI. S/U.	
GEY	6934	Special Topics In Gerontology	3	BC	GEY		Courses on topics such as preretirement, mental health, human services organization, and senior center administration.
GEY	6940	Field Placement	1-6	BC	GEY	PR: CI. S/U.	An internship in an agency or organization engaged in planning or administering programs for older people of in providing direct services for older people.
GEY	6941	Field Placement in Mental Health	1-6	BC	GEY	PR: GEY 6616, GEY 6617 and GEY 6618 or CI.	A highly structured supervised counseling experience providing mental health services to older adults.
GEY	6971	Thesis: Master's	2-19	BC	GEY	S/U.	
GEY	7404	Ph.D. Seminar in Grant Writing	3	BC	GEY		This course is designed as a seminar for doctoral students pursuing a research career requiring outside funding for their research. Skills practiced include literature search, preparation of budgets, detail of research methods, and critique of proposals.
GEY	7602	Ph.D. Seminar in Health and Aging	3	BC	GEY		This doctoral seminar focuses on issues of physical and functional health in older adults, including acute and chronic conditions. Specific content will be different each time. Repeatable twice for credit.
GEY	7604	Biomedical Aging	3	BC	GEY		This course examines biomedical issues of aging, from the genetic to

							bodily systems levels. Emphasis is on cell structure, diseases of aging, cardiovascular, neurological, metabolic, and immune systems; diet/nutrition. Open to all majors; not repeatable.
GEY	7610	Psychological Issues of Aging: Interdisciplinary Perspective	3	BC	GEY		This course provides an overview of theory & research on individual human development and aging. Emphasis is on cognition, personality, psychopathology, stress and coping, care giving, and end-of-life issues. Open to all majors and not repeatable.
GEY	7611	Ph.D. Seminar in Mental Health	3	BC	GEY		This doctoral seminar focuses on issues of mental health in older adults, including issues like depression, anxiety, and psychopathology. Specific content will vary. Repeatable twice for credit.
GEY	7622	Ph.D. Seminar in Policy and the Elderly	3	BC	GEY		This course is designed to offer a comprehensive examination of the major public-policy issues generated by the health care needs of those ages 65 and older and the programs/institutions that have emerged to meet these needs.
GEY	7623	Social and Health Issues in Aging	3	BC	GEY		This is a doctoral level class that addresses both social and health aspects of aging. Emphasis is on social and family context in aging, health policies, long term care, and racial and ethnic diversity. It is open to all majors and is not repeatable.
GEY	7649	Population Aging	3	BC	GEY		PhD students in Aging Studies and others will develop an understanding of the causes/consequences of aging & its effects on the populations of the U.S. and the world. Emphasis is on demographic, social, political, and economic processes. Not repeatable.
GEY	7651	Ph.D. Seminar in Cognition	3	BC	GEY		This doctoral seminar focuses on issues of cognition in older adults, including learning and memory, and also addresses change and chronic conditions that affect them. Specific content will be different each time. Repeatable twice for credit.
GEY	7902	Directed Individual Study in Aging Studies	1-9	BC	GEY		An advanced reading program of selected topics related to interdisciplinary avenues of inquiry under the supervision of an aging studies faculty member. A written contract describing the requirements must be signed by the student and faculty member prior to registration.
GEY	7911	Directed Research in Aging Studies	1-19	BC	GEY		Research on selected topics in aging studies under the direct supervision of a member of the graduate faculty in aging studies.
GEY	7936	Proseminar in Aging Studies	1-10	BC	GEY		Reading and discussion of current topics, books, articles, and papers in aging studies. Examination of theory and research issues in the field of gerontology. Students develop their

							dissertation research topics, preliminary review of literature, and present their dissertation research proposals.
GEY	7980	Dissertation and Doctoral	2-12	BC	GEY	PR: Completion of Qualifying Examination, Admission to Candidacy.	
GIS	5049	GIS for Non-Majors	3	AS	GPY		An introduction to the concepts underlying digital thematic mapping and geographical information systems (GIS) for non-geography majors and non-geography graduate students.
GIS	5075	Global Positioning Systems	3	AS	GPY	PR: GIS 5049: GIS for Non-Majors or permission from the instructor.	Examination of the theory, operation and application of Global Positioning Systems (GPS).
GIS	6038C	Remote Sensing	3	AS	GPY	PR: GS in Geography or CI, GEO 4124C.	Study of digital image processing techniques. Topics include filtering techniques, geometric and radiometric normalization, and classification algorithms with emphasis on developing.
GIS	6039	Remote Sensing Seminar	3	AS	GPY	PR: GEO 5134C.	Analytic study of selected topics in remote sensing. Discussions around topics include data acquisition, sensor systems, multispectral and radar image analysis, change detection, and integration of remote sensing with GIS.
GIS	6100	Advanced Geographic Information Systems	3	AS	GPY	PR: GS in Geography or CI.	Spatial problem solving utilizing GIS mapping and statistical methods. The course is designed to give students hands-on experience in using computerized techniques for geographic analysis.
GIS	6103	Programming for GIS	3	AS	GPY	PR: GEO 6157 Advanced GIS or permission from instructor.	Examination of the concepts and techniques for customization of Geographical Information Systems (GIS) using object-oriented programming.
GIS	6112	Spatial Database Development	3	AS	GPY	PR: GEO 6157 Advanced GIS or permission from instructor.	Development and management of spatial data for use in a Geographic Information System (GIS), including creating, editing, modifying and validating spatial data.
GIS	6306	Environmental Applications of Geographic Information Systems	3	AS	GPY	PR: GEO 6157	Examination of GIS applications in agriculture, forestry, wildlife management, biodiversity conservation, environmental assessment, water resources, and pollution modeling. Use of advanced GIS analysis techniques relevant to the specific applications.
GIS	6307	GIS Seminar	3	AS	GPY	PR: GIS 6100 or CI.	Analytic study of selected topics in GIS. The course will familiarize students with case studies involving GIS applications in environmental studies, coastal modeling, and urban planning.
GIS	6355	Water Resources Applications of GIS	3	AS	GPY	PR: GEO 6157 Advanced GIS or permission from instructor.	Examination of GIS applications in water resources, including watershed analysis, pollution modeling, and water resources modeling. Use of advanced GIS analysis techniques

							relevant to the specific applications.
GLY	5752	Geological Field Excursion	2	AS	GLY	PR: Senior standing in geology or CI.	Lectures and 2-3 week field excursion to study regional geology, structure and lithogenesis of geologically complex terrain. Mapping and outcrop description techniques are emphasized. Destination of trip varies. Trip requires camping and vigorous physical activity. Lec.-field trip.
GLY	5865	Statistical Models in Geology	3	AS	GLY	PR: STA 2023 or equivalent or CI.	Application of statistical methods to geological problems. Emphasis on sampling plans, nature of geologic distributions, and application of analyses of variance to solving geological problems. Lec.
GLY	5932	Selected Topics in Geology	1-4	AS	GLY	PR: Senior or advanced junior standing.	Each topic is a course under the direction of a faculty member. All areas of geology included.
GLY	6075	Greenhouse-Icehouse Earth	3	AS	GLY		This course is designed to investigate the differences between green- and icehouse climates through an examination of both the data employed to reconstruct past climates and the impact these changes have had on the Earth System.
GLY	6156	Geology of North America	2	AS	GLY	PR: GS or CI.	Regional structure, stratigraphy, and history of North America.
GLY	6246	General Geochemistry	3	AS	GLY	PR: One year college Chemistry, CI.	Age, formation and evolution of the earth with application of basic chemical concepts and processes that govern the distribution of elements in geologic environments.
GLY	6248	Sedimentary Geochemistry	3	AS	GLY	PR: GLY 6246 or CI.	The geochemistry of fluid-rock interaction with emphasis on the diagenesis of sedimentary material.
GLY	6255	Tracer Geochemistry	3	AS	GLY	PR: GLY 6246 or CI; GLY 6285 strongly recommended.	The use of trace elements and isotopic ratios as tools for understanding geologic processes. The collection and interpretation of trace element/isotopic data. Lecture/Discussion/Lab.
GLY	6285C	Analytical Techniques in Geology	3	AS	GLY	PR: One year college Chemistry, GLY 4310 or CI.	Use and application of analytical methods including X-ray, atomic absorption, ICP/MS, TEM, SEM, and other geochemical techniques. Interpretation and statistical analysis of the data acquired. Lec/Lab.
GLY	6345	Sedimentary Petrography	3	AS	GLY	PR: GS or CI.	Classification, petrographic description and interpretation of sedimentary rocks including depositional environment and diagnoses. Lec./Lab.
GLY	6395C	Topics in Igneous and Metamorphic Petrology	2-4	AS	GLY	PR: GLY 3311C or equivalent, or CI.	Detailed study of selected igneous and/or metamorphic rock associations. Targeted sites will vary each semester. Modern methods of geochemical and mineralogical analysis (EPMA, ICP/DCP, XRD) will be employed. May be repeated up to 12 hrs. Lec/Lab.
GLY	6424	Global Tectonics	2	AS	GLY	PR: GS or CI	Development of the global tectonic hypothesis, global tectonic theory, and application of the theory in

							selected regions of the earth.
GLY	6475C	Principles of Applied Geophysics	4	AS	GLY	PR: One year of Physics or CI.	Elementary treatment of gravimetric, magnetic, electric, and seismic geophysical techniques as applied to resource exploration, site investigation, and mineral deposits. Lec/Lab. Field trips.
GLY	6492	Hydrogeology Internship Project	1-3	AS	GLY	PR: Enrollment in Hydrogeology Internship program; 24 hours of approved graduate courses.	Internship project in applied hydrogeology. Required for hydrogeology-internship MS program (minimum 3 hours).
GLY	6526	Advanced Stratigraphy	3	AS	GLY	PR: OCG 6656 or equiv. or CI.	Theory and practice of biostratigraphy of major microfossil groups. Emphasis on selected techniques of correlation. Detailed consideration of stratigraphic zonations, problems and limitations. Readings of current literature.
GLY	6573	Fluvial Hydrology and Geomorphology	3	AS	GLY	PR: MAC 2311 or the equivalent.	The course covers the mechanics of open channel flows, primarily to understand the potential energy available to do work, and the geomorphic responses to work, including channel initiation, sediment transport, and channel adjustment.
GLY	6575C	Coastal Sedimentation	3	AS	GLY	PR: GLY 4555 or equiv. or CI.	Study of modern coastal sedimentary environments with emphasis on beaches, inlets, deltas, estuaries, and marshes. Analysis of sedimentary process and resulting morphology of sediment bodies. Lec/Lab. Field trips.
GLY	6655	Topics in Paleobiology	3	AS	GLY	PR: GLY 3610 equiv., PCB 4674 or equiv. or CI.	Theory and practice of modern paleobiology including, consideration of diversity and extinction patterns, documentation and causes of trends, patterns, and causes of speciation, functional analysis and adaptation, tempo and mode in evolution, and the ecological context of evolutionary change.
GLY	6739	Selected Topics in Geology	1-4	AS	GLY	PR: CI.	Each topic is a course directed by a faculty member. All areas of geology are included.
GLY	6824	Ecohydrology	3	AS	GLY	PR: MAC 2311 or the equivalent.	This course covers hydrological processes along the atmosphere-plant-soil continuum and the ways in which hydrological processes control ecological structure and function.
GLY	6827C	Advanced Hydrogeology	4	AS	GLY	PR: GLY 4822, one year college calculus or CI.	Flow systems, analytical and numerical solutions to ground-water flow problems. Emphasis on the theoretical aspects of ground-water flow systems and their interaction with the geologic framework. Lec/Lab. Field trips.
GLY	6828	Ground-Water Geochemistry	3	AS	GLY	PR: One year of college Chemistry, GLY 4822, GLY 6246, or CI.	Chemical behavior of ground water. Includes interaction of water with aquifer materials, chemical effects of waste disposal, use of chemical tracers, and transport of hazardous chemicals. Methods of sampling and data interpretation are emphasized. Lec.
GLY	6836	Numerical Modeling of	3	AS	GLY	PR: GLY 6827C, or CI.	An advanced graduate course in

		Hydrogeologic Systems					numerical modeling of hydrogeologic systems. Topics include flow and mass transport, modeling, model calibration, model assessment. Current public domain computer codes are used, including MODFLOW, MT3D, MODPATH and LICODE.
GLY	6905	Independent Study	1-19	AS	GLY	PR: CC. S/U.	Independent study in which student must have a contract with an instructor.
GLY	6910	Directed Research	1-19	AS	GLY	PR: GR. ML, CC. S/U.	
GLY	6931	Graduate Seminar	1	AS	GLY	PR: CC. S/U.	
GLY	6933	Advanced Topics in Geology	2	AS	GLY	PR: GS.	Current topics in Geology.
GLY	6971	Thesis: Master's	2-19	AS	GLY	S/U.	
GLY	7912	Directed Research	1-30	AS	GLY	PR: GR. Ph.D. Level. S/U.	
GLY	7980	Dissertation: Doctoral	2-19	AS	GLY	PR: Admission to Candidacy. S/U.	
GMS	6001	Foundation in Biomedical Sciences	4-8	ME	MSG	PR: B.S./B.A. and admission into a Graduate Program at the University of South Florida. Instructor permission required for those not meeting these prerequisites.	A multidisciplinary course in the cellular, molecular, biochemical, and genetic basis of biomedical sciences, designed as a comprehensive first semester course for most incoming biomedical sciences graduate students.
GMS	6002	Success Skills in Biomedical Sciences	1	ME	MSG	PR: GMS 6091.	This course will introduce the beginning graduate student the tasks and skills necessary for success in the Biomedical Sciences PhD program, with a emphasis on ethical principles involved.
GMS	6012	Basic Medical Genetics	3	ME	MSG	PR: 1 yr. Biology; 1 yr. Chemistry.	The course examines fundamental aspects of genetics critical to understanding the mechanisms and inheritance patterns of genetic diseases relevant to human health including clinical, biochemical and molecular genetics, cytogenetics and genetic counseling.
GMS	6020	Neuroscience	5-6	ME	MSG	PR: CI.	An introduction into basic structure and function of the central nervous system. Emphasis is on an integrated approach that focuses on several levels of organization from molecular to cellular, from neural systems to behavior.
GMS	6058	Cancer Biology Lab Rotations	1-3	ME	MSG	PR: CI.	
GMS	6065	Advances in Cancer Research	2	ME	MSG	PR: CI.	Participants will read and orally present current breaking research. They will gain experience in critically evaluating research reports.
GMS	6066	Molecular Medicine	1 1	ME	MSG		A comprehensive introduction to molecular medicine with an emphasis on the integration of those aspects of biochemistry, cell biology and genetics that have immediate

							relevance to the understanding of various disease processes and their treatment.
GMS	6067	Current Topics in Molecular Medicine	1	ME	MSG	PR: Admission to Graduate Program in Biomedical Sciences or CC.	A Journal Club in which graduate students and faculty present recent research publications of importance to molecular medicine.
GMS	6069	Translational Biotechnology	3	ME	MSG	PR: BS in Biochemistry, Biology or Chemistry or CI.	The course teaches how the results of biological, biomedical and bioengineering research can be translated into applicable procedures and products and enhances the information via site visits to local non-profit and for-profit biotech institutions.
GMS	6091	Responsible Conduct in Research	1	ME	MSG		This course will introduce the beginning graduate to the principles of responsible conduct in research, and how decisions made on a daily basis in the life of a scientist depend on these core principles.
GMS	6092	Introduction to Behavioral Medicine	4	ME	MSG	PR: GMS 6066.	Behavioral Medicine is the study of factors influencing normal human behavior such as human development, family dynamics and reaction to illness. This course will examine how illness causes changes in behavior and a basic introduction to psychopathology.
GMS	6093	Clinical and Translational Mentored Research	1-12	ME	MSG	PR: CI.	Course facilitates Clinical and Translational research at USF. Restricted to majors. In class presentations by incoming and advanced students and professors with review and discussions to support students' research efforts. Repeatable: Total max 12 cr.
GMS	6094	Biomedical Ethics	3	ME	MSG		This course will focus on biomedical ethical issues in business, research, clinical care, and technology development in the Life Sciences and healthcare industries. There are no restrictions, may be taken for credit (3 credits) once.
GMS	6095	Principles of Intellectual Property	3	ME	MSG		This course focuses on the principles of intellectual property as related to protection of new technologies/products and will examine strategies using the legal structure of patents, copyrights, trademarks, and trade secrets. No restrictions or repeats.
GMS	6100	Medical Microbiology	3	ME	MSG		Lecture, directed literature readings, and discussion form the basis to instruct graduate and advanced undergraduate students in Medical Microbiology. The course will now cover pathobiology and molecular biology of medically important bacteria.
GMS	6101	Molecular and Cellular Immunology	3-4	ME	MSG	PR: Gen Biology, Organic Chem, Genetic(rec), Biochemistry(rec), Intro Immunology(rec).	Lecture, directed literature readings, and discussion form the basis to instruct graduate and advanced undergraduate students in development, function, regulation,

							pathobiology, and conduct of research in medically relevant immunity.
GMS	6102	Experimental Design and Analysis	3	ME	MSG	PR: B.S./B.A. and admission into the Ph.D. Program at the University of South Florida College of Medicine. Instructor permission required for those not meeting these prerequisites.	A focused course designed to introduce students to the scientific method, experimental designs, approaches, and analyses that are essential to the modern biomedical research scientist. The course is restricted to majors and is not repeatable.
GMS	6107	Advances in Virology	2	ME	MSG		Lecture, directed literature readings, and discussion form the basis to instruct graduate and advanced undergraduate students in Medical Virology. The course will now cover pathobiology and molecular biology of medically important viruses.
GMS	6141	Basic Medical Immunology and Microbiology	3	ME	MSG	PR: 1 yr. Biology; 1 yr. Chemistry.	The course focuses on the fundamental aspects of immunology and microbiology that are critical to understanding the nature of the immune response and identify the various microbiological agents that are relevant to human health and disease.
GMS	6183	Clinical Research Methods	3	ME	MSG	PR: General Biology (1 year), General Chemistry (1 year).	The course will provide a foundation for healthcare providers to pursue investigator-initiated clinical research. It is not restricted to majors or nonmajors and cannot be repeated for credit.
GMS	6200C	Biochemistry, Molecular and Cellular Biology	5	ME	MSG	PR: Admission to graduate program in medical sciences or CC.	The overall objectives of GMS 6200 are to provide students with a solid foundation of biochemical principles and a fundamental understanding of structures and processes of living systems at the molecular and cellular levels.
GMS	6201	Basic Medical Biochemistry	3	ME	MSG	PR: 1 year Biology; 1 year Chemistry.	The course examines fundamental aspects of biochemistry critical to understanding the chemical and cellular mechanisms relevant to health and disease including intermediary metabolism, enzymology and storage and transfer of genetic information.
GMS	6334	Pathobiology of Human Cancer	3	ME	MSG	PR: Pathology Departmental Approval.	Using tissue-related oncology topics that complement molecular biology & experimental therapeutics, this graduate course will provide the morphologic and biologic basis of human cancer. This course is not restricted and is repeatable for 3 credits.
GMS	6340	Laboratory Fundamentals and Adjunct Cancer Therapies	3	ME	MSG		This course presents an extensive review of clinical laboratory fundamentals as part of the disease diagnosis process together with discussions of the therapies designed to reverse adverse cellular functions and adjunct therapies for cancer management.
GMS	6400C	Core Physiology	4-	ME	MSG	PR: B.S. and permission	This course is designed to give the

			6			of instructor.	beginning graduate student an insight into the basic functions of the human body. This will be approached from molecular, cellular, organ system and total organism aspects.
GMS	6431	Cell Physiology	4	ME	MSG		Examine organelles and macromolecular complexes of eukaryotic cells with respect to structural and functional roles in major cellular activities. Emphasizes on experimental basis for factual knowledge in modern cell biology, discusses the validity of current concepts in relation to the regulation of cellular functions. Suitable for first and second year graduate students.
GMS	6440	Basic Medical Physiology	3	ME	MSG	PR: 1 yr. Biology; 1 yr. Chemistry.	The course presents a concise introduction to the study of human physiology from a perspective of the function of various human organ systems with an emphasis on understanding important concepts and their correlation to the practice of clinical medicine.
GMS	6441	Clinical Approaches to Endocrinology	3	ME	MSG		The course focuses on the function of the human endocrine system and examines factors influencing hormone function and physiological hormone balance. Clinical approaches to achieve hormone homeostasis are emphasized including hormone replacement therapy.
GMS	6451	Nutrition and Metabolism	3	ME	MSG		The course provides a discussion of the experimental analysis of human nutrition and the methods used in detoxification of exogenous toxins together with a critical analysis of the roles of fatty acid and amino acid metabolism in organ homeostasis.
GMS	6452	Clinical Nutrition	3	ME	MSG	PR: Undergraduate courses in biology and chemistry	A course that is designed to provide a thorough foundation in all aspects of human nutrition and which emphasizes the close relationship between nutrition and various chronic diseases and includes obesity, weight management and life-cycle nutrition.
GMS	6453	Functional Approach to Diabetes and Coronary Heart	3	ME	MSG		The course examines specific aspects of diabetes and coronary heart disease critical to understanding factors that result in degraded cardiovascular tone and the cellular mechanisms that control carbohydrate metabolism and their role in various diseases.
GMS	6454	Functional Medicine and Infectious Disease	3	ME	MSG		This course covers advanced human nutrition together with the utilization of various botanical supplements that have been applied to metabolic and nutritional medicine. A functional approach to infectious diseases will also be explored.
GMS	6455	Clinical Intensives in Metabolic and Nutri. Medicine	3	ME	MSG	Courses in Metabolic and Nutritional Medicine concentration	The course focuses on the applied aspects of metabolic and nutritional medicine, including extensive patient

							contact and mentoring from qualified clinical experts, to provide practical experience to improve the clinical skills of the practitioner.
GMS	6461	Systems Physiology and Pharmacology	5	ME	MSG	PR: GMS 6001 OR equivalent Cell and Molecular Biology course OR Instructor approval; CR: None required - recommend Graduate Neuroscience (GMS 6020)	This course will serve as an introduction into human physiology and pharmacology, emphasizing systemic function. The course is not restricted to majors, and is not repeatable.
GMS	6503	Methods in Pharmacology	2-6	ME	MSG		This course is designed to familiarize students with selected research methods in pharmacology by participation in laboratory exercises designed and supervised by the faculty.
GMS	6505	Basic Medical Pharmacology	3	ME	MSG	PR: 1 yr. Biology; 1 yr. Chemistry.	The course presents a concise introduction to human pharmacology, emphasizing an understanding of the pharmacology principles that govern interaction between drugs, xenobiotics and humans and the relationship to modern medical diagnostics and therapy.
GMS	6512	Ion Channel Pharmacology and Disease	3	ME	MSG		This course is designed to familiarize students with the role of ion channels in the genesis of pathophysiological conditions and how these proteins may be targeted for therapeutic intervention.
GMS	6513	Principles of Pharmacology and Therapeutics	3	ME	MSG		This course is designed to familiarize students with basic principles of pharmacology and therapeutics. Students will be exposed to classical concepts of pharmacology such as drug-receptor interactions as well as modern techniques such as gene therapy.
GMS	6514	Instructional Skills in Pharmacology	1	ME	MSG		Students are given practical experience in current teaching techniques including an understanding the purpose of lecture, small groups and evaluation. There is direct faculty supervision and critique following direct classroom experience.
GMS	6541	Pharmacology for Health Professionals	4	ME	MSG	CR: Physiology.	The basic principles of pharmacology (pharmacodynamics & pharmacokinetics) will be presented along with major drug classes (analgesics, antibiotics, cardiovascular drugs, central nervous system drugs.
GMS	6601	Methods of Electron Microscopy in Medical Research	3	ME	MSG	PR: GMS 6608 or CC.	This lecture and laboratory course deals with theoretical and technical issues regarding the use of the electron microscope in biomedical research.
GMS	6602	Neural Correlates of Behavior	3	ME	MSG	PR: CC.	This course focuses on the organization and function of nervous system structures that control and regulate various aspects of somatic and visceral motor behavior.
GMS	6604	Human Embryology	3	ME	MSG	PR: CC.	This course deals with the structural

							and functional development of the human from conception to birth.
GMS	6605	Basic Medical Anatomy	3	ME	MSG	PR: 1 year Biology; 1 year Chemistry.	The course focuses on a basic introduction to human anatomy and how anatomical concepts relate to the organization of the body at a macroscopic level for each organ and how each of the organs and organ systems function in their role in normal homeostasis.
GMS	6608	Advanced Microscopic Anatomy	3-6	ME	MSG	PR: CC.	This lecture and laboratory course examines the human organism at the microscopic level, focusing on cellular morphology and the histological organization of tissues and organ systems.
GMS	6609	Advanced Human Gross Anatomy	6-12	ME	MSG	PR: CC.	This lecture and laboratory course focuses on the anatomical relationships between various structures that comprise the human body.
GMS	6610	Advanced Neuroanatomy	3-6	ME	MSG	PR: Admission to Ph.D. Program in Medical Sciences and Anatomy Department.	This lecture and laboratory course deals with the structure and function of the human nervous system. The course is organized using both regional and systemic approaches.
GMS	6611	Introduction to Anatomical Research	1-3	ME	MSG	PR: Admission to Ph.D. Program in Medical Sciences and Anatomy Department.	This course consists of scheduled rotations through the laboratory of at least three members of the anatomy department faculty.
GMS	6612	Supervised Teaching in Human Anatomy	1-3	ME	MSG	PR: GSM 6608, 6609, or 6610 and acceptance into the Anatomy Dept.	This course deals with the philosophy and mechanics of teaching. The course also involves supervised, practical experience in the various aspects of teaching in both the class-room and laboratory.
GMS	6630	Basic Medical Histology	3	ME	MSG	PR: 1 year Biology; 1 year Chemistry.	The course introduces the principles of histology, how they govern the structure and function of cell types and the organization of the tissues involved in organ architecture and function and how staining techniques identify cells at the molecular level.
GMS	6671	History of Pathology and Cell Biology	2	ME	MSG		This course is composed of five traditional didactic lectures, mini-presentations (10-15 min) by students on landmark advances in Anatomy and Pathology, and a submission of a brief paper based on these presentations.
GMS	6706	Basic Medical Neuroscience	3	ME	MSG	PR: 1 year Biology; 1 year Chemistry.	The course focuses on the function of the human nervous system and examines nerve cell biology and how cells are organized into functional systems. Structure/function relationships are emphasized including examples of abnormal cell function in disease.
GMS	6735	Neuropharmacology	3	ME	MSG		This course will familiarize students with information on the biochemical basis of neural regulatory systems in the brain and the application of the latest approaches to the study of neurotransmitters and drug action in the nervous system.

GMS	6751	Integrated Clinical Neurobiology	3	ME	MSG		The course introduces the principles of neurology and the role of neurotransmitters in cellular function and communication between cell types and focuses on gastrointestinal health in relationship to the immune system and neurotransmitter function.
GMS	6752	Autoimmune Diseases and Cognitive Function	3	ME	MSG		Basic and clinical aspects of memory enhancement and memory loss are described together with the physiological changes that result from various autoimmune diseases and the critical roles of mitochondria in energy metabolism and oxidative stress.
GMS	6836	Approach Clinical and Behavioral Research Adolescent	3	ME	MSG	PR: General Biology (1 year), General Chemistry (1 year).	The course will address quantitative and qualitative research methods to study adolescent HIV/AIDS. The course is not restricted to majors or nonmajors and is not repeatable for credit.
GMS	6840	Cultural and Diversity Issues in Clinical Research	2	ME	MSG	PR: Postdoctoral status, doctoral student in Medical Sciences. CR: CI.	Promotes understanding of reasons for including the broadest populations possible in clinical research studies in terms of culture, race, ethnicity, gender, age, literacy, sexual orientation, socioeconomic status. Instructor permission, not repeatable.
GMS	6841	Fundamentals of Translational Research	1	ME	MSG	PR: Postdoctoral status, doctoral student in Medical Sciences. CR: CI.	Introduction to the interface between clinical and basic research. How to include basic research hypotheses in the design of clinical studies to advance knowledge in applying basic/clinical research to patient care. Instructor permission. Not repeatable.
GMS	6843	Scientific Communication	2	ME	MSG	PR: Postdoctoral status, doctoral student in Medical Sciences. CR: CI.	Course teaches principles to improve scientific communication. Provides practical experience on preparing abstracts, presenting research to professionals/the public and how to publish in peer-reviewed journals. Instructor permission. Not repeatable.
GMS	6844	Principles of Patient-Oriented Research	1	ME	MSG	PR: Postdoctoral Status. CR: CI.	Introduction to the Scholars in Patient-Oriented Research (SPOR) Program. Assists in identifying important clinical and translational research questions, approaches, sources of support and regulatory issues. Instructor permission. Not repeatable.
GMS	6870	Medical Ethics and Humanities: Tools & Foundations	3	ME	MSG		Terminology, historical perspectives, ethical principles and dilemmas, and case studies. Examination of aspects of the human journey and various voices or perspectives thorough fiction, essays, history, art, poetry, theater, and film.
GMS	6871	Health Sciences Ethics	2	ME	MSG	PR: 1 yr. Biology; 1 yr. Chemistry.	The course examines fundamental ethical issues, such as informed consent, that are important components of the practice of the

							biomedical sciences and represent important considerations that must be addressed in both the "basic" and "clinical" sciences.
GMS	6875	Ethical and Regulatory Aspects of Clinical Research	3	ME	MSG	PR: Postdoctoral Status. CR: CI.	This course addresses ethical and regulatory aspects of clinical research, specifically in relation to biomedical research that is patient-oriented. Instructor permission is required. The course is 3 credits and is not repeatable.
GMS	6890	Medicine and the Arts	3	ME	MSG		Study opportunities in metropolitan cities in which students engage in one week of intensive study. (Medical Centers, Museums, Theatre)
GMS	6891	Medicine and the Movies	3	ME	MSG		In-depth explorations of the ways in which film presents and illuminates ethical dilemmas/other topics in modern medicine. Students evaluate film stories critically so that exaggerations, distortions, and accuracies can be considered and discussed.
GMS	6902	Bioethics and Medical Humanities Independent Study	3	ME	MSG	PR: Approval from program director/advisor.	Develop with faculty advisor an individual project with the goal of in-depth study in the focus area.
GMS	6905	Grantmanship I	1	ME	MSG	PR: Postdoctoral Status; CR: Permission of Instructor.	Introduction to basic skills for writing successful, peer-reviewed external grant proposals, especially to the NIH for patient-oriented research and mentored career development grants, for postdoctoral-level academic health research career development.
GMS	6906	Grantmanship II	2	ME	MSG	PR: GMS 6905.	This course is the second in a two-course series to complete instruction in the skills and techniques necessary for writing successful NIH grant proposals whose primary focus is patient-oriented/translational career development or research grants.
GMS	6908	Medical Sciences Independent Study	1-3	ME	MSG	PR: Selected courses in program of study, identified by advisor.	Develop, in conjunction with a faculty advisor, an individual project with the goal of completing an in-depth study of a topic directly relevant to the student's program of study in the medical sciences.
GMS	6921	Building a Patient-Oriented Research Center	2	ME	MSG	PR: Postdoctoral Status, CI.	Introduction to the important characteristics of academic patient-oriented faculty in a colloquium format to encourage interactions and sharing of information between faculty and students. 2 semesters, 1 credit each semester=2 cr. Instructor permission.
GMS	6941	Bioethics and Medical Humanities Internship	3	ME	MSG	PR: Approval from advisor/program director.	Supervised Field experience in related activities/organizations relating to bioethics and/or medical humanities.
GMS	6942	Laboratory Rotations in Biomedical Sciences	1-3	ME	MSG	PR: B.S. in Biology, Chemistry, Physics, Engineering, or similar field.	This course is designed to introduce the early-career Ph.D. student to the types of questions and techniques involved in biomedical research. The course can be taken for credit more than once.
GMS	6943	Biotechnology	3	ME	MSG	PR: BS in Biochemistry,	The course teaches, hands-on, in

		Internship				Biology or Chemistry or CI.	companies and institutions, how the results of biological, biomedical and bioengineering research are translated into the development of drugs, devices, diagnostics, therapies, services as well as patents and licenses.
GMS	7910	Directed Research	1-19	ME	MSG	PR: Gr. Ph.D. level.	
GMS	7930	Selected Topics	1-3	ME	MSG	PR: CC.	
GMS	7939	Graduate Seminar	1	ME	MSG	PR: CC.	
GMS	7980	Dissertation: Doctoral	2-19	ME	MSG	PR: Admission to Candidacy.	S/U
GRW	5905	Directed Reading	1-4	AS	WLE	Departmental approval required.	
GRW	5934	Selected Topics	1-4	AS	WLE	Available to majors and non-majors.	Study of an author, movement or theme.
HIS	6112	Analysis of Historical Knowledge	4	AS	HTY	PR: GS, CI.	A study of history as a form of knowledge with emphasis on explanatory models and the relationships of social science theory to the problems of historical analysis.
HIS	6908	Independent Study	1-19	AS	HTY	PR: CI. S/U.	Independent study in which students must have a contract with an instructor.
HIS	6914	Directed Research	1-19	AS	HTY	PR: CI. ML. S/U.	
HIS	6925	Colloquium in History	4	AS	HTY	PR: CI.	Readings and discussions organized around an in-depth examination of selected topics within the fields. Emphasis of the course is on the review of historiographical, methodological, and interpretative advances as they affect the topics under study.
HIS	6939	Seminar in History	4	AS	HTY	PR: CI.	Research in selected topics within the fields selected by the instructor.
HIS	6971	Thesis: Master's	2-19	AS	HTY	PR: CI. Z/U.	
HSC	5037	Professional Foundations of Health Education	1	PH	CFH		The study of the practice of health education in various settings, and selected historical, cultural, philosophical, professional, and ethical issues in the practice of education.
HSC	6054	Design and Analysis of Experiments for Health Researchers	3	PH	EPB	PR: PHC 6051, PHC 6701 or CI.	An interdisciplinary overview of design and analysis of experimental and observational studies. Emphasis on applications in biological, clinical and health-related fields. Computer software used.
HSC	6055	Survival Analysis	3	PH	EPB	PR: PHC 6051, PHC 6701 or CI.	A study of statistical methods for analyzing censored life time data with applications in health sciences.
HSC	6056	Survey Sampling Methods in Health Sciences	3	PH	EPB	PR: PHC 6050, PHC 6701 or CI.	An interdisciplinary overview of survey techniques with applications in health sciences. Discussions on questionnaire design, measurement error, data collection modes, data management, use of computer

							software and statistical analysis.
HSC	6556	Pathobiology of Human Disease I	3	PH	EOH	PR: CI.	A basic study of broad pathobiological areas of biological injury, genetic and inborn errors of metabolism, and host-parasite relationships. In addition, the pathobiology of human disease is closely related to general biology in order to provide a strong foundation for the public health student.
HSC	6557	Pathobiology of Human Disease II	3	PH	EOH	PR: HSC 6556 and CI.	Overview of the distinct pathogenesis and etiology and selected acute and chronic diseases and their preventive aspects and impacts on the health care system. Provides basic knowledge of disease and illness patterns and their relationship to health planning.
HSC	7285	Accreditation/ Licensed Health Care Organization	3	BC	FMH		This course will examine and discuss voluntary accreditation and governmental licensure: the principal formal methods of holding health care organizations accountable for the quality of service they provide. Emphasis is on current status and requirements of accrediting and licensing authorities.
HUM	6453	Studies in American Arts and Letters I	3	AS	HUM	GS.	Study of selected works dealing with the development of cultural patterns on the western frontiers and their effects on aesthetic judgment. From 1790 to 1890.
HUM	6456	Studies in Latin American Arts and Letters	3	AS	HUM	GS.	Analysis of selected Latin American works of art in their cultural context.
HUM	6465	Studies in American Arts and Letters II	3	AS	HUM		Examples from the arts and letters of the U.S.; analyses of their relationships to the concepts of progress and aesthetic judgment. From 1890 to present.
HUM	6475	Studies in Contemporary Arts and Letters	3	AS	HUM	GS.	Concentration on major artists and recent trends.
HUM	6493	Studies in Classical Arts and Letters	3	AS	HUM	GS.	Examples from the arts and letters of ancient Greece and their relationships to Aegean myths, religions, and philosophies. Classical Greek influences on later cultures.
HUM	6494	Studies in Medieval Arts and Letters	3	AS	HUM	GS.	Studies in medieval philosophies, visual arts, music, literature, and architecture and their interrelationships.
HUM	6495	Studies in Renaissance Arts and Letters	3	AS	HUM	GS.	Masterpieces and major artists of the Renaissance in Continental Europe and England.
HUM	6496	Studies in Enlightenment Arts and Letters	3	AS	HUM	GS.	Studies in painting, sculpture, music, literature, and architecture in relation to philosophical determinism and political absolutism.
HUM	6497	Studies in Nineteenth Century Arts and Letters	3	AS	HUM	GS.	Examples from the arts and letters of the nineteenth century, their relationship to philosophical, social, and historical developments, and to the arts and letters of the twentieth century.

HUM	6585	Cinematic Art	3	AS	HUM	PR: Graduate Standing.	Films studied will be organized around a director, a nation, a movement, or a period. Cinema will be treated as a collaborative medium best approached from an interdisciplinary perspective, integrating visual, narrative, dramatic, and musical analysis.
HUM	6801	Theories and Methods of Cultural Studies	3	AS	HUM	PR: GS.	This course examines the relationship between the arts and society by introducing various approaches to the study of literature, art, and culture that are of contemporary relevance to graduate students in the liberal arts and humanities.
HUM	6815	Research in Humanities	3	AS	HUM		A course emphasizing the practical aspects of research in the humanities including analyzing primary sources, assembling a bibliography, synthesizing secondary sources, and defining an argument. Topic varies.
HUM	6870	Teaching Practicum in Humanities	1-3	AS	HUM	PR: GS.	Required for Teaching Assistants of Humanities courses. Workshops, meetings, and individual conferences treat topics related to teaching interdisciplinary courses focusing on the critical study of literature, music, and the arts. Credits do not count toward the MLA degree.
HUM	6909	Independent Study	1-19	AS	HUM	S/U.	Independent study in which student must have a contract with an instructor.
HUM	6915	Directed Research	1-19	AS	HUM	PR: CI. S/U.	
HUM	6939	Selected Topics in Humanities	1-3	AS	HUM	GS.	Each topic is a course of study in a subject not covered by a regular course.
HUM	6940	Internship in Humanities	1-3	AS	HUM	PR: GS.	A structured, out-of-class learning experience providing firs-hand, practical training in Humanities-related professional careers in the community.
HUM	6971	Thesis: Masters	2-19	AS	HUM		In consultation with an advisor, the student plans, organizes, and writes a thesis on a topic in interdisciplinary arts and ideas.
IDH	5956	Honors Graduate Project	3	HC	HON	PR: Senior Status and permission of Honors College.	Advanced Honors Project. Repeatable up to 12 hours.
IDH	5975	Honors Thesis	3	HC	HON	PR: Senior Status and permission of Honors College.	Advanced Honors Thesis. Repeatable up to 12 hours.
IDS	5177	The Atelier, Its Management and History	3	TA	ART		This class will consider the history of printmaking and other forms of collaborative art production through the prism of the atelier and its management.
IDS	5178	Problems in Museum Studies	3	TA	ART	PR: Art Advisor's Approval	This class is designed as both an academic and theoretical course to introduce students to the museum profession and develop critical thinking skills required to solve problems in the rapidly changing typography of museums. Students

							will develop managerial and administrative skills as they meet with and discuss the job descriptions of curators, educators, collection managers, marketing professionals, exhibit designers, registrars, and fundraisers.
IDS	6215	Seminar in Global Sustainability	3	AS	IAS		The purpose of this interdisciplinary seminar in sustainability is to broaden student's knowledge and understanding of global determinants and potentional solutions to sustainability issues.
IDS	6946	Sustainability Internship	6	AS	IAS		The Sustainability Internship allows students to develop and practice skills related to global sustainability in developed and/or developing countries.
IDS	6948	Gallery and Museum Internship	2-6	TA	ART		The 6 credit hours internship program conducted in various area museums is a professional program designed to give students the opportunity to engage in a comprehensive study of the contemporary museum.
IDS	6951	Sustainability Project	3	AS	IAS		This is the final project for the Master of Arts in Global Sustainability students.
INP	6057	Industrial Psychology	3	AS	PSY	PR: GS.	An introduction to the major areas of Industrial-Organization Psychology, including topics on selection and placement, training, criterion development and performance appraisal, job satisfaction and motivation, and organizational theory and structure.
INP	6935	Topics in Industrial-Organizational Psychology	3	AS	PSY	PR: CI	Courses on topics such as industrial psychology, evaluation of performance in industry, and human factors.
INP	7937	Graduate Seminar in Industrial-Organizational Psychology	1-3	AS	PSY	PR: CI	Seminars on topics, such as industrial psychology, evaluation of performance in industry, and human factors.
INR	5012	Globalization	3	AS	INT		Examination of globalization's impact on international relations, including literature from political science, anthropology, geography, sociology, and economics that impacts the study of the nation-state system and power. Open to majors and non-majors.
INR	5086	Issues in International Relations	3	AS	POL	Sr./GS.	Explores specific topics and provides the student with an opportunity for in-depth study of historical and contemporary problems in international politics.
INR	6007	Seminar in International Relations	3	AS	POL	Sr./GS.	Advanced study of international relations, including survey of basic literature, analysis of numerous theoretical and methodological approaches, and analysis of major issues.
INR	6036	Seminar in International Political Economy	3	AS	POL	PR: POS 6736 or CI.	Advanced study of the development and politics of the international economic system focusing on

							theoretical and empirical analysis of cooperation and conflict in trade, aid, and investment relationships.
INR	6107	American Foreign Policy	3	AS	POL	GS.	Objectives, formulation, and execution of foreign policy; critical issues and problems confronting the United States. Study of various conceptual, methodological, and theoretical approaches.
INR	6690	Research Seminar in Globalization	3	AS	INT	PR: INR 5012.	Examination and presentation of research from multiple disciplines that address a wide-range of issues related to globalization, including those that concern governance and human development. Seminar format. Open to majors and non-majors.
ISC	7930	Selected Topics in Interdisciplinary Science	1-4	AS	IAS		Interdisciplinary studies will cell and molecular biology perspective.
ISM	6021	Management Information Systems	2	BU	QMB		An introduction to the fundamentals of information systems including an examination of information technology terminology and concepts, alternative methodologies for developing information systems, and the application and impact of information technology in contemporary organizations.
ISM	6056	Web Application Development	3	BU	QMB	Semester of coursework in an object-oriented programming language.	The course introduces students to developing web-based computer applications. The class also reinforces object-oriented concepts in computer programming.
ISM	6123	Systems Analysis and Design	3	BU	QMB	PR: ISM 6021 or equiv.	This course includes the foundations and methodologies for analysis of existing systems; the design, development, and implementation of new systems.
ISM	6124	Advanced Systems Analysis and Design	3	BU	QMB		This course covers advanced topics of information systems development. Students learn to manage and perform activities throughout the information systems development life cycle. State-of-the-art system development processes, methods, and tools are presented.
ISM	6125	Software Architecture	3	BU	QMB	PR: ISM 6124	Software architecture has emerged as an explicit field of study for software engineering practitioners and researchers. In this course, we will investigate the growing literature on software architecture and understand the application of software concepts to the development of information systems.
ISM	6136	Data Mining	3	BU	QMB	PR: Students should have had a database course and a statistics course.	This course is designed for the MS in Information Systems graduate student and interested MBA students. The course covers the rapidly evolving data mining techniques that are becoming critical for customer relationship management and other applications
ISM	6145	Seminar on Software Testing	3	BU	QMB	PR: ISM 6124 or an introductory course in	This course will survey and analyze the best practices in industrial testing

						Software Engineering.	groups and explore new ideas for improving the testing process. Students gain practical experience with both functional (black box) and structural (clear box) testing methods.
ISM	6155	Enterprise Information Systems Management	3	BU	QMB	PR: ISM 6124, ISM 6218.	Development of enterprise transaction processing applications using procedural or object oriented programming languages, relational database management, database sharing, CASE methodology and project management techniques. Students will work in groups on semester projects.
ISM	6208	Data Warehousing	3	BU	QMB	PR: As a prerequisite, students should have had at least two courses covering relational database systems (usually including ISM 6218: Advanced Database Systems), or significant work experience.	This course is designed for the MS graduate student and interested MBA students. The course covers the rapidly emerging data warehousing and data mining technologies that are likely to play a strategic role in business organizations.
ISM	6217	Database Administration	3	BU	QMB	PR: ISM 6123 or equiv., CC.	Advanced principles of Database Administration. Database Organization Models. Disaster Planning for Database Files.
ISM	6218	Advanced Database Management	3	BU	QMB	PR: ISM 6217 or ISM 4212 or equivalent.	This course covers core business database technologies. Topics include database design, transaction processing, parallelism, and distributed databases. Emerging business intelligence technologies are covered. A database system is used for projects.
ISM	6225	Distributed Information Systems	3	BU	QMB	PR: ISM 6123, CC.	This course will focus on telecommunications, networks, and distributed applications. All forms of communication will be covered. Students will gain exposure to network management systems, local area networks (LANs), and global networks, such as Internet.
ISM	6305	Managing the Information System Function	3	BU	QMB	PR: ISM 6021 or equiv., CC.	An advanced study of the management of IT resources including managerial decision making and the impact of IT on business processes and society. Society issues include those such as intellectual property rights, privacy, and ethics.
ISM	6316	Project Management	3	BU	QMB	PR: ISM 6021.	The objective of this course is to become familiar with fundamental issues for managing project management and to develop an understanding of the overall processes of dealing with competing demands in information technology environments.
ISM	6405	Decision Support Systems Applications	3	BU	QMB	PR: QMB 6305, QMB 6603.	Demonstrates tools for evaluating a wide range of common business problems in scheduling, supply chains, project planning, ... and other fields. Hands-on, interactive learning

							is emphasized using spreadsheets and other commonly-available applications.
ISM	6442	International Aspects of Information Science	3	BU	QMB	PR: ISM 6021	Role of managers and information technology professionals in global business organizations and in deploying information systems to enable global operations.
ISM	6485	Electronic Commerce	3	BU	QMB	PR: ISM 6021, CI or CC.	This course is geared to a broad audience and will introduce information technology enablers that facilitate electronic commerce. The lectures, discussions and class presentations will also serve to understand the business landscape and business models.
ISM	6905	Independent Study	1-6	BU	QMB	PR: CC. S/U.	Independent Study as directed by designated faculty.
ISM	6930	Selected Topics in MIS	1-6	BU	QMB	PR: CC.	Selected topics in MIS.
ISM	6971	Thesis: Master's	2-6	BU	QMB		Students may select the thesis option in order to complete the Master of Science in the Management Information Systems (MS/MIS) program. Faculty permission is required to register for MS Thesis credit. Six credits are the maximum number of credits allowed for MS Thesis credit.
ISM	7120	Information Requirements Management	3	BU	QMB	PR: CC.	Understanding the theoretical foundation for analyzing problem situations and determining information technology requirements; tools and skill requirements of the systems manager; and methods of managing computer-based information systems.
ISM	7140C	Systems Development Methodologies	3	BU	QMB	PR: CC.	Realistic in-depth application perspective of the tools and techniques of systems development.
ISM	7231	File Access Methods and Systems Software for Application Development	3	BU	QMB	PR: Departmental Approval.	An information system, viewed as a user application process interacting with data in a particular hardware/software environment, is analyzed to provide insights into various file access alternatives and advantages.
ISM	7422	Business Applications or Artificial Intelligence and Expert Systems	3	BU	QMB	PR: Departmental Approval.	Theory, concepts, methodologies, current trends, potential, interrelationships of artificial intelligence, expert systems, and decision process.
ISM	7441C	Computer-Based Applications in Operations Management	3	BU	QMB	PR: Departmental Approval.	Introduction to applications of computer technology in manufacturing and operations management. Focus on the design and implementation of applications to support the operations manager.
ISM	7905	Independent Study	1-6	BU	QMB	PR: CC. S/U.	Independent study in which student must have a contract with an instructor.
ISM	7910	MIS Research Seminar I	3	BU	QMB	PR: Departmental Approval.	Introduction to the MIS literature as it has developed over the past 30 years. Primary focus on the research literature. Other important writings

							will also be covered.
ISM	7911	MIS Research Seminar II	3	BU	QMB	PR:ISM7910 ISM 7910.	An examination of recently published empirical research in MIS and related disciplines, focusing on the development of a sound theoretical foundation for hypotheses, selection of appropriate design and statistical techniques, and evaluation of the results.
ISM	7912	Seminar on Behavioral IS Research	3	BU	QMB	PR: ISM 7910	This course is team taught by IS/DS faculty with research interests in behavioral and organizational fields. The seminar structure of the course allows flexibility of current research topics and opportunities for significant student faculty interaction. Students will achieve a broad understanding of the research areas and methods associated with behavioral and organizational IS research.
ISM	7930	Selected Topics in MIS	1-3	BU	QMB	PR: CC.	
ISM	7931	Directed Research	1-6	BU	QMB	PR: Ph.D. level, CC. S/U.	
ISM	7980	Dissertation	2-21	BU	QMB	PR: CC.	
ISS	5934	Selected Topics	1-3	AS	AFA	PR: CI plus senior standing or graduate status.	Interdisciplinary studies with course content dependent on student demand and instructor's interest.
ISS	6184	Development Ethics: Principles and Practice	3	AS	ISS		Overviews the ethical problems of development, as well as presents the ways in which the problems of development may be investigated. Students are taught qualitative methodological techniques and apply these techniques in fieldwork projects. Open to all graduate students.
ISS	6900	Directed Reading	1-3	AS	ISS	PR: CI and GS or senior standing.	A supervised program of intensive reading of interdisciplinary materials of specific interest.
ISS	6910	Directed Research	1-19	AS	ISS		A supervised program of intensive reading of interdisciplinary materials of specific interest.
ISS	6934	Selected Topics	1-3	AS	ISS	PR: CI and senior standing or GS.	Interdisciplinary studies with course content dependent on student demand and instructor's interest. Rpt. As topics vary.
ITW	6910	Directed Research	1-19	AS	WLE	PR: GR. ML. S/U.	Selected topics in Italian literature.
JOU	5105	Newswriting and Editing	3	AS	COM	PR: GS in Mass Communications or CI.	Introduction to the basics of gathering, writing, and editing the news, with an emphasis on practical assignments done under professional conditions and standards. Discussions, readings emphasize the larger context and implications of news.
JOU	5305	Explorations in Newswriting	3	AS	COM	PR: CC.	Students work to develop writing styles, reporting on and creating stories about significant issues, events, and ideas. The course

							explores the notion that narrative-style journalism can be accurate, thorough, fair, and compelling, effectively bringing readers into stories and giving them a bigger stake in the news. The focus is on-going beyond traditional practices of reporting and writing news stories.
JOU	5344	Multimedia Journalism	3	AS	COM	PR: An appropriate undergraduate degree in mass communications or significant professional experience in journalistic writing styles.	The course is designed to bring components of print, web and broadcast writing together to develop skills for and understanding of the multimedia environment. It is restricted to majors and not repeatable for credit.
JOU	6107	News Coverage of Public Life	3	AS	COM	PR: CC.	Problems and methods of reporting urban affairs, including municipal government, and politics: city, county, and state. Research/analyses of current issues.
JOU	6122	Reporting: Methods and Perspectives	3	AS	COM	PR: CC.	Instruction and practice in computer-assisted reporting, social science research, interviewing, data-document research, observational techniques, and other methods of news gathering.
JOU	6191	Seminar: Contemporary Issues in Journalism	3	AS	COM	PR: CC.	A study of the role of the free press in a democratic society and its efforts to fulfill its social and ethical responsibilities by analyses and discussions of the problems which face the reporter, the editor, and the publisher.
JOU	6349	Advanced Multimedia Journalism	3	AS	COM	PR: JOU 5342.	Students learn what it means to work in a multimedia environment and will create a journalism project across multiple media platforms, including broadcast, print and the web. They will also explore the theoretical assumptions of the field.
JOU	6501	Media Management	3	AS	COM		The course provides students with a foundation in understanding the financial and economic environment of the mass media and the process of managing mass media enterprises in the new multimedia environment. It is not restricted nor repeatable for credit.
JOU	6707	Studies in Press Criticism	3	AS	COM	PR: CC.	A study of the principles and methods of journalism and the performance of its practitioners from a multi-disciplinary perspective of critical analysis.
LAE	5462	Young Adult and World Literature for New Teachers	3	ED	EDI	PR: Teaching position w/either English degree or 30 hrs of Undergraduate English	A study of the types of literature read by adolescents, including literature representative of other cultures, with emphasis upon the criteria for the choice of good books and knowledge of available books and teaching materials.
LAE	5862	Classroom Communication in English Education	3	ED	EDI		Identifies characteristics of classroom communication environment; offers insights, info, instructional strategies designed to help you become

							effective classroom communication managers. Emphasis on role of media & non-print texts in students' lives.
LAE	5932	Selected Topics in the Teaching of English	3	ED	EDT	PR: Certification in English and/or Mass Communications and approval of graduate advisor.	Investigation of topics which are of special interest to the student and are related to the teaching of English in the secondary school. Topics will be selected by the student in accordance with his particular goals and will be approved by the student's graduate advisor.
LAE	6301	Language Learning in Childhood	3	ED	EDE		Research used to assess the language behavior of normal children and application of selected research methodology to understanding linguistic behavior of children.
LAE	6315	Writing and Writers: Trends & Issues	3	ED	EDE		The purpose of this course is to examine writing as a developing symbol system that is embedded in social and cultural contexts. Students will develop instructional strategies to facilitate children's writing development, as well as develop individual strategies for composing personal and professional texts.
LAE	6316	Trends in Literature in a Diverse Society	3	ED	EDE		Focuses on the examination of historical and contemporary multicultural children's literature in order to help teachers and students gain a pluralistic perspective of society. Instructional programs are designed to lead school-age children to a broader understanding, respect, and appreciation of all persons representing various cultural, ethnic, and societal groups.
LAE	6325	Methods of Teaching Middle School Language Arts	4	ED	EDI		Balanced literacy methods for integrating reading, writing, speaking, listening, viewing, and critical thinking activities into a literature based program for middle school students. Note: This course has a field component of 36 hours.
LAE	6339	Methods of Teaching Secondary English Language Arts	4	ED	EDI		Balanced literacy methods for integrating reading, writing, speaking, listening, viewing, and critical thinking activities into a literature-based program for secondary school students. Note: This course has a field component of 36 hours.
LAE	6345	Teaching Written Composition	3	ED	EDT		Techniques for motivating, guiding, correcting, and evaluating student writing.
LAE	6366	New Perspectives on the Teaching of Young Adult Literature in Middle & Secondary Schools	3	ED	EDT	PR: Certification in English or Mass Communications	The primary purpose of this course is to improve the quality of language arts instruction at the middle and secondary levels. To achieve this basic purpose, we will focus chiefly on adolescents' perception of and responses to literature and the implications for organization and presentation of literature curricula.
LAE	6374	Practice in Teaching Grammar	3	AS	ENG		Demonstrates techniques incorporating instruction of essential elements of English

							grammar/mechanics into composition courses. Pedagogy is essential for teachers in secondary schools, community colleges, or advanced composition at the university level.
LAE	6375	Contemporary Composition Studies	3	AS	ENG		Examines the important research and theory in contemporary position pedagogy.
LAE	6389	Practice in Teaching Literature	1-3	AS	ENG		A course that allows the prospective college English teacher to experiment with teaching techniques that will determine the most effective ways to teach literature and teach college English teachers the variety and importance of literary techniques and their relevance to various subject matters.
LAE	6415	Literature And The Learner	3	ED	EDE		Nature, scope, and uses of literature for instructional, information, and recreational purposes and implications of current theory, significant research, and issues in literature study as they relate to the learner.
LAE	6467	World Literature for Teachers	3	ED	EDE	PR: English Education majors only or Certification in English or Mass Communications.	World literature encompasses more than Western European literature. This course is designed to emphasize, but is not limited to, the study of Eastern literature. The course is for English Education majors only.
LAE	6616	Trends in Language Arts Instruction	3	ED	EDE	PR: LAE 4314 or equivalent or DPR	Significant concepts, emerging trends, research, and instructional techniques for implementation and utilization of language arts in all areas of the curriculum.
LAE	6637	Current Trends in Secondary English Education	3	ED	EDT	PR: LAE 4335 or LAE 4642 or Certification in English or Mass Communications.	Curricular patterns and instructional practices in secondary English.
LAE	6644	Current Teaching of the English Language and the Study of Traditional Grammar	3	ED	EDT	PR: Certification in English or Mass Communications.	Applications of recent techniques of language study to classroom teaching of English, especially in relation to the teaching of grammar. Presents an interactive approach to grammar instruction in which students learn the basic elements of English grammar and engaging classroom activities for teaching grammar in the schools. Fulfills the grammar course requirement for teacher certification in English.
LAE	6738	Teaching Reading in English Curriculum	3	ED	EDI	PR: Either in the MAT program or CI.	Course is to improve the quality of reading instruction in mid & sec English classes through the study of the reading process, research,& evaluation related to sec reading, understand how research impacts instruction, process of educational reform.
LAE	6793	Professional Leadership and Research in the Teaching of Writing	3	ED	EDI	PR: Must be invited to attend the Tampa Bay Area Writing Project Invitational Summer Institute, having fulfilled all application	Develop professional leadership of teachers of writing, demonstrate research-based, classroom-based, writing strategies to their peers by linking research directly to instruction. Form support network for

						requirements, including the interview. CR: LAE 6923.	Teacher Consultants of the National Writing Proj.
LAE	6861	American and British Literature with Technology	3	ED	EDI		A study of five sections of literature: 1) British Literature before Shakespeare, 2) British Literature after Shakespeare to 1740, 3) British Literature 1740-1900, 4) American Literature before 1900, and 5) Twentieth Century British and American Literature (1890 to the Present) while developing an individual's skill with technology.
LAE	6906	Independent Study in English Education	1-6	ED	EDT		This course permits a student to explore a topic of interest in depth under the direction and supervision of a faculty member.
LAE	6923	Teachers Writing: A Writing Workshop Approach to the Teaching of Writing	3	ED	EDI	PR: Must be invited to attend the Tampa Bay Area Writing Project Invitational Summer Institute, having fulfilled all application requirements, including the interview. CR: LAE 6792.	Engage teachers as writers, knowing the best teachers of writing must write. Teachers write together, critically examine new writing strategies, establish a professional support network to serve as foundation for enhancement of their teaching of writing.
LAE	6947	Internship	6	ED	EDI	CI.	Provides students with an extended school-based experience, under the guidance of a cooperating teacher and university supervisor, for a full semester at or near the end of their graduate program. Open to graduate degree candidates only. S/U (PR: CI)
LAE	6971	Thesis: Masters/Educational Specialist	2-19	ED	EDT	S/U.	
LAE	7376	Problems in Advanced English Instruction of Composition	3	AS	ENG	PR: Admission to the Ph.D. program in English.	Apprenticed, closely supervised study of and practice in teaching of college and university advanced composition. Student may elect to work with nonfiction, fiction, or poetry.
LAE	7390	Problems in Advanced English Instruction and Scholarly Research	3	AS	ENG	PR: Ph.D. Candidacy.	This course provides closely supervised training in upper-level college English instruction and experience with professional research. Experience in lecture, seminar discussion, examinations, evaluation, conferences, directing undergraduate research, course development, use of secondary materials, publication procedure, and collation.
LAE	7717	Theories And Patterns Of Advanced Language Arts Instruction	3	ED	EDE	PR: LAE 6616 or equiv.	New research findings and theories relating to language patterns and contemporary programs for teaching language arts.
LAE	7739	The Education of English Teachers	3	ED	EDI	PR: Doctoral standing or CI.	Introduces & informs adv grad students about the conceptions of curriculum development related to the preparation of Eng teachers. Intended for those interested in careers in teacher educ or expect to influence the policies & practices of teacher educ.
LAE	7747	Literature Program	3	ED	EDE	PR: EDF 6481, LAE 6415,	Investigation and analysis of the

		Design				or LAE 6336 or DPR.	research in literature instruction and the application of the findings to the development of literature programs.
LAE	7794	Survey of Research on Writing Development and Instruction	3	ED	EDE	PR: Ph.D. Standing.	The purpose of this course is to survey, discuss, analyze, and critique seminal and current research on writing development and instruction in the context of school. Students will also engage in research on writing development or instruction.
LAE	7795	Research and Theory in the teaching of Writing	3	ED	EDE	PR: Doctoral student standing.	An in-depth study of the research and theory in the teaching of writing. Emphasis is on the historical perspectives, current theory, and specific research in the process writing movement.
LAE	7910	Directed Research in English Education	1-19	ED	EDT	PR: CI.	This course permits a doctoral student to conduct advanced research and to pursue specific areas of interest with a faculty member as supervisor. A contract is required with the faculty member. S/U.
LAE	7980	Dissertation	2-30	ED	EDI	PR: Admission to Candidacy	Rpt. S/U
LAS	6913	Independent Study and Research in Latin American	1-9	AS	INT	PR: CI.	This course will provide graduate students with an opportunity to engage in research and/or study abroad in Latin America & the Caribbean, to earn credits towards their degree. Open to LAC majors and non majors. Repeatable up to 9 credits.
LAS	6936	Seminar in Latin American Studies I	3	AS	INT		This seminar introduces students to the general study of the region and peoples of Latin America and their emigrant populations in the United States. Repeatable as topic varies.
LAS	6971	Thesis in Latin America and Caribbean	1-12	AS	INT	PR: Graduate Standing.	This course will allow graduate students to earn credits while working on a thesis that is focused in Latin America & the Caribbean. Open to all graduate majors. Repeatable.
LIN	5700	Applied Linguistics	3	AS	WLE		Analysis of the phonological, morphonological, and syntactic features of English as a basis for linguistic application to problems of English language acquisition by non-native speakers.
LIN	6018	Topics in Theoretical Linguistics	3	AS	WLE		Offerings will include current issues in any area of linguistic theory.
LIN	6081	Introduction to Graduate Study in Linguistics	3	AS	WLE	Required of all M.A. candidates.	An introduction to the aims and methodologies of linguistics as a graduate discipline: The field of linguistics, its subdisciplines, and its relationship to adjacent arts and sciences; bibliographical resources; methods of research and research writing; and a brief survey of the historical development of linguistics and current issues in the field.
LIN	6117	History of Linguistic Thought	3	AS	WLE	PR: CC.	Survey of the development of language study in the West from Antiquity to the present. Classical and medieval theories of language; origins

							of traditional grammar; rationalist linguistic theory and philosophical grammar, and an examination of the origin of contemporary linguistic controversies.
LIN	6129	Studies in English Language and Linguistics	3	AS	WLE		An advanced study of the origin, historical development and contemporary structure of British and American English in its social and cultural milieu, with emphasis upon modern techniques for linguistic analysis and description.
LIN	6322	Phonological Description	3	AS	WLE	PR: CI.	Analysis of the phonological component of a grammar, its role and formal structures. The generative model is compared to taxonomic descriptions. Theory and data-solution problems.
LIN	6351	The Sound System of English	3	AS	WLE	PR: LIN 5700 or EQ.	Training in applied phonetic transcription of American English speech; analysis and description of major phonological processes and dialect features of American English, with practice in teaching pronunciation.
LIN	6571	The Structure of a Specific Language	3	AS	WLE		Analysis of the linguistic structures of both common and uncommon languages.
LIN	6601	Sociolinguistics	3	AS	WLE		Detailed analysis of the phenomenon of language variation with emphasis upon the research methodology of sociolinguistics and the implications of its findings for current linguistic theory.
LIN	6675	The Grammatical Structure of American English	3	AS	WLE	PR: LIN 5700 or EQ.	Analysis and description of major morphological and syntactic structures of American English, with emphasis upon applied linguistics.
LIN	6715	Language Acquisition	3	AS	WLE	PR: LIN 3010, LIN 4377 or CI.	A survey of current research and theory in the processes of normal language acquisition and development.
LIN	6720	Second Language Acquisition	3	AS	WLE	PR: LIN 6715 or EQ.	Neurolinguistic, psycholinguistic, and sociolinguistic bases of second language acquisition by both children and adults.
LIN	6722	Writing Processes in Second Languages Acquisition	3	AS	WLE	PR: LIN 6081,TSL5371 TSL 5371.	A survey of current theory and research in second language writing development and instruction, with emphasis upon second language writing in academic settings. May be taken as an elective by students in the Ph.D. program in Second Language Acquisition and Instructional Technology or the M.A. program in Applied Linguistics.
LIN	6748	Contrastive Analysis	3	AS	WLE		Comparison and contrast of the structures of American English with corresponding structures in selected foreign languages. EA and IA added for contrast with CA.
LIN	6908	Independent Study	1-19	AS	WLE	PR: CC. S/U.	Independent study in which the student must have a contract with an instructor.
LIN	6910	Directed Research	1-	AS	WLE	PR: GR. ML, CC. S/U.	

			10				
LIN	6932	Selected Topics	1-4	AS	WLE	PR: CC.	Content will depend upon instructor's interests and students' needs. Such topics and neurolinguistics, bilingualism, and discourse analysis may be taught.
LIN	6940	Graduate Instruction Methods	1-4	AS	WLE	S/U only.	Special course to be used primarily for the training of teaching assistants.
LIN	6971	Thesis: Master's	2-19	AS	WLE	S/U.	
LIS	5020	Foundations of Library and Information Science	3	AS	LIS		Introduction to the study of library and information science, history; organization; specialized literature; outstanding leaders; current trends, issues, and problems; the place of the information agency in society with its contributions to that society.
LIS	5268	Microcomputer Applications Library and Information Centers	3	AS	LIS		Microcomputer hardware and software for libraries and their application in library/information settings. Projects using major applications for budgets, databases, and telecommunications are undertaken.
LIS	5315	Instructional Graphics	3	AS	LIS		Theoretical aspects, planning and production of instructional graphic material. The theory of graphic communications. Interpreting needs for instructional materials appropriate for given behavioral objectives.
LIS	5333	TV in Schools and Libraries	3	AS	LIS		Small format video tape recordings and the utilization of open and closed broadcasts in schools and libraries.
LIS	5418	Health Informatics for Medical Librarians	3	AS	LIS	PR: LIS 5020 or LIS 6620. CR: LIS 6475.	Introduction to the interdisciplinary field of medical informatics highlighting the underlying theories, and methods related to health information technology in support of decision-making, problem-solving, and other health information problems.
LIS	5937	Selected Topics in Library Studies	1-4	AS	LIS		Covers a variety of topics in such areas as collection development, reference services, technical services, and administration.
LIS	6110	History of Libraries	3	AS	LIS		Development of libraries as found from the earliest records to the great libraries of modern times, and the library as a social institution.
LIS	6111	History of Children's Literature	3	AS	LIS		Historical bibliographical survey of imaginative and information literature for children.
LIS	6206	Adult Services in Libraries	3	AS	LIS	PR: LIS 6511 or CI.	Traditional and innovative services for adults in public and other types of libraries, including those for special groups, such as the aging, handicapped, and institutionalized.
LIS	6212	Reading Guidance Programs in Libraries and Classrooms	3	AS	LIS		Working with factors and forces influencing reading habits of children and youth; programs for teaching investigative and library skills materials and methods for guidance

							of reading, listening, and viewing.
LIS	6225	Storytelling	3	AS	LIS	PR: LIS 6585 or CI.	Building storytelling programs for school and public libraries or other educational institutions. Analysis of historical aspects, materials suitable for use and audience reaction.
LIS	6260	Information Science in Librarianship	3	AS	LIS		Historical overview of the emergence of information science as a discipline. The fundamental concepts of information retrieval systems and subsystems, related information technologies, including indexing and abstracting, and their applications to the field of librarianship.
LIS	6271	Research Methods in Library and Information Science	3	AS	LIS	PR: LIS 5020, LIS 6603, and LIS 6725 or LIS 6735.	Overview of present status of research in library and information science; introduction to research methods and their application to librarianship; designed to prepare students to evaluate and plan research studies relating to library and information science.
LIS	6303	Preparing Instructional Media	3	AS	LIS		Fundamentals of preparing and using audiovisuals as they relate to the communication process.
LIS	6316	Visualization of Knowledge	3	AS	LIS	PR: LIS 6260	This course covers the perceptual basis of information visualization, major visualization methods, information retrieval system utilizing information visualization, and future trends and issues of information visualization in digital libraries.
LIS	6402	Advanced Library Administration	3	AS	LIS		Applications of staff management principles to library situations. Includes staff roles in current and future operations, application of library performance measures to determine staff effectiveness; preparation of staff manuals; problems of special classes of library workers, such as volunteers and students.
LIS	6409	Introduction to Library Administration	3	AS	LIS		Behavioral approach to libraries as organizations; administrative principles, theories, and problems of all types of libraries; methods of administration; use of case studies, role plays, and in-basket exercises.
LIS	6432	Seminar in Academic Libraries	3	AS	LIS	PR: LIS 6409 or CC.	Identification of problems and critical examination of methods in administrative areas of technical, student and teaching staff services, fiscal and legal responsibilities, staff organization and supervision in academic libraries.
LIS	6445	Seminar in Public Libraries	3	AS	LIS	PR: LIS 6409 or CC.	Critical examination of public and institutional library administration, services, resources, and facilities at the municipal, county, and regional levels. Role of state and federal governments in library development.
LIS	6455	Organization and Administration of the School Media Center	3	AS	LIS	PR: LIS 6409 or CC.	Media quarters, facilities, collections, equipment, and services. Principles of organization and administration of media programs in elementary and

							secondary schools. Field trips to area media centers required.
LIS	6463	Library Networks and Systems	3	AS	LIS		Development of library networks at the local, state, regional, and national levels with consideration of organization, administration, services, funding, and legislation.
LIS	6464	Library Systems Analysis and Planning	3	AS	LIS		Application of systems planning and data processing technology to library files. Emphasis on analysis of selected library subsystems.
LIS	6472	Seminar in Special Libraries	3	AS	LIS	PR: LIS 6409 or CC.	Identification of problems and critical examination of methods in administrative areas of technical and special service clientele; fiscal and legal responsibilities, staff organization, and services in special libraries.
LIS	6473	Law Librarianship	3	AS	LIS	PR: LIS 6260, LIS 6409, LIS 6603, LIS 6735, or CC.	All aspects of law librarianship, including administration, acquisition, organization, and use of information resources for persons in the law fields. Field trip may be required.
LIS	6475	Health Sciences Librarianship	3	AS	LIS	PR: LIS 6260, LIS 6409, LIS 6603, LIS 6735 or CC. Field trip may be required.	All aspects of health science librarianship, including administration, acquisition, organization, and use of information resources for persons in the health fields such as physicians, medical students, nursing students, allied health personnel and students, and researchers.
LIS	6511	Collection Development and Maintenance	3	AS	LIS	CP: LIS 6271.	Developmental approach to building library collections of both print and non-print materials. Emphasis upon evaluation, selection, and acquisition of library materials as they uphold the objectives of the institutions for which they are selected and acquired.
LIS	6542	The Curriculum and Instructional Technology	3	AS	LIS		Effective utilization of instructional materials as they relate to specific areas of curriculum in elementary and high school programs.
LIS	6565	Books and Related Materials for Young Adults	3	AS	LIS		Young adult materials for use in secondary school libraries, young adult sections of public libraries, and other institutions serving youth. Equal emphasis upon (1) selection principles and bibliographical sources, as well as upon (2) utilization in terms of service to the young adult.
LIS	6585	Materials for Children	3	AS	LIS		Examination of materials for all institutions in which children are served: school media centers, public libraries, kindergartens, etc. Stress on selection aids, reviewing techniques, utilizations.
LIS	6603	Basic Information Sources and Services	3	AS	LIS		An examination of the basic sources of information in the general library; of bibliographical control of all communication media, with emphasis on those tools of most value to general reference services.
LIS	6609	Online Information Sources and Services	3	AS	LIS	PR: LIS 6260, LIS 6603, or CC.	Principles of online searching and characteristics of machine-readable

							bibliographic data bases. Includes two credit hours of laboratory providing hands-on research experience.
LIS	6610	Information Sources and Services in the Humanities	3	AS	LIS	PR: LIS 6603 or CC.	Consideration of the bibliographical and reference materials in the humanities with training and practice in their use for solving problems in the reference service.
LIS	6620	Information Sources and Services in the Social Sciences	3	AS	LIS	PR: LIS 6603 or CC.	Consideration of the bibliographical and reference materials in the social sciences with training and practice in their use for solving problems in reference service.
LIS	6624	Information Sources and Services in Business and Law	3	AS	LIS	PR: LIS 6603 or CI.	Consideration of representative reference sources in business and law with training and practice in their use for solving information problems in academic, public, and special libraries.
LIS	6630	Information Sources and Services in Science and Technology	3	AS	LIS	PR: LIS 6603 or CC.	Study of representative reference sources in pure and applied sciences with equal attention given to typical problems encountered in scientific and technological reference service.
LIS	6661	Government Documents	3	AS	LIS		The nature of state, federal, United Nations, and international documents, their reference and research value; the techniques of acquisition, organization, and reference use.
LIS	6724	Classification and Cataloging of Non-Book Materials	3	AS	LIS	PR: LIS 6735 or CC.	Principles and practices in cataloging and organizing non-book materials.
LIS	6725	Organization of Knowledge I	3	AS	LIS		Principles of the organization of knowledge emphasizing descriptive cataloging, including the MARC format, the use of LSCSH and the Library of Congress classification, and searching the OCLC Online Union Catalog.
LIS	6726C	Indexing and Abstracting	3	AS	LIS	PR: LIS 6725 or LIS 6735	Principles and procedures for indexing and abstracting products of human knowledge in various formats, including vocabulary control, thesaurus construction, classification, and coding in manual, automated, and intelligent systems.
LIS	6735	Technical Services in Small Libraries	3	AS	LIS		Covers aspects of technical services including acquisitions, cataloging, and circulation systems as they relate to school media centers, small public libraries, and information centers. Automation is emphasized in all aspects of the course.
LIS	6745	Organization of Knowledge II	3	AS	LIS	PR: LIS 6725.	Introduction to the practice in using selected schedules of Library of Congress Classification System and the Library of Congress Subject Heading List; changing policies and procedures in cataloging and an introduction to the use of the MARC format for inputting cataloging data into machine readable files.
LIS	6906	Independent Study	1-4	AS	LIS	PR: 20 hours in program and consent of advisor.	

						S/U.	
LIS	6946	Supervised Field Work	3	AS	LIS	PR: CC.	Supervised experience in an approved cooperating library. Includes practice work, seminar sessions and individual conferences, a progress report, and a final report on the field experience.
LIT	6096	Studies in Contemporary Literature	3	AS	ENG		Drama, poetry, fiction, and literary criticism; authors to be studied include Ionesco, Thomas, Miller, T. Williams, Beckett, Camus, Burgess, Morrison, and Walker.
LIT	6105	Studies in Continental Literature	3	AS	ENG		General areas include the Renaissance, the Enlightenment, the Novel in Europe, the Romantic Movement on the Continent, and Classical Comedy.
LIT	6934	Selected Topics in English Studies	1-6	AS	ENG		Current topics offered on a rotating basis include The Nature of Tragedy; The Nature of Comedy and Satire; and the Nature of Myth, Allegory, and Symbolism; the Epic; Utopian Literature. Other topics will be added in accordance with student demand and instructor interest.
LNW	5900	Directed Reading	1-4	AS	WLE	Departmental approval required. S/U.	
LNW	5934	Selected Topics	4	AS	WLE		Study of an author, movement, or theme.
LNW	6505	Roman Philosophy	3	AS	WLE		Readings in the philosophic writings of Cicero, Seneca, and Lucretius, together with an examination of Stoic, Epicurean, and Eclectic thought.
LNW	6655	Horace	3	AS	WLE		Readings in the Odes and Epodes of Horace; study of the Ode's tradition.
LNW	6665	Vergil	3	AS	WLE		Readings in the Aeneid, the Eclogues, and the Georgics.
LNW	6910	Supervised Research	3	AS	WLE	PR: CC.	
LNW	6940	Supervised Teaching	3	AS	WLE		
MAA	5306	Real Analysis I	3	AS	MTH	PR: MAA 4211.	Riemann-Stieltjes integrals, uniform convergence, Fourier series, Lebesgue measure and integration on R.
MAA	5307	Real Analysis II	3	AS	MTH	PR: MAA 5306.	Metric spaces, Banach spaces, and function spaces; measure and integration on abstract spaces.
MAA	5405	Applied Complex Analysis	3	AS	MTH	PR: CI.	Complex numbers, analytic and harmonic functions. Series. Contour integrals, residue theory. Conformal mappings. (A survey course emphasizing techniques and applications.)
MAA	6406	Complex Analysis I	3	AS	MTH	PR: MAA 5405 or CI.	Linear transformations, analytic functions, conformal mapping, Cauchy's theorem and applications, power series, partial fractions and factorization, elementary Riemann surfaces, Riemann mapping theorem.
MAA	6407	Complex Analysis II	3	AS	MTH	PR: MAA 6406 or CI.	Topics in: conformal mappings, normal families, Picard's theorem, univalent functions, extremal properties, elliptic functions, approximation theory, Riemann surfaces.
MAA	6506	Functional Analysis I	3	AS	MTH	PR: MAA 5307, MAS 5107 or CI.	Normed linear spaces and topological vector spaces; open mapping, closed graph, and Hahn-Banach Theorem,

							UB principle, compact operators, dual spaces.
MAA	6507	Functional Analysis II	3	AS	MTH	PR: MAA 6506.	Hilbert spaces, spectral theory, and other topics.
MAA	6616	Abstract Integration	3	AS	MTH	PR: MAA 5307 or CI.	Measure as abstract integration; Riesz representation theorem, Fubini's Theorem, Radon-Nikodym Theorem, LP spaces.
MAD	5101	LISP: Programming With Algebraic Applications	3	AS	MTH	PR: MHF 5306 or MAD 6510 or MAS 5311 or CI.	Programming in LISP, functional languages, foundations of Lambda Calculus and algebraic applications (theorem proving and game playing).
MAD	5305	Graph Theory	3	AS	MTH	PR: MAS 3105 or CI.	Brief introduction to classical graph theory (4-color theorem, etc.), directed graphs, connected digraphs, condensations, incidence matrices, Polya's Theorem, networks.
MAD	6206	Combinatorics I	3	AS	MTH	PR: MAS 3105 and MAS 4301 or CI.	Elementary counting principles, distributions, sets, multisets, partitions of sets and integers, generating functions and recurrences, graphical methods, probabilistic methods.
MAD	6207	Combinatorics II	3	AS	MTH	PR: MAS 5311 and MAD 6206 or CI.	Combinatorics of finite sets: posets, hypergraphs and external problems, matriods, block designs, Mobius inversion for partially ordered sets, Polya's enumeration theory.
MAD	6510	Analysis of Algorithms	4	AS	MTH	PR: MAS 4301 or CI.	Mathematical theory of algorithms for information processing, including time and space requirements of algorithms, construction of optimal algorithms.
MAD	6616	Algebraic Automata Theory	3	AS	MTH	PR: MAS 4301 or CI.	Deterministic and non-deterministic finite automata, Mealy and Moore machines, push-down automata, Turing machines, regular languages, context free languages, halting problem, and universal Turing machines.
MAD	6617	Algebraic Coding Theory	3	AS	MTH	PR: MAS 5311 or CI.	Linear block codes over an arbitrary finite field: Hamming, Golay, BCH, quadratic residue, Reed-Muller, and MDS codes, the MacWilliams identity, bounds on minimum distance, and relationship to design theory.
MAE	5875	Abstract Algebra for Teachers	3	AS	MTH	PR: MAS 3105 and MAS 4301 and Bachelor's degree or CI. No credit for Mathematics majors.	Groups, fields, vector spaces as they relate to high school algebra and geometry.
MAE	6115	Current Trends in Elementary Mathematics Education	3	ED	EDE	PR: MAE 4310 or equiv.	Philosophy, content, and process of mathematics instruction in elementary school programs.
MAE	6117	Teaching Elementary Math	3	ED	EDE		This course provides for the development of knowledge and skills necessary to prepare students as teachers of mathematics in elementary classes as recommended by the National Council of Teachers of Mathematics in its guidelines for teachers.
MAE	6126	Current Trends in Middle Grades Mathematics	3	ED	EDO	PR: Admission to the MAT program in middle grades mathematics or	This course examines current trends and issues in middle grades mathematics. It familiarizes teachers

						CI and MAE 6356.	with new developments in this field with a focus on curriculum issues and issues arising from state, national, and international assessments.
MAE	6127	Probability and Statistics for Middle Grades Teachers	3	ED	EDO	PR: Admission to the MAT program in middle grades mathematics or CI.	This course examines probability and statistics topics for middle grades mathematics teachers. Topics include data collection and display, measures of central tendency and variability, probabilities, and sampling procedures.
MAE	6136	Current Trends in Secondary Mathematics Education	3	ED	EDO	PR: MAE 4330 or DPR.	Curricular patterns and instructional practices in secondary mathematics.
MAE	6137	Topics in Teaching Probability and Statistics	3	ED	EDO	PR: Admission to a graduate program in mathematics education.	This course examines issues related to teaching probability and statistics in secondary schools.
MAE	6315	Algebraic Thinking for Elementary Teachers	3	ED	EDO	PR: Admission into the MA in Elementary with a Mathematics/Science emphasis.	This course is designed to enhance the algebra content knowledge of elementary teachers and to consider hpw algebraic experiences and informal algebraic concepts can be introduced into the elementary curriculum.
MAE	6316	Geometry and Measurement for Elementary Teachers	3	ED	EDO	PR: Admission into the MA in Elementary with a Mathematics/Science emphasis.	This course is designed to enhance the geometric content knowledge of elementary teachers and to consider how geometric experiences and concepts can be introduced into the elementary curriculum.
MAE	6324	Advanced Math Topics - Middle Grades Teachers	3	ED	EDO	PR: Admission into the MAT in Middle Grades Mathematics or CI. Completion of MAE 6127, MAE 6328, MAE 6329, and MAE 6325.	This course examines advanced functions topics, basic concepts of trigonometry, and the foundations of calculus. Teachers experience instructional approaches appropriate for use in middle grades classrooms.
MAE	6325	Number Theory for Middle Grades Teachers	3	ED	EDO	PR: Admission into the MAT in Middle Grades Mathematics or CI.	This course examines in number theory concepts appropriate for middle grades mathematics teachers, including historical connections. Teachers experience instructional approaches appropriate for use in middle grades classrooms.
MAE	6328	Algebra for Middle Grades Teachers	3	ED	EDO	PR: Admission into the MAT in Middle Grades Mathematics or CI. Completion of MAE 6127, MAE 6328, MAE 6329, and MAE 6325.	This course examines in algebra content appropriate for middle grades mathematics teachers, including the use of technology to study algebra. Teachers experience instructional approaches appropriate for use in middle grades algebra classrooms.
MAE	6329	Geometry and Measurement for Middle Grades Teachers	3	ED	EDO	PR: Admission into the MAT in Middle Grades Mathematics or CI.	This course examines in geometry content appropriate for middle grades mathematics teachers, including the use of technology to study geometry. Teachers experience instructional approaches appropriate for use in middle grades classrooms.
MAE	6334	Problem Solving for Elementary Teachers	3	ED	EDO	PR: Admission into the MA in Elementary with a Mathematics/Science emphasis.	This course analyzes problem-solving strategies of elementary teachers and their students.
MAE	6336	Topics in Teaching Calculus	3	ED	EDO	PR: Admission to a graduate program in mathematics education.	This course examines issues related to teaching calculus in secondary schools.

MAE	6337	Topics in Teaching Algebra	1-4	ED	EDO	PR: Undergraduate degree in mathematics or certification in secondary school mathematics	Topics in algebra, philosophy, new trends, and methods of teaching secondary school algebra.
MAE	6338	Topics in Teaching Geometry	1-4	ED	EDO	PR: Undergraduate degree in mathematics or certification in secondary school mathematics	Topics in geometry, philosophy, new trends, and methods of teaching secondary school geometry.
MAE	6356	Teaching of Pre-Secondary School Mathematics	3	ED	EDO	PR: 12 hours of mathematics. DPR.	Development of strategies and materials for teaching mathematical concepts and skills appropriate to pre-secondary school years.
MAE	6362	Senior High Mathematics Methods	3	ED	EDO	PR: Admission into the MAT in Mathematics Education (6-12) or CI.	This course is designed to prepare teachers for a successful induction to teaching mathematics in the high schools of today. It is designed to bridge the perceived gap between theory and practice.
MAE	6370	Mathematics for High School Teachers	3	ED	EDO	PR: Admission to a graduate program in mathematics education.	This course examines high school mathematics from an advanced perspective and makes connections between college level mathematics and the mathematics of the secondary school.
MAE	6643	Communication Skills in Mathematics	3	ED	EDO	PR: Admission into the MAT in Middle Grades Mathematics or CI.	This course examines issues related to communicating in mathematics, including reading, writing, speaking, and listening. It satisfies the reading in the content area mandate for certification.
MAE	6899	Internship Seminar in Mathematics Education	1-3	ED	EDO	PR: Admission into a graduate initial certification program in mathematics education. CR: MAE 6947, Graduate Internship: Mathematics Education.	This seminar accompanies the graduate internship in mathematics education and provides teacher candidates an opportunity to interact with peers and university faculty regarding classroom experiences.
MAE	6906	Independent Study in Mathematics Education	1-6	ED	EDO		This course permits a student to explore a topic of interest in depth under the direction and supervision of a faculty member.
MAE	6945	Practicum in Mathematics Education	3	ED	EDO	PR: Admission into a graduate initial certification program in mathematics education.	This practicum provides individuals in the MAT program in mathematics education with early field experiences in mathematics classrooms at the middle or high school levels, depending on the program of study.
MAE	6947	Internship	6	ED	EDI	PR: CI.	Provides students with an extended school-based experience, under the guidance of a cooperating teacher and university supervisor, for a full semester at or near the end of their graduate program. Open to graduate degree candidates only. S/U (PR: CI)
MAE	6971	Thesis: Masters/Educational Specialist	2-19	ED	EDO	S/U.	
MAE	7138	Assessment in Mathematics Education	3	ED	EDO	PR: Admission to the Ph.D. Program with emphasis in Mathematics Education or CI.	This course discusses issues related to assessment in mathematics education at all levels, including state, national, and international assessments. It also discusses issues related to rubrics and alternative assessments in

							mathematics.
MAE	7146	Curriculum History/Research Mathematics Education	3	ED	EDO	PR: Admission to the Ph.D. Program with emphasis in Mathematics Education or CI.	This course surveys curriculum history in mathematics education, discusses current research on mathematics education curricula, and explores issues related to conducting research on curriculum in this field.
MAE	7655	Technology Issues in Mathematics Education	3	ED	EDO	PR: Admission to the Ph.D. Program with emphasis in Mathematics Education or CI.	This course focuses on issues surrounding the use of technology in mathematics education. It examines perspectives and research about technology in mathematics education and their implications for technology instruction in school mathematics programs.
MAE	7794	Preparing Teachers of Mathematics, K-12	3	ED	EDO	PR: Admission to the Ph.D. Program with emphasis in Mathematics Education or CI.	This course focuses on analyzing and examining the research in mathematics teaching and teacher education as it relates to the initial preparation of teachers of mathematics and to the professional development of practicing teachers of mathematics.
MAE	7796	Research Issues in Mathematics Education	3	ED	EDO	PR: Admission to the Ph.D. Program with emphasis in Mathematics Education or CI.	This course focuses on current research in mathematics education and its implications for instruction in school mathematics programs, particularly its impact on mathematics curricula, learning, and instruction.
MAE	7910	Directed Research in Mathematics Education	1-19	ED	EDO	PR: CI.	This course permits a doctoral student to conduct advanced research and to pursue specific areas of interest with a faculty member as supervisor. A contract is required with the faculty member. S/U.
MAE	7945	Practicum in Mathematics Education	3	ED	EDO	PR: Admission to the Ph.D. Program with emphasis in Mathematics Education or CI.	This practicum provides doctoral students in mathematics education an opportunity to engage in professional experiences in teaching or research that are individualized to meet future academic needs and goals.
MAE	7980	Dissertation	2-30	ED	EDO	PR: Admission to Candidacy.	
MAN	6053	Politics and Control in Organizations	3	BU	MAN	PR: GS.	Course explores politics and control at the individual, small group, and organizational levels. Students will also explore the power relationships between organizations and the larger political/economic systems of which they are a part and with which they interact.
MAN	6055	Human Behavior and Organization	2	BU	MBA	PR: GS.	An examination of the theory and practice of management, including the study of goals and means, the functions of management, and the administrative process in general.
MAN	6107	Leadership Perspective	3	BU	MAN		Examines the perspective required of the manager/leader/facilitator in light of personal, organizational, and societal needs judged by standards of effectiveness and ethicalness.
MAN	6116	Managing Diversity	3	BU	MAN		Course deals with questions,

							dimensions of style and structure, problems and paradigms of solutions that have come out of management experience of a changing workforce during the past twenty years. Emerging styles of leadership among people of diverse cultural backgrounds will be explored as solutions, not as problems.
MAN	6140	Decision Making & Problem Solving	2	BU	MAN		
MAN	6149	Leadership and Teams	3	BU	MAN	PR: GS.	) Exploration, analysis and applications of Leadership theory, research concepts and skills in teams and organizations. Course provides insights into opportunities and challenges faced by leaders as they seek to adapt themselves and their organizations to the global business environment.
MAN	6204	Organization Design and Structure	3	BU	MAN		Systematic study of architecture, design and management approaches that influence the effectiveness of public and private organizations, including theory, environment, technology, culture, behavior control and work design.
MAN	6256	Politics and Control in Organizations	3	BU	MAN		Course explores politics and control at the individual, small group, and organizational levels. Students will also explore the power relationships between organizations and the larger political/economic systems of which they are a part and with which they interact.
MAN	6289	Organizational Change and Development	3	BU	MAN	PR: MAN 6055 or CI.	A combination laboratory-field course requiring the integration of behavioral science theories, tools, concepts, and techniques learned in the lab to an OB application in a "real" organization.
MAN	6305	Human Resource Management	3	BU	MAN	PR: GS.	Course focuses on the complex decision-making processes involved in the management of human resources within an organizational system geared to meeting both individual needs and organizational objectives.
MAN	6448	Negotiating Agreement and Resolving Conflict	3	BU	MAN		Provide the student with an overview of conflict resolution within/between organizations. Includes negotiation, mediation, arbitration, peer review, and other alternatives to litigation; internal dispute resolution, dispute system design/implementation.
MAN	6525	Quality Management	3	BU	MAN	PR: GS.	This course provides the student with an understanding of the fundamentals of quality management. Students will develop an appreciation for the complexities of modern organizations in the pursuit of quality. A cross-function multidisciplinary approach is used.
MAN	6527	Advanced Seminar in Quality Management	3	BU	MAN	PR: MAN 6525	This course explores the new paradigm shift occurring in business. Focusing on quality enhancement

							initiatives, the course explores the execution of quality management programs and their associated complexities.
MAN	6569	Quantitative Applications for Management Decisions	3	BU	QMB	PR: QMB 6305 and QMB 6603	The integration of quantitative approaches and management science tools into the decision making process at various organizational levels and in various organizational settings involved in the production and dissemination of goods and services.
MAN	6601	International Management	3	BU	MAN	PR: GS.	A study of the characteristics of the international and multinational company, environmental constraints, personnel and labor relations factors, and strategic planning and policies.
MAN	6607	Managing International Cultural Differences	3	BU	MAN	PR: GS.	Examines the effects of culture and nationality on business practices in selected regions and countries and suggests ways to build synergistic solutions from multicultural differences.
MAN	6726	Strategic Planning	3	BU	MAN	PR: Graduate Standing	Examines techniques to creatively vision and analyze the future to prepare individuals and organizations for future opportunities and threats. Designed to familiarize students with techniques for analyzing the future, critical issues, how the future will impact them as individuals.
MAN	6806	Entrepreneurship and Small Business Management Counseling	1-3	BU	MAN		Small business management consulting to an on-going firm or development of a business plan for a new enterprise. Emphasis on developing consulting skills and recognizing implications of entrepreneurs capabilities and attitudes for success.
MAN	6905	Independent Study	1-19	BU	MAN	PR: CC. S/U.	Independent study in which student must have a contract with an instructor.
MAN	6911	Directed Research	1-19	BU	MAN	S/U. PR: GR. ML, CC.	
MAN	6930	Selected Topics	1-4	BU	MAN	PR: CC.	Designed to be taken either under general guidance of faculty member on some facet of management not offered in a regular course or with regularly scheduled graduate courses for more in-depth study.
MAN	6971	Thesis: Master's	1-19	BU	MAN		
MAN	7205	Organization Theory	3	BU	MAN	PR: MAN 7225 or CI.	Interdisciplinary overview of theory and research on macro organizational variables affecting organizational design and effectiveness. Focus on relationships between organizational structure and dynamics of human behavior.
MAN	7225	Research Elective in Management	3	BU	MAN	PR: MAN 6055, Research Methods I and II or equiv.	Parametric & nonparametric statistics required. Research: Methods for organization analysis and management, design, sample

							selection, data collection, interpretation and presentation of results.
MAN	7245	Organizational Behavior	3	BU	MAN	PR: MAN 7205 or CI.	Behavioral concepts and practices in organizations. Emphasis on individual groups, intragroup and intergroup development and actions; organization; socialization; motivation; values; performance; communication effectiveness.
MAN	7285	Organizational Development	3	BU	MAN	PR: MAN 7205 or CI.	Theory and research relating to management efforts to design and implement continual developmental activities to alter climate and improve productivity and effectiveness in dynamic organizations.
MAN	7900	Directed Readings in Management	3	BU	MAN	PR: MAN 7245 and MAN 7285 or CI.	Advanced reading program from selected areas in management under supervision of faculty member, requiring written contract describing requirements, prior to registration.
MAN	7905	Independent Study in Management	1-4	BU	MAN	PR: CC. S/U only.	Course permits a management doctoral student to conduct research and pursue specific areas of interest with a faculty member as supervisor. Contract required to establish performance levels expected.
MAN	7910	Directed Research in Management	3	BU	MAN	PR: MAN 7245 and MAN 7285 or CI. S/U.	Advanced directed research program in a specific area of management under supervision of a management faculty member.
MAN	7920	Research Symposium	1	BU	MAN		
MAN	7930	Selected Topics in Management	3	BU	MAN	PR: MAN 7245 and MAN 7285 or CI.	A flexible format to offer specialized courses in management not available in regular curriculum.
MAN	7932	Seminar in Management	3	BU	MAN	PR: MAN 7245 and MAN 7285 or CI.	Critical examination of problems and issues relevant to contemporary management, such as productivity improvement, environmental constraints, etc.
MAN	7935	Seminar in Strategic Management	3	BU	MAN	PR: CC.	Introduces basic theoretical issues and empirical research in strategic management.
MAN	7980	Dissertation	2-21	BU	MAN	PR: Successful completion of preliminary exams; successful completion of Field Exams in each Major and Secondary field and admission to candidacy for Ph.D. program in Management.	
MAP	5316	Ordinary Differential Equations I	3	AS	MTH	PR: MAP 2302 and MAA 4211, or CI.	Existence and uniqueness theory, properties of solutions, linear systems, stability theory. Sturm-Liouville theory.
MAP	5317	Ordinary Differential Equations II	3	AS	MTH	PR: MAP 5316 and MAA 5307 or CI.	Topics selected from fixed point theory, comparison theory, oscillation theory, Poincare-Bendixson Theory, Lyapunov functions, eigenfunction expansions.
MAP	5345	Applied Partial Differential Equations	3	AS	MTH	PR: MAP 5407 or CI.	Separation of variables, the heat equation, wave equation, Laplace's equation, classification, Green's

							functions with emphasis on applications.
MAP	5407	Methods of Applied Mathematics	3	AS	MTH	PR: MAP 2302 or CI.	Sturm-Liouville theory, Fourier series, Green's functions, matrix methods for linear systems of ordinary differential equations, and topics from calculus of variations, control theory, numerical solutions of differential equations.
MAP	6205	Control Theory and Optimization	3	AS	MTH	PR: MAA 5307 and MAP 5316 or CI.	Projection theorems and minimum norm problems, convex analysis, duality principle, constrained optimization, finite dimensional linear systems, controllability, optimal control and pontryagin maximum principle
MAP	6206	Mathematical Optimization Theory II	3	AS	MTH		
MAP	6336	Theory of Ordinary Differential Equations I	3	AS	MTH	PR: MAA 5307 and MAP 5317, or CI.	Advanced topics selected from: existence and uniqueness theory, singularity theory, asymptotics and stability, eigenfunctions, perturbations, topological methods, spectral theory of differential operators.
MAP	6356	Partial Differential Equations	3	AS	MTH	PR: MAP 5345 and MAA 5307, or CI.	Advanced topics from: elliptic boundary value problems, semigroup theory, Sobolev spaces, degree theory, regularity, evolution equations
MAR	6158	International Marketing Management	3	BU	MKT	PR: MAR 6815, CC.	A study of marketing management activities from the perspective of firms doing business across national boundaries. Emphasis is upon aspects of marketing which are unique to international business and problem-solving within an international context.
MAR	6216	Logistics and Physical Distribution Management	3	BU	MKT	PR: MAR 6815 or CI.	A study of managerial methods focusing on the establishment and control of optimum customer service levels in the areas of inventory, transportation, fixed facility location, material handling, and information. Component parts of each system are analyzed quantitatively. Reading, lecture, and case analysis.
MAR	6336	Promotional Management	3	BU	MKT	PR: MAR 6815, CC.	Management of the promotional function as part of the total marketing program. Includes a study of relevant buyer behavior concepts, resources and budgets, media, creative aspects, and effectiveness measurements as they relate to the management tasks of developing, implementing, and evaluating promotional strategy.
MAR	6406	Sales Management	3	BU	MKT	PR: MAR 6815, CC.	A study of the sales function of the firm approached from the perspective of the sales manager. Emphasis is placed upon the development of the student's problem-solving, decision-making, and analytical skills.
MAR	6646	Research for Marketing Managers	3	BU	MKT	PR: MAR 6815, QMB 6305, ISM 6021.	A study of marketing research methods and information systems and their relationship to marketing

							decision-making. Topics include value and cost of information, sample design, questionnaire design, statistical analysis, and report presentation. Lecture, reading, case analysis, and project.
MAR	6815	Marketing Management	2	BU	MBA	PR: ECO 6114, CC.	Analysis of operational and strategic planning problems confronting marketing managers. Topics include buyer behavior, market segmentation, information systems, product selection and development, pricing, distribution, promotion, and sales force management.
MAR	6816	Marketing Strategy	3	BU	MKT	PR: MAR 6815, CC.	A study of strategic marketing planning and problem-solving processes as practiced by the modern market-oriented firm. The course is designed to develop marketing problem-solving, decision-making, and planning skills through the extensive use of case analysis.
MAR	6907	Independent Study	1-19	BU	MKT	PR: CC. S/U.	Must have a contract with an instructor.
MAR	6916	Directed Research	1-19	BU	MKT	PR: GR. M.L, CC. S/U.	
MAR	6936	Selected Topics in Marketing	1-4	BU	MKT	PR: CI.	The content and organization of this course will vary according to the interests of the faculty and students involved in any given term.
MAR	7555	Consumer Behavior Theory	3	BU	MKT	PR: CC.	This course investigates the interrelationships and applications of behavioral science theories, concepts and methodologies to problems of understanding group as well as individual behavior in the market place.
MAR	7635	Advanced Marketing Research: Design and Technique	3	BU	MKT	PR: QMB 7565, QMB 7566 or CI.	An intensive study of the theoretical, conceptual, and methodological issues in survey and experimental marketing research. A review and expansion of advanced marketing data analysis methods.
MAR	7667	Marketing Models and Strategy Applications	3	BU	MKT	PR: CC.	A model-building approach to the management of marketing. Includes models developed to aid in the design, implementation, and evaluation of corporate marketing strategies; information systems and marketing audits; and the interrelationships of economic, quantitative, and behavioral disciplines that provide the structure and tools necessary to develop and implement marketing decision support systems.
MAR	7787	Marketing Theory and Thought	3	BU	MKT	PR: GS and CI.	An intensive study of marketing concepts and theories from 1900 to present. Emphasis is placed on the development of theory, as well as predictions of future theoretical developments.
MAR	7910	Independent Study in	1-	BU	MKT	PR: CC. S/U.	This course permits a doctoral

		Marketing	1 2				student to pursue research in a specific area under the direct supervision of a faculty member.
MAR	7930	Advanced Seminar in Marketing	3	BU	MKT	PR: CC.	Broad readings within the field of marketing; an intensive survey and analysis of current marketing problems, their significance, evaluation, and probable outcome; suggestions of possible future empirical research directions and investigations.
MAR	7931	Seminar on Selected Marketing Topics	3	BU	MKT	PR: CC.	Intensive study of the theoretical, conceptual, and methodological issues and problems which impact managerial applications in selected topic areas, such as marketing channels, distribution/logistics, environmental or (social) nonprofit marketing, consumer behavior, advertising/media research, or international marketing.
MAR	7980	Dissertation	2- 2 1	BU	MKT	PR: Successful completion of preliminary exams; successful completion of field exam in each major and secondary field; and admission to candidacy for Ph.D. program in marketing.	Directed research.
MAS	5107	Advanced Linear Algebra	3	AS	MTH	PR: MAS 3105 and MAS 4301 CP: MAS 5311.	Finite-dimensional vector spaces over arbitrary fields, dual spaces, canonical forms for linear transformations, inner product spaces, orthogonal, unitary, and self-ad joint operators and quadratic forms.
MAS	5215	Number Theory	3	AS	MTH	PR: MAS 3105 and MAS 4301, or CI.	Fundamental theorem of arithmetic, modular arithmetic, Chinese remainder theorem, Mersenne primes, perfect numbers, Euler-Fermat theorem, pseudo primes, primitive roots, law of quadratic reciprocity, factorization and primality testing algorithms.
MAS	5311	Algebra I	3	AS	MTH	PR: MAS 3105 and MAS 4301 or CI.	Group theory: Sylow theorems; classification of groups of small order. Ring theory: ideals, quotient rings, polynomial rings, Euclidean domains, principal ideal domains and unique factorization.
MAS	5312	Algebra II	3	AS	MTH	PR: MAS 5311 or CI.	Continuation of MAS 5311. Finitely generated modules over a principal ideal domain, basic field theory, finite fields, Galois theory.
MAT	5932	Selected Topics	1- 4	AS	MTH	PR: CI.	Each course covers a single topic outside the usual curriculum.
MAT	6908	Independent Study	1- 1 9	AS	MTH	S/U.	Independent study in which student must have a contract with an instructor.
MAT	6911	Directed Research	1- 1 9	AS	MTH	PR: Master's degree. S/U.	
MAT	6932	Selected Topics	1- 4	AS	MTH	PR: CI	Each course covers a single topic outside the usual curriculum.
MAT	6939	Graduate Seminar	1-	AS	MTH	S/U.	Direction of this seminar is by a

			4				faculty member. Students are required to present research papers from the literature.
MAT	6971	Thesis: Master's	2-19	AS	MTH	PR: CI. S/U	
MAT	7912	Directed Research	1-19	AS	MTH	PR: Ph.D. level. S/U.	
MAT	7980	Dissertation: Doctoral	2-19	AS	MTH	PR: Admission to Candidacy	
MCB	5206	Public Health and Pathogenic Microbiology	3	AS	BCM	PR: MCB 3020C, CI.	A comprehensive survey of pathogenic microbes responsible for disease in man and other animals and the impact of these infectious agents on the public health. These pathogens will be studied with respect to their morphology, cultivation, mechanisms of pathogenicity, laboratory diagnosis, and epidemiology.
MCB	5208	Cellular Microbiology	3	AS	BCM	PCB 3023 ; MCB 3033	Cellular Microbiology is a lecture-based and literature-based course on the interactions between mammalian cells and microbial pathogens and/or their toxins, with a special emphasis on bacteria.
MCB	5655	Applied and Environmental Microbiology	3	AS	BIN	PR: MCB 3020C.	A Study of the applications of microbiology to the food/beverage industry, agriculture, public health and bioremediation. This course is a microbiology elective and has a mandatory field trip.
MCB	5815	Medical Mycology	3	AS	BCM	PR: MCB 3020C or CI.	A modern biological survey of the medically important fungi (yeasts and molds) important to microbiologists and environmental scientists.
MCB	6433	Clinical Correlations in Molecular Medicine	3	ME	MSG	PR: GMS 6001 or GMS 6200.	The course concentrates on molecular medicine and focuses on several disease conditions that provide an “in-depth” understanding of how changes in cellular structure/function and metabolic pathway regulation can result in diseases and their therapy.
MCB	6760	Microbial Symbioses	3	AS	BIN		A detailed study of the diversity and biological significance of symbiotic associations formed by prokaryotic and eukaryotic microbes with higher organisms. Emphasis is on the regulatory interplay between host and symbiont and the factors influencing the initiation, development, and maintenance of these associations.
MCB	6919	Independent Study	1-19	AS	BCM	PR: CI. S/U.	Independent study in which student must have a contract with an instructor.
MCB	6930	Graduate Microbiology Seminar	1	AS	BCM		A critical examination and discussion of current literature of microbiology.
MCB	6971	Thesis: Master's	2-19	AS	BCM	PR: CI. S/U.	
MET	6140	Weather, Climate, and Society	3	AS	GPY	PR: Undergraduate general meteorology or	This course explores the societal impacts of weather as well as the

						CI.	human impact on weather and climate. Students lead and participate in discussions
MHF	5306	Mathematical Logic and Foundations I	3	AS	MTH	PR: MAS 4301 or CI.	Two-course sequence covering: predicate calculus and classical model theory; transfinite set theory and the system ZFC; recursion theory and decidability.
MHF	5402	The Early History of Mathematics	3	AS	MTH	PR: MAC 2312	A study of the history and development of mathematics and its cultural impact from the formation of number systems to the Renaissance.
MHF	5405	History of Modern Mathematics	3	AS	MTH	PR: MAC 2313.	Traces the development of mathematical ideas in Western culture. Special emphasis is placed on those concepts which led to the Calculus. This course is open to majors and non-majors alike.
MHF	6307	Mathematical Logic And Foundations II	3	AS	MTH	PR: MHF 5306	Continuation of MHF 5306.
MHS	5020	Foundations of Mental Health Counseling	3	BC	REH	PR: CC.	A skill-building course on the utilization of one's self in mental health counseling relationships. Includes study of the origin, history, professional functions and current issues in the discipline of mental health counseling.
MHS	5480	Human Growth and Development	3	BC	REH	PR: RCS 5780, MHS 5020, Majors only.	Human development theory as applied in psychotherapy and case management rehabilitation, mental health, and addiction settings.
MHS	5905	Directed Studies	1-4	ED	EDG		Independent studies on a selected topic.
MHS	6006	Trends and Principles of the Counseling Profession	4	ED	EDG	PR: CI	A study of trends in the counseling profession, its philosophical framework, its scope and functions, its organizations and administration. Introduction to basic skills needed in the counseling relationship.
MHS	6021	Counseling in Community Settings	3	ED	EDG	PR: MHS 6006, MHS 6070, MHS 6200, MHS 6340, MHS 6400, MHS 6420, MHS 6470, MHS 6509, MHS 6700. CR: MHS 6800.	The study of community counseling within the context of health and human service systems including treatment modalities, administration, and fiscal considerations.
MHS	6070	Study of Mental Disorders for Counselors	4	ED	EDG	PR: MHS 6006 or CI.	The purposes of this course are to familiarize the students with the study of mental disorders, learn the most current system of classification of mental disorders, and discuss evidence-based biological and sociocultural treatments for mental disorders.
MHS	6072	Epidemiology and Prevention in Children's Mental Health	3	BC	FMH		Provides introduction to epidemiological research methods in children's mental health; prepares professionals to critically evaluate research literature and to design studies to better affect children's mental health. Unrestricted. Nonrepeatable.
MHS	6073	Child and Adolescent Psychopathology and Resilience	3	BC	FMH		Students will gain basic knowledge about psychological disorders necessary to assess/treat/serve children, adolescents, and their

							families. Factors that promote resilience and build competencies will be explored. Unrestricted. Nonrepeatable.
MHS	6095	Family-Centered Interdisciplinary Practice: SOC	3	BC	FMH		Provides an overview of a SOC approach to children's mental health; prepares professionals to work in respectful partnership with families/youth and to participate in interdisciplinary teams serving children and their families. Unrestricted. Nonrepeatable.
MHS	6096	Program Development and Implementation in Children's Mental Health	3	BC	FMH		Course introduces students to the science of implementation and key frameworks, theories, strategies; includes critical elements, influences, stages applied to carry out successful implementation of initiatives. Unrestricted. Nonrepeatable
MHS	6097	Financing of Children's Mental Health Services	3	BC	FMH		Addresses theoretical, evaluative, political issues regarding financing of children's mental health services; will further students' critical thinking about financing strategies/structures that support effective systems of care. Unrestricted/nonrepeatable.
MHS	6098	Leadership within Systems of Care	3	BC	FMH		Introduces students to various theories of leadership and empirical evidence linking leadership competencies to organizational and community success in children's mental health, emphasizing real-world challenges and solutions. Unrestricted. Nonrepeatable.
MHS	6200	Assessment and Appraisal Procedures	4	ED	EDG	PR: MHS 6006.	The study of statistical concepts, assessment instruments and procedures relevant to school and community counseling with an emphasis on standardized test data and the use of an individual case study approach.
MHS	6201	Applied Behavior Analysis in Complex Community Environments	3	BC	FMH		Prepares students to recognize factors that may affect the application of behavior analysis principles within and across community settings and to design intervention plans that fit given characteristics of the social and physical context of these home, school and other community settings.
MHS	6210	Wraparound Interventions and the System of Care	3	BC	FMH		Explores the wraparound philosophy and focuses on developing supportive community structures for the delivery of wraparound services. Research, evaluation, and methodology in wraparound interventions are addressed. Unrestricted/nonrepeatable.
MHS	6311	Online Services in Counseling and Helping Professions	3	ED	EDG		To provide students in helping professions with basic and advanced knowledge and skills associated with the provision of online services in counseling and related helping professions. Also to provide training on how to evaluate and design such

							services.
MHS	6340	Career Development	4	ED	EDG	PR: MHS 6006.	Study of the information service in guidance as it relates to life style and career development. Theories dealing with career planning. Application of educational, vocational, and personal-social information resources to lifelong human development.
MHS	6341	Career Program Design and Evaluation	3	ED	EDG	PR: MHS 6006	Study of the various components of designing, implementing, managing and evaluating effective career programs.
MHS	6400	Counseling Theories and Practices	4	ED	EDG	PR: EDF 6354 and MHS 6006.	This course is the study of the nature of the counseling process with emphasis on major theoretical approaches and related personality theories, development of basic counseling skills and supervised practice.
MHS	6418	School Counselor Accountability and Curriculum	3	ED	EDG	PR: MHS 6006.	This course prepares school counselors to assume their role and responsibilities in meeting the demands of school reform. Students compile instructional guidance units, using evidence-based content and strategies, to facilitate K-12 student development.
MHS	6420	Multicultural Counseling with Diverse Populations	3	ED	EDG	PR: MHS 6400.	Counseling strategies applied to diverse populations including the use of school and community resources. Each student will select a specific population group for supervised research.
MHS	6421	Counseling Children	4	ED	EDG	PR: EDF 6354 and MHS 6006.	Nature of the counseling process with an emphasis on major theoretical approaches, supervised practice, and application. Focus on work with elementary age children and consultations with parents, teachers and other professionals.
MHS	6430	Dynamics of Marriage & Family Systems Theory	4	ED	EDG	PR: MHS 6400.	The major theoretical approaches to systems therapy including strategic, structural, contextual, object-relations and Adlerian models are presented. Also included is the investigation of transgenerational problems and symbolic structures in families as they relate to General Systems Theory.
MHS	6431	Family Therapy & Techniques	4	ED	EDG	PR: MHS 6430.	This course concentrates on the theory and application of intervention techniques to family systems. Structured experiences include interviewing, assessing, making therapeutic interventions, observing family interaction, and developing basic aspects in treating families.
MHS	6432	Marriage Therapy	4	ED	EDG	PR: MHS 6430.	A study of the marriage relationship with emphasis on issues of premarital, marital, divorce, intimacy, and conflict management. Course activities introduce students to a wide variety of therapy procedures and intervention strategies.
MHS	6450	Counseling Substance	4	ED	EDG	PR: MHS 6400.	This course prepares counselors to

		Abuse in School and Community					work with substance abuse issues, including prevention, in schools and community out-patient settings. Includes counseling and program approaches found to be effective in addressing substance abuse.
MHS	6470	Human Sexuality Issues for Counselors	4	ED	EDG	PR: MHS 6400.	Emphases include exploration of various dimensions of human sexuality; dynamics of major individual and societal sexuality issues; theoretical approaches to counseling related to sexuality issues.
MHS	6509	Group Counseling Theories and Practices	4	ED	EDG	PR: MHS 6400.	An experiential study of group structure, group dynamics, methodology, and leadership models applicable to counseling clients in school and community settings. Includes skill building through supervised practice.
MHS	6601	Consultation for the Counseling Profession	3	ED	EDG	PR: MHS 6400 and MHS 6006. Non-majors need instructor's approval.	A study of consultation theory and practice as used by counselors working in schools and mental health facilities, particularly with educators, other professionals, and parents, individually and in groups.
MHS	6620	Counseling in Community Setting	3	ED	EDG		Study of community counseling within the context of health and human service systems including treatment modalities, administration, and fiscal considerations.
MHS	6645	Mental Health Informatics	3	BC	FMH		This course examines how information technologies and knowledge management affect access to mental health and impact policy. Current applications include the management of mental health databases and the development of behavioral telehealth programs.
MHS	6700	Legal and Ethical Issues in the Counseling Profession	3	ED	EDG	PR: MHS 6006.	Study of legal, ethical and related issues affecting the role and responsibilities of counselors in schools and mental health facilities.
MHS	6800	Practicum in Counseling Adolescents and Adults	4	ED	EDG	PR: MHS 6400. S/U. DPR.	Supervised counseling for integration and application of knowledge and skills gained in didactic study.
MHS	6885	Internship in Community Agency Counseling	3-6	ED	EDG		Field experience involving one semester of full-time participation in the counseling and related activities of a public or private agency providing mental health services to the community.
MHS	6887	Internship in Career and College Counseling	3-6	ED	EDG	PR: MHS 6800, MHS 6006, MHS 6200, MHS 6340, MHS 6341, MHS 6400, MHS 6420, MHS 6700, EDF 6481; CR: MHS 6601.	Field experience (1 semester full-time or 2 semesters of part time participation) in career and/or college counseling and related activities of a public or private career center or college center/site/agency. It is restricted to counseling students.
MHS	6900	Special Topics in Planning, Evaluation and Accountability	1-3	BC	FMH		This course will address selected special topics. Prerequisite is at least three credits in research and evaluation courses at the graduate level.
MHS	6901	Independent Studies in Mental Health Studies	1-4	BC	FMH		Students conduct independent study in an area related to behavioral

							health under the guidance of a faculty member. Open to all majors/repeatable for a maximum of 4 credits.
MHS	6905	Individual Study	1-4	ED	EDG	PR: DPR.	Independent study, research, and experience relating to professional counseling under the supervision of a member of the Counselor Education faculty.
MHS	6906	Independent Study in Behavior Analysis Applications in Community Settings	1-6	ED	EDG	PR: Program approval required - FAO 126.	Independent study in behavior analysis provides students opportunities to focus on special areas of study under a contractual agreement with a faculty member.
MHS	6930	Seminar In Guidance	1-4	ED	EDG	PR or CR:MHS 6006, DPR. S/U.	Significant issues in the field of guidance; will document student's effectiveness in providing effective programs that contribute to the academic missions of the school. Repeat up to 4 hours.
MHS	6938	Applied Behavior Analysis in Community Settings	1-4	BC	FMH		Addresses selected topics in behavior analysis applications in complex community environments through lecture, class discussion, and supervised special projects.
MHS	6940	Practicum in Behavior Analysis in Community Settings	2-4	BC	FMH	PR: Program approval required - FAO 126.	Supervised field work in the application of behavior analysis to children, adults and/or their families in complex community environments, including home, school, employment and neighborhood settings.
MHS	6970	Thesis: Masters/Educational Specialist	2-19	ED	EDG	S/U. MA/EdS Candidates only.	
MHS	6971	Thesis in Applied Behavior Analysis	2-6	BC	FMH	PR: Program approval required - FAO 126.	The Thesis credits will provide students the opportunity to conduct independent applied behavior analysis single subject experimental design studies, or special research projects related to applications in community settings.
MHS	7401	Advanced Counseling: Theories and Practicum	4	ED	EDG	PR: CI.	Advanced study of major counseling theories and their application in therapeutic work with individual clients and with groups in a variety of settings. Supervised practice in individual and group counseling with emphasis on integration of theory and practice.
MHS	7610	Supervision: Theories and Practicum	4	ED	EDG	PR: CI.	Theory and methodology of consultation; the role of the counseling professional as consultant and as a supervisor of counselor trainees and counseling practitioners. Practice learning experiences in consulting and supervision under faculty direction.
MHS	7740	Survey Course in Planning, Evaluation and Accountability	3	BC	FMH	PR: Masters in field related to human services or at least 16 credits toward a masters degree.	This introductory course is designed to provide a comprehensive overview of planning, evaluation and accountability methods within a systems context. Emphasis is placed on a broad range of quantitative and qualitative methods.
MHS	7747	Measurement Issues in	3	BC	FMH	NGR 7974	This course will examine the

		Behvrl Hlth Svcs Res/Eval					development, selection, and use of individual, program, and systems-level process and outcome measures used in behavioral health services research. The course will examine both quantitative and qualitative measurement issues.
MHS	7930	Advanced Seminar in Counselor Education	2	ED	EDG	PR: DPR. S/U.	Seminar for advanced graduate students in counselor education. Issues and trends in professional counseling will be addressed.
MHS	7980	Dissertation	2-30	ED	EDG	PR: Admission to Candidacy.	
MMC	6206	Mass Communications Ethics	3	AS	COM	PR: GS in Mass Communications or CI.	An introduction to fundamental ethical principles and an application of those principles to a variety of situations in journalism, broadcasting, advertising, and public relations.
MMC	6306	International Communications Seminar	3	AS	COM	PR: CC.	Mass communications as national and international systems; flow of the news, international news communications networks; satellite communications; overseas activities of American media interest; international propaganda; communication and national development; international media organizations and their activities.
MMC	6400	Mass Communication Theory	3	AS	COM	PR: CC.	The study of mass communication theories, structures, influences, and their relationships to institutions in American society.
MMC	6415	Strategic Communication Media	3	AS	COM	PR: PUR 5505.	This concepts course emphasizes strategic thinking in media planning for communication campaigns. Students learn the process of critically evaluating media, purchasing media outlets, scheduling media weight and evaluating media impact. Nonrestricted.
MMC	6418	Strategic Message Design	3	AS	COM		This seminar covers the development of strategic messages for particular audiences to accomplish communication objectives. Topics are research, planning, persuasion, message strategies, and message evaluation. Unrestricted and not repeatable for credit.
MMC	6421	Research Methods in Mass Communications	3	AS	COM	PR: CC.	The theory and practice of quantitative, historical, and critical research methods, and their applications to the study of mass communications. Emphasis in quantitative methods on experimental and survey research, statistical analysis, and evaluation of data.
MMC	6607	Public Opinion and the Mass Media	3	AS	COM	PR: CC.	The influence of public opinion on private and public institutions in a democratic society and the role of the mass media in opinion formation. The nature of persuasion in establishing or modifying public opinion, and perspectives on the social

							responsibilities of communications.
MMC	6612	Seminar: Law and the Mass Media	3	AS	COM	PR: CC.	Interrelationships of the media and government at the judicial, executive, and legislative levels. Focus is on legal limitations and privileges of the media; theory and philosophy of the First Amendment; research procedures in court and administrative agency documents.
MMC	6900	Directed Reading in Mass Communications	1-3	AS	COM	PR: CI and permission of graduate advisor. S/U.	Readings in specialized areas of mass communications as agreed to by the instructor and the student by contract.
MMC	6910	Individual Research in Mass Communications	1-3	AS	COM	PR: CI and permission of graduate advisor. S/U.	Independent study in which the student must have a contract with the instructor to study an area not covered by other courses in the graduate curriculum.
MMC	6920	Introductory Mass Communications Seminar	3	AS	COM	PR: CC.	Introduction to the aims and methodologies of graduate study in mass communications, its development and relationship to the arts and sciences, and the relationship of the scholarly aspects of media studies to professional media practice; bibliographical resources, and overview of research methods and scholarly style.
MMC	6936	Selected Topics in Mass Communications	3	AS	COM	PR: CC.	Courses designed to meet current, specific topics of interest to students and instructors.
MMC	6945	Professional Practicum	3	AS	COM	PR: 12 graduate hours in mass communications and CC. S/U.	Practicum will consist of placement with a media-related organization selected by the student and approved and supervised by the graduate advisor.
MMC	6950	Applied Research Project	3	AS	COM	PR: CI and permission of graduate advisor. S/U.	Completion of a major applied communication research project under supervision. Topic will be selected according to student's needs and interests.
MMC	6971	Thesis: Master's	2-3	AS	COM	PR: CI and permission of graduate advisor. S/U. Students must take minimum of 6 hours.	
MTG	5256	Differential Geometry	3	AS	MTH	PR: MAA 4211, MAS 3105.	Exterior calculus, differentiable manifolds, integration of differential forms, surfaces in 3-space, covariant derivative, curvature, matrix groups.
MTG	5316	Topology I	3	AS	MTH	PR: MAA 4211.	Topological spaces, continuity, homeomorphisms, connectedness, compact spaces, separation axioms, product spaces.
MTG	5317	Topology II	3	AS	MTH	PR: MTG 5316.	The fundamental group; elements of homotopy theory and homology theory.
MUC	5625	Jazz Composition	2	TA	MUS	PR: CI. Required of all composition majors.	Private instruction in original composition.
MUC	6251	Composition	4	TA	MUS	PR: DPR.	Private instruction in original composition. Required of composition majors.
MUC	6444	Electronic Music/Analog/Digital Systems Research I	3	TA	MUS	PR: DPR.	State-of-the-art compositional and performance applications; new concepts of electronic music synthesis; documentation and critical

							analysis of new repertory.
MUC	6445	Electronic Music/Analog/Digital Systems Research II	3	TA	MUS	PR: DPR.	State-of-the-art compositional and performance applications; new concepts of electronic music synthesis; documentation and critical analysis of new repertory.
MUC	6448	Electronic Music: Computer Music Research	3	TA	MUS	PR: MUC 6445	For advanced students already experienced in Electronic Music, this class focuses on creative and research techniques in Computer Music, with special emphasis in multimedia collaboration across disciplines.
MUC	6625	Seminar In Jazz Compositional Styles	2	TA	MUS	PR: DPR.	A seminar study of the major compositional figures in jazz. Oriented toward the continuing development of students' own writing ability.
MUC	6626	Jazz Composition	4	TA	MUS	PR: CI. Required of all composition majors.	Private instruction in original composition.
MUE	6080	Foundations And Principles Of Music Education	3	TA	MUS	PR: Acceptance into Music Education Graduate Program or DPR.	Investigation of historical, philosophical, and psychological foundations of music education.
MUE	6097	Music, Medicine, and Myths	2	TA	MUS	PR: Graduate standing and upper-level undergraduate with advisor's permission.	The course focuses on integration of the body, mind, and emotion in music learning and performing; causes, prevention, and treatment of music-related injury; rehabilitation and effective management of performance anxiety.
MUE	6116	Advanced Techniques and Research in K-12 General Music	3	TA	MUS	PR: Acceptance in the Music Education Graduate Program or DPR.	This course focuses on teaching and learning processes in general music education K-12. Students examine research and best practices in the field with the aim of improving their own skills in developing comprehensive musicianship in students.
MUE	6336	Advanced Techniques and Research in Vocal/Choral Music Education	3	TA	MUS	PR: Acceptance in the Music Education Graduate Program or DPR.	Course provides for graduate students in music education the opportunity to examine current research related to the teaching of secondary school vocal music, evaluate curricula, music materials, and teaching methods that will enable them to develop a vocal music program that emphasizes musical sensitivity.
MUE	6347	Advanced Techniques and Research in Instrumental Music Education	3	TA	MUS	PR: Acceptance in the Music Education Graduate Program or DPR.	This course focuses upon teaching and learning processes in instrumental music, and the stimulation of student thought regarding the variety of roles a music teacher may assume to assist students to become musically literate and aesthetically sensitive.
MUE	6648	Techniques and Research in Alternate Music Education Methods	3	TA	MUS	PR: MUS 6520	An examination on new and innovative models of music instruction including (but not limited to): composition courses; high school general music formats; general arts structures; and, alternative performing ensembles.
MUE	6906	Independent Study: Music Education	1-6	TA	MUS	S/U. DPR.	Independent study in which students must have a contract with an

							instructor.
MUE	6942	Graduate Internship in Music Education	6	TA	MUS		This course is designed to provide the student teaching experience for music education graduate students pursuing an MA - Plan II, leading to certification.
MUE	6971	Thesis: Masters/Eds	2-19	TA	MUS	PR: DPR.	
MUE	7746	Measurement and Evaluation in Music	2	TA	MUS		This course is designed to provide students with a comprehensive overview of traditional and contemporary approaches to the measurement, evaluation, and assessment of musical abilities, activities, and experiences.
MUE	7786	Qualitative Methods of Music Education	2	TA	MUS		This course is designed to acquaint students with foundations, methods, and applications of qualitative research in education and music education.
MUE	7815	Psychology of Music	3	TA	MUS	PR: Acceptance in the Music Education Graduate Program, a graduate level educational psychology course or its equivalent, or DPR.	A critical examination of current findings regarding the phenomena of the psychology of musical behaviors including the investigation of musical acoustics, the measurement of musical abilities, and a comparative study of theories of learning related to musical learning.
MUE	7816	Music Cognition	2	TA	MUS		A critical examination of theories and research in music cognition in relation to perception and developmental psychology.
MUE	7835	Philosophical and Historical Issues in Music Education	3	TA	MUS	PR: Acceptance in the Music Education Graduate Program or CI.	A course design to investigate the nature of philosophical issues as they pertain to music education theory and practice.
MUE	7855	International Perspectives in Music Education	2	TA	MUS		A critical examination of music education in various nations from social, cultural, political, and philosophical perspectives.
MUE	7937	Special Topics in Music Education	2-3	TA	MUS	PR: Dept. Approval Required	This course will provide an opportunity to examine selected topics in the research of choral, instrumental, general, and alternative music instruction models.
MUE	7939	Center for Music Education Research Seminar	1-2	TA	MUS	PR: Admission to Ph.D. Program	Examination of theory and research in music education. Current research in music teaching and learning presented by faculty abd guests. Students develop their dissertation topics, preliminary review of literature, and present their research proposals. May be repeated 4 times for up to 6 credits. S/U Grading
MUE	7980	Dissertation	2-19	TA	MUS	PR: Admitted to Candidacy. S/U. DPR.	
MUE	7990	Seminar on Music in Higher Education	2	TA	MUS	PR: Dept. Approval Required	The course will examine issues germane to the ways and contexts (liberal arts college, land grant college, research university, conservatory) in which music functions as a discipline in American higher education. It will trace its

							roots from the medieval European university (in the quadrivium) to the present. It also will speak to a range of contemporary issues, including but not limited to rank, promotion, tenure, creative activities as a research endeavor, accreditation, curricular innovation, etc.
MUG	6256	Choral Literature And Conducting I	4	TA	MUS	PR: DPR.	Combination of seminar, classroom, and laboratory types of experience designed to provide depth in stylistic study of choral music literature and performance.
MUG	6257	Choral Literature And Conducting II	4	TA	MUS	PR: DPR.	Combination of seminar, classroom, and laboratory types of experience designed to provide depth in stylistic study of choral music literature and performance.
MUG	6258	Choral Literature And Conducting III	4	TA	MUS	PR: DPR.	Combination of seminar, classroom, and laboratory types of experience designed to provide depth in stylistic study of choral music literature and performance.
MUG	6307	Band/Wind Ensemble Conducting	3	TA	MUS	PR: DPR.	Combination of lecture, seminar, laboratory and individual instruction experiences designed to provide development of advanced conducting skills.
MUG	6930	Advanced Choral Techniques	3	TA	MUS	PR: DPR.	Study designed to provide rehearsal techniques, methods, and resources for the choral conductor. When possible, the choral faculty will present this course in a team-teaching fashion.
MUL	6205	Advanced Choral Conducting	2	TA	MUS	PR: Dept. Approval Required.	Combination of private study and laboratory experiences designed to teach conducting technique and rehearsal skills while encouraging leadership qualities in the choral conductor.
MUL	6375	Twentieth Century Music Literature	3	TA	MUS	PR: DPR.	A study of the literature, compositional techniques, and music philosophies of the major 20th century composers from Debussy to the present.
MUL	6410	Keyboard Repertory I	2	TA	MUS	PR: DPR.	A study of style, history, and performance practice in keyboard repertory including masterworks of all periods.
MUL	6411	Keyboard Repertory II	2	TA	MUS	PR: DPR.	A study of style, history, and performance practice in keyboard repertory including masterworks of all periods.
MUL	6505	Symphonic Literature	2	TA	MUS	PR: DPR.	A chronological study of the development of orchestral music; analysis and study of major works from a stylistic and biographical perspective.
MUL	6555	Band/Wind Ensemble Literature	3	TA	MUS	PR: DPR.	Combination of seminar and classroom experiences designed to provide depth in historical study of band and wind ensemble literature. Rpt. Up to 9 hrs.
MUL	6565	Chamber Music Literature	2	TA	MUS	PR: DPR.	A survey and stylistic analysis of chamber music repertory from 1750

							through the present day.
MUL	6624	Song Literature I	2	TA	MUS	PR: DPR.	Solo song literature from the 17th century through the contemporary with emphasis on German lieder, French songs, and contemporary English and American songs; special emphasis on performance.
MUL	6625	Song Literature II	2	TA	MUS	PR: DPR.	Solo song literature from the 17th century through the contemporary with emphasis on German lieder, French songs, and contemporary English and American songs; special emphasis on performance.
MUL	6655	Choral Literature 1500-1800	3	TA	MUS	PR: Dept. Approval Required.	A study and analysis of choral music from 1500-1800.
MUL	6656	Choral Literature 1800-present	3	TA	MUS	PR: Dept. Approval Required.	A study and analysis of choral music from 1800-present.
MUL	6671	Opera Literature	2	TA	MUS	PR: DPR.	A chronological study of the development of opera from 1600 to the present; emphasis on the technical, stylistic, and performance aspects of opera.
MUL	6687	Solo Vocal Literature In Oratorio	2	TA	MUS	PR: DPR.	A survey of literature for the solo voice in cantatas and orchestral music.
MUN	6145	Wind Ensemble	1	TA	MUS	PR: DPR.	Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.
MUN	6215	University Orchestra	1	TA	MUS	PR: DPR.	Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.
MUN	6315	University Singers	1	TA	MUS	PR: DPR.	Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.
MUN	6345	Chamber Singers	1	TA	MUS	PR: DPR.	Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass or percussion instruments, and piano.
MUN	6385	University-Community Chorus	1	TA	MUS	PR: DPR.	Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.
MUN	6416	String Quartet	1	TA	MUS	PR: DPR.	Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of

							voices, string, woodwind, brass or percussion instruments, and piano.
MUN	6429	Woodwind Quintet	1	TA	MUS	PR: DPR.	Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass or percussion instruments, and piano.
MUN	6435	Brass Choir	1	TA	MUS	PR: DPR.	Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass or percussion instruments, and piano.
MUN	6436	Brass Quintet	1	TA	MUS	PR: DPR.	Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass or percussion instruments, and piano.
MUN	6437	Horn Quartet	1	TA	MUS	PR: DPR.	Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass or percussion instruments, and piano.
MUN	6445	Percussion Ensemble	1	TA	MUS	PR: DPR.	Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass or percussion instruments, and piano.
MUN	6446	Marimba Ensemble	1	TA	MUS	PR: DPR.	Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass or percussion instruments, and piano.
MUN	6455	Piano Ensemble	1	TA	MUS	PR: DPR.	Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.
MUN	6456	Piano Ensemble	1	TA	MUS	PR: DPR.	Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.
MUN	6477	Collegium Musicum	1	TA	MUS	PR: DPR.	Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass or percussion instruments, and piano.

MUN	6715	Jazz Ensemble	1	TA	MUS	PR: DPR.	Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.
MUN	6716	Jazz Chamber Ensemble	1	TA	MUS	PR: DPR.	Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass or percussion instruments, and piano.
MUO	6505	Opera Workshop	1	TA	MUS	PR: DPR.	Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.
MUS	5905	Directed Study	1-4	TA	MUS	PR: DPR.	Independent studies in the various areas of music; course of study and credits must be assigned prior to registration.
MUS	6520	Computer Applications in Music Education	3	TA	MUS		An examination of the teaching and learning processes in music as they are affected by music technology. Through the course, students will explore a variety of music software types and investigate the potential role of technology in music education.
MUS	6793	Techniques Of Research In Music And Music Education	3	TA	MUS	PR: DPR.	A study of the methods of research and professional bibliography and with an individual, formal project as a terminal requirement.
MUS	6906	Independent Study	1-19	TA	MUS	PR: DPR,S/U.	Independent study in which student must have a contract with an instructor.
MUS	6910	Directed Research	1-19	TA	MUS	PR: GR. ML, DPR, S/U.	
MUS	6971	Thesis: Master's	2-19	TA	MUS	PR: DPR, S/U	
MUS	6976	Graduate Recital	2	TA	MUS	PR: DPR	
MUT	5051	Graduate Review Of Music Theory	2	TA	MUS	PR: DPR.	A graduate level review of basic theoretical concepts with emphasis on the common practice period. The course serves to satisfy deficiencies in music theory and does not count toward the graduate degree requirements.
MUT	6545	Analysis of 18th and 19th Century Music	3	TA	MUS	PR: CI.	An in-depth examination of the music of the 18th and 19th centuries. Students provide detailed analyses of selected works and read appropriate scholarly writings. Additional activities may include in-class presentations and a research paper.
MUT	6586	Critical Analysis-History	2	TA	MUS	PR: DPR.	A study of historical developments of music in western civilization. Emphasis on a different historical period each semester, from the Middle Ages through the Romantic

							Period.
MUT	6626	Analysis of Twentieth Century Music	3	TA	MUS	PR: CI.	An in-depth examination of representative works. Students will learn analytical techniques such as set theory and 12-tons techniques, read scholarly articles, give in-class presentations, and write a research paper to gain an understanding of the theoretical and musical trends of the 20th-century.
MUT	6627	Schenkerian Analysis	3	TA	MUS		A study in theories and analytical methods developed by German theorist Heinrich Schenker. Students are expected to demonstrate their knowledge of these theoretical concepts by analyzing relevant literature, investigating scholarly articles, giving class presentations, and writing a research paper.
MUT	6665	Seminar Jazz Styles And Analysis	2	TA	MUS	PR: DPR.	A studio course study of the improvised solos of the major innovators in jazz. Oriented toward the continuing development of students' soloing ability.
MUT	6751	Teaching of Music Theory	3	TA	MUS	PR: DPR.	Comparative study of teaching, techniques, procedures, and materials used in teaching visual and aural theory.
MUT	6760	History of Music Theory	3	TA	MUS	PR: DPR.	Evolutionary history of the materials of western music including tuning systems, scales, models, tonality, rhythm, counterpoint and harmony; also the exploration of treatises and theorists contributing to the evolution.
MVB	5251	Applied Trumpet	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVB	5252	Applied French Horn	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVB	5253	Applied Trombone	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.

MVB	5254	Applied Euphonium	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVB	5255	Applied Tuba	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVB	6451	Applied Trumpet	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVB	6452	Applied French Horn	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVB	6453	Applied Trombone	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVB	6454	Applied Euphonium	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVB	6455	Applied Tuba	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVJ	5250	Applied Jazz Piano Secondary	2	TA	MUS	PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble.	Private and class instruction.
MVJ	5252	Applied Jazz Bass Secondary	2	TA	MUS	PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major	Private and class instruction.

						performance ensemble.	
MVJ	5253	Applied Jazz Guitar Secondary	2	TA	MUS	PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble.	Private and class instruction.
MVJ	5254	Applied Jazz Bass Secondary	2	TA	MUS	PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble.	Private and class instruction.
MVJ	5259	Applied Jazz Percussion Secondary	2	TA	MUS	PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble.	Private and class instruction.
MVJ	5951	Applied Jazz Performance	2	TA	MUS	PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble.	Private and class instruction.
MVJ	6460	Applied Jazz Piano Major	4	TA	MUS	PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble.	Private and class instruction.
MVJ	6463	Applied Jazz Guitar	4	TA	MUS	PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble.	Private and class instruction.
MVJ	6464	Applied Jazz Bass	4	TA	MUS	PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble.	Private and class instruction.
MVJ	6469	Applied Jazz Percussion	4	TA	MUS	PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble.	Private and class instruction.

MVJ	6952	Applied Jazz Performance	4	TA	MUS	PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble.	Private and class instruction.
MVK	5251	Applied Piano	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVK	6451	Applied Piano	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVK	6650	Graduate Piano Pedagogy I	2	TA	MUS	PR: GS in performance and DPR	Emphasis on techniques used in teaching the individual student in performance.
MVK	6651	Graduate Piano Pedagogy II	2	TA	MUS	PR: GS in performance and DPR	Emphasis on techniques used in teaching the individual student in performance.
MVP	5251	Applied Percussion, Secondary	2-4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVP	6451	Applied Percussion	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVS	5251	Applied Violin	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVS	5252	Applied Viola	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVS	5253	Applied Cello	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students	Private and class instruction.

						who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	
MVS	5254	Applied Double Bass	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVS	6451	Applied Violin	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVS	6452	Applied Viola	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVS	6453	Applied Violoncello	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVS	6454	Applied Double Bass	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVV	5251	Applied Voice	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVV	6451	Applied Voice	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVW	5251	Applied Flute	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a	Private and class instruction.

						secondary applied music requirement.	
MVW	5252	Applied Oboe	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVW	5253	Applied Clarinet	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVW	5254	Applied Bassoon	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVW	5255	Applied Saxophone	2-4	TA	MUS	PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement.	Private and class instruction.
MVW	6451	Applied Flute	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVW	6452	Applied Oboe	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVW	6453	Applied Clarinet	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
MVW	6454	Applied Bassoon	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major	Required of all applied music majors. Private and class instruction.

						performance ensemble.	
MVW	6455	Applied Saxophone	4	TA	MUS	PR: DPR. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.	Required of all applied music majors. Private and class instruction.
NGR	5151L	Accelerated Fundamentals Clinical	2	NU	NUR		Clinical experience in fundamentals of clinical nursing practice. Focuses on developing effective communication skills, critical thinking physical assessment, and concepts of health and illness to meet basic needs of the individual across the life span.
NGR	5580L	Accelerated Integrated Clinical I	4	NU	NUR		Clinical intervention for patients with selected physical and mental health problems. Emphasis is on advancing communication and clinical judgment skills in therapeutic nursing interventions for patients across the life span.
NGR	5680L	Accelerated Integrated Clinical II	3-4	NU	NUR	PR: NGR 5580L, NUR 3026, NUR 3026L, NUR 3066, NUR 3215, NUR 4216, NUR 4355, NUR 4455	Clinical experiences with people across the life-span in hospital and community sites, focus on critical thinking, effective communication, therapeutic interventions, disease prevention, health promotion and synthesis of nursing theory with practice.
NGR	5871	Informatics in Nursing and Healthcare	3	NU	NUR	PR: CI.	Foundations course with emphasis on essential content and applications in healthcare informatics and clinical systems. Provides understanding of the interdisciplinary issues in medical and nursing informatics and a foundation for those seeking expertise in healthcare informatics. Focus on technologies in healthcare, nomenclatures and classification systems, health care documentation, electronic medical records, and web-based technologies for healthcare.
NGR	6002C	Advanced Health Assessment	4	NU	NUR	PR: Undergraduate assessment course and NGR6140, NGR 6172 may be taken prior to or concurrent with NGR 6001C.	An advanced history and physical examination course designed to increase competency in obtaining and recording health histories; in performing and recording physical examinations; and in symptom analysis for developing a differential diagnosis.
NGR	6037	Advanced Health Assessment for the Older Adult	1	NU	NUR		Focus on advanced history and physical examination skills with older adults.
NGR	6060	Medical Laboratory Interpretation for the Advanced Practice Nurse	1	NU	NUR		Interpretation of common medical laboratory results for the Advanced Practice Nurse with focus on the differential diagnosis.
NGR	6080	Family and Population-Based Health Promotion	3	NU	NUR	PR: NGR 6121; CI.	Focuses on the assessment of family and population groups for the purpose of planning, implementing, and evaluating nursing interventions for health promotion, health maintenance, and disease and injury prevention.
NGR	6121	Theoretical Foundations	3	NU	NUR	PR: CI.	Examination of knowledge

							development in nursing science, critique and evaluation of theories from nursing and related fields. Professional role development is emphasized to facilitate transition into advanced nursing practice roles.
NGR	6140	Pathophysiology for Advanced Practice	4	NU	NUR	PR: CI.	Central concepts of pathophysiology: embryologic origins, cells, tissues, organs, and systems. Provides essential knowledge base in pathophysiology across the life span for advanced nurse practice nurses.
NGR	6143	Pathophysiologic Concepts in Acute Care Nursing	3	NU	NUR	PR: NGR 6140; NGR 6121; CI.	This course will explore pathophysiologic mechanisms of the major body systems in critically ill patients across the lifespan.
NGR	6172	Pharmacology for Advanced Nurse Practitioners	4	NU	NUR	PR: NGR 6140 with a "B" or higher.	This course is designed to provide the advanced nurse practitioner student with a current knowledge base in pharmacology and pharmacotherapuetics focusing on pharmacokinetics and pharmacodynamics across drug categories.
NGR	6201	Primary Care of Adults I	3	NU	NUR	PR: NGR 6140, NGR 6121, NGR 6737, NGR 6800, NGR 6080, NGR 6172, NGR 6002C.	The didactic basis for diagnosing and managing common and acute health conditions of the adult. Students will compile/analyze data and develop/implement a plan of care. Concepts of health promotion/health maintenance are integrated throughout the course.
NGR	6202C	Primary Care of Adults II	6	NU	NUR	PR: NGR 6002C, NGR 6121, NGR 6800, NGR 6140, NGR 6172, NGR 6737, NGR 6080, NGR 6207.	Didactic basis and practical experience for diagnosing and managing chronic health problems of the adult; emphasis on compiling and analyzing data, developing and implementing a plan; integrating health promotion and maintenance throughout course.
NGR	6205	Primary Care : Adolescents	2	NU	NUR	PR: NGR 6002C, NGR 6140, NGR 6199.	Course provides content in assessment, analysis, and management of adolescent health and health problems through nursing interventions. Developmental stages, lifestyle variations, cultural diversity, and environmental stressors, are included.
NGR	6205L	Primary Care Practicum: Adolescents and Women	2-3	NU	NUR	PR: NGR 6002C, NGR 6140, NGR 6199.	Focus on application of the knowledge gained in the classroom in Primary Care: Adolescents and Women to this patient/client population. Health screening and management of commonly presenting health problems will structure the clinical experiences of this course.
NGR	6207	Primary Care: Adults	3	NU	NUR	PR: NGR 6002C, NGR 6140, NGR 6199.	Focus on the adult patient/client from mid-life to old age related to health promotion, maintenance and prevention of diseases. Including assessment and management of episodic and chronic illness for these individuals in primary care settings including culturally diverse and

							vulnerable populations.
NGR	6207L	Primary Care Practicum: Adults	2-3	NU	NUR	PR: NGR 6002C, NGR 6140, NGR 6199. CR: NGR 6207.	Focus on application of the knowledge gained in the classroom in Primary Care: Adults to the patient/client population between mid-life and older adult. Health screening and management of commonly presenting health problems will structure the clinical experience of this course.
NGR	6215	Primary Care: Adult Health Management	3	NU	NUR	PR: NGR 6205, NGR 6205L, NGR 6207, NGR 6207L.	Focus on high risk, vulnerable adult patients/clients across the life span with complex, multi-system health problems. The course covers the assessment, management and continuity of care for individuals with these complex, acute and chronic health problems.
NGR	6220	Pathobiology Of Neoplasia	3	NU	NUR	PR: CI.	Emphasizes basic concepts of cellular differentiation and the abnormal cytological changes occurring in the pathogenesis of Neoplasia. Also emphasized is the role of the advanced practice nurse in relation to the role of the immune system and diet in oncogenesis, and the epidemiology and pathology of specific types of cancers.
NGR	6221	Oncology Nursing Concepts	3	NU	NUR	PR: CI.	Provides advanced oncology nursing content with a focus on nursing management of physical problems resulting from cancer and its treatment. (CI)
NGR	6222L	Practicum I in Advanced Oncology Nursing Practice	3	NU	NUR	PR: NGR 6140, NGR 6172, NGR 6002C, NGR 6121, NGR 6737, NGR 6080, NGR 6800, NGR 6220, NGR 6221.	Provides clinical experiences in advanced oncology nursing focused on the application of theoretical and conceptual knowledge relevant to adults with cancer or at risk. Clinical assessment is focused on developing assessment skills and documentation.
NGR	6223L	Practicum II in Advanced Oncology Nursing	3	NU	NUR	PR: NGR 6140, NGR 6172, NGR 6002C, NGR 6121, NGR 6737, NGR 6800, NGR 6080, NGR 6220, NGR 6221, NGR 6222L and NGR 6240 (proposed)	Clinical experiences in advanced oncology nursing focused on the application of theoretical and conceptual knowledge relevant to adults with cancer or at risk; development of diagnostic skills, clinical management and interdisciplinary collaboration.
NGR	6224L	Practicum III in Advanced Oncology Nursing Practice	1-9	NU	NUR	PR: NGR 6140, NGR 6172, NGR 6002C, NGR 6121, NGR 6737, NGR 6800, NGR 6080, NGR 6220, NGR 6221, NGR 6222L, NGR 6223L, and NGR 6240.	Clinical experiences in advanced oncology nursing focused on the application of theoretical and conceptual knowledge relevant to adults with cancer or at risk; emphasizes evidence based practice, evaluating outcomes and professional role development.
NGR	6232	Selected Concepts in the Acutely Ill Adult	3	NU	NUR	PR: NGR 6140.	This course analyzes the multiple needs of the critically ill adult. Focuses on age specific critically ill population. Examines the response to the experience of critical illness.
NGR	6243	Clinical Management of the Acutely Ill Adult	3	NU	NUR	PR: NGR 6002C, NGR 6143, CI.	Focuses on advanced therapeutics and clinical management of selected acute health problems of adults. Diagnostic reasoning and intervention

							strategies are emphasized.
NGR	6253L	Gerontology Nursing Practicum I	3-4	NU	NUR		
NGR	6255	Primary Care of Older Adults	3	NU	NUR	PR: NGR 6002C, NGR 6140, CI.	Emphasis on functional ability of the older adult, normal biological aging, changes, developmental tasks, psychosocial, cultural and spiritual dimensions. Focuses on health promotion, disease prevention and management of acute and chronic illnesses of culturally diverse older adults.
NGR	6258	Advanced Primary Care of Older Adults	3	NU	NUR	PR: NGR 6002C, NGR 6140, CI.	Provides in-depth knowledge of: demographic, comparative, and differential aging; geriatric anatomy and physiology; the biological influence on aging psychology; the control of aging sociology; geriatric pharmacology; management of geriatric syndromes; and management of multiple diagnoses.
NGR	6259	Gerontological Nursing Practicum	1-9	NU	NUR	PR: NGR 6255 or NGR 6258.	Students will apply gerontological theories and assessment techniques in the advanced care of the elderly (1:4 ratio).
NGR	6260	Geriatric Pathophysiology for the Advanced Practice Nurse	1	NU	NUR		Central concepts of chronic illness and functional ability among the elderly and the implications for advanced nurse practitioners.
NGR	6283	Geropsychiatric Nursing	3	NU	NUR	CI	Focuses on theoretical implications and foundations for providing geropsychiatric nursing care for the elderly who have been diagnosed or have potential emotional/mental problems with emphasis of various therapies in a variety of clinical settings. (CI)
NGR	6285	GeroPharmacology for Advanced Nurse Practitioners	1	NU	NUR		Focus on pharmacokinetic and pharmacodynamic changes unique to the elderly along with the potential adverse drug effects and factors that affect therapeutic decision-making.
NGR	6301	Primary Care of Children & Adolescents I	3	NU	NUR	PR: NGR 6080, NGR 6121, NGR 6140, NGR 6172, NGR 6737, NGR 6800. CR: NGR 6002C (or previous course, 6001).	Focus is on primary care of children and adolescents with common acute and behavioral problems. Clinical management, available resources for patients, and the impact of illness on families are highlighted.
NGR	6302C	Primary Care of Children and Adolescents II	6	NU	NUR	PR: NGR 6002C, NGR 6080, NGR 6121, NGR 6140, NGR 6172, NGR 6305, NGR 6737, NGR 6800.	Didactic basis and practical experience for diagnosing and managing chronic health conditions of children and adolescents and health promotion; emphasis on compiling and analyzing data, developing and implementing a plan with individual and family.
NGR	6305	Primary Care: Children	3	NU	NUR	PR: NGR 6002C, NGR 6121, NGR 6140, NGR 6199.	Focus on the primary health care of children from birth to pre-adolescent. Health maintenance and the management of common acute illnesses are included.
NGR	6305L	Primary Care Practicum: Children	2-3	NU	NUR	PR: NGR 6002C, NGR 6121, NGR 6140, NGR 6199. CR: NGR 6305.	Application of knowledge gained in the classroom in PC: Children to the patient/client population between birth and pre-adolescent years.

							Screening, health maintenance, and management of health problems will make-up the clinical experiences.
NGR	6343C	Primary Care of Women	5	NU	NUR	PR: NGR 6002C, NGR 6080, NGR 6140, NGR 6121, NGR 6135, NGR 6172, NGR 6800, NGR 6247 AND NGR 6248C OR NGR 6307 AND NGR 6308C.	Management of common episodic and chronic health problems in women with critical analysis to form the foundation for advanced practice intervention and health promotion. Clinical experience focuses on application of the knowledge gained in the didactic.
NGR	6362	Midwifery and Women's Health Seminar III	1	NU	NUR	PR: NGR 6002C, NGR 6140, NGR 6172, NGR 6205, NGR 6402, NGR 6403 and NGR 6455.	This course introduces professional midwifery and advanced practice nursing issues such as certification, practice management, and malpractice liability. Intrapartum Complications will be examined.
NGR	6400	Chemistry, Biochemistry and Physics for Nurse Anesthesia	3	NU	NUR	PR: Admission into CRNA program and an undergraduate Chemistry course with a grade of B or higher.	This course examines the laws and principles of inorganic chemistry, organic chemistry and physics as they apply to pharmacology and the clinical practice of nurse anesthesia. Restricted to majors.
NGR	6404	Anatomy Physiology for Nurse Anesthesia I	3	NU	NUR	PR: BSC 2085 and BSC 2086 or equivalent undergraduate Anatomy and Physiology course with a grade of B or higher.	This course focuses on human anatomy and physiology and its relevance to the practice of nurse anesthesia. Restricted to majors.
NGR	6420	Foundations & Methods of Nurse Anesthesia Practice	4	NU	NUR	PR: NGR6404, NGR6400, NGR6460, NGR6422, GMS6461, NGR6002C, NGR6800, PHC6050.	Focuses on the fundamentals of nurse anesthesia practice and techniques. This course also focuses on the development of didactic knowledge for regional anesthesia and advanced nurse anesthesia practice.
NGR	6422	Principles of Nurse Anesthesia through the Lifespan	3	NU	NUR	PR: NGR6404, NGR6400, NGR6460, NGR6800, PHC6050.	Emphasizes the considerations of nurse anesthesia practice, principles, and techniques for the obstetrical, pediatric and geriatric patient.
NGR	6423	Principles of Nurse Anesthesia I	3	NU	NUR	PR: NGR 6140, NGR 6422, NGR6404, NGR6400, NGR6460, NGR6422, GMS 6451, NGR6002C, PHC6050, NGR6800.	Examines basic physiology, pathophysiology and anesthetic management of cardiac, thoracic, and trauma. Evaluation of cardiothoracic systems, emphasis on anesthetic implications and anesthesia management for cardiothoracic surgery will be explored.
NGR	6424	Principles of Nurse Anesthesia II	3	NU	NUR	PR: NGR 6423, NGR 6492, NGR 6490	1. Physiology, pathophysiology and anesthetic management and evaluation of orthopedic, neurologic, endocrine, hepatic, urology systems with emphasis on anesthetic implications and anesthesia management for surgery.
NGR	6431	Nurse Anesthesia Clinical Residency I	4	NU	NUR	PR: GMS6461, NGR6002C, NGR 6140, NGR 6400, NGR6404, NGR 6420, NGR6422, NGR6423, NGR6460, NGR6492 , NGR6800, PHC6050.	This course focuses on clinical application of didactic material from the nurse anesthesia curriculum through novice level practice in the role of a nurse anesthetist.
NGR	6432	Nurse Anesthesia Clinical Residency II	4	NU	NUR	PR: NGR 6431. CR: NGR 6929.	This course focuses on clinical application of didactic material from the nurse anesthesia curriculum

							through novice level practice in the role of a nurse anesthetist.
NGR	6433	Nurse Anesthesia Clinical Residency III	4	NU	NUR	PR: NGR 6432. CR: NGR 6929.	This course focuses on clinical application of didactic material from the nurse anesthesia curriculum through intermediate level practice in the role of a nurse anesthetist.
NGR	6434	Nurse Anesthesia Clinical Residency IV	4	NU	NUR	PR: NGR 6002C, NGR 6080, NGR 6121, NGR 6140, NGR 6172, NGR 6737, NGR 6800 AND NGR 6201, NGR 6202C OR NGR 6301 AND NGR 6302C.	This course focuses on clinical application of didactic material from the nurse anesthesia curriculum through an advanced level of practice in the role of a nurse anesthetist.
NGR	6460	Pharmacology for Nurse Anesthesia I	3	NU	NUR	PR: Admission into CRNA Program.	This course focuses on the pharmacokinetics, pharmacodynamics and general pharmacological principles of anesthetic drugs and adjunctive agents. Restricted to majors.
NGR	6491	Nurse Anesthesia Practice Comprehensive	2	NU	NUR	PR: NGR 6433, NGR 7892, NGR 6929. CR: NGR 6434.	This course is designed to measure the knowledge base and clinical competency of the nurse anesthesia student.
NGR	6492	Nurse Anesthesia Role Development	3	NU	NUR	PR: GMS 6461, NGR 6002C, NGR 6140, NGR6400, NGR6404, NGR6422, NGR6460, NGR 6800, PHC 6050.	Overview of the professional, ethical, and legal aspects regarding the practice of nurse anesthesia and information about the American Association of Nurse Anesthetists, including its history and the Councils on Accreditation, Certification and Practice.
NGR	6500	Theoretical Foundations for Advanced Psychiatric Nursing	3	NU	NUR	PR: NGR 6121.	Theoretical basis for advanced practice in psychiatric nursing. Focus on selected psychodynamic, neuropsychological, development, and systems models of behavior and their impact for nursing practice.
NGR	6500L	Psychiatric APN Practicum: Psychiatric Care Outpatient	1-6	NU	NUR	CR: NGR 6500.	Clinical experience in advanced psychiatric mental health nursing that focuses on comprehensive mental health assessment, crisis intervention and brief psychotherapy.
NGR	6501	Psychopathology for Advanced Psychiatric Nursing	3	NU	NUR		In-depth study of psychosocial, factors contributing to psychosocial dysfunction, and diagnostic reasoning basis to advanced practice psychiatric health nursing, emphasis on etiology and differential diagnoses.
NGR	6501L	Psychiatric APN Practicum: Psychiatric Care in the Inpatient Setting	1-4	NU	NUR	PR: NGR 6500, CI.	Clinical experience in in-patient settings with selected acute and chronic populations. Emphasis on the role of the psychiatric APN working with individuals, groups and families conducting comprehensive mental health in the inpatient setting.
NGR	6502	Treatment Modalities for Advanced Psychiatric Nursing	3	NU	NUR		Examination of treatment modalities for advanced practice psychiatric nursing. Focus on theoretical and conceptual foundation for specialty practice with individuals, families, and groups.
NGR	6503L	Practicum III: Advanced Psychiatric Mental Health Nursing	3	NU	NUR	PR: NGR 6230.	Clinical experience in advanced psychiatric mental health nursing that focuses on individual, group, family,

							and community interventions with culturally diverse populations.
NGR	6504	Practicum III: Advanced Psychiatric Mental Health Nursing	3	NU	NUR	PR: NGR 6230.	Field experience in a variety of community settings with culturally diverse psychiatric/mental health populations. Emphasis on implementing prevention and intervention strategies with individuals, group, families and communities (1:6 ratio).
NGR	6538	Psychopharmacology	3	NU	NUR	PR: NGR 6140, CI.	Provide advanced knowledge of psychobiological information with the use of psychopharmacological interventions in patients. Focus will be on pharmacokinetics and clinical management including prescription of medications for psychiatric disorders.
NGR	6650	Occupational Health Nursing I	2	NU	NUR	CI.	Primary care of the worker relative to health promotion/risk reduction/acute injuries/chronic conditions, assessment of the workplace and needs of worker aggregates, and planning for health services relative to worker lifestyles and risk factors.
NGR	6650L	Clinical Experiences In Occupational Health Nursing I	1	NU	NUR	CI.	Clinical experiences at selected worksites to apply content from NGR 6650 Occupational Health Nursing with an emphasis on analysis of the workplace and worker aggregates, occupational health nurse(s) roles/functions.
NGR	6651	Occupational Health Nursing II	2	NU	NUR		Focuses on the analysis of clinical strategies (e.g. triage, biological monitoring) relevant to advanced occupational health programs, medical surveillance programs, and worker's compensation managed care.
NGR	6651L	Clinical Experiences in Occupational Health II	1	NU	NUR	CI.	Clinical experiences relative to the application of content in NGR 6650 Occupational Health Nursing II with a focus on workplace assessment utilizing a comprehensive instrument and evaluation of worker's compensation managed care programs.
NGR	6652	Occupational Health Nursing III	3	NU	NUR		Focuses on the prevention of occupational injuries and illnesses; direct care in the occupational setting; disability case management; and health promotion and adult education.
NGR	6653	Occupational Health Nursing IV	3	NU	NUR		Focuses on the management of psychosocial factors in the occupational setting; examples of occupational health and safety programs; environmental health; research; and professional issues related to occupational and environmental health nursing.
NGR	6673	Epidemiology for Advanced Nursing	3	NU	NUR	PR: Graduate standing or instructor permission	This course assists graduate level nurses to identify and describe patterns of disease occurrence and to evaluate potential determinants of

							disease and disease prevention.
NGR	6691	Counseling for the Terminally Ill	3	NU	NUR		Provides specialized psychological and psychosocial content with a focus on the principles and techniques for conducting psychosocial counseling with terminally ill patients.
NGR	6700C	Advanced Practice Nurse Transitions	5	NU	NUR	PR: NGR 6002C, NGR 6080, NGR6121, NGR 6140, NGR 6172, NGR 6737, NGR 6800 and NGR 6201, 6202C OR NGR 6301, NGR 6302C AND NGR 6343C.	This is a synthesis course for professional and clinical development. It completes the summative process for students to design and develop their roles as APNs. The clinical portion focuses on the cumulative knowledge gained from previous courses.
NGR	6700L	APN Transitions Practicum	2-3	NU	NUR	CR: NGR 6700C.	Clinical concentration in the intended area of practice for the graduating Advanced Practice Nurse (APN). Focus on applying integrated knowledge to provide collaborative comprehensive care. By Permit Only.
NGR	6710	Teaching Strategies in Nursing Education	3	NU	NUR	PR: NGR 6713.	This course focuses on classroom and clinical teaching in nursing, including computer-based learning and distance learning. Evaluation of textbooks, assignment making and construction of learning plans are included.
NGR	6713	Foundations of Nursing Education	3	NU	NUR	PR: Admission to graduate program or permission of instructor.	This course focuses on the philosophical, theoretical and evidence-based approaches for nursing education programs. Emphasis is on role of the nurse educator and curriculum development.
NGR	6718	Evaluation Strategies for Nursing Education	3	NU	NUR	PR: NGR 6710, NGR 6713 or CI.	This course provides an overview of evaluation strategies used in the class, clinical setting and in web-based instruction. Program evaluation models are explored.
NGR	6723	Leadership and Applied Management in Nursing Healthcare	3	NU	NUR	PR: CI	Leadership in management of resources to achieve quality and enhance healthcare outcomes in nursing. Focus on , evidence-based practice and patient-care outcomes within the context of an interdisciplinary team.
NGR	6737	Ethical, Legal, and Policy Issues in Advanced Nursing Practice	3	NU	NUR	PR: CI.	Emphases on contemporary ethical, legal, and policy issues related to advanced nursing practice and health care delivery; issues are analyzed at the global, national and local levels; nursing's role in agenda setting and strategies for health care reform.
NGR	6749C	Advanced Practice Nurse Transitions	5	NU	NUR	PR: NGR 6002C, NGR 6080, NGR 6140, NGR 6199, NGR 6121, NGR 6135, NGR 6800, NGR 6247 AND NGR 6248C OR NGR 6307 AND NGR 6308C.	This is a synthesis course for professional and clinical development. It completes the summative process for students to design and develop their roles as APNs. The clinical portion focuses on the cumulative knowledge gained from previous courses.
NGR	6770C	Introduction to the Clinical Nurse Leader Role	1	NU	NUR	PR: Admission to the CNL concentration.	Concepts essential for the students' development into a Clinical Nurse Leader, focusing on the CNL role, communication, leadership and

							assessing the practice environment. Clinical assignments are designed to assist them in developing the CNL role.
NGR	6771L	CNL Clinical Seminar	1	NU	NUR		Exploration and application of the clinical concepts essential to the role of the Clinical Nurse Leader.
NGR	6773L	CNL Residency	3	NU	NUR		Residency practice in the role of the Clinical Nurse Leader.
NGR	6777C	Shaping the Practice Environment	1	NU	NUR	PR: NGR 6872C, NGR 6723.	Concepts essential to shape the clinical practice environment, including components of a patient centered, safe effective and equitable care environment.
NGR	6790	Consultation Liaison Nursing	3	NU	NUR	PR: Clinical and Theoretical courses for clinical concentration, or CI.	Emphasizes evolution of the consultation/liaison role for advanced nurse practitioners with emphasis on the consultation process in a variety of clinical settings.
NGR	6800	Nursing Research	3	NU	NUR	CI.	Research designs and methods for nursing with primary emphasis on these topics: critique of research studies, researchable problems, research designs, instruments and other data collection methods, approaches to data analyses using computer applications, and preparation of research proposals for thesis, directed research, or funded research.(CI)
NGR	6804	Foundations of Clinical Research for Health Professionals	3	NU	NUR		Research designs and methods for health professionals. Emphasis on quantitative approaches to research designs.
NGR	6821	Applied Analysis for Outcomes Research Using Large Healthcare Databases	3	NU	NUR	PR: Nursing Majors Only	Focus on knowledge discovery in clinical domains by exploring large nursing and healthcare databases for the purposes of outcomes research or quality improvement. Emphasis on theoretical models and methods of analysis, providing experimental computer applications with large healthcare databases.
NGR	6822	Measurement for Nursing Education and Research	3	NU	NUR	CI.	Course purposes are to increase skill in measurement of nursing variables as part of the research process, to enhance ability of nurse educators to identify or develop valid and reliable measurement instruments for evaluation of students, clients and educational programs.
NGR	6824	Data Analysis for Health Sciences	3	NU	NUR		This course is designed to provide the graduate Student interested in health sciences research with practical experience using SPSS for Windows and Microsoft's Excel programs to manage, organize, analyze and present both primary and secondary data in biophysical sciences.
NGR	6872C	Concepts in Information Management	1	NU	NUR	PR: NGR 6770C.	Concepts essential to examine health information technologies that promote safety, improve quality, and foster consumer centered care and efficiency.
NGR	6885	Bioethics in	3	NU	NUR		Ethical issues related to health and

		Contemporary Society					illness encountered during stages of the life cycle, focusing on the influences exerted by cultural diversities and psychosocial factors, including the bi-directional interaction between the individual and society.
NGR	6898	Microsystem Concepts of Health Care Finance	3	NU	NUR		Concepts, language and data about financial and economic elements of patient care in a microsystem; skills to obtain, synthesize and utilize information from health economics and health finance using specialized language, concepts and operating rules.
NGR	6905	Directed Independent Study	1-6	NU	NUR	CI, S/U.	Specialized individualized study determined by students' needs and interests; requires an approved contract with a faculty member. (CI). Restricted to majors; repeatable for credit.
NGR	6915	Directed Research	1-3	NU	NUR	PR: NGR 6800, CI.	Builds on knowledge gained in NGR 6800 and specialty concentration by participating in a research project under the direction of selected faculty. (CI)
NGR	6929	Clinical Correlational Conferences	1	NU	NUR	PR: NGR 6431 or NGR 6432 or NGR 6433 or NGR 6434.	This course is designed to complement each clinical residency; these conferences will discuss clinical experience, morbidity and mortality utilizing current research.
NGR	6931	Selected Topics	1-4	NU	NUR	CI.	Seminars for the analysis and discussion of selected issues in nursing of topical concern to student and faculty.
NGR	6944	Practicum in Acute Care Nursing	1-9	NU	NUR	PR: NGR 6143, NGR 6333 or NGR 6232, CI.	Clinical experiences in critical care settings focusing on the role of the advanced practice nurse (1:4 ratio).
NGR	6947	Practicum in Nursing Education	1-4	NU	NUR	PR: NGR 6822, NGR 6710, NGR 6712, CI.	Instructional experiences that utilize educational concepts and instructional strategies in a variety of educational settings in nursing. (CI)
NGR	6949	Clinical Correlational Conferences	1	NU	NUR	PR: NGR 6431 or 6432 or 6433 or 6434.	
NGR	6971	Thesis	1-9	NU	NUR	PR: NGR 6800, CI.	Restricted to majors; repeatable for credit.
NGR	7003	Advanced Health Assessment II	3	NU	NUR	PR: A grade of B or higher must have been earned in master's level course in pathophysiology, pharmacology, and advanced health assessment.	Mastery of the comprehensive physical examination and health history for individuals across the life span. Focus on systematic review, analysis, and documentation within the context of the student's clinical expertise.
NGR	7061	Radiology for the Advanced Practice Nurse	1	NU	NUR		Basics of X-ray, MRI, CT Scan Interpretation and Nuclear Medicine Studies for the Advanced Practice Nurse.
NGR	7062	ECG Interpretation for the Advanced Practice Nurse	1	NU	NUR		Advanced ECG Interpretation, including 12 lead ECG for the Advanced Practice Nurse.
NGR	7103	Evidence-Based Practice	3	NU	NUR	PR: NGR 7774 or NGR 7766 with a B or higher or Instructor's Permission.	Provides experience in the evaluation, selection and implementation of evidence based practice standards. Qualitative research methods are

							used to consider patient and provider values and preferences in patient care and practice/program evaluation.
NGR	7123	Theory Development in Nursing	3	NU	NUR	PR: Admission to doctoral program or CI.	This course focuses on the process and foundations of theory development and theory construction in nursing science. Elements of scientific underpinnings of knowledge development in the discipline are incorporated. The relationship between theory construction and research and methods to generate theories are explored.
NGR	7124	Advances in Nursing Science	3	NU	NUR		Focus on history and philosophy of science: history and development of nursing's scientific knowledge base and theoretical progress. Emphasis methods of theory building and theory testing through research. Explore progress in middle range theories and areas of high priority for additional research for the discipline.
NGR	7141	Pathophysiology for Advanced Practice II	3	NU	NUR	PR: A grade of B or higher must have been earned in master's level course in pathophysiology, pharmacology, and advanced health assessment.	Core elements of embryologic, genetic, and environmental factors in disease will be presented as well as aspects of immune phenomenon as related to genetic information and research impetus.
NGR	7176	Pharmacotherapeutics for Advanced Nursing Practice	3	NU	NUR	PR: A grade of B or higher must have been earned in master's level course in pathophysiology, pharmacology, and health assessment.	Progressive pharmacotherapeutics for advanced nursing practice. Focus diagnostic reasoning of scientific evidence relating to prescribing and monitoring drugs.
NGR	7411	Basics for Surgical Assistants	1	NU	NUR		Overview and basics for the Advanced Practice Nurse as the surgical assistant.
NGR	7761	Breast Workshop for the Advanced Practice Nurse	1	NU	NUR		Breast assessment techniques and interpretation for Advanced Practice Nurse.
NGR	7762	Casting and Splinting for the Advanced Practice Nurse	1	NU	NUR		Basics of casting and splinting for the Advanced Practice Nurse.
NGR	7763	Minor Surgical Procedures for the Advanced Practice Nurse	1	NU	NUR		Basics of minor surgical procedures for the Advanced Practice Nurse.
NGR	7764	Neurological Techniques for the Advanced Practice Nurse	1	NU	NUR		Basic neurological techniques for the Advanced Practice Nurse.
NGR	7765	Invasive Medical Procedures for the Advanced Practice Nurse	1	NU	NUR		Basics of invasive medical procedures for the Advanced Practice Nurse.
NGR	7766	Leadership and Systems Analysis	3	NU	NUR		This course focuses on understanding theories of change and their application in clinical and educational setting. A leadership skills and organizational theory will be examined.
NGR	7767	Practice Management	3	NU	NUR		This course presents the legal,

							economic and business basis for developing advanced nursing clinical practice models.
NGR	7811	Concepts in Nursing Practice	3	NU	NUR		Emphasis on analysis of phenomena (concepts) that impact on nursing practice. Phenomena are selected and analyzed from theoretical and research perspectives.
NGR	7815	Qualitative Research Methods in Nursing	3	NU	NUR	PR: NGR 6800.	An overview of qualitative research methods in nursing, identification of problems appropriate for qualitative research methods, and application of appropriate qualitative research methods to a researchable problem.
NGR	7816	Research Designs and Methods in Nursing	3	NU	NUR		Focus on designs used in nursing research to test or develop theoretical models, or concepts, including clinical or outcome variables, or hypotheses. Emphasis on quantitative designs.
NGR	7823	Psychometrics and Measurement for Nursing Research	3	NU	NUR	PR: NGR 7841.	Explores issues in developing, testing, and applying measurement theory in research. Analysis of psychometric properties of instruments and methods appropriate to theoretical and conceptual demands of science.
NGR	7841	Statistical Methods in Nursing Research I	3	NU	NUR	PR: NGR 6800 or equivalent and statistics.	Standard parametric and nonparametric statistical methods in nursing research; role of assumptions and theory in selecting the appropriate statistic for testing hypotheses/research questions. Emphasis on analysis of variance and simple linear regression. Statistical software applications are integrated into the course.
NGR	7842	Statistical Methods in Nursing Research II	3	NU	NUR	PR: NGR 7841.	Focus on advanced multivariate methods in nursing research: regression (linear, multiple, logistic) and multiple analysis of variance (MANOVA) and covariance software applications are integrated into the course.
NGR	7843	Statistical Methods in Nursing Research III	3	NU	NUR	PR: NGR 7842.	Focus on advanced multivariate statistical methods in nursing research; emphasizing multiple regression and correlational analysis.
NGR	7881	Ethics in Research and Practice	3	NU	NUR		Explores issues and research in esthetics (carative factors-art of healing) and ethics in advanced practice. Focuses on use of alternative approaches to healing and application of ethical decision making models to complex health care issues.
NGR	7892	Health Policy Issues in Nursing and Health Care	3	NU	NUR	PR: NGR 7841 and NGR 7842 or CI.	Use of data bases to develop approaches for decision making, policy formulation and outcome evaluation. Focus on policy analysis, agenda setting, and factors affecting nursing and health care policy.
NGR	7915	Advanced Directed Research in Nursing	1-6	NU	NUR	PR: Admission to doctoral program or CI.	Specialized individual participation in research activity, including but not limited to pilot studies and other investigative activities.
NGR	7932	Special Topics	1-	NU	NUR		Seminars for the analysis and

			4				discussion of selected issues in nursing of topical concern to student and faculty.
NGR	7941	Nursing Research Pro Seminar	1-6	NU	NUR	PR: Nursing Knowledge Systems and Issues in Knowledge Dissemination.	The Pro Seminar provides experiential opportunities for students to test innovative methods and technologies in a variety of educational or clinical settings. Seminars designed to critique current research in the area.
NGR	7945	DNP Clinical Residency	1-9	NU	NUR	PR: Completion of course work for DNP or consent of program director.	The DNP for the nurse practitioner includes additional educational preparation and clinical competencies derived from nationally developed core competencies that extend core competencies required for clinical practice of the Master's prepared NP.
NGR	7951	Scientific Writing - Writing for Publication	3	NU	NUR	PR: Admission to DNP or Ph.D. program.	This course focuses on the development of a scholarly empirical manuscript or technical report of publishable quality.
NGR	7974	Evidenced-based Practice Project	1-4	NU	NUR	PR: Completion of core courses with grade of B or higher in all courses.	This course serves as the final capstone project for the Doctorate of Nursing Practice degree and is completed over a minimum of two semesters.
NGR	7980	Dissertation: Doctoral	2-12	NU	NUR	PR: Admission to candidacy.	Directed research and writing of dissertation topic appropriate to the discipline. Restricted to majors; repeatable for credit
NGR	7981	Dissertation Proposal Writing	2	NU	NUR		Selected topics pertaining to the dissertation proposal writing process, dissertation research planning and funding, and proposal defense. PR: CI or Ph.D. GS; completion of majority of required course work.
OCB	6050	Biological Oceanography	3	MS	MSC	PR: GS or CI.	Study of life in the oceans, its rates and processes, and its interaction with the physical and chemical environment. Lec.
OCB	6567	Phytoplankton Ecology	3	MS	MSC	PR: B.S. in Biology, OCB 6050, or CI.	An introduction to the physiology and ecology of marine phytoplankton. Emphasis will be on those variables and interactions that regulate photosynthesis, production, nutrient kinetics and regeneration, growth, spatial distribution, losses, and succession.
OCB	6646	Marine Zoogeography	3	MS	MSC	PR: B.S. in Biology, OCB 6050, or CI.	The geographical distribution of animals in the marine environments of the world including the major habitats of the benthic and pelagic realms. Studies of the relationships between distribution and evolutionary patterns.
OCB	6666	Ecological Physiology	3	MS	MSC	PR: B.S. in Biology, 1 year general and Organic Chemistry, OCB 6050, or CI.	The study of those physiological mechanisms that enable organisms to live in their environment, and deal with changes in the environment. Coursework is focused on aquatic ecosystems. Topics include osmotic and ionic regulation, nitrogen excretion, feeding and digestion, respiration, temperature, and energetics. Lab separate.
OCB	6671L	Methods in Biological	1	MS	MSC	PR: CI.	To acquaint students with field and

		Oceanography					laboratory equipment and techniques currently used in Biological Oceanography. Emphasis will be on field problems, especially those requiring research at sea.
OCB	6931C	Special Topics in Ichthyology	1-3	MS	MSC	PR: GS or CC. S/U only.	Presentation and discussion of ichthyological topics from the primary literature. The objectives of this course are: 1) to review and discuss the primary literature on ichthyological topics, both current and historical; 2) to provide a forum in which students can develop discussion skills; 3) to identify, through examination of the literature, areas of needed research; 4) to provide means by which graduate students can receive formal course instruction in a non-lecture format.
OCC	6050	Chemical Oceanography	3	MS	MSC	PR: CHM 2046 and GS or CI.	The ocean as a chemical system, including composition, physical-chemical aspects, role of nutrients, trace metals, interaction between bottom and overlying water, organic matter, and stable and radioactive isotopes. Lec
OCC	6057	Marine Pollution	3	MS	MSC	PR: OCC 6050 or CI.	Marine pollutant sources, reservoirs, transport processes, and dynamics. Topics include heavy metals, chlorinated hydrocarbons, radioactivity, petroleum, pathogens, and thermal pollution including functional and physiological responses of marine organisms.
OCC	6057L	Methods in Chemical Oceanography	1	MS	MSC	PR: OCC 6050 or CI.	An intensive study of the use and limitations of field and laboratory equipment that is a standard part of chemical oceanographic research into the behavior of dissolved and particulate constituents in seawater.
OCC	6111C	Applications of Gas Chromatography and Mass Spectrometry in Marine Science	3	MS	MSC	PR: OCC 6050 and CI.	Analytical techniques of high resolution gas chromatography and combined gas chromatography-mass spectrometry are applied to problems in Marine Science. Theoretical aspects of the techniques are covered in lectures, while detailed experimental procedures are taught and practiced in the laboratory.
OCC	6216	Marine Organic Chemistry	3	MS	MSC	PR: B.S. in Biology or Chemistry, Biochemistry, OCC 6050 or CI.	Distribution and biogeochemical cycling of organic matter in the oceans. Topics include carbohydrates, proteins, lipids, humics, pheromones, interaction with trace metals, isotopic fractionation, microbial alterations, and biochemical tracers.
OCC	6418	Petroleum Geochemistry	3	MS	MSC	PR: OCC 6216 or CI.	An investigation of the geochemical aspects of petroleum generation, migration, accumulation, and maturation. Additional topics include the composition of petroleum, the use of molecular biomarkers to investigate petrochemical and geochemical processes, and petroleum prospecting.

OCE	6908	Independent Study	1-10	MS	MSC	S/U.	Independent study in which students must have a contract with an instructor.
OCE	6934	Selected Topics in Oceanography	1-3	MS	MSC	PR: CI.	Special topics in Biological, Chemical, Geological, and Physical Oceanography.
OCE	6939	Graduate Seminar in Oceanography	1	MS	MSC	PR: GS. S/U.	
OCE	6971	Thesis: Master's	2-19	MS	MSC	PR: CC, GR, ML. S/U.	
OCE	6972	Directed Research	1-19	MS	MSC	PR: GR. ML, CI. S/U.	
OCE	7910	Directed Research	1-19	MS	MSC	PR: GR. Ph.D. level, CI. S/U.	
OCE	7980	Dissertation: Doctoral	2-19	MS	MSC	PR: Admission to Candidacy, CC. S/U	
OCG	6051	Geological Oceanography	3	MS	MSC	PR: GS or CI.	Marine geology including plate tectonics; coastal, shelf and pelagic sedimentation; geochemical cycling; and sedimentary history of the ocean basins. Lec
OCG	6075	Methods in Geological Oceanography	1	MS	MSC	PR: OCG 6051 or CI.	Description and application of the modern techniques used to investigate Marine Geology and Geophysics.
OCG	6080	Plate Tectonics	3	MS	MSC		An overview of the Plate Tectonic theory, including such topics as: geometry of Plate Tectonics, tectonics on a sphere, past plate motions, seismology, oceanic gravity, geochronology, heat flow, oceanic lithosphere, ridges, transforms, trenches, oceanic islands, and continental lithosphere.
OCG	6086	Geology of Continental Margins	3	MS	MSC	PR: B.S. in Geology, OCG 6051, or CI.	Analysis of tectonic, structural and stratigraphic development and general geologic history of the major types of continental margins. Includes interpretation of seismic data.
OCG	6356C	Stratigraphic Interpretation of Seismic Data	3	MS	MSC	PR: B.S. in Geology, OCG 6051, or CI.	Study of seismic reflection data for the purpose of determining structural and sedimentological development, facies distribution, and general geological history of stratigraphic packages. Course includes fundamentals of seismic reflection and depositional sequence/seismic facies analyses.
OCG	6453	Geochemistry Marine Sediments	3	MS	MSC	PR: BA in Chemistry or Geology or CI.	General survey course of the mineralogy, chemical composition, physical properties and origin of marine sediments. Topics include the transport, deposition, and burial diagenesis of organic matter and carbonate, aluminosilicate and silica minerals. Theoretical and practical aspects of x-ray diffraction.
OCG	6455	Marine Isotope Geochemistry	3	MS	MSC	PR: Chemical Oceanography or CI.	Study of stable and radioactive isotope variations in the marine environment and the use of these variations as tracers and in

							determining ages, rates and paleoclimatic conditions.
OCG	6551C	Scanning Electron Microscopy: Theory and Technique	4	MS	MSC	PR: One year Physics and Chemistry or CC. Full time graduate students in the department of Marine Science are not required to obtain an individual permit. All other graduate and undergraduate students should obtain a permit.	Theory and practical application of the scanning electron microscope and the energy dispersive X-ray analyzer. Emphasis is on independent operation of the instruments, preparation techniques for specimens, and interpretation of results.
OCG	6656C	Marine Micropaleontology	3	MS	MSC	PR: B.S. in Geology or Biology, OCG 6051, or CI.	Introduction to the microscopic marine fauna and flora found in the fossil sedimentary record. Emphasis is placed on the ecology, paleoecology, paleontology, and biostratigraphic record of calcareous and siliceous microfossils
OCG	6664	Paleoceanography	3	MS	MSC	PR: OCB 6050, OCC 6050, OCG 6051, and OCP 6050, or CI.	The study of the development of the ocean system through geologic history, including tectonic framework, sea level history, paleoclimatology, paleocirculation within the ocean basins, and the evolution of marine biota.
OCG	6666	Carbonate Depositional Systems	3	MS	MSC	PR: BA in Geology or CI.	In-depth presentation of production, transport, and accumulation of carbonate sediments on platforms and shelves. Characteristics of carbonate sediment type, primary environment controls, and relationships to surrounding facies will be presented. Available to non-majors.
OCG	6668	Evolution and Ecology of Reefs	3	MS	MSC	PR: OCB 6050 and OCG 6051 or CI.	Advanced course in ecology and evolution of reef communities. Topics include environmental controls on reef development, basic components of modern reef communities, and how those components have changed through geologic time.
OCP	6050	Physical Oceanography	3	MS	MSC	PR: Diff/int. calculus, General Physics, and GS or CI.	The world ocean including its morphology, physical properties, currents, waves, tides, heat and water budgets, and related topics. Lec.
ORI	5930	Topics in Performance Genres	3	AS	SPE		Variable topics course.
ORI	6018	Performance Art	3	AS	SPE	PR: Graduate Standing.	Explores historical, theoretical, and critical perspectives on performance art in the US.
ORI	6020	Performing Social Resistance	3	AS	SPE	PR: Graduate Standing.	Explores performance as a site of and means for creating social resistance and change.
ORI	6107	Texts in Performance	3	AS	SPE	PR: Graduate Standing.	Explores contemporary literary texts through dramatic analysis, live performance, adaptation and staging strategies.
ORI	6250	Performance and Technology	3	AS	SPE	PR: Graduate Standing.	Explores the relationship between live and mediated performance, the use of media technologies in performance, and the place of live performance in a Western mediated

							society.
ORI	6435	Performance as Cultural Study	3	AS	SPE	PR: GS.	Impact of performance and performance forms as cultural communication. The course examines literary, festive, religious, political and social performance in dialogue with culture.
ORI	6456	Performance Theory	3	AS	SPE	PR: Graduate Standing.	A survey of modern and contemporary approaches to performance as constitutive of identity, verbal art, communication, and culture.
ORI	6506	Performance Criticism	3	AS	SPE	PR: Graduate Standing.	Focuses on the development and honing of critical skills employed in response to performance. These skills can be applied to a multitude of acts and texts.
ORI	6930	Communication Aesthetics	3	AS	SPE		This course examines the historical evolution of the aesthetic dimension of communication as performance in terms of major concepts and theorists from Plato to the present.
ORI	7930	Seminar in Performance Studies	3	AS	SPE	PR: GS.	Variable topics course.
PAD	5035	Issues in Public Administration and Public Policy	3	AS	PAD	Sr. & GS only.	Selected issues and topics in Public Administration and Public Policy.
PAD	5044	Environment of Public Administration	3	AS	PAD		Examination of the legal, political, and ethical environment in which public managers work.
PAD	5333	Concepts and Issues in Public Planning	3	AS	PAD	PR: URP 4050 or URP 6056, GS or Sr.	Analysis of basic concepts, issues, and strategies of planning, policy determination, collection of information, and decision-making.
PAD	5605	Administrative Law and Regulation	3	AS	PAD		An examination of the constitutional and statutory base and limitations of the administrative process, administrative adjudication, rule-making, and the judicial review of such actions. An examination of the Constitutional and statutory base and limitations of the administrative process, administrative adjudication, rule-making, and the judicial review of such actions. Attention is also directed to regulatory commissions, their functions, powers, management and relationship with other branches of government.
PAD	5700	Research Methods in Public Administration	3	AS	PAD	PR: MPA, GCPM, and GCNM majors only.	Research design; skills in public agencies. Must be prepared to demonstrate proficiency in EXCEL, Access, and other relevant software programs.
PAD	5807	Urban and Local Government Administration	3	AS	PAD	GS or Sr.	Analysis of the role of the administrator at the municipal level, the division of functions, policy formation, alternative governmental structures, effects on the administrative process.
PAD	5836	Comparative Public Administration	3	AS	PAD	GS or Sr.	How organizations and managers perform within a particular environment, potential impact of innovation, and how service is accomplished in a variety of socio-

							economic environments.
PAD	6041	Ethics and Public Service	3	AS	PAD		The purpose of this course is to provide students with an understanding of the ethical dimensions of public service, with particular attention focused on the role, duties and responsibilities of the public administrator. Additionally, the course seeks to help students develop awareness, skill, and value framework to act ethically in their public service and management roles.
PAD	6056	Practice of Public Management	3	AS	PAD	PR: Completion of all MPA core courses and five electives. Must be taken in last semester of coursework.	An integrative course applying the skills, knowledge, and values taught in the core curriculum and applied to public issues or problems.
PAD	6060	Public Administration Theory	3	AS	PAD	GS.	Examination of major theoretical and practical developments in public administration with focus on organization theory and current research trends in the field.
PAD	6105	Public Organizations and Change	3	AS	PAD		In-depth coverage of organizational theory and focus with special attention to issues and problems of organizational change and reform in the public sector.
PAD	6134	Project Management	3	AS	PAD		Course is designed to introduce students to the concepts, theories, principles, and practices in project management, as well as to the use of project management software.
PAD	6146	Nonprofit Management and Leadership	3	AS	PAD		Role and importance of third-sector organizations in American society; unique problems of nonprofit administration, role of leadership in nonprofit organizations.
PAD	6207	Public Financial Administration	3	AS	PAD	GS.	Examination of the fiscal organization of federal, state, and local governments. Current problems in budgeting, revenue, and indebtedness are considered.
PAD	6208	Financial Oversight for Nonprofit Organizations	3	AS	PAD		Introduce the non-financial manger to financial information used to make decisions for nonprofit organizations. Students will learn how to use the principles of financial management to make operating and capital budgeting decisions and to analyze long-term financial options.
PAD	6222	Issues in Florida--Budgeting and Finance	3	AS	PAD		Selected issues in public financial management and budgeting related to state agencies or local governments in Florida.
PAD	6227	Public Budgeting	3	AS	PAD		Development, authorization, execution, and assessment of government budgets. Topics include current trends and issues in budget theory and practice, as well as reform efforts.
PAD	6275	Political Economy for Public Managers	3	AS	PAD	PR: Graduate status or CI, PAD 5700 and PAD 6703 are recommended.	Introduces students to the fundamental concepts, theories, principles and tools used in public sector managerial economics. Students will be using economic

							concepts and applying economic tools and techniques to address common issues faced by public managers.
PAD	6307	Policy Analysis, Implementation, and Program Evaluation	3	AS	PAD		An introduction to analyzing public problems and program development. Emphasis is placed on the methodological tools for analyzing public problems, and criteria to assess the value of programs in addressing public problems.
PAD	6335	Strategic Planning for Public and Nonprofit Organizations	3	AS	PAD		Emphasizes methods of strategic planning as tools to lead, strengthen, and develop public and nonprofit organizations.
PAD	6336	Community Development Programs and Strategies	3	AS	PAD		Discusses community development principles and practices in historical and contemporary perspectives, federal, state and local initiatives, physical, social, and economic approaches to community development.
PAD	6338	Urban Land Use and Policy Administration	3	AS	PAD		Focuses on the political, economic, and legal environment of urban land development. Examines public policies affecting the spatial distribution of urban land activities, overt and covert rationales of such policies; zoning; subdivision regulations; building codes, and other urban land use control measures.
PAD	6339	Housing and Public Policy	3	AS	PAD		Explores housing policy in the broader context of public policy. Examination of housing market theories and the relationships between housing and city and regional planning.
PAD	6355	Urban Growth Management	3	AS	PAD		Examines the political economy of controlling the growth and development of human settlements, regulatory and non-regulatory techniques of growth management, and the evolution of growth management practices in the U.S.
PAD	6417	Human Resources Management	3	AS	PAD	GS or Sr.	A study of the major functions in public personnel, including recruiting, selection, testing, training, and development, and employee and human relations in the public service.
PAD	6427	Public Sector Labor Relations	3	AS	PAD		Introduction to the historical, legal, political and procedural aspects of collective bargaining and labor relations in the public sector organizations. Addresses methods for resolving conflicts and grievances.
PAD	6703	Quantitative Aids for Public Managers	3	AS	PAD	PR: PAD 5700; Proficiency in EXCEL, Access and other relevant software programs.	Techniques, models, to analyze managerial/policy problems. Descriptive, inferential, associational statistics; evaluate/make recommendations/alternative policy/decisions.
PAD	6710	Public Information Management	3	AS	PAD		Intro to policy issues related to managing public info. by non-technical public & nonprofit managers. Non-tech. manager's role with strategic tech. planning, process re-engineering, appl. dev., data

							admin., procurement, security, public access, Internet.
PAD	6907	Independent Study	1-3	AS	PAD	PR: CI. S/U.	A flexible format for conceptual or theoretical studies in public administration.
PAD	6909	Problem Report	3	AS	PAD	Majors only.	Analysis of a significant administrative or policy problem facing a public agency or manager.
PAD	6915	Directed Research	1-3	AS	PAD	PR: CI. S/U.	A flexible format for structured field research in Public Administration.
PAD	6934	Selected Topics in Public Administration	1-3	AS	PAD		A flexible format to offer specialized courses not available within the regular curriculum.
PAD	6946	Internship in Public Administration	2-6	AS	PAD	PR: CI. Majors only. S/U	Structured learning and work experience in a public agency or non-profit organization.
PCB	5256	Developmental Mechanisms	3	AS	BCM	PR: ZOO 4695.	Topics in modern developmental biology to be covered in lecture and through readings so as to gain a detailed understanding of cellular and molecular mechanisms of differentiation and pattern formation in various eukaryotic species for majors/non-majors
PCB	5307	Limnology	3	AS	BIN	PR: PCB 3043 and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023 and PHY 2053. CP: CHM 2211.	An introduction to the physical, chemical, and biological nature of fresh-water environments. Lecture only.
PCB	5307L	Limnology Laboratory	1	AS	BIN	PR: CI. CP: PCB 5307.	Laboratory portion of Limnology. Laboratory and field experience in the area of aquatic ecology.
PCB	5415	Behavioral Ecology	3	AS	BIN	PR: PCB 3043 and PCB 3063 or PCB 4674 and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023. CP: CHM 2211.	An emphasis on the evolutionary mechanisms that influence an organisms behavioral responses to environmental events. The theoretical framework is presented and analyzed. Lecture only.
PCB	5525	Molecular Genetics	3	AS	BCM	PR: PCB 3063, CI.	Detailed examination of DNA, RNA and protein synthesis; the effects of mutations on proteins, cellular control; selected aspects of viral, bacterial, and fungal genetics.
PCB	5616	Molecular Phlogenetics	3	AS	BCM	PR: PCB 3063.	Provides a theoretical (lecture) and practical (computer lab) framework to allow students to carry out phylogenetic analysis using molecular data. Majors or nonmajors.
PCB	6107	Advanced Cell Biology	4	AS	BCM	PR: CI.	Detailed examination of the structure, function and molecular biology of eukaryotic cells.
PCB	6176C	Biological Electron Microscopy	5	AS	BIN	PR: PCB 3023 and CI.	Discussion of theory and techniques in electron microscopy. Emphasis on preparation of biological microscope. Lec/Lab.
PCB	6230	Cancer Biology I	4	AS	BCM		An introduction to the basics of molecular oncology. Topics will include cytoplasmic and nuclear oncogenes, cell cycle control, apoptosis, tumor suppressor genes and cancer drug discovery.
PCB	6231	Cancer Biology II	4	AS	BCM		A continuation of Cancer Biology I. Topics will include a comprehensive review of immunology as it relates to

							cancer and modern methods of cancer treatment.
PCB	6236	Advanced Immunology	4	AS	BCM	PR: CI.	Discussion of the basic immune reaction, nature of antigenicity; basic immunological techniques and their use in biological research and the medical sciences. Lec/Lab.
PCB	6275	Cell Signaling	3	AS	BCM		A detailed examination of the cellular, biochemical, and molecular mechanism involved in signal transduction in various eukaryotic organism with emphasis on reviewing recent experimental evidence.
PCB	6365C	Physiological Ecology	4	AS	BIN	PR: CI.	Effect of environmental factors on animal function at the cellular and organ system level with emphasis on control and mechanism.
PCB	6405	Chemical Ecology	3	AS	BIN	PR: PCB 3043 and CHM 2211.	A broad introduction to the biochemistry of plant and animal interactions. Emphasis on the roles of secondary metabolites such as alkaloids, flavonoids, and terpenes in the complex animal/animal, animal/plant, plant/plant, and plant/microorganism interactions occurring in natural, terrestrial, and aquatic environments.
PCB	6426C	Population Biology	3	AS	BIN	PR: GS, CI.	Introduction to population dynamics with emphasis on the ecological components of growth, competition, and perdition.
PCB	6447	Community Ecology	3	AS	BIN	PR: CI.	In-depth examination of community ecology with emphasis on diversity, stability, trophic structure and the mechanisms which affect how communities are structured.
PCB	6455	Statistical Ecology	3	AS	BIN	PR: CI.	Introduction to exploratory data analysis in ecology. Techniques for dealing with encountered data are emphasized.
PCB	6456C	Biometry	4	AS	BIN	PR: MAC 2241 and MAC 2242, GS.	An introduction to statistical procedures for research in biological sciences. Experimental design, analysis of data, and presentation of results are emphasized. Lec./Dis.
PCB	6458	Biometry II	3	AS	BIN	PR: PCB 6456C.	Fundamental concepts in the design of experiments for biological research. Factorial experiments, multiple regression analyses, analyses of covariance and SAS computer programs are emphasized. Lec/Lab.
PCB	6910	Cancer Lab Rotations	1-3	AS	BCM	PR: CI.	This course is designed to help the students choose a compatible Major Professor and allow students to develop necessary technical skills. It is graded on a satisfactory (pass) or unsatisfactory (fail) basis.
PCB	6920	Advances in Cell and Molecular Biology	1	AS	BCM	PR: PCB 6107 or CI.	A journal club in which graduate students present and discuss research publications from the preceding twelve months in the fields of molecular and cellular biology.
PCB	6930	Current Topics in Oncology	2	AS	BCM		Renowned speakers from outside the USF Community will give weekly seminars on topics in oncology.

							Participants will meet weekly with the speakers and discuss the current state of the art.
PCB	6931	Advanced in Cancer Biology Research	2	AS	BCM		Advances in Cancer Research – Two participants will read and orally present current breaking research. They will gain experience in critically evaluating research reports and receive critique on presentation skills.
PCB	6933	Seminar In Ecology	1-3	AS	BIN	PR: CI.	A detailed examination of topics in ecology pertaining to individual organisms, populations, communities and/or ecosystems.
PET	6003	Theories & Models of Health & Physical Activity	3	ED	EDP		This course covers the origin and application of theory in the general health and physical activity domains. Emphasis will be placed on learning the theoretical constructs and applied uses of classic and contemporary theories in health behaviors.
PET	6081	Lifespan Fitness	3	ED	EDP		The course is designed to assist students in developing an understanding of how fitness habits and recommendations change over a lifetime.
PET	6085	Body Composition: Assessment and Management	3	ED	EDP		This course covers advanced principles of body composition assessment and management. The role of physical activity and medical intervention will be considered.
PET	6205	Psycho-Sociological Aspects of Human Movement	3	ED	EDP	DPR.	Psychological and sociological implications of movement to historical and contemporary society. Emphasis on concept, role of movement in society, and values and attitudes.
PET	6216	Sport Psychology	3	ED	EDP		This course is designed to provide students with an understanding of the theoretical structure that underlies psychology applied to sport. There will be a particular emphasis on psychological concerns that confront coaches, educators, and athletes.
PET	6235	Motor Learning	3	ED	EDP	PR: Department Approval/Permission of Instructor.	This course deals with motor learning research as it relates to exercise science. Emphasis will be placed upon normal developmental patterns and behaviors and motor learning principles throughout the life span.
PET	6256	Sport in Society: Contemporary Issues	3	ED	EDP	PR: Graduate Standing.	This course is a study of organized sport in contemporary society. Issues such as race, social class, gender, politics, religion, economics, media, physical disabilities, sexual orientation, and ethics as they relate to sports will be studied. This course is a study of organized sport in contemporary society. Issues such as race, social class, gender, politics, religion, economics, media, physical disabilities, sexual orientation, and ethics as they relate to sports will be studied.
PET	6312	Applied Biomechanics	3	ED	EDP	PR: Department Approval/Permission of	The course involves the integration of advanced kinesiological foundations

						Instructor.	to exercise science. Topics include: physical growth and neuro-muscular control, laws of physics in human movement, and effects of exercise on the muscular and skeletal systems.
PET	6356	Advanced Exercise Physiology	3	ED	EDP	PR: PET 3351 (or equivalent) and Department Approval/Permission of Instructor.	The course will address advanced principles of basic and applied exercise physiology. Cardiovascular and respiratory physiology and physiological responses of these systems to acute and chronic exercise will be discussed, as well as thermal stress.
PET	6358	Developmental Exercise Physiology	3	ED	EDP	PR: PET 3351 (or equivalent) and Department Approval/Permission of Instructor.	The course covers normal growth and physiological development in children and adolescents with an emphasis on the changes in physiological adaptations with exercise as a result of maturation.
PET	6367	Sports Nutrition and Exercise Metabolism	3	ED	EDP		This course covers selected topics regarding exercise metabolism and sports nutrition. Some of the topics to be covered include: bioenergetics; protein, fat and carbohydrate metabolism during exercise; sports supplements designed to improve strength.
PET	6388	Physical Activity, Health, and Disease	3	ED	EDP		This course focuses on the study of how physical activity is related to chronic diseases. Epidemiological techniques will be examined using physical activity as a factor in the cause of disease. The physiological basis will be examined.
PET	6389	Fitness Assessment and Prescription	3	ED	EDP		This course covers advanced principles of physiological fitness assessment. Topics to be covered include the assessment and prescription of: aerobic capacity, anaerobic capacity, muscular strength, and muscular endurance.
PET	6396C	Specialized Study in Bio-Kinetics of Human Movement	1-4	ED	EDP	PR: CI. DPR.	Will provide in-depth study in specific areas related to neurological, physiological, and mechanical principles of human development.
PET	6419	Clinical Supervision In Physical Education	3	ED	EDP	PR: Florida certificate in physical education, 3 years teaching experience in physical education, principal's recommendation. CI. DPR.	Provides specialized knowledge and skills for effective supervision of interns in physical education including observation and feedback techniques and communication skills.
PET	6425	Curriculum and Instructional Process in Physical Education	3	ED	EDP	PR: CI.	Will provide in-depth study of the structure of subject matter, theoretical curriculum models, styles of teaching, and investigation of the nature of the learner as these relate to teaching physical education. Fieldwork may be required.
PET	6443	Instructional Design and Content: Games	3	ED	EDP		The purpose of this course is to help students plan and implement effective game content and instruction in K-12 physical education programs based on current research and best practice.

PET	6444	Instructional Design and Content: Dance and Gymnastics	3	ED	EDP		The purpose of this course is to help students plan and implement effective dance and gymnastics content in K-12 movement education/physical education programs based on current research and best practice.
PET	6496	Specialized Study In Curriculum And Instructional Process In Physical Education	1-4	ED	EDP	PR: CI. DPR.	Will provide in-depth study in specific areas related to the teaching-learning process of physical education.
PET	6516	Learner Assessment in Physical Education	3	ED	EDP		This course is designed to help teachers assess student learning in pre/K-12 physical activity settings and to conduct program evaluation in physical activity settings.
PET	6525L	Laboratory Techniques in Exercise Science	3	ED	EDP	PR: Department Approval/Permission of Instructor	The course covers laboratory applications as they relate to exercise science. Emphasis will be placed upon laboratory experiences in biomechanics and exercise physiology involving equipment setup, data collection, data acquisition, and data analysis.
PET	6535C	Professional Assessment	3	ED	EDP	PR: CI. DPR.	Personal assessment of current trends and knowledge in the professional literature. Development of competencies in research review, written and oral communication skills.
PET	6625	Topics in Sports Medicine	3	ED	EDP	PR: Department Approval/Permission of Instructor	This course covers selected topics regarding the science and medicine of sports participation. Areas covered include the medical supervision of the athlete, special populations, general medical conditions, environmental concerns, and sports nutrition.
PET	6645	Physical Education for Individuals with Disabilities	4	ED	EDP	DPR.	This course is concerned with the motor development and physical fitness of individuals with mental and motor related disabling conditions. Study includes psycho-educational characteristics; planning, conducting, and evaluating individualized programs of physical education; and review of relevant literature. Clinical fieldwork is required.
PET	6695C	Physical Education for the Handicapped Practicum	2-4	ED	EDP	PR: PET 6645 or DPR and CI.	School or treatment center-based experience providing evaluation and instructional services. Seminars are conducted to discuss professional literature, teaching strategies, and curriculum organization and evaluation.
PET	6706	Analysis of Research in Physical Education	3	ED	EDP		This course is designed to help teachers better understand the process of conducting classroom research. The course provides a set of guidelines for reading research and sharing perspectives based on studying original research in physical education.
PET	6716	Analysis of Teaching in Physical Education	3	ED	EDP		The purpose of this course is to study teaching behaviors in physical activity settings. It includes a review of

							current research and involves the use of observation systems and other data collection strategies related to instructional effectiveness.
PET	6906	Independent Study: Professional Physical Education	1-6	ED	EDP	S/U. PR: CI. DPR.	Independent study. Students must have a contract with an instructor.
PET	6910L	Research Project in Physical Education	1-4	ED	EDP	PR: CI. DPR.	In-depth research study of selected topics concerning human movement. Topics will vary according to needs and interests of student.
PET	6971	Thesis: Physical Education	3	ED	EDP	PR: Dept. Approval Required – Completion of 24 Credit Hours in School of Physical Education, Wellness, and Sport Studies in Student's Graduate Program Plan of Study and Permission from Instructor.	This course will provide the student with experience in research related to the disciplines of physical education and exercise science. Restricted to Graduate Program Majors only and repeatable for up to 6 credit hours.
PGY	5425C	Art Photography III	4	TA	ART	PR: CI.	Advanced work in photography and related media leading to development of personal/expressive statements.
PHC	5933	Special Topics	1-3	PH	PHC		Provides students the opportunity to learn about the multiple ways to view controversial topics in public health. It covers current public health topics including biomedical issues, social and behavioral factors, and environmental issues.
PHC	6000	Epidemiology	3	PH	EPB	PR: CI.	Study of epidemiological methods to evaluate the patterns and determinants of health and diseases in populations.
PHC	6002	Infectious Disease Epidemiology	3	PH	CFH	PR: PHC 6000, PHC 6050.	The course help students to understand epidemiological patterns, etiology and risk factors of infectious diseases as they occur in populations, rather than in individual patients. Familiarity with epidemiological terminology and biostatistics is required.
PHC	6010	Epidemiology Methods I	3	PH	EPB	PR: PHC 6000 or CI.	This course is designed to cover the important concepts in epidemiology and their application in epidemiological research. Emphasis on measures and quantitative techniques, proper interpretation and explanation of quantative measures and results.
PHC	6011	Epidemiology Methods II	3	PH	EPB	PR: PHC 6000, PHC 6010 or CI.	This course will cover methods and practices, principles and concepts in epidemiology research. It will provide training in implementing appropriate study design, analyzing results and presenting research findings to a wide variety of audiences.
PHC	6016	Epidemiology Methods III	3	PH	EPB	PR: PHC 6000, PHC 6010, PHC 6011, PHC 6051.	This course will increase the scope, expand upon and detail material presented in Epidemiology Methods I and Epidemiology Methods II. This course will focus on in-depth design of cohort, case-control and cross

							sectional epidemiologic studies.
PHC	6017	Design and Conduct of Clinical Trials	3	PH	EPB	PR: PHC 6050, PHC 6000 and CI.	The course will familiarize students with the issues in the design and conduct of clinical trials. Factors involved in organizing a trial, randomizing subjects, implementation, and analyzing data from the study will be considered.
PHC	6050	Biostatistics I	3	PH	EPB	PR: College Algebra or CI.	Concepts, principles, and methods of statistics applied to public health issues.
PHC	6051	Biostatistics II	3	PH	EPB	PR: PHC 6000 and PHC 6050 or CI.	Simple and multiple linear regression, ANOVA (Analysis of Variance) and ANCOVA (Analysis of Covariance), Model building procedure and diagnostics with applications in health research.
PHC	6057	Biostatistical Inference I	3	PH	EPB	PR: Undergraduate Calculus or Equivalent	This course is primarily designed for students majoring in Biostatistics, emphasis is given to understanding and mastering of biostatistical theory and methods such as probability distribution, expectations, estimation and hypothesis testing.
PHC	6060	Biostatistical Case Studies and Consulting I	3	PH	EPB	PR: Entry into the Biostatistics Doctoral Program or CI.	This course provides hands on experience in biostatistical consulting. Biostatistical methods and computer skills are presented, along with the skills required for participating in collaborative and consultative research roles. A Foundation for biostatistical consultation is presented, involving the goals, content, conduct and presentation of Biostatisticians working in applied health settings. Students apply these principles to at least one consultative project and one collaborative project.
PHC	6061	Biostatistical Case Studies and Consulting II	3	PH	EPB	PR: PHC 6060 or CI.	This course prepares students to join an active biostatistical analyst of a multidisciplinary research groups. This collaborative role requires knowledge of successful grant writing and review, site visits, and formal presentations of analytical results. Special issues in collaborating research at a distance are discussed. The biostatistical methodology and theory pertaining to collaborative research projects chosen by the students covered in formal lectures.
PHC	6074	Epidemiology of Diseases of Major Public Health Importance	3	PH	EPB	PR: PHC 6000, PHC 6050, and CI.	A study of the distribution and determinants of specific infectious and non-infectious human diseases of public health importance using epidemiological methods.
PHC	6075	Cancer Epidemiology	3	PH	EPB	PR: PHC 6000 or CI.	The course will consider the extent of the cancer problem, present the epidemiology of the major cancer sites, including those of the respiratory, digestive and reproductive systems, and evaluate the potential for primary and secondary preventive efforts.
PHC	6076	Cardiovascular Disease	3	PH	EPB	PR: PHC 6000 or CI.	A review of the major issues in

		Epidemiology					cardiovascular disease epidemiology, including trends, the extent of the disease nationally and internationally, implications of major epidemiological studies, and strategies for prevention.
PHC	6102	Principles of Health Policy and Management	3	PH	HPM	PR: CI.	General principles of planning, management, evaluation, and behavior of public and private health care organizations at the local, state, and national levels.
PHC	6104	Management of Public Health Programs	3	PH	HPM	PR: PHC 6102 and CI.	Application of principles and methods for organization and management of government and non-government public health programs.
PHC	6106	Global Health Program Development and Administration	3	PH	EPB	PR: PHC 6102.	Program Development and Administration is one of four foundation courses for the concentration in Global Health. As a foundation course, its primary role is to provide students with a solid knowledge base in managing global health programs and projects that will serve them in their field experiences and in any one of the seven focus areas available within the global health concentration.
PHC	6110	International Health and Health Care Systems	3	PH	HPM	PR: CI.	Study of global health problems and trends, translated to needs and demands; socio-economic and political impact on health delivery; prevailing international systems compared to U.S. system; the role of international health agencies.
PHC	6111	Global Primary Health Care Strategies	3	PH	HPM	PR: PHC 6102 or CI.	Addresses the rationale, planning and implementation of primary health care programs from an international perspective. Emphasis is given to primary care as an integral part of a health care system and an essential component of public health.
PHC	6114	Health Insurance and Managed Care	2	PH	HPM	PR: PHC 6102 and ACG 6025 or CI.	Financing, operations, and regulatory environment of health insurance and managed care, including principles, models, organization, management functions, public policies, and impact on cost, quality and access in communities.
PHC	6115	Global Health Principles and Contemporary Issues	3	PH	EPB		This course introduces students to the global context of public health and its dimensions particular to international settings; examines major themes and policies in global health; and analyzes health problems and varying responses globally.
PHC	6116	International Health Education	3	PH	CFH	PR: Graduate Status.	This travel abroad course compares the practice and venues of health education as they occur in another country with those in the United States. Specific course location varies. Focus is on comparative assessment of individual and community health education needs, program planning, implementation, and evaluation, coordination and administration of programs, resource

							availability of programs, resource availability, health communication mechanisms, application of research principles, and status of the health education profession.
PHC	6120	Community Partnerships and Advocacy	3	PH	CFH		Designed to familiarize students with key aspects of developing partnerships among private and public sector organizations for the purposes of assessing and improving the health of communities. Particular skills include coalition development, developing a constituency/partnerships, advocacy, team building, and leadership.
PHC	6146	Health Services Planning and Evaluation	3	PH	HPM	PR: PHC 6050 or CI.	Study of health services planning concepts/methods, and evaluation, with an emphasis on facilities and manpower planning, providing an in-depth orientation to information requirements for health planning, and methods to cover gaps of information.
PHC	6147	Managing Quality in Health Care	2	PH	HPM	PR: PHC 6102 or CI.	Study of methods and tools for managing quality in health facilities, physician practices, managed care and public health; including developments in quality assurance and improvement, utilization review, risk management, and patient satisfaction.
PHC	6148	Strategic Planning and Health Care Marketing	3	PH	HPM	PR: PHC 6102 or CI.	The course reviews the fundamental steps in the strategic planning process and marketing approaches for health care organizations. The textbook and exercises emphasize non-profit organizations.
PHC	6150	Health Policy Analysis	3	PH	HPM	PR: PHC 6102 or CI.	A detailed study of policies, policy making, and policy analysis in health services and their relationship to health planning, management, and health care delivery.
PHC	6151	Health Policy and Politics	3	PH	HPM	PR: PHC 6102 or CI.	This course will examine the role of federal, state, and local government in health care organization, delivery, and financing in the United States and other comparable industrial nations.
PHC	6160	Health Care Financial Management	3	PH	HPM	PR: At least one undergraduate course in Financial or Managerial Accounting and PHC 6102 or CI.	An introduction to the application of financial management practices in health care organizations, cost behavior analysis, working capital management, financial statement analysis, and capital decision making.
PHC	6161	Health Care Finance and Costing	4	PH	HPM	PR: PHC 6102 and ACG 6025 or CI.	Uses lectures, cases and online learning activities to develop and apply skills in finance and costing required in health care management.
PHC	6180	Health Services Management	3	PH	HPM	PR: PHC 6102 and undergraduate accounting course or CI.	Advanced study of specific topics in health care organization management including the managerial process, organizational theory, resource utilization and control, and human resource management.
PHC	6181	Organizational Behavior in Health Services	3	PH	HPM	PR: PHC 6102 or CI.	Investigates the impact that individuals, groups, and structure

							have on behavior within organizations. The application of such knowledge is used toward advancing the effectiveness of health care and related organizations. Special consideration is given to human resource applications. Case studies and other exercises are used.
PHC	6183	Overview of United States and International Emergency/Disaster Management	3	PH	EOH		Public Health and other professionals will be given an overview of the disaster management process. Provides terms, definitions, and concepts of emergency management from a local, national, and international perspective.
PHC	6184	Emergency/Disaster Recovery	3	PH	EOH	PR: PHC 6183.	The content of this course is designed to expose the concepts of: 1)recovery models used by the United States and International operations, 2)recovery planning and response to a disaster environment, especially in terms of major disaster incidents, 3)broadening and enhancing the understanding of roles and responsibilities, and 4)the importance to the overall recovery effort. In addition to the United States and international focus, the course also addresses the coordination and problem solving aspects of disaster operations.
PHC	6185	Emergency/Disaster Preparedness and Planning	3	PH	EOH	PR: PHC 6183.	Emergency Preparedness and Planning provides an overview to preparedness strategies, emergency planning and assessment of hazards and resources. This course provides intermediate level direction and builds upon planning concepts learned in Overview of United States and International Energy Management. Studies include in-depth planning and analytical framework, hazard/vulnerability analysis, and management.
PHC	6186	Public Health Emergencies in Large Populations (PHLEP)	3	PH	EOH		To develop or improve the skills of persons interested in providing emergency health services in humanitarian emergencies. The course is divided into two parts: 1)meeting health needs large populations and 2)the humanitarian and ethical issues of refugees and displaced people. Topics covered include food and nutrition, water and sanitation, providing health services, reproductive health, control of communicable diseases, humanitarian law, human rights, ethics, and the geopolitical issues related to population displacement particularly from conflict.
PHC	6190	Public Health Database Management	3	PH	EPB	PR: PHC 6701.	This course focuses on the creation of databases with applications to public health and clinical research; data entry and database management and

							checks for accuracy and consistency, and preparation of final databases for statistical analysis.
PHC	6191	Quantitative Analysis in Health Services	3	PH	HPM	PR: PHC 6050, PHC 6102 and QMB 6305 or CI.	Examines the use of quantitative modeling techniques to address operational problems in managing medical and health care settings. Topics: probability, sampling, hypotheses testing, estimation, time series, demand forecasting, simulation, and queuing.
PHC	6193	Qualitative Methods in Community Health Research	3	PH	CFH		This course provides classroom instruction and field application of qualitative research methods for studying community health problems. It provides a general introduction to ethnographic field methods, emphasizing systematic approaches to collection and analysis of qualitative data. Students will learn to identify the kinds of research problems for which qualitative methods are appropriate, and to critique qualitative research in terms of design, technique, analysis and interpretation.
PHC	6195	Public Health Data, Information and Decision Making	3	PH	HPM	PR: PHC 6050.	This course provides an understanding of public health databases and methods necessary for decision making. The emphasis is on the appropriateness and application of methods widely used for analysis in public health.
PHC	6196	Information Systems in Health Care Management	3	PH	HPM	PR: PHC 6050 or CI.	The course is designed to prepare students to analyze and design information systems in health services organizations.
PHC	6197	Community Health Data Sources and Technology	3	PH	CFH		The purpose of this course is to provide experience in the management and analysis of data sets relevant to public health. Among the data sets considered are vital statistics, health care utilization databases, practitioner and other registries, periodic surveys, selected surveillance systems, and programmatic data.
PHC	6230	Foundations of Humanitarian Assistance	3	PH	PHC		This course is designed to develop or improve the skills of persons interested in providing emergency health services in international humanitarian emergencies.
PHC	6231	Organizing Emergency Humanitarian Actions	3	PH	PHC	PR: PHC 6230.	Topics to be covered in this course include the: use of early warning systems, logistics, security of food, safety, assessment and surveillance, epidemiology, malnutrition, feeding programs, water and sanitation, shelter, and communicable diseases.
PHC	6232	From Emergency to Development and Prevention	3	PH	PHC	PR: PHC 6231.	This course includes: resources, training for local agencies, basic services, cultural issues, Sphere Projects Minimum Standards, basic services, women after a disaster, and health service program.

PHC	6233	Current Challenges in the Humanitarian Field	3	PH	PHC	PR: PHC 6232.	This course will review: leadership issues, advocacy, neutrality and impartiality, the media, prisoner visitations, torture, demobilization and decommissioning of combatants, expatriates, peace-keeping to peace-building, sovereignty, and reconstruction.
PHC	6251	Disease Surveillance and Monitoring	3	PH	CFH		A review of epidemiological principles and methods used in the development and practice of disease and infection surveillance, prevention and control for public health in general and in the context of the hospital setting in particular. Basic epidemiological concepts will be focused in communicable diseases, nosocomial infections, environmental exposures, and emerging diseases. PR: Biostatistics Epidemiology, or CI.
PHC	6301	Water Pollution and Treatment	3	PH	EOH	PR: CI.	A study of treatment technologies for water and wastewater. Emphasis is given to treatment technologies appropriate for developing countries.
PHC	6303	Community Air Pollution	3	PH	EOH	PR: CHM 3610C or CI.	A study of air pollutants. Emphasis is given to sources and control technologies as well as health effects and environmental impact.
PHC	6304	Environmental Health Microbiology	3	PH	EOH	PR: MCB 3010C or CI.	Techniques for isolation and enumeration of microorganisms of health significance from food and aquatic sources.
PHC	6305	Environmental Analytical Laboratory	4	PH	EOH	PR: CI.	Techniques used for quantitative sampling and analysis of air, water, and soil contaminants.
PHC	6306	Radiation Health Principles	2	PH	EOH	PR: CI.	An analysis of the basic concepts of radiation and the protection of individuals and population groups from ionizing and non-ionizing radiation as well as establishing relationships between radiation exposure and biological damage.
PHC	6310	Environmental Occupational Toxicology	3	PH	EOH	PR: CI.	A study of the nature of industrial and environmental toxins and toxic by-products, generated and distributed, leading to disease, disability, or death, and the control measures available. Lecture and appropriate laboratory methods are used.
PHC	6312	Environmental Fate of Chemical Releases	3	PH	EOH	PR: CHM 2046, PHY 2054, MAC 2312 or CI.	Provides an understanding of the environmental and physico-chemical factors involved in the transport, transformation, and fate of compounds released to the environment. Material covered includes sources of chemical releases as well as the factors affecting the distribution and transformation of chemicals. Routes of exposure and accumulation by humans and other organisms will also be evaluated.
PHC	6313	Indoor Environmental Quality	2	PH	EOH		Students will learn the importance of maintaining acceptable indoor environmental quality in occupational and residential settings. The course

							will emphasize current techniques, data interpretation methods, and proper data / conclusions reporting.
PHC	6314	Infection Control Program Design	3	PH	EOH	PR: CI.	This course will review educational program design for health care workers, instructional methods, personnel and financial resource management, role of Infection Control (IC) personnel, development of goals, mission statement, action plans for IC, evaluation of programs, communication with administration, physicians and care givers.
PHC	6350	Occupational Health Risk Assessment	3	PH	EOH	PR: PHC 6050 or CI.	A study of methods for assessing potential hazards associated with occupational health environments. Evaluation of techniques for the development of comparative rankings of problem areas.
PHC	6351	Occupational Medicine for Health Professionals	3	PH	EOH	CI.	Designed to enhance the skills of select health professionals in identifying, evaluating and charting a course of action for medical conditions resulting from occupational exposures and hazards.
PHC	6353	Environmental Risk Assessment	2	PH	EOH	PR: CI.	Designed to provide training for students to develop the skills necessary to identify, characterize, quantify, and manage human health and ecological risks for the protection of human health and the environment.
PHC	6354	Safety and Health Administration	2	PH	EOH		A study of techniques and administrative practices which are instrumental in the initiation and maintenance of programs and procedures that are geared to prevent and reduce work related injuries, illnesses, and discomfort.
PHC	6356	Industrial Hygiene	2	PH	EOH	PR: CI.	A study of the recognition, evaluation, and control of the workplace affecting the health of employees.
PHC	6357	Environmental and Occupational Health	3	PH	EOH	PR: CI.	The study of major environmental and occupational factors that contribute to development of health problems in industrialized and developed countries.
PHC	6358C	Industrial Hygiene--Physical Agents	2	PH	EOH	PR: PHC 6356 and 1 year college physics or CI.	Recognition, evaluation, and control of physical agents in the workplace. Laboratory exercises and field surveys will be conducted in addition to class lectures. Lec/Lab.
PHC	6359	Xenobiotic Metabolism in Environmental and Occupational Health	3	PH	EOH		Study of enzymes involved in biotransformation of foreign compounds important in environmental and occupational health.
PHC	6360	Safety Management Principles and Practices	2	PH	EOH	PR: CI.	A study of safety management as it relates to hazard identification, accident investigation and training, enabling the safety manager to reduce costs to business, industry, and government.
PHC	6361	Industrial Ergonomics	2	PH	EOH	PR: PHC 6360 or CI.	Systems logic and methodology for

							assessing the potential impact of work environments on the health and safety of workers; application of occupational ergonomics and human factors to the design and evaluation of complex work environments.
PHC	6362	Industrial Ventilation	2	PH	EOH	PR: PHC 6356 or CI.	Basic principles of fluid mechanics and exhaust ventilation are employed in the design and evaluation of the performance of industrial ventilation systems.
PHC	6364	Industrial Hygiene Aspects of Plant Operations	2	PH	EOH	PR: PHC 6356 or CI.	Field visits to industrial plants will be conducted so as to familiarize students without prior experience to the health hazards associated with various processes and the methods of control employed to prevent excessive exposures.
PHC	6365C	Analytical Methods in Industrial Hygiene I	2	PH	EOH	PR: PHC 6356 or CI.	Analytical measuring methodologies and instruments employed in evaluating exposure to chemical agents are described and detailed. Hands-on laboratory exercises permit full familiarization in the calibration and use of these instruments. Problem solving sessions result in the development of a routine for the proper handling of laboratory data.
PHC	6366C	Analytical Methods in Industrial Hygiene II	2	PH	EOH	PR: PHC 6356 or CI.	Analytical measuring methodologies and instruments employed in evaluating exposure to physical agents are described and detailed. Hands-on laboratory exercises permit full familiarization in the calibration and use of these instruments. Problem solving sessions result in the development of a routine for the proper handling of laboratory data.
PHC	6367	Control Aspects of Industrial Hygiene	2	PH	EOH	PR: PHC 6356, PHC 6358.	This course maps out the framework for industrial hygiene controls with an emphasis on engineering controls, administrative controls and personal protection. It is the capstone course for industrial hygiene students, who will apply their knowledge of hazard evaluation to the appropriate selection of controls.
PHC	6369	Industrial Toxicology	2	PH	EOH		This course will focus on specific industries, industrial processes and the chemicals that worker's may be potentially exposed to, and their impact on Public Health. The Standard Industrial Classification (SIC) division structure will be used to identify industries that have been studied by NIOSH or other agencies. For each industry identified, chemical hazards, exposure routes, toxicology effects, and monitoring methods will be discussed emphasizing the need for a multidisciplinary approach in providing information aimed at reducing worker exposures to industrial toxicants.
PHC	6370	Biological and Surface	2	PH	EOH	PR: CHM 2200, CHM	This public health course will provide

		Monitoring				2211, BSC 2010 and CI.	students with a thorough understanding of Biological Monitoring as a method of evaluating exposure to environmental agents. Students learn to distinguish between the limitations of this emerging technology and how to avoid pitfalls associated with misapplication of results. Students learn how to develop sampling strategies for specific chemicals.
PHC	6371	Air Dispersion Modeling for Regulatory Compliance	3	PH	EOH		A study of air pollution meteorology (atmospheric energy balance, inversions and winds), micrometeorology (atmospheric fluid mechanics, turbulence, winds, stability classes, convective boundary layer) and atmospheric diffusion (different theories, Gaussian plume equation, air quality models, atmospheric removal processes), supported by a computer laboratory.
PHC	6373	Protecting Public Health: Bioterrorism/Biodefense	3	PH	EOH		The theoretical, historical and contemporary issues associated with public health protection and safety. This includes quarantine, health and safety management, homeland security, and the history of biological warfare.
PHC	6400	Maltreated Children and Their Families	3	PH	CFH		This course will identify and analyze public health policy and research issues specific to the area of child maltreatment.
PHC	6401	Homelessness: Implications for Behavioral Healthcare	3	PH	CFH		A study of the structural, personal, treatment, and sociopolitical issues related to homelessness. Causes of homelessness from structural and personal factors are explored. Quantitative and qualitative data are reviewed to examine the experience of homelessness, pathways into homelessness including mental health, substance abuse, and violence/trauma. A special focus will be on the research conducted by the instructors on services for homeless families and the prevention of homelessness among individuals with severe mental illness.
PHC	6410	Social And Behavioral Sciences Applied to Health	3	PH	CFH	PR: CI.	A review of the conceptual, empirical, and theoretical contributions of the Social and Behavioral Sciences as they contribute to an understanding of health and illness.
PHC	6411	Introduction to Social Marketing for Public Health	3	PH	CFH	PR: CI.	This course is designed to analyze the components and applications of social marketing for public health: theoretical foundations; research methods; strategy development; program design and implementation, materials pretesting, and ethics.
PHC	6412	Health Disparities, Diversity and Cultural Compete	4	PH	CFH		This course is designed to explore health disparities in the U.S. and multi-level strategies to reduce those disparities. Discussions will focus on a

							critique of the literature from a variety of disciplinary perspectives and an analysis of case studies.
PHC	6413	Family and Community Violence in Public Health	3	PH	CFH		The objective of this course will be to identify and to focus on the most serious policy and research issues which are specific to the field of family violence. The course will cover theory, research, and applied programs in community settings.
PHC	6414	Adolescent Health	3	PH	CFH		The purpose of this course is to provide an overview of adolescent health issues and trends. With this primary aim, the objectives are organized around the knowledge of health assessment and interventions with adolescents and the skills needed for effective teaching methodologies to enhance health provider communication with adolescents. This course is not restricted to Public Health graduate students.
PHC	6418	Public Health and Aging	3	PH	CFH		A study of specific health promotion and disease prevention strategies for older adults in the context of community health, immunizations, nutrition, exercise, and stress management. Also management for chronic disease, delay of disabilities, and types of long term care deliver and settings are examined.
PHC	6419	Global Issues in Community and Family Health	3	PH	CFH		This course provides an overview of current public health issues and problems affecting communities and families around the world. A comparative approach is taken to highlight similarities and differences across countries at variable levels of socioeconomic development. Problems are addressed in terms of etiology, impact and intervention strategies. Reg. Permit Required. CI.
PHC	6420	Health Care Law, Regulation and Ethics	3	PH	CFH		This is a survey course of the most significant issues in health care law. Core topics include licensure, malpractice, reproductive issues, the right to die, and managed care. Students will develop and understanding of substantive law, legal decision making, and the relationship between health care law and ethics. Graduate students from other departments may take the course.
PHC	6421	Public Health Law and Ethics	3	PH	HPM	PR: PHC 6102 recommended.	This course provides students with an overview of major ethical and legal concepts. The course considers the role of the legal system in resolving public health problems through the legislature, the courts, and administrative agencies.
PHC	6422	Environmental Health Law	3	PH	EOH	PR: EOH 6357.	Review and analysis of Federal and State laws and regulations in relation to the pollution, regulation and

							protection of the air, water, and environment issues in general.
PHC	6423	Occupational Health Law	2	PH	EOH	PR: EOH 6357.	Review and analysis of Federal and State laws and regulations in relation to Occupational Health and safety.
PHC	6430	Health Economics I	3	PH	HPM	PR: ECO 2023 or equiv. and CI.	Microeconomic analysis of the structure of the health care industry and economic incentives facing physicians, patients, and hospitals.
PHC	6433	Health Economics II	3	PH	HPM	PR: PHC 6430 or CI.	Second of a two part sequence surveying various applications of economic principles and methods to current issues in public health. Emphasis on efficiency goals of health care policy and the use of economic analysis in the design of such policy.
PHC	6435	Perspectives on Health Insurance	3	PH	HPM	PR: Undergraduate Microeconomics, PHC 6430 or CI.	Presents an overview of major health insurance issues, including demand, supply, employment based coverage, the uninsured, government sponsored programs, managed care, and national health. The analysis will be based on microeconomic tools and is intended for management or policy oriented students with an interest in health insurance and managed care.
PHC	6441	Social Determinants of Health	3	PH	CFH	PR: PHC 6410.	The course provides students with a basic understanding of our society's most pervasive social disparities in health status and prepares students to evaluate underlying theories and promising interventions related to social determinants of health.
PHC	6442	Global Health Applications in the Field	3	PH	EPB		This course prepares students for fieldwork in the global public health arena. A comparative approach is taken to highlight similarities and differences across countries at variable levels of socioeconomic development.
PHC	6500	Theoretical and Behavioral Basis for Health Education	4	PH	CFH	PR: PHC 6410.	Assessment of and current methodologies related to understanding and influencing psychosocial, cultural, and situational factors in voluntary behavior change process; theories of health behavior.
PHC	6505	Program Planning in Community Health	3	PH	CFH	PR: PHC 6500 or CI.	This course is designed to prepare students to analyze the planning and development process for community health programs. The PRECEDE-PROCEED model and intervention Mapping will be used as the primary planning frameworks.
PHC	6506	Program Planning Methods in Community Health	3	PH	CFH	PR: PHC 6500 or CI.	This course is designed to prepare students to analyze the planning and development process for community health programs. The PRECEDE-PROCEED model and intervention Mapping will be used as the primary planning frameworks.
PHC	6507	Health Education Methods	3	PH	CFH	PR: PHC 6500 or CI.	Prepares students to analyze and incorporate effective content and process in health education program delivery. Course not restricted to health education majors.

PHC	6508	Case Studies in Health Education	3	PH	CFH	PR: PHC 6500, 30 hours toward MPH, or CI.	An assessment of selected case studies in Health Education with an emphasis on application, analysis, and evaluation of health education theory and practice to various public, private, health care, and school settings.
PHC	6510	Exotic and Emerging Infectious Diseases	3	PH	EOH	PR: CI.	A study of human infectious disease with particular emphasis on diseases caused by parasites, viruses, bacteria, and fungi found in sub-tropical and tropical environments.
PHC	6511	Public Health Immunology	3	PH	EOH	PR: CI.	Immunology as applied to public health. Emphasis is on applications of immunology and immunological techniques used in surveillance, prevention, and control of public health problems.
PHC	6512	Vectors of Human Disease	3	PH	EOH	PR: CI.	Biology of the vectors of human disease: major groups include the arthropods, mollusks, and mammals. Emphasis on the ecology of the vectors and their transmission of pathogens as they relate to public health.
PHC	6513	Public Health Parasitology	3	PH	EOH	PR: CI.	Human diseases caused by parasite infection with emphasis on diseases related to environmental exposure and of public health importance. Major groups include the protozoan, cestodes, trematodes, and nematodes of human disease.
PHC	6514	Infectious Disease Control in Developing Countries	3	PH	EOH	PR: PHC 6000.	Focuses on disease control strategies for selected infectious and communicable diseases. Diseases covered have been selected on the basis of their relative contribution to the burden of disease in developing countries.
PHC	6517	Infectious Disease Prevention Strategies	3	PH	EOH	PR: CI.	This course focuses on surveillance criteria, outbreak criteria, data collection and study design. Also included will be data analysis and reporting; interaction with public health agencies; preparation for Joint Commission on Accreditation of Healthcare Organizations (JCAHO); prevention and intervention; sanitation, disinfection, antisepsis and sterilization; role of immunization, antimicrobial prophylaxis and therapy.
PHC	6521	Public Health Nutrition	3	PH	CFH	PR: CI.	An analysis of nutritional issues concerned with health and disease. Biological and social interactions are studied as they relate to the development, monitoring, and evaluation of community nutrition intervention programs.
PHC	6522	The Biological Role of Nutrition in Health	3	PH	CFH	PR: HUN 2201, ZOO 3713C, PCB 4723, BCH 3023, or CI.	Advanced study of the biochemical and physiological roles of nutrition in health and disease.
PHC	6523	Policies and Practices in Maternal and Child Nutrition	3	PH	CFH	PR: CI.	Study of nutrition policies and practices in maternal and child health from pregnancy through the pre-

							school years. Focus on issues concerned with risk identification, interventions and outcome evaluations.
PHC	6524	Public Health Nutrition for the Adult and Aging Population	3	PH	CFH	PR: PHC 6521, PHC 6522, or CI.	Study of policies and practices of nutrition in health promotion and disease prevention in adults. Focus on issues concerned with risk identification, nutrition interventions and outcome evaluations.
PHC	6526	Nutrition Assessment of Individuals and Communities	3	PH	CFH	PR: PHC 6521, PHC 6522, or CI.	Comparative study of anthropometric, biochemical, dietary, clinical and socioeconomic indicators of nutritional status including the differential use of these indicators for individuals and communities.
PHC	6527	Case Studies in Public Health Nutrition	3	PH	CFH	PR: CI.	Capstone course intended to provide a unifying opportunity to utilize concepts, principles and skills learned from other public health nutrition courses.
PHC	6530	Issues and Concepts in Maternal and Child Health	3	PH	CFH	PR: CI.	The purpose of this course is to provide for the foundation of Maternal and Child health for students who will be concentrating in this area, or as an overview for non-majors.
PHC	6531	Health Programs for Children with Special Needs	3	PH	CFH	PR: CI.	A study of causative factors, characteristics, care needs and programs for handicapped children with emphasis on health and health care issues.
PHC	6532	Women's' Health Issues in Public Health	3	PH	CFH	PR: CI.	A public health orientation of women's health needs with their impact on society, family, and children.
PHC	6533	Health Program Development and Change Process	3	PH	CFH	PR: CI.	A study of approaches to program development, implementation and management of change process in maternal and child health.
PHC	6534	Cultural Competency in Children's Mental Health	3	PH	CFH	PR: Graduate Status	The course will explore the need of cultural competence in provision of mental health services in a multicultural society. The course will examine culture and ethnicity, multiculturalism, and intercultural communication. The course will define cultural competence from the perspective of the current different approaches to the concept, and examine cultural competence at both mental health systems and service provision levels. Case studies of how cultural competence is implemented by different mental health organizations will be examined.
PHC	6535	International Maternal and Child Health	3	PH	CFH	PR: CI.	The course examines current priorities for improving the health of mothers and children in developing countries. The emphasis is on understanding MCH issues within the larger context of primary health care and sociocultural factors which influence behavior.
PHC	6536	Population and	3	PH	CFH	PR: PHC 6410 or CI.	Population information and

		Community Health					applications in health programs. Topics include: population growth and decline, structure, distribution, fertility, morbidity and mortality, and migration as applied to maternal, child and community health.
PHC	6537	Case Studies in MCH Programs, Policies and Research	3	PH	CFH	PR: PHC 6530, PH Core Courses, or CI.	Capstone course intended to provide unifying opportunity to utilize concepts, principles, and skills learned in other MCH and public health courses.
PHC	6540	Public Mental Health	3	PH	HPM	PR: CI.	Current state of community mental health emphasizing history and future of the movement and involvement of public agencies; methods, goals, evaluation of treatment, funding and administration of programs.
PHC	6541	Public Mental Health Administration	3	PH	HPM	PR: PHC 6540, PHC 6102 or CI.	General principles of management theory, methods, administrative processes, and organizational structure of public and private mental health organization in hospital and ambulatory care settings.
PHC	6543	Foundations in Behavioral Health Systems	3	PH	CFH	PR: Graduate Status	This web-based course is a graduate course in Behavioral Health within the Department of Community and Family Health. It is designed to provide the graduate student with an overview and understanding of the significant issues and trends in community & family mental health delivery systems in America. Four major areas of mental health will be emphasized: 1) history and legislation; 2) systems delivery; 3) programs and policies; 4) and selected at-risk populations.
PHC	6544	Children's Mental Health Services	3	PH	CFH	PR: Permit Required CI	The content of this course is designed to prepare professionals to work in partnership with families and other professionals and participate in interdisciplinary teams in a variety of settings to meet the needs of children with mental health problems.
PHC	6545	Evaluation in Mental Health	3	PH	CFH	PR: Biostatistics I or Equivalent	A study of the theories and practical approaches to the development of evaluative methods for behavioral health.
PHC	6547	Case Management in Community Mental Health	3	PH	CFH	PR: Graduate Status	This course focuses on case management systems with a special emphasis on clinical case management for vulnerable populations, especially persons with severe mental illness and older adults. This course is designed for persons who are interested in providing case management services, managing such services, or have an interest in the field. The course examines elements critical for the effective provision and evaluation of case management services.
PHC	6548	Grant Writing in Mental Health	3	PH	CFH	PR: Graduate Status	This course focuses on the process and problems of grant writing in mental health. The course is

							designed for persons who are interested in identifying and evaluating mental health research questions and demonstration projects. The curriculum examines criteria for good mental health research and provides students with tools for successful grant writing. Students will learn how to develop and market fundable project ideas, where to start, what funding agencies look for, and how to construct a fundable mental health proposal.
PHC	6549	HIV and Mental Health	3	PH	CFH	PR: Graduate Status	This course will provide students with an interdisciplinary understanding of HIV/AID, focusing primarily on behavioral health and ethical issues. Students will study the unique contributions to prevention and treatment that both mental healthcare workers and theories can make to persons affected by HIV.
PHC	6550	Community-Based Prevention in Behavioral Health	3	PH	CFH	PR: Graduate Status	This web-based course is a graduate course in Behavioral Health within the Department of Community and Family Health. It is designed to provide the graduate student with an overview and understanding of the significant issues and trends in community & family behavioral health with an emphasis on behavioral health promotion and disease prevention. Major areas are: 1) overview of promotion and prevention in the United States; 2) systems delivery; 3) programs and Policies; 4) and selected at-risk populations.
PHC	6560	The Public Health Laboratory System	3	PH	HPM		This course deals with the roles of the public health laboratory in the Public Health System and thus familiarizes the student with the types, functions and interactions of Public Health Laboratories.
PHC	6562	Microbiology for Healthcare Workers	3	PH	CFH	PR: BSC 2010, BSC 2011, CHM 2046, or CI.	An overview of contemporary microbiology, with emphasis on the significance of microorganisms in the environment and clinical disease. The structure, physiology, molecular genetics, taxonomy, immunological and clinical aspects, and public health implications of microorganisms will be covered.
PHC	6580	Prevention and Control of Unintentional Injuries	3	PH	CFH	PR: CI.	Prepares students to critically analyze the nature, magnitude and intervention strategies of unintentional injuries and propose new directions for prevention and control. Not restricted to public health majors.
PHC	6590	Reproductive Health Trends And Issues	3	PH	CFH	PR: CI.	Provides understanding of reproductive factors in Health and Disease and its impact on community, family, and individual quality of life, and to apply current advances in FP

							and MCH care components and management in Public Health Programs.
PHC	6591	Reproductive and Perinatal Epidemiology	3	PH	EPB	PR: PHC 6000, PHC 6050 or CI	This course is an introduction to reproductive/perinatal epidemiology and its application in Maternal and Child Health. It examines perinatal & family planning issues and emphasizes factors that affect reproductive, pregnancy and infant health outcomes.
PHC	6700	Research Methods in Epidemiology	3	PH	EPB	PR: PHC 6000, PHC 6050 and CI.	Planning, execution, analysis and intervention of epidemiological studies.
PHC	6701	Computer Applications for Public Health Researchers	3	PH	EPB	PR: CI.	Course covers essential computer-based techniques for a public health researcher; data entry, editing, management, subsample selection, and data encryption for confidentiality are all covered. SAS is used extensively. Course open to all graduate students.
PHC	6705	Formative Research Methods in Social Marketing	3	PH	CFH	PR: Introduction to Social Marketing	This course is designed to familiarize students with the basic principles and techniques in conducting formative research for social marketing program development. The major topics covered include: principles of formative research design, qualitative data collection methods, interviewing techniques, qualitative data analysis, survey design, pretesting, and implementation, ethical principles and protection of human subjects.
PHC	6706	Focus Group Research Strategies	3	PH	CFH		This course is an intensive overview of focus group procedures in the public health environment. Attention will be placed on question development, moderator skills, analysis strategies and planning critical logistical details of focus group interviews, and analyzing results of focus group interviews. The course will examine unique methodological characteristics of focus group interviews, identify emerging trends, and explore areas of appropriate and inappropriate use.
PHC	6708	Evaluation Methods in Community Health	3	PH	CFH	PR: PHC 6505 or CI.	This course will cover contextual issues surrounding evaluation, evaluation designs and methodological issues, steps involved in conducting an evaluation, communicating the results, and ensuring that evaluation findings are used by intended users.
PHC	6712	Air Pollution Research Seminar	1	PH	CFH		This seminar course is designed to facilitate communication, sharpen research skills in the context of air pollution monitoring and modeling.
PHC	6715	Research Foundations in Public Health	3	PH	CFH	PR: PHC 6000 and PHC 6050.	Course covers foundations of research for understanding and evaluating public health research; plus how to plan and conduct research with minimal assistance

							including proposal development, grant writing and budgets. Nonmajors accepted. Non-repeatable.
PHC	6760	Health Program Evaluation	3	PH	HPM	PR: PHC 6430, PHC 6180, and PHC 6151 or CI.	The course develops the skills needed to evaluate health and medical care programs. Emphasis is given to research design, determination of qualitative and quantitative criteria, measurement techniques, and interpretation of findings
PHC	6761	Global Health Assessment Strategies	3	PH	EPB		This course provides a systematic approach for the assessment of public health interventions in low resource countries by providing tools and skills to collect, retrieve, manage, assemble, analyze and communicate information at the community level.
PHC	6907	Independent Study: Public Health	1-6	PH	PHC	PR: CI. S/U.	Independent study determined by the student's needs and interests.
PHC	6930	Public Health Seminar	1-3	PH	PHC	PR: Graduate Standing. S/U.	Interaction of faculty, students and select health professionals in relation to public health issues and research.
PHC	6931	Advanced Seminar In Social & Behavioral Sciences Applied To Health	3	PH	CFH	PR: CI.	The course overviews the use of social science theory and methods in health problem analysis and program design. For students with appropriate background.
PHC	6934	Selected Topics in Public Health	1-6	PH	PHC	PR: CI.	The content of this course will be governed by student demand and instructor interest.
PHC	6936	Public Health Capstone	3	PH	PHC	PR: Students need to have completed all College-wide core courses and at least 75% of their required concentration courses.	The capstone course is designed to provide a culminating highly interactive experience for students and to allow for the synthesis and application of public health core disciplines in situations simulating the actual practice of public health.
PHC	6945	Supervised Field Experience	1-12	PH	PHC	PR: CI. S/U only.	Internship in a public health agency or setting. Application of administrative, program, and/or research models now employed in government and private public health organizations.
PHC	6971	Thesis: Master Of Science in Public Health	2-19	PH	PHC	PR: CI.	Research-oriented study for students seeking the M.S. degree in Public Health.
PHC	6977	Special Project: MPH	3	PH	PHC	PR: CI. S/U.	In-depth study of a selected issue in public health. A topic will be selected according to student's needs and interests.
PHC	7001	Practical Issues in Epidemiology	3	PH	EPB	PR: PHC 6000.	Provides an understanding of the everyday tasks faced by an epidemiologist working in the field from hypothesis generation to writing up of study findings. Required for Ph.D. students; elective for all other graduate students.
PHC	7008	Neuroepidemiology	3	PH	EPB	PR: PHC 6000, PHC 6050.	This course provides an overview of the epidemiology of selected neurologic diseases. Particular emphasis is placed on how methodologic problems apply to the epidemiologic study of a variety of neurologic diseases.
PHC	7015	Epidemiologic Study Design and Protocol	3	PH	EPB	PR: PHC 6000, PHC 6700, PHC 6051 and CI.	The course will provide the student with the opportunity to acquire

		Development					knowledge and skill in formulating a research problem and developing an appropriate epidemiologic study design. A detailed proposal will be developed, presented, and defended.
PHC	7018	Environmental Epidemiology	3	PH	EPB	PR: PHC 6000 and CI.	This course will consider the relationship between environmental (non-occupational) factors and the occurrence of disease in human populations, including the chemical and physical extrinsic agents to which humans are exposed.
PHC	7019	Occupational Epidemiology	3	PH	EPB	PR: PHC 6000 and CI.	Examines the existing epidemiologic data pertaining to the health effects of specific occupational exposures and the epidemiologic methods involved in the conduct of occupational studies.
PHC	7028	Advanced Clinical Trials	4	PH	EPB	PR: PHC 6000, PHC 6050, PHC 6700, PHC 6701, PHC 6017.	The many facets of clinical trials will be covered including study design, ethics, monitoring, and analysis. Real datasets will be used to provide the student with the opportunity to learn database management and data analysis using SAS.
PHC	7053	Generalized Linear Models	3	PH	EPB	PR: PHC 7058	The course provides an in-depth coverage of the theory of generalized linear models with application in public health. Topics covered are numerical algorithms, exponential family, modeling checking, logistic regression, loglinear models, estimating equations.
PHC	7054	Advanced Biostatistical Methods	3	PH	EPB	PR: CI	This course introduces students to both theoretical and practical problems in specialized advanced topics in Biostatistics. Alternate topics include Applied Multivariate Statistics, Nonparametric Methods, Spatial Statistics in Health Sciences and Advanced Sampling Design. Students can take this course repeatedly.
PHC	7055	Biostatistical Computing	3	PH	EPB	PR: STA 6447 and PHC 7058, or CI.	This course provides a broad foundation in modern biostatistical computing methods relevant to public health research. It prepares Ph.D. students with advanced computing skills for dissertation research. Topics include algorithms in matrix algebra, Newton Raphson, Fisher's scoring, the EM algorithm, bootstrap, random number generation, Monte Carlo Markov Chain, and data augmentation.
PHC	7056	Longitudinal Data Analysis	3	PH	EPB	PR: PHC 7058 and PHC 7053 or CI.	This course is a discussion of recent development of methods for analysis of longitudinal data. Covered topics include generalized estimating equations, mixed effects models, hierarchal models.
PHC	7058	Biostatistical Inference II	3	PH	EPB	PR: STA 6447 or CI.	This course covers the foundation of biostatistical inference, required for biostatistic program. Topics include likelihood theory, modern Bayes

							theory, estimation and testing, non-parametric theory.
PHC	7059	Advanced Survival Data Analysis	3	PH	EPB	PR: STA 6647 and PHC 7058	This course addresses advanced topics of survival data analysis. Topics include recurrence multiple events and faulty models. Counting process based theory is discussed. Real data sets are used for illustration.
PHC	7067	Probability Models	3	PH	PHC	PR: College-level calculus, introductory Public Health knowledge, statistical software experience, such as SPlus/SAS.	Probability theory and models with applications in Public Health. Contents: fundamental probability theories; stochastic process; probability modeling with application to health data.
PHC	7152	Policy and Practice in Community and Family Health	3	PH	CFH		This course is designed to prepare students to critically analyze issues and develop skills pertaining to effective policy development and practice in community and family health public health programs.
PHC	7317	Risk Communication in Public Health	2	PH	CFH		Communicating with the public about environmental and occupational health risks that affect individuals, families, and communities is a central task facing public health professionals. Analyzes the structure, function, content and process of risk communication in order to maximize effective, responsible and ethical public interaction and to describe the issues related to the legal implementation of risk communication in public health organizations.
PHC	7368	Aerosol Technology in Industrial Hygiene	2	PH	EOH	Admission to Ph.D. program or CI.	An advanced study of the properties, behavior, and measurement of aerosols, including the physical and chemical principles affecting behavior. Various applications of aerosol technology in industrial hygiene will be investigated, including inhalation and deposition of aerosols, aerosol sampling, and control.
PHC	7405	Theoretical Foundations Community and Family Health	3	PH	CFH		This course is designed for beginning public health doctoral students specializing in Community and Family Health to encourage scholarly discourse of pertinent concepts, theories, and paradigms, and the critical analysis of related scholarly works.
PHC	7417	Family Systems and Public Health	3	PH	CFH		Intended for doctoral students in Community and Family Health interested in social and behavioral theories of family and health behavior. Covers an array of theoretical perspectives related to the process, structure and function of systems. Examines the human values associated with intimate and non-intimate relationships that comprise healthy relational settings. Implications of these conceptual and theoretical frames for public health

							issues will be discusses.
PHC	7703	Advanced Research Methods in Epidemiology	3	PH	EPB	PR: PHC6700. CR: Computer Applications.	Course emphasizes summary and statistical analysis of data. Methods include life tables, logistic and proportional hazards regression, assessment of confounding, interaction, and bias. Includes a two-hour weekly computer lab.
PHC	7708	Applied Research Methods in Community and Family Health	3	PH	CFH	PR: PHC 6050, PHC 6700, PHC 6708, or CI.	A detailed study of philosophical questions and applied techniques of research in community and family health. A project oriented course to prepare students to conduct their own independent research.
PHC	7709	Case Studies in the Quantitative Analysis of Public Health Data	3	PH	CFH	PR: PHC 6051 or Equivalent.	Focuses on training students in public health applications of multivariate analytic techniques including factor analysis, regression analysis, multivariate analysis of variance, event history analysis, multi-level modeling and structural equation modeling.
PHC	7908	Specialized Study in Public Health	1-9	PH	PHC	PR: CI. Advanced graduate standing.	Demonstration of an in-depth study in a specialized public health area. This study may be used to address areas where a student needs to demonstrate a higher level of competency.
PHC	7910	Directed Research	1-19	PH	PHC	PR: CI, Graduate Standing. S/U only.	Advanced research design and application.
PHC	7931	Advanced Interdisciplinary Seminar in Public Health	1-3	PH	PHC	PR: Advanced Standing, Ph.D. or Advanced Master's only. For advanced graduate students in Public Health programs.	Students, faculty and other health professionals will participate in presenting and discussing contemporary health issues and possible solutions.
PHC	7934	Writing for Scholarly Publication in Health Science	3	PH	PHC		The purpose of this course is for the development of skills that culminate in publishable works in health-related journals and other related publications. There will be an emphasis on writing, editing, reviewing and other applicable skills.
PHC	7935	Special Topics In Public Health	1-3	PH	PHC	PR: CI.	Content will include recent or current issues in public health.
PHC	7936	Seminar in Health Care Outcomes Measurement	3	PH	PHC	PR: CI.	This course is designed to prepare doctoral students and advanced masters degree students to design both population-based and practice-based studies of health care outcomes.
PHC	7937	Advanced Seminar in Grant-Writing	3	PH	CFH	PR: Doctoral Status or CI.	This course addresses advanced skills and techniques necessary for writing successful research grant proposals. The focus is on writing grant proposals aimed at public health research and evaluation of public health interventions.
PHC	7980	Dissertation	2-19	PH	PHC	PR: Admission to candidacy.	
PHH	6265	Continental Philosophy I: Phenomenology to Hermeneutics	3	AS	PHI		A general survey of the 20th century continental schools of phenomenology, ontology, and

							hermeneutics, with special emphasis on the works of Husserl and Heidegger.
PHH	6266	Continental Philosophy II: Political Theory and Continental Social Theory	3	AS	PHI		A general survey of the 20th century continental social and political theory, dealing with both the younger and the older generations of the Critical Theory tradition, together with their contemporaries and critics.
PHH	6267	Continental Philosophy III: From Structuralism to Deconstructionism	3	AS	PHI		An examination of leading philosophical texts in 20th century continental philosophical movements known as structuralism, post-structuralism, postmodernism, and deconstruction, with special emphasis on the works of Michel Foucault and Jacques Derrida.
PHH	6938	Seminar in the History of Philosophy	3	AS	PHI	PR: GS or CI.	A seminar in the history of philosophy. The instructor will determine the subject matter. Variable titles: Ancient, Modern, Recent, Contemporary.
PHI	5135	Symbolic Logic	3	AS	PHI	PR: PHI 2101 or CI.	Study of topics such as the following: Metatheory of propositional and predicate logic, related metatheoretic results, alternative logic.
PHI	5225	Philosophy of Language	3	AS	PHI	PR: Eight hours of philosophy, major in linguistics, or CI.	An examination of semantically, syntactical, and functional theories of language with special attention given to the problems of meaning, linguistic reference, syntactical form, and the relations between scientific languages and ordinary linguistic usage. Seminar format.
PHI	5913	Research	1-4	AS	PHI	PR: CI. Approval slip from instructor required.	Individual research supervised by a faculty member.
PHI	5934	Selected Topics	1-3	AS	PHI	PR: CI. Approval slip from instructor required.	Selected topics according to the needs of the student.
PHI	6105	Seminar in Logic	3	AS	PHI	PR: GS or CI.	Foundations and basic problems of logical theory. Seminar format.
PHI	6155	Modal Logic	3	AS	PHI	PR: PHI 2100 and GS or CI.	A study of the main systems of Modal Logic together with their metatheory, with considerable attention to the varieties of modality.
PHI	6305	Seminar in Epistemology	3	AS	PHI	PR: Major in philosophy or psychology and CI.	An analysis of recent and contemporary problems of knowledge. Seminar format.
PHI	6405	Seminar in the Philosophy of Natural Science	3	AS	PHI	PR: GS or CI.	A study of the nature and status of physical theories, some basic problems associated with scientific methodology, and the philosophical implications of modern science. Seminar format.
PHI	6425	Seminar in the Philosophy of Social Science	3	AS	PHI	PR: 8 hours of philosophy or CI.	Philosophical issues arising in the social sciences; value assumptions, laws and the theories, models, etc. Seminar format.
PHI	6506	Seminar in Metaphysics	3	AS	PHI		In this course students will examine selected topics in classical and contemporary metaphysics, for example, the concept and categories of Being or existence, the existence of God, the problem of universals or

							general terms, the a priori, the mind--body problem, and the identity thesis.
PHI	6605	Seminar in Ethics	3	AS	PHI	PR: GS and CI.	Advanced study of the problems of moral philosophy.
PHI	6634	Seminar in Biomedical Ethics	3	AS	PHI		A focused examination of a particular topic in biomedical ethics such as clinical bioethics, healthcare organizational ethics, philosophy of medicine, medical ethics and law, or medical ethics and conflict resolution.
PHI	6665	Metaethics	3	AS	PHI	PR: PHI 2600 or CI or GS.	A study of alternative theories of metaethics including emotivism, moral point of view, supererogate virtue theory.
PHI	6706	Seminar in the Philosophy of Religion	3	AS	PHI	PR: GS or CI.	An analysis of fundamental religious concepts in terms of contemporary philosophy. Seminar format.
PHI	6808	Seminar in Aesthetics	3	AS	PHI	PR: GS or CI.	An analysis of fundamental special problems of aesthetics; value, perception, communication, technique, context. Seminar format.
PHI	6908	Directed Research	1-19	AS	PHI	PR: GR. ML. S/U.	
PHI	6934	Selected Topics	1-3	AS	PHI	PR: GS and CI.	Selected topics according to the needs of the student. Approval slip from instructor required.
PHI	6945	Graduate Instruction Methods	1-3	AS	PHI	S/U.	Special course to be used primarily for the training of teaching assistants.
PHI	6971	Thesis: Master's	2-19	AS	PHI	PR: CC. S/U.	
PHI	7980	Dissertation: Doctoral	2-19	AS	PHI	PR: Admission to candidacy.	
PHM	5125	Topics in Feminist Philosophy	3	AS	PHI		A study of recent feminist philosophical approaches to epistemology, aesthetics and political philosophy. May also be taken for credit in Women's Studies.
PHM	5126	Social Issues in Biomedical Ethics	3	AS	PHI		An examination of the social and political issues arising from rapid changes in medicine and technology. Topics covered may include social issues related to the just distribution of health care, reproductive technologies, HIV and AIDS, eugenics, genetic testing, and maternal-fetal relations.
PHM	6105	Seminar in Social Philosophy	3	AS	PHI	PR: CI.	A detailed study of the philosophical theories of society, class societies (Capitalism), advanced technocracy (all types). Seminar format.
PHM	6305	Seminar in Political Philosophy	3	AS	PHI	PR: GS or CI.	An examination of the main political philosophies. Seminar format.
PHM	6406	Seminar in the Philosophy of Law	3	AS	PHI	PR: GS or CI.	A study of the metaphysical, ethical, and epistemological bases of law. Seminar format.
PHM	6506	Seminar in the Philosophy of History	3	AS	PHI	PR: GS or CI.	The analysis of language and logic of historical explanation, historical idealism, historical materialism, positivism, and historical sociology. Seminar format.
PHM	6646	Seminar in Development Ethics	3	AS	PHI		This course presents and critically examines the major ethical theories

							related to both national and international development institutions, policies, and practices. Open to all graduate students.
PHP	6005	Plato	3	AS	PHI	PR: GS or CI.	A systematic study of Plato's dialogues.
PHP	6015	Aristotle	3	AS	PHI	PR: GS or CI.	A systematic study of Aristotle's philosophy.
PHP	6415	Kant	3	AS	PHI	PR: GS. CR: Computer Applications.	A survey of Kant's critical philosophy, emphasizing transcendental epistemology and Kant's critique of metaphysics. This course is open to graduate students (majors and non-majors). Prior knowledge of the history of philosophy is required, in particular of early-modern philosophy.
PHT	5021	Professional Issues I	2	ME	PHT		Foundations of systems thinking, decision making, professional expression, responsibility, and accountability (including legal/ethical concepts), culture and argumentation for the roles of the physical therapist in administration, consultation, critical inquiry, education and patient/client management. Restricted to majors.
PHT	5022	Professional Issues II	2	ME	PHT		An introduction to critical injury and educator roles and responsibilities; explores the concepts of decision-making, evaluation of research, theories of learning, research and clinical pathways. Restricted to majors.
PHT	5023	Professional Issues III	3	ME	PHT		Focus on legal, ethical, and professional responsibility and accountability of the physical therapist. Learners will further develop their abilities to make legal and ethical decisions. The class will examine state laws governing the practice of physical therapy and other health care services. Restricted to majors.
PHT	5171C	Foundational Science I	3	ME	PHT		Introduction to the peripheral neuromuscular, skeletal, integumentary, and circulatory systems in normal and pathological states. Includes the anatomy and physiology of bones, joints, skin, nerves, and blood vessels, as well as the response of these tissues to injury and their potential for healing. Restricted to majors.
PHT	5172C	Foundational Science II	1	ME	PHT		Emphasis on physiology of the peripheral sensorimotor and cardiopulmonary systems. Restricted to majors.
PHT	5173C	Foundational Science III	2	ME	PHT		Emphasis on physiology of the peripheral sensorimotor and cardiopulmonary systems. Restricted to majors.
PHT	5184	Movement Science I	2	ME	PHT		A basic introduction to movement science and its foundational principles from four different perspectives:

							biomechanics; kinesiology; exercise physiology; and motor control, learning and development. Restricted to majors. Repeatable for 2 cr.
PHT	5185	Movement Science II	3	ME	PHT	PR: PHT 5184	Elaboration of movement science principles with emphasis on biomechanics, kinesiology, functional anatomy, exercise physiology, histopathology, motor control and connective tissue properties. Restricted to majors. Repeatable for 3 cr.
PHT	5271	Patient/Client Management I	3	ME	PHT		Foundational principles of histology, pathology, histopathology, applied biomechanics, pharmacology and clinical medicine are introduced and applied to the physical therapy management of individuals with musculoskeletal disorders involving the limbs. Restricted to majors.
PHT	5272	Patient/Client Management II	2	ME	PHT		Application of principles of patient/client management to patients with cardiopulmonary disease or dysfunction and diabetes in order to identify and write plans of care for related movement dysfunction. Restricted to majors.
PHT	5273	Patient/Client Management III	3	ME	PHT		Learners apply principles of patient/client management to patients with progressive, non-progressive diseases and injuries of the nervous system. Restricted to majors.
PHT	5275C	Physical Therapy Science I	4	ME	PHT		Introduction to physical therapy skills in examination, evaluation, and diagnosis for clients with uncomplicated musculoskeletal impairments involving the extremities. Emphasis on obtaining a history and performing physical therapy tests and measures leading to a differential diagnosis by application of principles of movement. Restricted to majors.
PHT	5276C	Physical Therapy Science II	4	ME	PHT		Introduction to physical therapy skills used in examination, evaluation, diagnosis of and intervention for clients with activity limitations associated with cardiovascular, hematological, or pulmonary disorders. Major emphasis on selecting, justifying, administering, and interpreting physiological responses to physical agents and therapeutic exercises. Restricted to majors.
PHT	5277C	Physical Therapy Science III	3	ME	PHT		Examination, evaluation, diagnosis, and intervention for movement-related problems secondary to impairments of the nervous system. Contemporary theories of motor development, motor learning and motor control will be introduced. Student knowledge will be demonstrated with clinical problem-

							solving scenarios. Restricted to majors.
PHT	5283C	Physical Therapy Procedures	3	ME	PHT		Introduction to selected physical therapy interventions, obtaining a patient history, and conducting a systems screen. Restricted to majors. Repeatable for 3 cr.
PHT	5316	Medical Management I	1	ME	PHT		Introduction to medical diagnostics, pharmacological principles, and common orthopedic surgical procedures as components of medical management including repair of bone and soft tissue. Restricted to majors. Repeatable for 1 credit.
PHT	5380	Medical Management II	1	ME	PHT	PR: PHT 5316	Seminar on the medical and surgical management; epidemiology; pathophysiology; pharmacology of injuries and diseases of the cardiopulmonary system including repair and regeneration. Restricted to majors. Repeatable for 1 credit.
PHT	5822	Clinical Education I	3	ME	PHT		Initial clinical practice experience for the development of patient care skills. The course is graded Satisfactory/Unsatisfactory. Restricted to majors.
PHT	5906	Directed Independent Study	1-10	ME	PHT		Directed independent stud, content to be decided. Restricted to majors.
PHT	5934	Special Topics I	1-10	ME	PHT		Exploration of physical therapy practice issues. Topics may vary each semester the course is offered. A seminar and/or lab course. Restricted to majors. Not repeatable for credit.
PHT	5960	Clinical Proficiency and Problem Solving I	1	ME	PHT		Practicum for patient/client management of individuals with musculoskeletal related movement disorders complemented by direct patient care learning. Restricted to majors. Repeatable for 1 credit hour.
PHT	5961	Clinical Proficiency and Problem Solving II	1	ME	PHT	PR: PHT 5960	Practicum for the synthesis of skills, knowledge, and values for management of individuals with cardiopulmonary and endocrine related movement disorders complemented by direct patient care learning. Restricted to majors. Repeatable for 1 credit hour.
PHT	6015	Orientation to Physical Therapy	var.	ME	PHT		Concepts of a profession, the physical therapy profession, and the roles of the physical therapist are applied to the practice of physical therapy and its professional organization. The Guide to Physical Therapy Practice is introduced.
PHT	6174	Movement Science I - DPT	var.	ME	PHT		A basic introduction to movement science and its foundational principles from four different perspectives: biomechanics; kinesiology; exercise physiology; and motor control, learning and development. Restricted to majors.
PHT	6178	Movement Science II - DPT	var.	ME	PHT		Elaboration of movement science principles with emphasis on biomechanics, kinesiology, functional

							anatomy, exercise physiology, histopathology, motor control and connective tissue properties. Restricted to majors.
PHT	6186	Movement Science III	4	ME	PHT	PR: PHT 5184, PHT 5185	Integration of movement science concepts (biomechanics; kinesiology; functional anatomy; motor control, learning and development; and exercise physiology) to planning interventions for complex movement disorders. Restricted to majors. Repeatable for 4 cr.
PHT	6284C	Scientific and Professional Foundations of Physical Therapy I	var.	ME	PHT		Introduction to theoretical foundation and clinical practice of physical therapy interventions. Restricted to majors.
PHT	6285C	Scientific and Professional Foundations of Physical Therapy II	var.	ME	PHT		Theoretical foundations and clinical practice of examination skills with emphasis on performing physical therapy tests and measures as listed in the Guide to Physical Therapist Practice. Restricted to majors.
PHT	6313	Medical Management III	1	ME	PHT	PR: PHT 5380	Seminar on the medical and surgical management; epidemiology; pathophysiology; pharmacology, and repair of common injuries to and diseases of the nervous system across the life span. Restricted to majors. Repeatable for 1 credit hour.
PHT	6341	Medical Management II	1	ME	PHT	PR: PHT 6313	Seminar on the medical and surgical management; epidemiology; pathophysiology, and pharmacology of complex multisystem disorders and movement disorders across the life span. Restricted to majors. Repeatable for 1 credit hour.
PHT	6352	Pharmacology for Healthcare Professionals	var	ME	PHT		This course is designed to provide a basic understanding of drug absorption, distribution, metabolism, and excretion, effects on the body and side effects or toxicity.
PHT	6391C	Foundational Science IV	2	ME	PHT		Application of the movement sciences to examination, evaluation, diagnosis, intervention, and prevention of movement dysfunction related to the musculoskeletal, cardiopulmonary, and neuromuscular systems. Restricted to majors.
PHT	6392C	Foundational Science V	1	ME	PHT		Application of the behavioral foundational sciences (sociology, psychology, human development) and biopsychosocial model to each of the roles of the physical therapist. Restricted to majors.
PHT	6521	Professional Issues IV	3	ME	PHT		Focuses on the administrative role of the physical therapist. Includes formulation of budgets, policies, procedures, reimbursement, legal concepts of risk management and malpractice, and the ethical concept of pro bono service and the APTA judicial process. Restricted to majors.
PHT	6522	Professional Issues V	2	ME	PHT		Development of a strategic plan for professional growth which reflects commitment to all roles of the

							Physical Therapist (administration, consultation, critical injury, education and patient/client management) and exploration of the nature of individual and cultural differences, organizational cultures, mentoring, and leadership. Restricted to majors.
PHT	6606	Critical Inquiry I	3	ME	PHT		Introduction to critical inquiry skills of the physical therapist with successful preparation of an in-depth literature review on a selected topic in musculoskeletal or cardiopulmonary movement disorders. Restricted to majors. Repeatable for 3 credits.
PHT	6731	Patient/Client Management IV	3	ME	PHT		Learners adapt principles of patient/client management to complex patient situations in order to identify and state movement dysfunctions and to write plans of care. Restricted to majors.
PHT	6732	Advanced Patient/Client Management II	2	ME	PHT		Learners adapt principles of patient/client management to lifestyle and socioeconomic issues in order to identify dysfunctions that can be addressed by the physical therapist. Restricted to majors.
PHT	6735C	Physical Therapy Science IV	4	ME	PHT		The role of the physical therapist in ameliorating activity limitations and participation restrictions encountered by people with physical impairments. Emphasis will be placed on the physical therapy assessment and intervention procedures intended to identify and minimize physical disabilities occurring secondary to traumatic, acquired or congenital amputation and disorders of the spine. Restricted to majors.
PHT	6736C	Advanced Physical Therapy Science II	2	ME	PHT		Focus on the physical therapist in ameliorating activity limitations and participation restrictions encountered by people with irreversible physical impairments. Emphasis on the physical therapy assessment and intervention procedures to identify and minimize physical disabilities occurring secondary to complex, multi-system disorders. Restricted to majors.
PHT	6841	Clinical Education I - DPT	var.	ME	PHT		Initial full-time clinical practice experience for the development of patient care skills.
PHT	6863	Longitudinal Clinical Experience II	var.	ME	PHT		Continuation of the initial clinical practice experience for the development of patient care skills. Students will be supervised in one center for the spring term. The course is graded Satisfactory/Unsatisfactory.
PHT	6935	Special Topics II	1-10	ME	PHT		Analysis of issues related to the education, critical inquiry, administration, and/or consultant roles of the physical therapist. Topics in this seminar may vary each semester. Restricted to majors. Not repeatable for credit.

PHT	6962	Clinical Proficiency and Problem Solving III	1	ME	PHT	PR: PHT 5961	Practicum for the synthesis of skills, knowledge, and values required for the management of individuals with neuromuscular related movement disorders complemented by direct patient care learning. Restricted to majors. Repeatable for 1 credit hour.
PHT	6963	Clinical Proficiency and Problem Solving IV	1	ME	PHT	PR: PHT 6962	Practicum for the synthesis of skills, knowledge, and values management of individuals with complex movement and multisystem disorders complemented by direct patient care learning. Restricted to majors. Repeatable for 1 credit hour.
PHT	7151	Health Promotion and Wellness	var.	ME	PHT		Prepares students for practice as primary care providers in direct access environments with a focus on identification of health risk factors and interventions to promote wellness in individuals and populations. Restricted to majors.
PHT	7264C	Clinical Problem Solving I - DPT	var.	ME	PHT		Intro to clinical problem solving in physical therapy following a normative model for professional practice across the lifespan utilizing musculoskeletal, neuromuscular, cardiopulmonary, and integumentary preferred practice patterns.
PHT	7265C	Clinical Problem Solving II - DPT	var.	ME	PHT		A continuation of clinical problem solving in physical therapy following a normative model for professional practice across the lifespan utilizing musculoskeletal, neuromuscular, cardiopulmonary, and integumentary preferred practice patterns.
PHT	7328	Pediatric Physical Therapy	var.	ME	PHT		This course is designed to provide the student the opportunity for hands on physical therapy examination and intervention skill development with the pediatric patient population. Group discussion of issues impacting care of this population is included.
PHT	7402	Psychosocial Aspects of PT Practice	3	ME	PHT		Utilization of behavioral foundational sciences and the biopsychosocial model and their contribution to patient/client management and understanding organizational behavior. Restricted to majors. Repeatable for 3 credit hours.
PHT	7421	Professional Issues I - DPT	var.	ME	PHT		Focus on the consultant and educator roles of the physical therapist. Restricted to majors.
PHT	7507	Medical Spanish for Physical Therapists	var.	ME	PHT		Students will learn basic Spanish skills with an emphasis on communicating across cultures in a health care setting. The course is designed for non-speakers of Spanish as well as those with limited Spanish -speaking skills
PHT	7531	Professional Issues II - DPT	var.	ME	PHT		Focus on legal, ethical, & professional responsibility and accountability of the physical therapist. Students further develop their abilities to make legal and ethical decisions.
PHT	7551	Principles of Health	v	ME	PHT		General principles of planning,

		Policy and Management	ar				management, evaluation, and behavior of public and private health care organizations at the local, state, and national levels.
PHT	7607	Critical Inquiry I - DPT	var.	ME	PHT		Introduction to the critical inquiry role of the physical therapist. Course involves the successful preparation of an in-depth review of the literature and evidence related to a selected movement disorder topic.
PHT	7617	Critical Inquiry II	2	ME	PHT	PR: PHT 6606	Course involves the preparation of a patient case report related to movement disorders secondary to a neuromuscular or complex multi-system problem. Restricted to majors. Repeatable for 2 credits.
PHT	7618	Critical Inquiry III	3	ME	PHT	PR: PHT 7617	Development, implementation, and presentation of a capstone investigative project. Restricted to majors. Repeatable for 3 credits.
PHT	7626	Critical Inquiry II	var.	ME	PHT		Course involves the successful preparation of a case report of a person with a movement disorder. Topic must be approved by course instructor. Restricted to majors.
PHT	7640	Biostatistics I	var	ME	PHT		After completing this course, the student should be able to apply basic descriptive and inferential techniques in her/his research endeavors and be able to read statistically oriented public health research articles with greater understanding.
PHT	7817	Critical Education II	6	ME	PHT	PR: PHT 6806, PHT 6962, PHT 6963	Intermediate clinical education to develop skills in inpatient physical therapy centers. Satisfactory/Unsatisfactory grade. Restricted to majors. Repeatable for 6 credit hours.
PHT	7842	Clinical Education II - DPT	var.	ME	PHT		8-week clinical experience that takes place in one center. Course is graded Satisfactory/Unsatisfactory.
PHT	7864	Integrated Clinical Experience I	var.	ME	PHT		Clinical practice experience for all components of patient client management. Students will spend the fall term in one center. The course is graded Satisfactory/Unsatisfactory.
PHT	7866	Integrated Clinical Experience II	var.	ME	PHT		Clinical practice experience for all components of patient client management. Students will spend the fall term in one center and the spring term in another. The course is graded Satisfactory/Unsatisfactory.
PHT	7906	Independent Study	1-3	ME	PHT		A seminar and/or lab course for small groups of students or independent study for individual students to address areas of special interest in physical therapy. Restricted to majors. Not repeatable for credit.
PHT	7907	Physical Therapy Elective	var.	ME	PHT		A special topics course for small groups of students to address a specific area of special interest or advanced practice in physical therapy.
PHT	7936	Special Topics III	1-10	ME	PHT		Analysis of issues related to physical therapy as a component of the health care system. Topics in this seminar

							may vary each semester the course is offered. Restricted to majors. Not repeatable for credit.
PHT	8179	Movement Science III - DPT	var.	ME	PHT		Motion analysis of movement related disorders performed and presented by small groups. Restricted to majors.
PHT	8266	Clinical Problem Solving III - DPT	var.	ME	PHT		A culmination of clinical problem solving in physical therapy following a normative model for professional practice. Focus is on student development and presentation of a case-based educational module incorporating all aspects of professional practice.
PHT	8504	Service Learning	var.	ME	PHT		In small groups, students plan and implement a program to meet the needs of an underserved population(s). Restricted to majors.
PHT	8550	Professional Issues III - DPT	var.	ME	PHT		The administrative role of the physical therapist is viewed through current issues in the profession. Students prepare a strategic plan for professional growth reflecting commitment to all 5 roles of the physical therapist & leadership responsibilities.
PHT	8628	Critical Inquiry III - DPT	var.	ME	PHT		Development, implementation, and presentation of a capstone study. Restricted to majors.
PHT	8702	Advanced Prosthetics and Orthotics	var.	ME	PHT		An advanced practice seminar in which students explore special topics in prosthetic and Orthotic devices and physical therapy management of patients/clients who use prosthetic and Orthotic devices.
PHT	8724	Anatomical Basis of Physical Therapy and Rehabilitation	var.	ME	PHT		In depth study of a selected joint complex of both the musculoskeletal system in both anatomic and clinical contexts with particular emphasis on the intricate relationship of this system to other functional entities of human body.
PHT	8843	Clinical Education III - DPT	var.	ME	PHT		Final 16-week clinical experience that takes place in an comprehensive center or cluster of centers. Course is graded Satisfactory/Unsatisfactory.
PHY	5720C	Electronics for Research	3	AS	PHY		A rigorous introduction to the fundamentals of analog and digital electronics. Theoretical circuit analysis and weekly labs introduce practical use of diodes, transistors, analog and digital Ics, breadboarding techniques and electronics test instrumentation. Spring Semester.
PHY	5937	Selected Topics in Physics	1-4	AS	PHY	PR: Senior or advanced standing and CC.	Each topic is a course in directed study under the supervision of a faculty member.
PHY	6246	Classical Mechanics	3	AS	PHY	PR: PHY 4222 or CI. Fall Semester.	Dynamics of particles and systems of particles, Lagrange's equation, central forces, rigid body dynamics.
PHY	6346	Electromagnetic Theory I	3	AS	PHY	PR: PHY 4324 or CI.	Electrostatics, magnetostatics, potential and boundary value problems. Maxwell's equations. First semester of sequence PHY 6346, PHY 6347.

PHY	6347	Applied Electromagnetic Theory	3	AS	PHY	PR: PHY 6346 or CI.	Second semester of sequence PHY 6346, PHY 6347. Electromagnetic waves, wave guides and resonant cavities, diffraction, relativistic-particle kinematics and dynamics, plasmas and magnetohydrodynamics.
PHY	6446	Lasers and Applications	3	AS	PHY	PR: PHY 4324 and PHY 4604 or CI.	Optical modes, optical resonator theory, gain saturation, theory of laser oscillators, specific laser systems, Q-switching and mode-locking, optical waveguides.
PHY	6447	Physics of Lightwave Devices and Applications	3	AS	PHY	PR: PHY 6446 or CI.	Nonlinear optics including optical phase conjugation, second harmonic and sum frequency generation, and stimulated Raman scattering. Selected applications of lasers and nonlinear optics.
PHY	6536	Statistical Mechanics	3	AS	PHY	PR: PHY 5624 or CI.	Kinetic theory, configuration and phase space. Boltzmann theorem, Liouville theorem, ensemble theory, quantum statistics.
PHY	6645	Quantum Mechanics I	3	AS	PHY	PR: PHY 4604 or CI.	Hilbert space, continuous spectrum, matrix and wave mechanics, quantum dynamics, symmetries, angular momentum, perturbation methods
PHY	6646	Applied Quantum Mechanics	3	AS	PHY	PR: PHY 6645 or CI.	Approximation and perturbation methods, hydrogen fine structure, scattering, identical particles, second quantization, Dirac equation.
PHY	6753	Measurement and Instrumentation	3	AS	PHY	PR: PHY 4744 or PHY 5720 or CI.	Measurement, signals and noise; analog/digital conversion; data communication; digital signal processing. Weekly labs for LabVIEW programming, instrument control and data acquisition through RS232 and GPIB interface.
PHY	6909	Independent Study	1-19	AS	PHY	PR: CI.	Independent study in which student must have a contract with an instructor.
PHY	6911	Directed Research	1-19	AS	PHY	PR: GS.	An individual investigation of a research topic under the supervision of an instructor.
PHY	6935	Graduate Seminar	1	AS	PHY	PR: CI. All Physics graduate students are expected to enroll in this course at least once.	
PHY	6938	Selected Topics in Physics	1-10	AS	PHY	PR: CI	Each topic is a course in directed study under the supervision of a faculty member.
PHY	6940	Supervised Teaching	3	AS	PHY	PR: Dept. Approval Required.	Laboratory teaching under the direction of a Physics Department faculty member.
PHY	6971	Thesis: Master's	2-19	AS	PHY	PR: CI.	
PHY	7910	Directed Research	1-9	AS	PHY	PR: Graduate Ph.D. level.	
PHY	7980	Dissertation: Doctoral	2-9	AS	PHY	Rpt. S/U, PR: Admission to Candidacy.	
PHZ	5115	Methods of Theoretical Physics I	3	AS	PHY	PR: MAP 2302 or CI.	Applications of mathematical techniques to classical and modern physics. Vector spaces including Hilbert space, orthogonal functions, generalized functions, Fourier

							analysis, transform calculus, and variational calculus.
PHZ	5116	Methods of Theoretical Physics II	3	AS	PHY	PR: MAP 2302 or CI.	Applications of mathematical techniques to classical and modern physics. Selected topics in complex analysis, differential and integral equations, numerical methods, and probability theory.
PHZ	5156C	Computational Physics I	3	AS	PHY	PR: CGS 5765 or CI.	C programming applied to real science and engineering problems. Data analysis, numerical algorithms, modeling, parallel computation. Subjects selected from current research may include neurobiology, quantum magnetism, chaos, finance, materials science.
PHZ	5304	Nuclear Physics	3	AS	PHY	PR: PHY 4604 or CI.	Nuclear forces, nuclear models, nuclear structure, decay, nuclear reactions, and high energy physics.
PHZ	5405	Solid State Physics I	3	AS	PHY	PR: PHY 3101, MAP 2302, CI.	Crystal structure, x-ray and electron diffraction, mechanical and thermal properties of solids, electrical and magnetic properties of metals, band theory of metals, insulators, and semiconductors. First semester of sequence PHZ 5405, PHZ 6426.
PHZ	6136	Physical Applications of Group Theory	3	AS	PHY	PR: CI.	Matrices, symmetry elements and point groups, reducible and irreducible representations, molecular vibrations, selection rules, rotation groups and atomic levels, molecular orbitals and electronic energies, space groups and spectra of crystals, crystal field theory and symmetry.
PHZ	6204	Atomic and Molecular Spectra I	3	AS	PHY	PR: PHY 4604 or CI.	Hydrogen atom, one electron systems, central field and vector models, perturbations, Zeeman and Stark effect, hyperfine structure, atomic structure calculations; diatomic spectra, rotational and vibration analysis, intensities, temperatures from spectra, isotope effects.
PHZ	6205	Atomic And Molecular Spectra II	3	AS	PHY	PR: PHZ 6204 or CI.	Electronic transitions in diatomic molecules, Hund's coupling schemes, electron configuration and valence, astrophysical applications, predisassociation, normal modes of polyatomic molecules, Raman and IR spectra, rotation-vibration interaction, microwave spectra, thermodynamic properties, stellar atmospheres.
PHZ	6426	Solid State Physics II	3	AS	PHY	PR: PHZ 5405 or CI.	Optical, electrical and magnetic properties of insulators, superconductivity, imperfections in solids. Second semester of sequence PHZ 5405, PHZ 6426.
POS	5094	Issues in American National and State Government	3	AS	POL		Selected topics of study in American government.
POS	5155	Issues in Urban Government and Politics	3	AS	POL		Selected issues and topics in Urban Government and politics.

POS	5159	Urban Policy Analysis	3	AS	PAD		Application of policy framework for urban government & policies. Examine forms of government and how policies such as economic development, law enforcement, community policing, neighborhood policies (with non-profit groups) can be analyzed.
POS	6045	Seminar in American Government & Politics	3	AS	POL	Sr./GS.	Advanced study of selected topics of institutions and processes of American national government and politics.
POS	6127	Issues in State Government and Politics	3	AS	POL	GS.	Advanced study of selected topics in institutions, processes, and behavior of American state governments and Florida government.
POS	6157	Seminar in Urban Government and Politics	3	AS	POL		Analysis of literature with emphasis on urban political behavior, development of various theories, and propositions regarding governmental structure and the formation and implementation of public policy.
POS	6415	The American Presidency	3	AS	POL	GS.	Analysis of problems and powers of the presidency with emphasis on crisis management, staffing, legislative leadership, and decision making.
POS	6427	The Legislative Process	3	AS	POL	GS.	Analysis of formal and informal decision-making processes in legislative bodies, with emphasis on U.S. House of Representatives and U.S. Senate. Executive-legislative conflict and cooperation; input/output analysis.
POS	6455	Political Parties and Interest Groups	3	AS	POL	GS.	Analysis of statutes, functions, and characteristics of political parties and interest groups, as well as their interactions with political processes, actors, and institutions.
POS	6607	Constitutional Law	3	AS	POL	PR: GS.	Advanced study of legal, political, philosophic, and methodological problems in constitutional law.
POS	6698	Seminar in Law and Politics	3	AS	POL	PR: GS.	Advanced study of institutions and processes in the field of law and politics.
POS	6735	Foundations of Political Inquiry	3	AS	POL		Survey of philosophical, intellectual, and theoretical issues, including historical development of political science. Topics include empirical approaches, rational choice theory, and critical approaches such as pragmatics, hermeneutics, genealogy, and critical theory.
POS	6736	Political Research Methods	3	AS	POL	PR: POS 3713 or equiv.	A graduate level, introductory survey of empirical research methodology, including statistics and computer data analysis. Topics include measurement, sampling, research design, and selected bivariate analysis techniques.
POS	6909	Independent Study	1-3	AS	POL	PR: 3.0 in Political Science, CC. S/U.	Specialized independent study determined by the student's needs and interests. Needs instructor's consent.
POS	6919	Directed Research	1-	AS	POL	PR: GR. ML. S/U.	

			1-9				
POS	6933	Selected Topics in Political Science	3	AS	POL		Selected topics, issues, and problems in political science.
POS	6942	Field Work in Political Science	1-3	AS	POL	PR: 3.0 in Political Science and GS.	Application of research models now employed in governmental agencies, including development of a structured research proposal.
POS	6971	Thesis: Master's	2-19	AS	POL	PR: CC. S/U.	
POT	6007	Seminar in Political Theory	3	AS	POL	PR: GS.	Provides students who are capable of independent work with the opportunity to explore advanced problems of political theory.
PPE	6058	Personality	3	AS	PSY		Survey of research and theories of personality, including its relationship to the development of normal and abnormal behavior.
PSB	6056	Physiological Psychology	3	AS	PSY	PR: Admission to graduate program in Psychology or CI.	Survey of data and research methods in Behavioral Neuroscience. Basic learning theories and CNS function in behavior, and disorders associated with CNS dysfunction will be covered.
PSY	6217	Research Methods and Measurement	2-4	AS	PSY	PR: CI.	Courses in research strategies, design and analysis, and measurement theory in psychological experimentation. Inferential statistics, anova, correlation methods, and interpretation.
PSY	6605C	History and Systems of Psychology	2	AS	PSY	PR: Admission to graduate program in Psychology or CI.	A review of the history of modern psychology with emphasis on the major systematic approaches that have influenced the current structure of psychology. Persisting polarities and common underlying issues are studied in various historical contexts.
PSY	6907	Independent Study	1-19	AS	PSY	PR: Majors only. S/U.	Independent study in which student must have a contract with an instructor.
PSY	6917	Directed Research	1-19	AS	PSY	PR: GR. ML, CC. S/U.	
PSY	6946	Practicum and Internship in Clinical Psychology	1-15	AS	PSY	PR: CI.	Supervised training in community and university settings in the application of Psychology.
PSY	6947	Graduate Instruction Methods	1-3	AS	PSY	PR: CI. S/U.	Special course to be used primarily for the training of teaching assistants.
PSY	6971	Thesis: Master's	2-19	AS	PSY	PR: CC. S/U	
PSY	7908	Directed Readings in Psychology	1-15	AS	PSY	PR: CI.	An advanced reading program of selected topics in Psychology under the supervision of a Psychology faculty member. The reading program is designed to meet the individual requirements and interest of graduate students in Psychology, with selected topics chosen by the student in close collaboration with a faculty member.
PSY	7918	Directed Research	1-19	AS	PSY	PR: GR. Ph.D. level. S/U.	
PSY	7931	Seminar in Ethics and	2	AS	PSY	PR: Second year in Ph.D.	Ethical issues and professional

		Professional Problems				program in Psychology or CI.	problems in the practice of psychology.
PSY	7980	Dissertation: Doctoral	2-19	AS	PSY	PR: Admission to Candidacy. S/U.	
PUP	5607	Public Policy and Health Care	3	AS	POL		The study of health care policy as it relates to the policy process in the American setting.
PUP	6007	Seminar in Public Policy	3	AS	POL		Examination of public policy from a theoretical and practical decision. Analysis will be presented in terms of their usefulness in designing policy.
PUR	5505	Introduction to Strategic Communication Theory and Practice	3	AS	COM		The course is designed to act as a "bridge" between undergraduate and graduate public relations and advertising education, and between professional communication practices and strategic communication scholarship.
PUR	6603	Strategic Communication Campaigns	3	AS	COM	PR: CC.	A problem-solving approach emphasizing the environmental context of strategic communication problems, applied to strategic communication management in organizational settings. Nonmajors with prerequisites allowed. Not repeatable for credit.
PUR	6607	Strategic Communication Management	3	AS	COM	PR: GS in Mass Communications or CI.	The focus is on the theoretical basis of public relations and advertising as a management function. These theories are applied to strategic communication management. Nonmajors allowed with necessary prerequisites. Not repeatable for credit.
QMB	6305	Managerial Decision Analysis	2	BU	MBA		A study of the general concepts of interval estimation, hypothesis testing, correlation and multiple regression with an emphasis on applications, concepts and interpretation of results.
QMB	6365	Applied Business Forecasting	3	BU	QMB	PR: QMB 6305 or equiv., CC.	Logic and application of quantitative forecasting, techniques to problems in business.
QMB	6375	Applied Linear Statistical Models	3	BU	QMB	PR: QMB 6305 or equiv., CC.	A study of multivariate data analysis techniques and their applications to problems and systems in business.
QMB	6603	Operations Management and Quality Enhancement	2	BU	MBA	PR: GS and college algebra.	Principles of managing manufacturing and service organizations. Topics include: competitive use of operations, comprehensive manufacturing strategies, production system design, material requirements planning, JIT systems, quality management, statistical process control, and project management.
QMB	7565	Introduction to Research Methods	3	BU	QMB	PR: CC.	A course in research strategies, design, analysis, and measurement for business research.
QMB	7566	Applied Multivariate Statistical Methods	3	BU	QMB	PR: CC.	A course in research analysis and measurement focusing on multivariate statistical analysis techniques.
RCS	5035	Rehabilitation Counseling: Concepts	3	BC	REH	PR: CC.	Introduction to the profession of Rehabilitation Counseling and current

		and Applications					issues in the field. Coverage includes rehabilitation history, legislation, case management and related services for Americans with disabilities.
RCS	5080	Medical Aspects of Disability	3	BC	REH	PR: RCS 5780 or CP.	A survey of medical conditions and disabilities encountered by rehabilitation and mental health counselors. Examines the relationship of client handicaps, physical and mental, to rehabilitation and mental health programming.
RCS	5450	Substance Abuse I	3	BC	REH	PR: CI.	An overview of alcohol and other drug abuse. Explores the extent and rate of abuse in the United States, causes, biology, psychosocial aspects, legal aspects, and treatment.
RCS	5780	Legal, Ethical, Professional Standards and Issues in Counseling	3	BC	REH	PR: CC.	An overview of all aspects of professional functioning including history, roles, organizational structures, ethics, standards and credentialing. Contemporary and developing issues in the field of professional counseling will also be addressed.
RCS	5905	Directed Studies	1-4	BC	REH	PR: CI.	Supervised rehabilitation studies under the direction of a faculty member.
RCS	6220	Individual Evaluation and Assessment	3	BC	REH	PR: RCS 5080, RCS 5780, RCS 6440.	Examines assessment procedures utilized in rehabilitation and mental health counseling settings and critical issues in the evaluation of people who are mentally and physically disabled.
RCS	6301	Career and Lifestyle Assessment	3	BC	REH	PR: RCS 5080, RCS 5035, MHS 5020,RCS6470 RCS 6440.	Career development, lifestyle, and related factors with special emphasis on the needs of individuals with disabilities. Includes job placement and a survey of work requirements in different occupations and how these relate to functional limitations.
RCS	6407	Counseling Theories and Practice	3	BC	REH	PR: MHS 5020, RCS 5035, RCS 5080, RCS 6440.	An extension and intensification of the rehabilitation and mental health counseling skills developed in RCS 5404. Includes the study of counseling theories and their contribution to successful counseling and rehabilitation practice.
RCS	6408	Diagnosis and Treatment of Psychopathology	3	BC	REH	PR: MHS 5020, RCS 6440, RCS 5080, RCS 5035. Majors Only.	Psychopathology as applied to psychotherapy and case management in mental health, addictions, and other rehabilitation settings.
RCS	6409	Counseling in Community Settings	3	BC	REH	PR: MHS 5020.	Course is designed to acquaint students with profession of counseling, varied settings in which rehabilitation, mental health counselors, and marriage & family therapists work, pattern of service delivery, & future trends in the profession. Majors only.
RCS	6440	Social and Cultural Foundations of Counseling	3	BC	REH	PR: RCS 5780 or CC.	Counseling issues in a multicultural and diverse society. Special emphasis on psychosocial adjustment and counseling for individuals with physical and mental disabilities.
RCS	6459	Professional Skills for	3	BC	REH	PR: RCS 5450 or CI.	The course will be a more in depth

		Addictions Counselors					and hands on approach to the transdisciplinary foundations that are essential for the work of substance abuse professionals. Application to practice and professional readiness will be the focus.
RCS	6476	Human Sexuality Counseling	3	BC	REH		Course is designed to introduce students & mental health professionals to the diverse nature and construct of human sexuality. The curriculum meets the Florida Statute 491 licensure requirement as a contact area in "human sexuality theories". Majors only.
RCS	6510	Group Theories and Practice	3	BC	REH	PR: RCS 5035, RCS 5080, MHS 5020, RCS 6440.	Theoretical and empirical issues in group counseling are examined in the context of an ongoing group. Emphasis is on application to rehabilitation and mental health counseling.
RCS	6740	Research and Program Evaluation	3	BC	REH	PR: RCS 5780.	Training in the evaluation and utilization of available research studies and the development of research skills. An individual research project is required.
RCS	6803	Practicum in Counseling	3	BC	REH	PR: RCS 5080, MHS 5020, RCS 6440, RCS 5035.	Field work experience in rehabilitation mental health counseling.
RCS	6825	Internship	3	BC	REH	PR: CP, All required courses in M.A. program., CC. S/U.	Student placement in an approved intern setting for a minimum of 600 hours of supervised experience.
RCS	6906	Independent Study	1-19	BC	REH	PR: CC. S/U.	Independent study where the student must have a contract with a faculty member.
RCS	6930	Seminar in Rehabilitation Counseling	1-4	BC	REH	PR: CI.	Selected issues and problems in rehabilitation counseling with subject and scope to be determined by instructor.
RCS	6970	Thesis: Master's	2-19	BC	REH	PR: CC. S/U.	
RED	6116	Current Trends in Elementary Reading Instruction	3	ED	EDE	PR: RED 4310 or equiv. Not to be used as a first course in reading.	Approaches, materials, and procedures in Elementary Reading instruction, with emphasis on pertinent research.
RED	6247	District and School Level Supervision in Literacy	3	ED	EDR	PR: LAE 6315, RED 6544, RED 6545, RED 6747.	District and School Level Supervision in Literacy familiarizes students with issues related to the organization and monitoring of elementary and secondary reading programs at the school and district levels, with an emphasis on the former.
RED	6365	Reading In Secondary And Higher Education	3	ED	EDR		Designed for student and inservice teachers with appropriate B.A. degrees. Content covers secondary, community college, and university levels. Organization permits student to work on applications to individual levels and disciplines. Research paper required.
RED	6449	Literacy and Technology	3	ED	EDR		Literacy and Technology focuses on technology as a tool for literacy instruction. Throughout the course, students will preview and evaluate literacy-related software and

							websites, critique research related to literacy and technology, and design, develop, and present software programs for literacy learning and instruction.
RED	6514	The Reading Process in the Elementary Grades	3	ED	EDE		Prepares students in the foundations of literacy including learning principles, teaching and assessment strategies for providing literacy instruction to emergent, novice, transitional, and accomplished readers and writers in the elementary grades.
RED	6516	Corrective Reading in the Classroom	3	ED	EDR	PR: RED 4310 or CI.	Use of diagnostic and prescriptive procedures with individual and group reading instruction.
RED	6540	Assessment in Literacy	3	ED	EDR	PR: LAE 6315, RED 6544, RED 6545, RED 6747.	RED 6540 is a three credit graduate level course which focuses on methods of analysis of children's literacy and strategies for promoting language, reading and writing development. Authentic literacy assessment in classroom and other instructional environments, informal assessment and diagnosis, and standardized tests will be utilized in evaluation of the multiple factors in reading, writing and language process and problems.
RED	6544	Cognition, Comprehension, and Content Area Reading: Remediation of Reading	3	ED	EDR		In-depth study of reading comprehension. Emphasis is placed on discussion of the concepts of cognition and learning, metacognition and comprehension of text included in the reading process. Process in the reading/writing, connection, specific reading strategies, and procedures for comprehension of text in the content areas are presented.
RED	6545	Issues in Vocabulary and Word Study	3	ED	EDR		The purpose of this course is to provide students with an understanding of current theory and research about reading and writing vocabulary instruction and the interactive causes of literacy disabilities.
RED	6749	History and Models of Reading: Prevention and Intervention of Reading Difficulties	3	ED	EDR		History and Models of Reading: Prevention and Intervention of Reading Difficulties reintroduces students to literacy through the historical and scientific research perspective.
RED	6786	Teacher Research Methods in Reading	3	ED	EDR	PR: EDF 6481, RED 6747, RED 6545, RED 6544, RED 6247, RED 6449.	Teacher Research Methods in Reading familiarizes students with the application of classroom action research methodologies in literacy. Course content is directed toward developing understandings of the need for teacher research and a mindset for becoming a teacher researcher. Students will develop a knowledge base in quantitative, qualitative, case study, and portfolio-based research methodologies for teachers.

RED	6846	Practicum in Reading	3	ED	EDR	PR: RED 6747, RED 6545, RED 6544, RED 6540, or CI.	Practicum in Reading is a graduate course covering topics and issues relevant to assessment and remediation of reading problems in school-aged children. It is an application course, where students work at a school site with children who are experiencing reading problems.
RED	6906	Independent Study: Reading Education	1-6	ED	EDR	S/U.	Independent study in which students must have a contract with an instructor.
RED	6971	Thesis: Masters/Educational Specialist	2-19	ED	EDR		
RED	7048	Reading as a Symbolic Process	3	ED	EDR	PR: RED 6116 or RED 6365, GS or DPR.	Seminar designed to develop critical thinking about the reading process and reading acquisition.
RED	7742	Research in Vocabulary and Word Study	3	ED	EDR	PR: Advanced graduate status: Masters level coursework in reading or related field.	Students will critically examine research in word acquisition, development, and instruction from preschool through the intermediate grades linguistic diversity.
RED	7745	Research in Reading Instruction	3	ED	EDR	PR: RED 6116 or RED 6365, GS or DPR.	Seminar examining in depth the current research on instruction in the field of reading education.
RED	7910	Directed Research in Reading/Language Arts	1-19	ED	EDR	PR: Advanced graduate standing.	Independent student-faculty research course.
RED	7938	Advanced Graduate Seminar	1-3	ED	EDR	PR: Enrollment in at least 3 hours is required for each doctoral student.	Discussion and evaluation of current issues and research in Reading/Language Arts and related fields. Rpt. To 6 hours.
RED	7980	Dissertation: Doctoral	2-30	ED	EDR	Admission to Candidacy.	
REL	6035	Theory and Method in Religious Studies	4	AS	REL	PR: GS in the Department of Religious Studies.	An introduction to and research methods used in Religious Studies proper and those of other disciplines. In the former are to be found comparative religion, religious hermeneutics, and theological analysis. Among the latter are included comparative literature, literary criticism, sociology, philosophy, and historiography.
REL	6126	Religion in America	3	AS	REL		Studies in the history of native American religions, of the rise of American denominations, churches, and sects, of the relationship between church and state, and religious thought in America. Open to non-majors.
REL	6143	Religion, Culture, and Society	3	AS	REL		Scholarly study of religion in its complex relationship of culture and society, including definitions and theories of religion, research methods, becoming religious, social organization, and interconnections with other social institutions.
REL	6175	Religion, Ethics and Public Policy	3	AS	REL		This seminar will explore the relation between religion, ethics, the social sciences, and social policy. Problems of ideological conflict and ethical relativism will be examined, as well as

							possible religious and theoretical foundations for a normative ethics of social change.
REL	6178	Comparative Religious Ethics	3	AS	REL		This seminar explores key issues and the diverse methodological approaches to the comparative study of religious ethics, including history of religions, social scientific, philosophical and theological approaches.
REL	6182	Faith and Reason in Western Religious Ethics	3	AS	REL		A seminar course examining the history of Western thinking about morality and its relation to religion. Concepts including faith, reason, right and wrong, values, virtue, duty, obligation, rights, and justice are explored in light of theories about the nature of morality.
REL	6195	Religion and Modernization	3	AS	REL		This course will explore the unique characteristics of modern and post-modern civilization, with special attention given to the secularizing effects of modern science, technology, economics, and politics on the world's religions and their various responses to these factors.
REL	6285	Studies in Biblical Archaeology	3	AS	REL		A study of various problems in Biblical Archaeology including excavation techniques, principles of interpretation, problems in correlation of the text of the Bible and specific finds, chronology, reconstruction of culture from archaeological evidence, and others.
REL	6327	Seminar: Ancient Religions and Literatures	3	AS	REL		A research seminar in some aspect of ancient religion and literature: Hebrew Bible, New Testament, Mithraism, Mystic Religions, Pseudepigrapha, and others taught in translation.
REL	6328	Religion and Culture of the West	3	AS	REL		Examines some of the most important religious literature of the Western world -- Jewish, Christian, and Islamic -- attempting to understand each classical expression within its own historical and cultural context.
REL	6447	Liberation Theology	3	AS	REL		A critical examination of Third World, Black American, and Feminist Liberation Theologies of the Christian tradition.
REL	6617	The History of Judaism: The Formative Age	3	AS	REL	PR: REL 3602	The history of how the Judaism that predominated from the first century to the present took shape in the first six centuries AD.
REL	6906	Independent Study	1-3	AS	REL	PR: GS, ML	Independent study in which the student must have a contract with the instructor.
REL	6911	Directed Research	1-3	AS	REL	PR: GS, ML. Majors only.	Individual guidance in concentrated reading in a carefully delimited area of religious studies research skills.
REL	6938	Special Topics in Religious Studies	2-4	AS	REL	PR: GS.	Open to non-majors. Variable titles offered on topics of special interest.
REL	6940	Graduate Instruction Methods	1-4	AS	REL	Var. S/U.	Offered primarily for the supervision of Graduate Teaching Assistants.

REL	6971	Thesis: Master's	2-19	AS	REL	PR: GR. ML, majors only. S/U	
SCE	5325	Methods of Middle Grades Science Education	3	ED	EDN	PR: 18 sem hrs in science, meeting FL content standards for mid grades general science.	Prepare 5-9 sci teachers to tch sci skills, content; interrelationship, applications of sci as a human endeavor; nature of sci; instructional methods; nature scientific inquiry; development of sci process skills; integration of subj areas; & assessment.
SCE	5337	Methods of Secondary Science Education	3	ED	EDN		Course concentrates on goals, subject matter teaching strategies for high school curricula; assessment and using data to improve student achievement; and development pedagogical content knowledge as it pertains to the teaching and learning of science.
SCE	5564	Reading and Communication in Science Education	3	ED	EDN		This course prepares secondary science teachers to teach literacy practices in science. It includes methods for selecting appropriate reading and language approaches. Communication in science and functional aspects of scientific literacy are examined.
SCE	5937	Selected Topics in Science Education	1-4	ED	EDN		
SCE	6115	Trends in Science Instruction	3	ED	EDE	PR: SCE 4310	Topics in the biological and physical sciences appropriate for teaching in elementary school programs. Analysis of modern curriculum materials used in presenting science as a process of inquiry.
SCE	6347	Methods for Interpretive & Transformative Standards Based Education	3	ED	EDN		Current theories from research in brain physiology, cognitive psychology and science education explaining how humans of all ages learn to make meaning from experiences are translated into practice to bridge the gap between information and understanding.
SCE	6416	Teaching Secondary School Biology	3	ED	EDN	PR: At least 12 hours in science.	Effective use and production of instructional materials in the biological sciences. Interrelation of philosophy, materials, and classroom practices.
SCE	6444	Community Resources for Environmental Education	3	ED	EDN		Identify, access, and acquire community resources (media; business/industry); prof. natural science, engineering and social science societies; government and non-government agencies; civic groups, universities) to incorporate into learning opportunities for diverse audiences at all school levels.
SCE	6456	Teaching Secondary School Physical and Earth Science	3	ED	EDN	PR: At least 12 hours in science.	Effective use and production of instructional materials in the physical and earth sciences. Interrelation of philosophy, materials, and classroom practices.
SCE	6634	Current Trends in Secondary Science Education	3	ED	EDN	PR: Bachelor's degree with major in science area, and certification	Curricular patterns and instructional practices in secondary science.

						in secondary science.	
SCE	6645	Mathematics and Science Education Policy, Change, and School Improvement	3	ED	EDN	PR: EDF 7655 or Advanced GS. May also be taken as MAE 6738. DPR.	Knowledge, skills, and strategies are developed to become a facilitator of change for mathematics and science school improvement. Original change initiatives are designed and implemented.
SCE	6646	Environmental Site Explorations	3	ED	EDN		On-site experiences at informal science institutions (ISI) provide first hand opportunity to construct a holistic view of informal education industry, its organization, career paths, management concerns, niches, nature and relationships among programs.
SCE	6736	Research Implications for Teaching Pre-College Mathematics and Science	3	ED	EDN		Generates new perspectives on research by comparing research techniques in mathematics, natural sciences, and mathematics and science education, and by matching mathematics, science and technology questions to appropriate research paradigms.
SCE	6744	Survey Update of Environmental Research Management Policies	3	ED	EDN		Current & future scientific research topics of long term importance are explored providing an integrated update in science. Complex connections among the various natural, math, & social science; agriculture; psychology; & engineering are emphasized.
SCE	6865	Technology: Solving Societal Problems	3	ED	EDN	PR: Advanced GS or DPR. May also be taken as MAE 6737.	Specific examples of mathematics/science/technology/society interaction are provided for integration into school-based mathematics and natural science courses.
SCE	6866	Understanding Mathematics, Science, and Technology: Human Enterprises	3	ED	EDN	PR: Advanced GS or DPR. May also be taken as MAE 6735.	Science, mathematics, and technology are presented as one multifaceted, dynamic, human-made enterprise responding to the human search for an understanding of the realities of the world. Different "Ways of Knowing" are compared.
SCE	6906	Independent Study in Science Education	1-6	ED	EDN		Independent Study in which students must have a contract with the instructor. Rpt. S/U
SCE	6938	Topics in Science Education: Field Practicum	3	ED	EDN	PR: Admission into a graduate initial certification program in science education, and at least 9 hours of SCE (Science Education) courses. Course must be taken at least one semester before final internship.	This seminar provides teacher candidates with opportunities to interact with peers, public school faculty and university faculty regarding classroom and related school-based experiences. This course is restricted to science education majors.
SCE	6947	Internship	6	ED	EDN	PR: CI.	Provides students with an extended school-based experience, under the guidance of a cooperating teacher and university supervisor, for a full semester at or near the end of their graduate program. Open to graduate degree candidates only. S/U (PR: CI)
SCE	7697	Socioscientific Issues in	3	ED	EDN		The purpose of this course is to

		Science Education					provide students with an interactive forum to review, analyze, evaluate and discuss topics related to the role of socioscientific issues in science education.
SCE	7910	Directed Research in Science Education	1-19	ED	EDN	PR: CI.	This course permits a doctoral student to conduct advanced research and to pursue specific areas of interest with a faculty member as supervisor. A contract is required with the faculty member. S/U.
SCE	7980	Dissertation	2-30	ED	EDN	PR: Admission to Candidacy.	
SDS	6042	Introduction of Student Affairs	3	ED	EDG		Provides students with knowledge of the history, philosophy, organization and structure of Student Affairs, Student Affairs functions and professional competencies, and legal and ethical issues.
SDS	6050	Comparative Guidance and Counseling	3	ED	EDG	PR: DPR.	Study of guidance theories and practices in selected foreign countries as compared with the American guidance model. Evaluation of foreign guidance through critical analysis of primary sources. For example: guidance philosophy and practice in countries of the Soviet Bloc, Western Europe, and Latin America.
SDS	6411	Introduction to Student Personnel Work in Higher Education	2	ED	EDG	PR: DPR.	Study of student personnel services in institutions of higher education. Identification of the needs of students and of the ways to respond to meet these needs. Survey of service units on a campus in terms of structure, organization, funding, etc.
SDS	6501	Group Theory and Practicum: Children	4	ED	EDG	PR: SDS 6411. S/U.	Experiential study of group structures, group dynamics, methodology, and leadership models applicable to counseling in the elementary schools. Skill building through supervised practicum in leading groups of elementary school children.
SDS	6621	Financial Aid Administration	2	ED	EDG	PR: Acceptance to College Student Affairs Program or CI.	The purpose of this course is to provide an overview of the history, fundamental concepts, and organization of financial aid administration. The role of financial aid in enrollment management will be addressed.
SDS	6624	Ecology of Campus Life	3	ED	EDF	PR: GS	Provides students with an understanding of the changing demographics, environmental and developmental issues facing college students.
SDS	6641	Student Affairs Auxiliary Functions	3	ED	EDF	PR: Acceptance to Student Affairs Administration Doctoral Program & SDS 6042 or CI	Review of major auxiliary functions in Student Affairs. Includes strategic and operational issues in planning for and operating auxiliary facilities and technological innovations.
SDS	6645	Student Development Theory	3	ED	EDF		An in-depth study of student development theories including those in the areas of cognitive, psychosocial and typology theories. Students will

							examine theoretical perspectives and learn how to apply them in practical situations encountered in higher education settings.
SDS	6701	Issues in Diversity	2	ED	EDF	PR: Admission to CSA or CI graduate Program	Addresses individual and organizational issues of multiculturalism and diversity in higher education.
SDS	6703	The Law and Student Affairs	3	ED	EDF	PR: SDS6042, SDS6624, SDS6520, EDF6165	This course for graduate students in College Student Affairs will focus on the legal context associated with the duties of the student affairs professional. The focus will be on an understanding of constitutional, statutory, and contract law.
SDS	6801	Practicum in Counseling Children	4	ED	EDG	S/U.	Supervised counseling experiences for integration of knowledge and skills gained in didactic study. Focus is on working with elementary age children, parent and teachers.
SDS	6820	Internship in School Counseling	3-6	ED	EDG	PR: All required MHS courses. S/U.	Field experience involving one semester of full-time participation or two semesters of part-time participation in all guidance related activities in an elementary or secondary school; classroom guidance; individual and group counseling; assessment/evaluation; staffing; record keeping; etc.
SDS	7640	Student Affairs Administration	4	ED	EDF	PR: Acceptance to Student Affairs Administration Doctoral Program & SDS 6042 or CI.	Leadership, management and organizational models, perspectives and issues in administration of Student Affairs will be studied.
SDS	7642	Advanced Seminar in Student Affairs	1-4	ED	EDF	PR: Acceptance to Student Affairs Administration Doctoral Program or CI	This seminar will nurture students' creativity and enhance their appreciation for scholarly academic work and effective administrative practice in Student Affairs. Issues and trends in Student Affairs will also be studied.
SDS	7643	Advanced Student Development Theories	4	ED	EDF	PR: SDS 6645 or equivalent and acceptance to Student Affairs Administration Doctoral Program or CI.	Contemporary theories of college student development will be examined in the categories of psychosocial, cognitive-structural, and typology. Research, case analysis, and assessment instruments will be studied in translating theoretical models into programmatic interventions in Student Affairs.
SDS	7644	Enrollment Management	4	ED	EDF	PR: Acceptance to Student Affairs Administration Doctoral Program or CI	Introduction to and overview of a multi-faceted process of enrollment management in higher education. The breadth of theory, models, and principles that contribute to the field of enrollment management will be explored.
SDS	7830	Advanced Internship in Counselor Education	2-8	ED	EDG	S/U.	Supervised field experiences in an approved agency, educational institution, or industrial setting: counseling, consulting, supervision, applied research, administration, and evaluation of counseling/guidance services.
SDS	7945	Advanced Internship in	1-	ED	EDF	PR: Acceptance to	Supervised field experiences in an

		Student Affairs Administration	6			Student Affairs Administration Doctoral Program and completion of 25 hours or consent of Program Director	approved functional area of Student Affairs in an institution of higher education that will involve administrative functions, applied research and program evaluation.
SDS	7980	Dissertation	2-24	ED	EDF	PR: Admitted to Candidacy	
SED	6943	Graduate Instruction Methods	1-4	AS	SPE	S/U only.	Special course to be used primarily for the training of teaching assistants. Var. Rpt. To a total of 4 credits.
SLA	7910	Directed Research in Second Language Acquisition/ Instructional Technology	1-6	ED	EDI	PR: CI.	This course permits a doctoral student to conduct advanced research and to pursue specific areas of interest with a faculty member as supervisor. A contract is required with the faculty member. S/U.
SLA	7911	Second Language Acquisition Research Laboratory	1-4	ED	EDI		This course, offered every semester, provides students with a variety of research tools and directed research experiences that eventually lead to production of publishable materials. Classes are conducted as seminars with instructor and students sharing leadership role. S/U
SLA	7938	Advanced Seminar in Second Language Acquisition	3	ED	EDI		This doctoral level seminar examines in depth the theory and research in the field of Second Language Acquisition. It builds upon the information and concepts presented in introductory SLA theory courses allowing students to more deeply and carefully explore selected topics.
SLA	7980	Dissertation	2-18	ED	EDX	PR: Admission to Candidacy.	
SOP	6068	Personality and Social Psychology	3	AS	PSY	PR: Bachelors Degree in Psychology or related discipline.	This course is a survey of modern personality and social psychology. It will examine how personal attributes and social situations influence human behavior. Major contemporary theories of how personality and social variables individually and collectively affect human feelings, thoughts and actions will be presented.
SOP	7609	Graduate Seminar in Social-Organizational Psychology	1-3	AS	PSY	PR: CI.	Seminars on topics, such as social psychology, job stress, and decision making.
SOW	5930C	Selected Topics in Social Work	1-4	BC	SOK	PR: CC.	Restricted to Social Work majors, both graduate and undergraduate; other by School permission. Course is taken as an elective. Various title course will selectively expand specific social work content areas.
SOW	6105	Foundations in Human Behavior	3	BC	SOK	PR: CC.	Introduces a systems perspective on understanding the relationships inherent in human growth and development. Special emphasis is placed on issues involving minorities, women, the disabled, various family forms, and sexual preference.
SOW	6114	Individual Growth and Development Theory	3	BC	SOK	PR: CC.	This course presents various theoretical perspectives in individual growth and development commonly

							used in clinical practice with individuals, families, and groups. Ethnic, cultural, and lifestyle differences in normative development will be addressed, as will the influence of poverty, resource deprivation, sexual stereotyping, and illness/disability on social functioning.
SOW	6124	Theoretical Perspectives on Mental Dysfunctioning	3	BC	SOK	PR: CC. Majors only.	This third course in the behavior sequence focuses on mental and emotional disorders. Content includes broad classifications of mental and behavioral disorders and their biopsychological disorders and implications of social work practice in dealing with these disorders.
SOW	6126	Theoretical Perspectives on Physical Dysfunctioning	2	BC	SOK	PR: CC. Majors only.	this fourth course in the behavior sequence focuses on physical disorders and implications of social work practice in the area of long-term protracted chronic illnesses and the ensuing psychosocial disabilities.
SOW	6235	Foundations of Social Welfare Policy	3	BC	SOK	PR: CC.	Examines historical antecedents of social welfare as an institution and current state of social welfare programs in America. Emphasis is placed on understanding social, economic, and political forces that shape policies and programs.
SOW	6236	Social Welfare Policy Analysis and Design	3	BC	SOK	PR: CC.	Presents various methods of policy analysis with emphasis on distinctions among legislative, administrative, and judicial policy. Examines roles and responsibilities of the professional practitioner in the policy process.
SOW	6305	Fundamentals of Social Work Practice	3	BC	SOK	PR: CC.	Describes full range of social work interventions, from micro to macro. Historical development of practice methods and survey of current techniques.
SOW	6342	Individual, Family and Group Treatment I	3	BC	SOK	PR: CC.	Application of clinical practice to work with individuals. Psychosocial model is emphasized. Professional laboratory develops skills in practice.
SOW	6348	Clinical Practice Perspectives on Race and Culture	3	BC	SOK	PR: CC.	Theories for clinical practice, with emphasis on the psychosocial model. Explores basic skills for clinical practice.
SOW	6362	Individual, Family and Group Treatment II	4	BC	SOK	PR: CC.	Emphasizes selection of techniques in the psychosocial model of treatment. Primary focus on family, couple, and parent-child problems. Course includes skill practice lab sessions.
SOW	6368	Individual, Family and Group Treatment III	3	BC	SOK	PR: CC.	Focus on psychosocial model of group treatment. Comparison with individual and family modality.
SOW	6375	Macro Practice Seminar	3	BC	SOK	PR: CC, SOW 6426, SOW 6368, SOW 6535.	Studies facets of organizational environment in which clinical practice takes place; develops skills in various macro practice functions of the agency, such as supervision, program operations, and interagency relations.
SOW	6405	Foundations of Social Work Research and Statistics	3	BC	SOK		This is the first of four research methods courses intended to introduce students to the various

							methods, designs, measurements, and statistical techniques in social work research.
SOW	6425	Clinical Research	2	BC	SOK		This is the second in a series of four required research courses. It focuses on the design and implementation of evaluation studies in social work.
SOW	6426	Field Research I	1	BC	SOK	GS in Social Work only.	This is the third in a series of four research courses. It provides the structure for supervision of graduate research projects.
SOW	6427	Field Research II	1	BC	SOK	GS in Social Work only.	This is the fourth and final research course. It provides the mechanism for supervision of the graduate research project.
SOW	6438	Evaluation of Clinical Practice in Diverse Setting	3	BC	SOK	PR: Must be admitted to the graduate Masters of Social Work program. This course is restricted to majors only. CR: Undergraduate degree.	Course builds on foundation content of SOW 6405. Program evaluation, single subject/system design, and statistical and qualitative concepts are discussed in order to facilitate the use of empirical and evidence based interventions in social work practice.
SOW	6534	Field Instruction I	4	BC	SOK	PR: CC. S/U.	Supervised field instruction in a social service agency, consisting of 20 hours per week, plus a 3-hour practice seminar.
SOW	6535	Field Instruction II	4	BC	SOK	PR: CC. S/U.	Supervised field instruction in a social service agency, consisting of 32 hours per week, plus a 2-hour practice seminar.
SOW	6536	Field Instruction III	2-4	BC	SOK	PR: CC. S/U.	Supervised field instruction in a social service agency, consisting of 20 hours per week, plus a 2-hour practice seminar. Includes integrative paper or exam.
SOW	6553	Field Instruction Sequence IA: Part-Time	2	BC	SOK	PR: SOW 6114, SOW 6348. CR: SOW 6124.	This is the first of a series of seven field instruction courses designed to provide students with opportunities to develop beginning clinical social work competency in applying knowledge to practice situations.
SOW	6554	Field Instruction Sequence IB: Part-Time	1	BC	SOK	PR: SOW 6553. S/U.	This course is the second of seven sequential courses. Each consists of 10-15 hours per week (150 hours total) of agency field learning taught by an agency field instructor with a one-hour practice seminar taught by a University-based instructor.
SOW	6555	Field Instruction Sequence IIA: Part-Time	2	BC	SOK	PR: SOW 6554.	This course is the third of seven sequential courses. Each consists of 10-15 hours per week of agency field taught by an agency field instructor on a one-hour practice seminar taught by a University-based instructor.
SOW	6556	Field Instruction Sequence IIB: Part-Time	2	BC	SOK	PR: SOW 6555.	This course is the fourth of seven sequential courses. Each consists of 10-15 hours per week of agency field taught by an agency field instructor on a one-hour practice seminar taught by a University-based instructor.
SOW	6557	Field Instruction Sequence IIC: Part-Time	2	BC	SOK	PR: SOW 6556.	This course is the fifth of seven sequential courses. Each consists of 10-15 hours per week of agency field

							taught by an agency field instructor on a one-hour practice seminar taught by a University-based instructor.
SOW	6558	Field Instruction Sequence IIIA: Part-Time	2	BC	SOK	PR: SOW 6557.	This course is the sixth of seven sequential courses. Each consists of 10-15 hours per week of agency field taught by an agency field instructor on a one-hour practice seminar taught by a University-based instructor.
SOW	6559	Field Instruction Sequence IIIB: Part-Time	2	BC	SOK	PR: SOW 6558.	This course is the last of seven sequential courses. Each consists of 10-15 hours per week of agency field learning taught by an agency field instructor on a one-hour practice seminar taught by a University-based instructor.
SOW	6900	Independent Study	1-3	BC	SOK	PR: Admission to MSW program, CC.	A reading program in selected topics under supervision of a faculty member. A formal contract must be approved by School Director.
SOW	6931	Selected Topics in Social Work	1-4	BC	SOK	PR: CC. Restricted to MSW students; others by School permission.	
SOW	7417	Advanced Statistics in Social Work Research	3	BC	SOK	PR: Must be admitted to the graduate Ph.D. social work program. This course is restricted to majors only. SOW 6405 or equivalent. CR: MSW.	This course provides students a detailed and practical understanding of Adv. Statistical techniques that are of use to Social Work Academicians, Administrators, and Researchers as they conduct critical research into policy, practice, and social issues.
SOW	7446	Evaluation of Social Work Practice/Program Evaluation	3	BC	SOK		Prepares students in the development of research skills to conduct social work practice and program evaluation. Emphasis placed on the integration of knowledge from previous courses. Ethical considerations will also be examined. Ph.D. Majors only.
SOW	7490	Foundations of Social Work Research Methods	3	BC	SOK	PR: Must be admitted to the graduate Ph.D. social work program. This course is restricted to majors only. CR: MSW.	This is a doctoral level course designed to prepare students on the role of research in the profession. This course will focus primarily on understanding and applying basic research methods within a social work context.
SOW	7491	Theoretical Perspectives in Social Work Research	3	BC	SOK	PR: Must be admitted to the graduate Ph.D. social work program. This course is restricted to majors only. CR: MSW.	Systems theory will be presented as a theoretical base for developing testable hypotheses to produce empirical knowledge for the social work profession. Students will demonstrate the ability to conceptualize research topics in terms of existing theory.
SOW	7496	Qualitative Research Methods in Social Work	3	BC	SOK	PR: Must be admitted to the graduate Ph.D. social work program. This course is restricted to majors only. CR: MSW.	The course will assist the doctoral student to better understand and become equipped to fulfill a role as social work researcher. The course will consider the theoretical, scientific, and political issues related to qualitative research.
SOW	7497	Quantitative Methods in Social Work Research	3	BC	SOK	PR: Must be admitted to the graduate Ph.D. social work program.	This course provides the student with a broad overview of Quantitative Methods of use to those during

						This course is restricted to majors only. CR: MSW.	research in Social Work. It also serves as a review of basic quantitative methods for the Advanced Statistics course offered later in the program.
SOW	7616	Advanced Clinical Practice with Complex Problems	3	BC	SOK		Challenges the participants to access and utilize the most advanced evidence based knowledge to assess and recommend intervention for complex social problems. PR: Ph.D. Majors only.
SOW	7776	The Social Work Educator in the University	3	BC	SOK		Further critical thinking about the role of the social work educator in the university. The doctoral candidate will be equipped to fulfill this role, consider issues related to university governance as well as social work ed. PR: majors only; Ph.D. stdt
SOW	7919	Directed Studies in Social Work Research	3	BC	SOK	PR: Must be admitted to the graduate Ph.D. social work program. This course is restricted to majors only. CR: MSW.	This course prepares students to identify a research topic, review existing literature and formulate a research question or hypothesis as the basis of the dissertation. Students will learn to prepare a scholarly manuscript to submit for publication.
SOW	7980	Dissertation Hours	2-4	BC	SOK	PR: Must be admitted to candidacy in Social Work Ph.D. Program. This course is restricted to majors only. CR: MSW.	Dissertation hours
SOW	7981	Proposal Writing I	3	BC	SOK		Guides doctoral students in preparing a dissertation proposal to be presented to the committee for final approval. The process will be explored from concept formation through the preparation of a detailed written proposal. PR: Ph.D. Majors only.
SOW	7982	Proposal Writing II	3	BC	SOK		Guides doctoral students in preparing a dissertation proposal to be presented to the committee for final approval. The process will be explored from concept formation through the preparation of a detailed written proposal. PR: Ph.D. Majors Only.
SPA	5120	Psychoacoustics	3	BC	CSD		Relationship between physical auditory stimuli and psychological response. Human perception of intensity, loudness, frequency, and pitch. Impact of cochlear hearing loss and age on auditory perception. Measurement of auditory perception.
SPA	5132	Instrumentation	3	BC	CSD	PR: SPA 5120, SPA 6930, SPA 5506.	Instruction in the use of clinical and laboratory instrumentation. Emphasis placed on electronic circuitry, signal generation, filtering, and calibration. Hands-on experience with equipment typically used in clinical auditory research will be provided.
SPA	5133C	Speech Science Instrumentation	3	BC	CSD	PR: DPR or SPA 3011 or equivalent.	Underlying principles and laboratory exercises in the use of audio recording, acoustic analysis, and clinical instrumentation.
SPA	5153	Quantitative Problem	3	BC	CSD		Covers fundamental mathematical

		Solving in Speech Pathology and Audiology					and statistical concepts underlying the field of Communication Sciences and Disorders and application of these concepts to practical and clinical problems. Not restricted to majors or repeatable for credit.
SPA	5204	Advanced Clinical Phonology	3	BC	CSD		The principles of generative phonology will be applied to the assessment and treatment of phonological disorders. Emphasis is placed on making a child's phonology more functional for communication purposes.
SPA	5303	Auditory Anatomy and Physiology	3	BC	CSD		Provide a comprehensive understanding of the physiological acoustics of the auditory periphery, neuroanatomy and electrophysiology of the central auditory system, and psychoacoustic principles as they relate to clinical audioogic measurement paradigms.
SPA	5312	Peripheral and Central Auditory Tests	4	BC	CSD	PR: DPR.	The study of behavioral and electro physiologic clinical tests designed to assess the functions of the peripheral and the central auditory system. Tests that incorporate nonspeech stimuli and those that utilize speech stimuli will be included.
SPA	5328	Rehabilitative Audiology for Adults	3	BC	CSD	PR: DPR.	Assess and manage persons with hearing loss. Effects of hearing impairment, assessment issues, and appropriate intervention strategies. Prosthetic intervention, perceptual intervention, communication strategies intervention, and counseling issues.
SPA	5403	Language-Learning in the School-Age Years	3	BC	CSD	PR: SPA 4201 and DPR.	Metalinguistic and metacognitive development are linked to the interactional demands of classroom and clinical discourse; observational tools are applied to evaluation and intervention planning.
SPA	5506	Speech-Language Pathology and Audiology Practicum	1-8	BC	CSD	PR: DPR.	Participation in speech-language pathology and audiology practicum in the University Communication Disorders Center and selected field settings.
SPA	5552	Diagnostic Principles and Practices	3	BC	CSD	PR: Admission to the graduate program or DPR.	The administration, evaluation, and reporting of diagnostic tests and procedures used in assessment of speech and language disorders.
SPA	6102	Neuroanatomy for Speech and Hearing	3	BC	CSD	PR: SPA 3101.	Neuroanatomical and neurophysiological principles, structures and functions that subserve speech, hearing, language, and cognition are studied. A case-based approach illustrates the behavioral manifestations of neuropathologies. Majors only.
SPA	6106	Neurological Correlates of Language	3	BC	CSD	PR: DPR.	Review of the anatomy and physiology of the nervous system. Discuss neurological correlates of receptive and expressive language in verbal and non-verbal transmission and feedback.

SPA	6211	Advanced Vocal Disorders	3	BC	CSD		Students will be familiarized with perceptual, physiological, psychological, and behavioral processes involved in voice production, and apply this knowledge to assessment and treatment of voice disorders. Restricted to majors and may not be repeated.
SPA	6225	Advanced Fluency Disorders	3	BC	CSD		This course covers characteristics of people who stutter, the morphology of stuttering in children and adults, motor and linguistic processes of normal speech, theories of causes of stuttering, and methods for evaluating and treating stuttering.
SPA	6232	Neuromotor Communication Disorders	3	BC	CSD	PR: DPR.	A study of the medical, physical, occupational, speech, language, and hearing problems of the neuro-motorically impaired client. Therapy techniques are reviewed and evaluated.
SPA	6245	Craniofacial Communication Disorders	3	BC	CSD	PR: DPR.	An in-depth study of speech, language, and hearing problems associated with cleft lip and cleft palate and other craniofacial dysmorphologies. Consideration is given to the multidisciplinary approach to therapy and rehabilitation.
SPA	6305	Pediatric Audiology	3	BC	CSD	PR: SPA 5506.	Etiologies and manifestations of hearing loss within a pediatric population. Survey of procedures used in early identification and quantified measurement of hearing loss in young and non-communicative children.
SPA	6311	Medical Audiology	3	BC	CSD	PR: SPA 5120, Advanced Hearing Science, Clinic Lab I.	Anatomy & patho-physiology of the auditory system, medical genetics, congenital & acquired ear diseases, disorders of balance, & tinnitus. These areas will be related to audiology test results; diagnostic imaging, medical & surgical treatments.
SPA	6314	Electrophysiology	3	BC	CSD	PR: SPA 5303 and SPA 5312 or DPR.	This course focuses on the auditory brainstem response (ABR) as an essential diagnostic and screening tool. The course follows a combined lecture/laboratory mode with weekly class meetings and weekly laboratory exercise.
SPA	6316	Vestibular Evaluation and Treatment	3	BC	CSD	PR: SPA 5303 and SPA 5312 or DPR.	Principles and clinical practices of assessing the peripheral and central components of the human vestibular system using electrical recordings of induced and spontaneous nystagmus.
SPA	6324	Aural Rehabilitation: Children	3	BC	CSD	PR: DPR.	Provide information and strategies for aural habilitation intervention with hearing impaired children. Includes techniques of speech reading, auditory training, and language for hearing impaired.
SPA	6326	Curriculum Procedures and Materials for the Hearing Impaired	3	BC	CSD	PR: Major in Aural Rehabilitation or DPR.	Curricular adaptation, methods, techniques, and organization necessary for teaching the hearing

							impaired.
SPA	6329	Educational Audiology	3	BC	CSD		Provides information on consulting and collaborating with speech pathologists, teachers, and others about the relationship of hearing loss to the development of psychosocial, communicative, cognitive, physical, academic, and vocational skills of a child.
SPA	6340	Principles of Amplification I	3	BC	CSD		Provide information and training concerning the design and measurement of the modern hearing aid. The history of hearing aids, types of hearing aids, hearing aid components, measurement and modification of hearing aid response, and earmold acoustics.
SPA	6341	Principles of Amplification II	3	BC	CSD	PR: SPA 6340.	The general goal of this second of three hearing aid courses is to provide information and training related to the assessment, selection, fitting, verification, and validation processes associated with the modern hearing aid.
SPA	6349	Advanced Study of Sensory Aids for Hearing Impaired	3	BC	CSD	PR: SPA 6340, SPA 6341	This course is designed to supplement and expand on previous coursework through a discussion of advanced technical, clinical, and professional issues related to the design, measurement, and fitting of sensory aids.
SPA	6354	Hearing Conservation	3	BC	CSD	PR: DPR.	An investigation of the hazardous properties of noise and their effects upon the human auditory systems; hearing conservation programs in industry; and the extra-aural effects and control of community noises.
SPA	6392	Profession of Audiology	2	BC	CSD		Acquaint students with a basic understanding of the profession of Audiology. Topics covered include: Historical underpinnings, scope of practice, ethics, legal issues, evidence-based practice, professional organizations, and current issues.
SPA	6401	Pediatric Language Disorders	3	BC	CSD	PR: DPR.	An examination of the pre-verbal and language skills of the infant and preschool child, and of the Speech-Language Pathologist's role in the diagnosis, treatment, and as parent-trainer for these children.
SPA	6404	Language Learning Disabilities	3	BC	CSD	PR: DPR.	Examination of research and clinical literature pertaining to causes and effects of atypical language and literacy learning and developmental frameworks for integrated intervention in oral and written language.
SPA	6410	Aphasia and Related Disorders	3	BC	CSD	PR: SPA 6106 and DPR.	Consideration of the neurological and psychological aspects of aphasia and related disorders as they relate to communication disorders. Specific language therapy approaches are discussed and evaluated.
SPA	6413	Augmentative and Alternative	3	BC	CSD	PR: DPR.	This course details the in-depth assessment and treatment of

		Communication					communication modes in non-speaking individuals. Students will be presented with the variety of aided and unaided systems which exist for helping non-speaking persons; students gain experience in the use of these devices.
SPA	6417	Communication + Cognition in Traumatic Brain Injury	3	BC	CSD	PR: Permission of Instructor.	This course focuses on theoretical foundations of the study and management of neurocognitive disorders associated with right brain damage and traumatic brain injury, with special attention to major differences between focal and diffuse brain pathology.
SPA	6421	Language for the Hearing Impaired	3	BC	CSD	PR: SPA 3030, SPA 3310, SPA 4363, and DPR.	Techniques and materials of teaching language to children with auditory disorders as well as evaluation and analysis of contemporary intervention and clinical methods.
SPA	6422	Speech Perception and Production for the Hearing Impaired	3	BC	CSD	PR: SPA 3310, SPA 3311 or CC.	In depth study of the effects of hearing loss on speech perception and on the development of speech production skills in children. Methods for testing/training speech perception/production skills in the hearing-impaired are discussed.
SPA	6473	Multicultural Differences in Language	3	BC	CSD	PR: CI.	The focus is on developing intercultural competencies to design and implement more culturally and linguistically appropriate services for individuals with communication disorders or differences.
SPA	6505	Practicum	1-10	BC	CSD	PR: DPR.	Participation in speech-language pathology and audiology practicum in the University clinical laboratory and selected field settings.
SPA	6553	Advanced Differential Diagnosis and Treatment Planning	3	BC	CSD	PR: DPR.	The interpretation of evaluation results and the integration of these data in order to make a differential diagnosis leading to an appropriate therapy plan. The administration, evaluation, and reporting of advanced evaluation techniques not covered in SPA 5552.
SPA	6564	Seminar in Aging, Cognition, and Communication	3	BC	CSD		1. This course focuses on the interdependence of communication and cognition in older adults, emphasizing relationships among physical health, social context, cognition, and communication.
SPA	6565	Seminar in Dysphagia	3	BC	CSD	PR: SPA 6410 or permission of instructor.	The course covers normal and abnormal anatomy/physiology related to swallowing function, etiology, symptoms, and technique/instrumentation for diagnosis and management of dysphagia and procedures for analysis, treatment, and management.
SPA	6571	Ethical Practice Issues in Communication Sciences and Disorders	1-2	BC	CSD		Topics include: legal and ethical issues affecting practice, licensure, and ASHA certification, the ASHA Code of Ethics, laws and regulations in healthcare and educational settings

							and quality assurance standards. Must be repeated for 2 total credits.
SPA	6675	Reading for the Hearing Impaired	2	BC	CSD	PR: RED 4310 and DPR.	Techniques and materials for teaching reading to children with auditory disorders. Evaluation and analysis of contemporary programs and methods.
SPA	6676	Speech Perception and Sensorineural Hearing Loss	3	BC	CSD	PR: SPA 3310, SPA 3030.	Overview of the acoustics of speech and theories of speech perception. Speech perception in listeners with normal and impaired hearing. The role of speech audiometry in clinical assessment of speech perception abilities and central auditory processing.
SPA	6805	Research Procedures in Communication Sciences and Disorders	3	BC	CSD	PR: DPR.	Advanced research and experimental design techniques employed in clinical and laboratory settings in speech-language pathology and audiology.
SPA	6906	Independent Study	1-19	BC	CSD	PR: DPR. S/U grading only.	Independent study in which students must have a contract with an instructor.
SPA	6910	Directed Research	1-19	BC	CSD	PR: GR. ML, DPR. S/U grading only.	
SPA	6930	Selected Topics	3	BC	CSD	PR: DPR.	A reading program of topics in speech pathology and/or audiology conducted under the supervision of a faculty member.
SPA	6971	Thesis: Master's	2-19	BC	CSD	PR: DPR.	
SPA	7150	Advanced Speech Science	3	BC	CSD	PR: SPA 3011 or equivalent; SPA 5150L; DPR.	Advanced study of the acoustics, production, and perception of normal and disordered speech.
SPA	7346	Cochlear Implants	3	BC	CSD	PR: SPA 5303, SPA 5120, SPA 5506, Permission of Instructor.	Introduction to cochlear implants (CIs) and their use as a treatment for severe-to-profound hearing loss in adults and children. Not restricted to majors or repeatable for credit.
SPA	7415	Neurolinguistic Theories of Language	3	BC	CSD	PR: SPA 6410, SPA 6232 and DPR.	Neurolinguistic theories as appropriate to the discipline are presented and discussed in relationship to language development and disorders. Information from linguistics, psycho-linguistics, artificial intelligence, neuroanatomy, and other sciences are applied to Language Science.
SPA	7834	Audiology Doctoral Project Seminar	1	BC	CSD	PR: SPA 6805 or equivalent.	A forum for discussion of progress and resolution of problems/questions related to the Audiology Doctoral Project (ADP). Restricted to AuD majors; repeatable for credit.
SPA	7931	Seminar in Communication Sciences and Disorders	3	BC	CSD	PR: DPR.	Addresses the central research and clinical issues related to the diagnosis and treatment of communication disorders. Content of seminars varies with instructor's expertise.
SPA	7980	Dissertation	2-19	BC	CSD	PR: Admission to Candidacy.	PR: Admission to Candidacy. Doctoral Dissertation.
SPC	5238	Topics in Rhetorical Analysis	3	AS	SPE		Introduces a variety of critical perspectives applied to rhetoric in

							specialized contexts. Topics vary depending upon interest of students and faculty.
SPC	5930	Topics in Discourse	3	AS	SPE		Variable topics course.
SPC	6214	Ethnography of Communication	3	AS	SPE	PR: Graduate Standing.	Explores ethnography as an approach to conducting research and a means of theorizing about human communication.
SPC	6231	Survey of Rhetorical Theory	3	AS	SPE		Historical development of rhetorical theory from Plato to contemporary theorists with emphasis upon the evolution of trends and concepts in rhetorical theory.
SPC	6236	Contemporary Rhetorical Theory	3	AS	SPE	PR: GS.	Basic texts in 20th century rhetorical theory. Readings may vary.
SPC	6391	Interpersonal Communication	3	AS	SPE		Study of theory and research related to interpersonal communication.
SPC	6432	Family Communication	3	AS	SPE	PR: Graduate Standing.	This course examines the family in terms of the patterns of interaction through which meanings are produced. Family communication concepts and theories will be introduced as they relate to diverse family forms and experiences.
SPC	6545	Persuasion	3	AS	SPE		Study of contemporary theories and research in persuasion.
SPC	6645	Rhetoric in Society	3	AS	SPE	PR: GS.	Examination of ways in which rhetoric reflects and molds social processes, including social integration and/or alienation; social roles and identity construction; institutions and movements; ideology and social change.
SPC	6682	Rhetorical Criticism	3	AS	SPE		The study of theoretical perspectives in rhetorical criticism. The application of criticism to selected rhetorical situations.
SPC	6726	Communication in Close Relationships	3	AS	SPE	PR: Graduate Standing.	Interpersonal and intersubjective processes involved in the development of close personal relationships. Includes studies and personal experiences that cut across historical, therapeutic, spiritual, philosophical, literary, and cinematic perspectives.
SPC	6728	Communicating Grief, Loss, and Illness	3	AS	SPE	PR: Graduate Standing.	How illness and loss disrupt our stories of self and relationships and lead to construction of new stories, also cultural patterns of stories. Topics include critical illness and relationships, dying, bodies, emotions, caregiving, aging, and divorce.
SPC	6903	Directed Readings	1-4	AS	SPE	PR: CC.	
SPC	6913	Directed Research	1-19	AS	SPE	PR: ML, CC. S/U.	
SPC	6934	Selected Topics in Communication	1-4	AS	SPE		
SPC	6935	Pro Seminar in Communication	1-3	AS	SPE	PR: GS.	Reading and discussion of current books, articles, and papers in communication theory and research.
SPC	6971	Thesis: Master's	2-1	AS	SPE	PR: CC. S/U.	

			9				
SPC	7900	Doctoral Research Tutorial	1-3	AS	SPE	PR: Admitted to doctoral program.	Advanced directed research.
SPC	7930	Seminar in Rhetorical Studies	3	AS	SPE	PR: GS.	Variable topics course.
SPC	7980	Dissertation: Doctoral	2-19	AS	SPE	PR: Admission to candidacy.	
SPN	5525	Modern Spanish American Civilization	3	AS	WLE	PR: SPN 3520 or equivalent or graduate standing.	Advanced readings and discussions dealing with Spanish American civilization and culture, including a study of social, artistic and political trends. Text and discussion in Spanish.
SPN	5567	Modern Spanish Civilization	3	AS	WLE	PR: SPN 3500 or equivalent or graduate standing.	Advanced readings and discussions dealing with contemporary Spanish civilization and culture, including a study of recent social, artistic and political trends. Texts and discussions in Spanish.
SPN	6795	Phonology and Dialectology	3	AS	WLE	PR: SPN 3300.	A study of the Spanish sound system.
SPN	6845	History of the Spanish Language	3	AS	WLE		Traces the development of Spanish from its Latin origins to the present.
SPN	6940	Graduate Instruction Methods	1-3	AS	WLE	S/U.	Special course to be used primarily for the training of teaching assistants.
SPS	6101	Child and Adolescent Behavior Disorders	4	ED	EDF		Theoretical and empirical identification and understanding of children and adolescents with behavior disorders. Treatment issues as they relate to school psychological services.
SPS	6196	Assessment of Child and Adolescent Personality	4	ED	EDF		Conceptualizations of personality and personality assessment; perspectives of disturbed and disturbing behavior, and personality assessment measures.
SPS	6197	Psychoeducational Diagnosis and Prescription I	4	ED	EDF	PR: Acceptance to graduate program in School Psychology.	Content covers comprehensive diagnosis and prescription in school psychology, including critical reviews of relevant research literatures, the professional-client relationship, interviewing, client histories, pluralistic psychoeducational assessment, assessment of educational environments, synthesis and dissemination of diagnostic data, and referral procedures. Appropriate field experiences will be provided. This course must be taken during two consecutive semesters, and the grade will be awarded at the end of the sequence.
SPS	6198	Psychoeducational Diagnosis and Prescription II	4	ED	EDF	PR: Acceptance to graduate program in School Psychology.	Content covers comprehensive diagnosis and prescription in school psychology, including critical reviews of relevant research literatures, the professional-client relationship, interviewing, client histories, pluralistic psychoeducational assessment, assessment of educational environments, synthesis and dissemination of diagnostic data, and referral procedures. Appropriate field experiences will be provided.

							This course must be taken during two consecutive semesters, and the grade will be awarded at the end of the sequence.
SPS	6700C	Psychoeducational Interventions With Children and Adolescents I	4	ED	EDF	PR: Acceptance to School Psychology Graduate Program or CI. Concurrent enrollment required with SPS 6701C.	Content covers psychoeducational interventions for school-referred children and adolescents specific to school psychological services. This is an integrated sequence of courses addressing educational and psychological (direct and indirect) interventions with topics also including consultative service delivery, the acceptability of classroom strategies, classroom and behavior management, and the synthesis of assessment data into effective interventions all within the referral context. Appropriate field experiences will be required for Intervention I and Intervention II; therefore, concurrent enrollment in the Intervention Practicum course for these two courses only is required.
SPS	6701C	Psychoeducational Interventions With Children and Adolescents II	4	ED	EDF	PR: Acceptance to School Psychology Graduate Program or CI. Concurrent enrollment required with SPS 6700C.	Content covers psychoeducational interventions for school-referred children and adolescents specific to school psychological services. This is an integrated sequence of courses addressing educational and psychological (direct and indirect) interventions with topics also including consultative service delivery, the acceptability of classroom strategies, classroom and behavior management, and the synthesis of assessment data into effective interventions all within the referral context. Appropriate field experiences will be required for Intervention I and Intervention II; therefore, concurrent enrollment in the Intervention Practicum course for these two courses only is required.
SPS	6702C	Psychoeducational Interventions With Children and Adolescents III	4	ED	EDF	PR: Acceptance to School Psychology Graduate Program or CI. Concurrent enrollment required with SPS 6700C.	Content covers psychoeducational interventions for school-referred children and adolescents specific to school psychological services. This is an integrated sequence of courses addressing educational and psychological (direct and indirect) interventions with topics also including consultative service delivery, the acceptability of classroom strategies, classroom and behavior management, and the synthesis of assessment data into effective interventions all within the referral context. Appropriate field experiences will be required for Intervention I and Intervention II; therefore, concurrent enrollment in the Intervention Practicum course for these two courses only is required.
SPS	6806	Developmental Bases of Diverse Behaviors	4	ED	EDF		This course deals with some of the major social and educational policy

							concerns posed by developmental and cultural diversity in our society.
SPS	6936	Graduate Seminar in School Psychology	1-3	ED	EDF	PR: CI.	Seminars to explore current matters of professional concern in school psychology, such as trends, problems, legal and ethical issues, and empirical bases of techniques.
SPS	6940	Practicum in Psychoeducational Interventions	1-4	ED	EDF	PR: Concurrent enrollment in Psychoeducational Interventions with Children and Adolescents - I or II (SPS 6700C or SPS 6701C), or DPR.	Course provides practical experiences and implementation of skills discussed and acquired in the intervention courses within settings relevant to school psychology.
SPS	6941	Practicum in Psychoeducational Interventions	1-4	ED	EDF	PR: Concurrent enrollment in Psychoeducational Interventions with Children and Adolescents - I or II (SPS 6700C or SPS 6701C), or DPR.	Course provides practical experiences and implementation of skills discussed and acquired in the intervention courses within settings relevant to school psychology.
SPS	6947	Internship	1-9	ED	EDF	Open to School Psychology graduate degree candidates only.	Involves field-based, supervised experience of 1,500 (minimum) clock hours at the Educational Specialist level and 2,000 (minimum) clock hours at the Doctoral level.
SPS	6971	Thesis: Masters/Educational Specialist	2-19	ED	EDF	S/U. MA/EdS Candidates only.	
SPS	7090	Supervision Processes in School Psychology	4	ED	EDF		Theory, skills, and practice of supervision in school psychology.
SPS	7199	Advanced Psychoeducational Assessment	2-4	ED	EDF	PR: SPS 6197/SPS 6198 or DPR.	Advanced topics and techniques in the comprehensive assessment of children and adolescents typically referred for school psychological services.
SPS	7205	Advanced Consultation Processes in School Psychology	2-4	ED	EDF	PR: EDF 6166, or DPR.	Advanced topics and techniques in consultation processes for advanced school psychologists.
SPS	7700	Advanced Psychoeducational Interventions	2-4	ED	EDF	PR: SPS 6700C/SPS 6701C and SPS 6940/SPS 6941, or DPR.	Advanced topics and techniques in psychoeducational interventions for children and adolescents referred for school psychological services.
SPS	7701	Advanced Child and Adolescent Psychotherapy	2-4	ED	EDF	PR: SPS 6702C, or DPR.	Covers advanced topics and techniques in child and adolescent psychotherapy relevant to school psychological services.
SPS	7910	Directed Research in School Psychology	1-19	ED	EDF	PR: CI.	A doctoral research experience supervised by a faculty member.
SPS	7936	Advanced Seminar in School Psychology	1-3	ED	EDF		Exploration of current issues and trends in school psychology, as it relates to research and professional practice, and the history and systems of education and psychology.
SPS	7980	Dissertation	2-30	ED	EDF	PR: Admission to Candidacy.	
SPW	5135	Colonial Spanish American Literature	3	AS	WLE	PR: SPW 4131.	Introduction to Colonial Spanish American Literature from the discovery through the Romantic Period.
SPW	5355	Spanish American	3	AS	WLE	PR: SPW 4131.	Major writers of all genres. Emphasis

		Drama and Poetry					on modern writers.
SPW	5387	Spanish American Prose	3	AS	WLE	PR: SPW 4131.	Emphasis on the gaucho theme and contemporary prose fiction.
SPW	5388	Golden Age Poetry and Drama	3	AS	WLE	PR: SPW 4100.	Lope de Vega, Alarcon, Tirso, Calderon, and others.
SPW	5405	Medieval Literature	3	AS	WLE	PR: SPW 4100 or equiv.	Course gives an in-depth study of principal works and authors of the period such as El Poema de Mio Cid, Libro de Buen Amor, and La Celestina.
SPW	5465	19th Century Literature	3	AS	WLE	PR: SPW 4101.	An appreciation of the romantic and realist periods in Spanish literature.
SPW	5605	Cervantes	3	AS	WLE		Cervantes' masterpiece Don Quijote de la Mancha.
SPW	5725	Generation of 1898	3	AS	WLE	PR: SPW 4101.	The major figures of the period and their main followers.
SPW	5726	Vanguard Literature 1918 and 1936	3	AS	WLE	PR: SPW 4101.	A study of Vanguard literature in Spain between 1918 and 1936.
SPW	5934	Selected Topics	3	AS	WLE	PR: Upper-level or GS.	Study of an author, movement, or theme.
SPW	6427	Golden Age Novel	3	AS	WLE		Realistic prose-fiction of the Renaissance and Golden Age.
SPW	6485	Post Civil War Literature	3	AS	WLE	PR: SPW 4101.	The drama and novel since 1936.
SPW	6775	Caribbean Literature	3	AS	WLE	PR: SPW 4131	Emphasis on contemporary Cuban and Puerto Rican literature.
SPW	6910	Directed Research	1-19	AS	WLE	PR: GR. ML, CC. S/U.	
SPW	6936	Graduate Seminar	3	AS	WLE	PR: CC	Topics vary.
SPW	6971	Thesis: Master's	2-19	AS	WLE	PR: CC. S/U.	
SSE	5331	Foundations, Curriculum & Instruction of Social Science Education	3	ED	EDI		Social studies curriculum, methods of instruction and social, philosophical and psychological foundations are examined. Students are expected to plan and present instructional plan(s) appropriate to middle and secondary school levels demonstrating command of the course content.
SSE	5332	Methods & Strategies in Social Science Education	3	ED	EDI		Social studies methods and strategies are examined with an emphasis on the secondary school environment. The teaching profession, school settings, and current issues are examined. Students are expected to plan and present instructional plan(s) appropriate to senior high school demonstrating command of the course content.
SSE	5641	Reading and Basic Skills in the Content Area	3	ED	EDI		Reading skills and the other basic skills as applied to the social studies are examined. Students are expected to plan and present instructional plan(s) appropriate to the social studies classroom demonstrating command of the course content. Fieldwork in a middle school is required.
SSE	5644	Economic Decision-Making for Teachers	3	ED	EDW	PR: Admission to College of Education or DPR.	Provides teachers (K-12) with content related to the operation of businesses in a market economy. Teachers analyze economic/business concepts from the perspective of individuals currently operating businesses in the Tampa Bay area. Focus of the

							instruction is on the application of content to K-12 instructional programs.
SSE	5946	Practicum in Social Science Education	3	ED	EDI	PR: SSE 5331.	The course is a practicum course in which pre-service teachers apply the knowledge, skills, and dispositions learned in prerequisite program courses to teach the social studies themes adopted by the National Council for the Social Studies.
SSE	6617	Trends in K-6 Social Science Education	3	ED	EDE	PR: Dual Track or MAT Admission.	This course focuses on theoretical foundations and strategies employed by effective social studies teachers in motivating K-6 aged youth to acquire the information, skills, and reasoning unique to the social sciences. Students also conduct research.
SSE	6636	Trends in Secondary Social Science Education	3	ED	EDW	PR: SSE 4333, SSE 4334, SSE 4335.	This course is designed for graduate students to research the history, theory, practices and current trends of social science education and to develop a personal, academic social science philosophy.
SSE	6906	Independent Study in Social Sciences Education	1-6	ED	EDW		An opportunity for advanced graduate students to examine a specific issue or topic in the field of social science education.
SSE	6932	Selected Topics in Social Science Education	3	ED	EDI	PR: Admission to Masters	Readings and discussions organized around an in-depth examination of selected social studies education topics selected by professors.
SSE	6947	Internship	6	ED	EDI	PR: CI.	This course provides students with an extended school-based experience, under the guidance of a cooperating teacher and a university supervisor, for a full semester at or near the end of their graduate program. Open to graduate degree candidates only. Supervised teaching at the secondary level as appropriate. S/U (PR: CI)
SSE	7700	Social Science Curriculum and Instruction Issues	4	ED	EDI	PR: Admittance to the Social Science Ph.D. program.	This advanced graduate course investigates current trends and new directions in the social science curriculum, leading theories and practices related to instructional methodology, and implications of significant research and developments in the field.
SSE	7710	Research in Social Science Education	4	ED	EDI	PR: Admittance to the Social Science Ph.D. program.	This course prepares doctoral students in social science education to be active scholars. Students engage in a preliminary research study, examine theoretical, technical, ethical and practical issues related to conduct of research in education.
SSE	7720	Social Science Education Technological Innovations	4	ED	EDI	PR: Admittance to the Social Science Ph.D. program.	This course examines the use of technology in the social science classroom, barriers to integration, unrealized potential of technology and consequences of technological development on children and youth.
SSE	7730	Philosophy of Social Science Education	4	ED	EDI	PR: Admittance to the Social Science Ph.D. program.	This advanced graduate course allows students to research the philosophical and theoretical underpinnings of a social science

							education and the role of a university as well as to develop a personal, philosophical construct.
SSE	7740	History of the Social Studies Since 1880	4	ED	EDI	PR: Admission to Doctoral Program in C&I with an emphasis in SSE.	This course is a historical investigation of the development of the secondary school history/social studies curriculum, including questions related to objectives, content, and methods of instruction.
SSE	7910	Directed Research in Social Sciences Education	1-9	ED	EDW	PR: CI	This course permits a doctoral student to conduct advanced research and to pursue specific areas of interest with a faculty member as supervisor. A contract is required with the faculty member. S/U
SSE	7945	Applied Research in Social Science Education	2	ED	EDI	PR: Admittance to the Social Science Ph.D. program.	This course provides doctoral students in social science education with the opportunity to teach post–secondary courses, engage in sustained research, pursue external funding, and participate in professional activities.
SSE	7980	Dissertation in Social Science Education	2-24	ED	EDW	PR: Admission to Candidacy	Rpt.
STA	5166	Statistical Methods I	3	AS	MTH	PR: STA 4321 or CI.	Statistical analysis of data by means of statistics package programs. Regression, ANOVA, discriminant analysis, and analysis of categorical data. Emphasis is on inter-relation between statistical theory, numerical methods, and analysis of real life data.
STA	5228	Sampling Techniques	3	AS	MTH	PR: STA 4321 or CI.	Sampling versus total enumeration. Planning of a survey. Statistical sampling methods and their analysis; simple, stratified, systematic cluster, and double and multistage sampling. Use of auxiliary information in sampling. Ratio and regression estimates. Case study.
STA	5326	Mathematical Statistics I	3	AS	MTH	PR: STA 5446.	Sample distribution theory, point & interval estimation, optimality theory, statistical decision theory, and hypothesis testing.
STA	5446	Probability Theory I	3	AS	MTH	PR: STA 4442 and MAA 4212 or CI.	Axioms of probability, random variables in Euclidean spaces, moments and moment generating functions, modes of convergence, limit theory for sums of independent random variables.
STA	5526	Non-Parametric Statistics	3	AS	MTH	PR: STA 5326 or CC.	Theory and methods of non-parametric statistics, order statistics, tolerance regions, and their applications.
STA	6167	Statistical Methods II	3	AS	MTH	PR: STA 5166.	Design of statistics programs, pivoting and other technology used in stepwise regressions, algorithms in non-linear regression, balanced and unbalanced ANOVA. Iteration methods for numerical solutions of likelihood equations.
STA	6206	Stochastic Processes	4	AS	MTH	PR: STA 5446.	Poisson processes, renewal theorems, Markov chains on a countable state space, continuous-time Markov

							processes with a countable state space, birth and death processes, branching processes, introduction to Brownian motion.
STA	6208	Linear Statistical Models	3	AS	MTH	PR: STA 5167 or STA 5326 or CI.	Distribution theory, estimation, and hypothesis testing for the general linear model. Experimental designs, including randomized block and incomplete block designs. Multiple regression, ANOVA, and ANCOVA.
STA	6447	Probability Theory II	3	AS	MTH	PR: STA 5446 and MAA 5306 or CI.	Characteristic functions, central limit theorem, martingale inequalities and convergence theorems, optional stopping, ergodic theorems and applications.
STA	6746	Multivariate Analysis	3	AS	MTH	PR: STA 5326 or CI.	Multivariate normal distribution; its properties and inference; matrix random variables; multiple and partial correlation; discriminant analysis, principle components and factor analysis; multivariate ANOVA; analysis of covariance; applications using computers.
STA	6876	Time Series Analysis	3	AS	MTH	PR: STA 5326 or CI.	Theory and applications of discrete time series models illustrated with forecasting problems. Filtering, forecasting, modeling, and spectral analysis of time series. Control problems. Applications using a computer.
SYA	6126	Contemporary Sociological Theory	3	AS	SOC	PR: Undergraduate course in sociological theory or CI	Emphasizes logical and conceptual dimensions of theory and theory construction.
SYA	6205	Social Construction of Reality	3	AS	SPE	PR: Graduate Standing.	Evolution of the concept of social construction; emphasizes the consequences of understanding lived experiences and discursive representations as social constructions. Topics include depression, child abuse, masculinity/femininity, and sexual harassment.
SYA	6305	Methods of Research	3	AS	SOC	PR: Undergraduate course in sociological research methods or CI.	Logic and practice of research; problems of observation and data collection, data processing, and evaluation.
SYA	6315	Qualitative Research Methods	3	AS	SOC	PR: Undergraduate course in sociological research methods or CI.	Designed to introduce students to qualitative research methods, such as participant observation and intensive interviewing that require the researcher to get close to the social situation of interest.
SYA	6316	Ethnography	3	AS	SOC	PR: Graduate Standing or CI.	Examines the theoretical and practical issues in ethnographic research and various styles of ethnography. Provides hands-on training in ethnographic data collection and qualitative data analysis.
SYA	6405	Sociological Statistics	3	AS	SOC	PR: Undergraduate statistics course or CI.	Logic and application of parametric and nonparametric statistical analysis for sociological data.
SYA	6437	SPSS and Social Research	3	AS	SOC	PR: Research Methods and Statistics.	Provides students with practical experience using SPSS (Statistical Package for the Social Sciences).

							Introduces students to measurement of sociological variables, data processing, and various parametric and nonparametric data analysis procedures.
SYA	6505	The Communication of Sociology	1-3	AS	SOC		Designed to help students define and formalize more effective efforts at communicating sociology.
SYA	6909	Independent Study	1-19	AS	SOC	PR: GS, CI. S/U.	Independent study in which student must have a contract with an instructor.
SYA	6912	Directed Research	1-19	AS	SOC	PR: GS, CI. S/U.	
SYA	6933	Special Topics-Sociology	3	AS	SOC	PR: GS.	Content varies according to interests of students and instructor.
SYA	6940	Internship	1-6	AS	SOC	PR: Graduate Standing.	Designed for students wishing to develop practical sociological skills and apply sociological knowledge to questions of practical concern. Internship experiences include those in basic and applied research, community organization, and public policy.
SYA	6971	Thesis: Master's	2-19	AS	SOC	PR: CC. S/U.	
SYD	6605	City and Community	3	AS	SOC	PR: Graduate standing or CI.	Provides training in the field of urban and community sociology. Focuses on the field's early theoretical foundations, "classic" research, and contemporary debates. Concentrates on the U.S., although some cross-cultural comparisons will be offered.
SYD	6706	Race and Ethnicity	3	AS	SOC	PR: GS or Departmental Approval.	Introduces historical development of race, social construction of racial and ethnic identities, race-class-gender interrelationships, and various issues of immigration. Exploration of theories used to explain racial and ethnic inequality today.
SYG	6936	Seminar in Teaching Sociology	3	AS	SOC	PR: GS or Departmental Approval	Provides a key link for future teaching sociologists, assisting them to make the switch from consumers to educators of the sociological perspective. Places equal emphasis on theoretical and practical issues surrounding teaching sociology.
SYO	5365	Industrial Sociology	3	AS	SOC		
SYO	6125	Family Analysis	3	AS	SOC	PR: Course in family or CI.	Theory of interpersonal relations and interaction in the modern family. Analysis of functions and roles.
SYO	6255	Seminar in Sociology of Education	3	AS	SOC	PR: GS or Departmental Approval.	Sociological analysis of the institution of education. Primary attention directed toward class, race, and gender inequalities and educational transformations.
SYO	6406	Sociology of Health and Illness	3	AS	SOC	PR: GS.	Survey of core concepts and current research in the sociology of health and illness: social correlates of disease, health care utilization, physician-patient relations, medical compliance, and illness behavior.
SYO	6545	Complex Organizations	3	AS	SOC	PR: Course in social organizations or CI.	Organizational theory, bureaucratic models, authority, power

							legitimation, and types of formal organization.
SYO	7435	Sociology of Disability in Urban Society	3	AS	SOC		This course critically evaluates current controversies over the utility of a variety of theoretical perspectives and research methods in understanding the lived experience of disability in 21st century urban society.
SYP	6008	Social Problems, Identity, and Community	3	AS	SOC	PR: GS or Department Approval	An examination of social problems using social constructionist theoretical perspectives. Topics focus on how meaning is created within historically, culturally, and politically situated communities.
SYP	6016	Emotions in Everyday Life	3	AS	SOC	PR: Graduate Standing or CI.	Explores the role of emotions in the everyday lives of individuals, within the micro-social contexts of identities, interactions, and social relationships.
SYP	6357	Comparative Social Movements	3	AS	SOC	PR: GS or department approval.	Provides an overview of the various theoretical perspectives used to explain the emergence, growth, strategies and success of social movements in contemporary America and in other countries.
SYP	6425	Sociology of Consumer Culture	3	AS	SOC	PR: GS or department approval.	This course critically examines the key theories and analyses of American consumerism with special attention to inequalities of race, class, and gender.
SYP	6515	Sociology of Deviance	3	AS	SOC	PR: GS or Department Approval.	Develops knowledge of traditional theories of deviance as well as critiques them. Through development of alternative perspectives, challenges constructions of deviance and the mechanisms of power.
TAX	5015	Federal Taxation of Business Entities	3	BU	ACC	PR: TAX 4001 with a grade of C or better, not C-.	Tax issues encountered by small businesses. Includes tax planning, capital formation and preservation, tax compliance and tax alternatives.
TAX	6005	Advanced Partnership Taxation	3	BU	ACC	PR: TAX 4001.	A study of advanced income tax problems involving partnerships, including organization, operation, distributions, liquidations, basis, family partnerships, and sales and exchanges. The planning and business aspects of partnerships are emphasized.
TAX	6016	Advanced Corporate Taxation I	3	BU	ACC	PR: TAX 4001	This is the first of two sequential courses on Advanced Corporate Taxation. This course studies advanced income tax problems involving corporations, including organization, operation, distribution, and liquidation. Topics include "S" Corporations, collapsible corporations, personal holding companies, accumulation of earnings, and acquisition and disposition of corporations. The planning and business aspects of corporate transactions are emphasized.
TAX	6025	Advanced Corporate Taxation II	3	BU	ACC	PR: TAX 6016	This is the second of two sequential courses on Advanced Corporate

							Taxation. This course covers advanced corporation topics including multiple corporations, transfer of corporate attributes, corporate divisions, corporate reorganizations, consolidated corporate tax returns, limitation on corporate loss carry-forwards and taxation of foreign corporations and foreign source income.
TAX	6065	Contemporary Issues In Taxation	3	BU	ACC	PR: TAX 4001 and TAX 5015 or equivalent and admission to MAcc program. CR: ACG 6453.	A study of contemporary issues in taxation with an emphasis on related computer research. Current tax issues in the areas of corporations or partnerships will be explored when appropriate, along with related tax planning techniques.
TAX	6134	Advanced Corporate Taxation	3	BU	ACC	PR: TAX 4001 and TAX 5015	A study of advanced income tax problems involving corporations, including organization, operation, distributions, liquidations, consolidated corporate tax returns, and taxation of foreign corporations and foreign source income.
TAX	6445	Estate Planning	3	BU	ACC	PR: TAX 4001.	This course covers the basics of estate, gift, and trust taxation and introduces the student to tax planning techniques to minimize the tax-burden on inter-generation transfers of wealth.
THE	5909	Directed Studies	1-6	TA	TAR	PR: CI and CC.	Independent studies in the various areas of Theatre. Course of study and credits must be assigned prior to registration.
THE	5931	Selected Topics In Theatre	1-8	TA	TAR	PR: CI.	The content of the course will be governed by the student demand and instructor interest. May be lecture or class discussion or studio format.
THE	6175	New British Theatre and Drama	3	TA	TAR	PR: Graduate standing or CI.	A study of contemporary theatrical practice and key dramatic texts in the British Isles. Departmental permit required of majors and non-majors.
THE	6720	Drama in Elementary School	3	TA	EDD		Methods of using theatre and drama activities in elementary school, including use of drama and theatre for interdisciplinary, integrated projects. Available to majors and non-majors, no extra laboratory sections.
THE	6736	Methods of Directing the High School Play	3	TA	EDD		Directing the high school play including script selection, analysis and interpretation, audition and casting procedures, composition, picturization, staging movement, rhythm and pacing, pantomimic dramatization, organizing and conducting rehearsals.
THE	6930	Selected Topics in the Teaching of Theatre	3	TA	EDD	PR: Open only to students who have completed all other graduate level Theatre Education courses). S/U.	Investigation of topics related to theatre teaching of special interest to the student. Topics will be selected by the student and approved by the graduate advisor.
TSL	5085	ESOL I - Theory and Practice of Teaching English Language	3	ED	EDX		This course is for undergraduate degree holding, preprofessional (preservice) teachers to learn about

		Learners					appropriate instruction, assessment and learning opportunities for Limited English Proficient (LEP) students in the content areas.
TSL	5086	ESOL II-Secondary Language & Literacy Acquisition in Children & Adolescents	3	ED	EDX	PR: FLE 5430.	This course is designed to provide students with a critical understanding of instructional delivery which caters for the linguistic and literacy needs of minority / heritage communities.
TSL	5242	ESOL III-Language Principles, Acquisition & Assessment for English Language Learners	3	ED	EDX	PR: FLE 5431.	This course provides an overview of the components of language, linking them to methods and techniques of providing comprehensible instruction to LEP students.
TSL	5325	ESOL Strategies for Content Area Teachers	3	ED	EDX		Course designed for public school teachers working with limited English Proficient (foreign) students in the classroom. The new ESOL requirements specify that this course be offered to content area teachers and to ESOL teachers.
TSL	5371	Methods of Teaching English As A Second Language	3	AS	WLE		Analysis of the methods of teaching English pronunciation and structure to speakers of other languages.
TSL	5372	ESOL Curriculum and Instruction	3	AS	WLE		Analysis of the methods of teaching English pronunciation and structure to speakers of other languages.
TSL	5440	Language Testing	3	AS	WLE	PR: TSL 5371.	Lecture course on testing English as a second/foreign language.
TSL	5525	Cross-Cultural Issues in ESL	3	AS	WLE	PR: LIN 5700.	Lecture course on cultural issues in Teaching English as a Second/Foreign language.
TSL	5940	ESOL Practicum	1-3	ED	EDX	PR: FLE 5345 and FLE 5145. Must be taken in the semester prior to final internship.	This course is restricted to Education majors and will not be repeatable for credit. A structured field experience with Limited English Proficient students.
TSL	6253	Applied Linguistics for Teaching ESOL	3	ED	EDX		Course is designed to prepare participants with linguistic concepts & issues relevant to the field of applied linguistics 7 second language teaching. Course will survey sub-fields of linguistics (phonetics, phonology, morphology, semantics, and syntax).
TSL	6700	ESOL for School Psychologists and School Counselors	3	ED	EDX		Prepare school psychologists & school counselors to provide services for Eng language learners in their schools. Provides them with current research and guidance in the areas of program development, legislative mandates, and learner characteristics.
TSL	6945	Internship	1-6	AS	WLE	PR: TSL 5371 and TSL 5372. S/U.	Required of all candidates for the M.A. degree in TESL. Supervised teaching of English as a second language to non-native speakers at appropriate levels and settings.
TTE	5205	Traffic Systems Engineering	3	EN	EGX	PR: TTE 4004 or equivalent.	Traffics models, intersection analysis, capacity analysis, data methods collection, parking studies, volume and speed studies, freeway management, and advanced technologies.
TTE	5501	Transportation Planning and Economics	3	EN	EGX	PR: College Algebra & CI.	Fundamentals of urban transportation planning: trip generation, trip distribution, modal

							split, traffic assignment. Introduction to environmental impact analysis, evaluation an choice of transportation alternatives.
TTE	6270	Intelligent Transportation Systems	3	EN	EGX	PR: TTE 5205.	ITS architecture design and evaluation, simulation and modeling, advanced traffics management systems, traveler information systems, vehicle control systems, commercial vehicle operations, public transportation systems, and telecommunications.
TTE	6315	Transportation Safety	3	EN	EGX	PR: TTE 5205.	Transportation safety studies, accident data analysis, traffic safety control devices, special population regiment safety, highway conflict studies, accident reconstruction, and tort and liability issues.
TTE	6505	Discrete Choice Models of Travel Behavior	3	EN	EGX	PR: TTE 5501.	Theories of travel behavior; multinominal logit and nested logit models of mode choices, destination choice, and car ownership. Theory and application to travel forecasting.
TTE	6507	Travel Demand Modeling	3	EN	EGX	PR: TTE 5501.	Statistical modeling of travel demand forecasting; emphasis on trip generation and trip chaining.
TTE	6651	Public Transportation	3	EN	EGX		Planning, design and operation of public transportation systems; costs and productivity of transit; impacts of transit on travel behavior and urban form; ridership forecasting; public transportation policy analysis.
TTE	6655	Transportation and Land Use	3	EN	EGX		Relationships between transportation and land use, coordinated transportation and land use planning, theory of urban development, urban sprawl, integrated transportation and land use models, transportation friendly urban design, and accessibility.
TTE	6835	Pavement Design	3	EN	EGX	PR: TTE 4005 or equivalent.	Analysis of flexible and rigid pavements, equivalent single wheel loads, pavement material and their properties, pavement evaluation, reliability, flexible and rigid pavement design, overlay design, pavement life-cycle cost analysis.
TTE	6837	Pavement Management Systems	3	EN	EGX	PR: TTE 4005 or equivalent.	Review of flexible and rigid pavement design, overlay design; pavement evaluation, pavement network delineation, condition prediction models, pavement maintenance and rehabilitation, pavement management techniques, life-cycle analysis.
TTE	6930	Graduate Transportation Seminar	1	EN	EGX	PR: Majors only. S/U.	Seminars, presentations, and discussions of contemporary transportation issues.
URP	6056	City and Regional Planning	3	AS	POL	GS.	A review of goals, objectives, and interrelationships between regional and city planning; intergovernmental and policy issues. Cross-listed with Political Science.
URP	6100	Planning Theory and History	3	AS	GPY		The course is designed acquaint the student with major trends in the

							evolution of urban planning thought and practice and introduce the student to fundamental theories of relevance to the field of urban and regional planning.
URP	6115	Planning, policy and politics	3	AS	GPY		Introduction to politics, government and policy making for planning students. Part of the required core for the URP program.
URP	6232	Research Methods for Urban and Research Planning	3	AS	GPY		The course is designed to introduce students to strategies for designing research and the appropriate methods for collecting urban and regional planning data; familiarize students with social research and evaluation methods used in planning.
URP	6930	Special Topics in Urban and Regional Planning	3	AS	GPY		Topical issues in the study of Urban and Regional Planning. Content will vary each semester. It is repeatable for credit. There are no limits on the number of times a student can take courses listed under this title.
URP	6940	Internship in Urban and Regional Planning	3-6	AS	GPY		Students will gain practical experience in planning, working on projects with local planning agencies and firms. Course is restricted to URP masters students, and can be repeated for up to 6 credits.
WST	5308	Feminist Spirituality	3	AS	WST		Open to non-majors. Focuses on the many voices of contemporary feminist spirituality, emerging from women's experiences in diverse religious, ethnic and cultural traditions, and representing a range of theoretical perspectives from biblical feminism to goddess worship and wicca.
WST	5825	Internship in Women's Studies	3	AS	WST	PR: Must have completed Comprehensive Exam. Majors Only. All required courses in MA program, CC.	Student placement in approved intern setting for a minimum of 150 hours of supervised experience. S/U. Department Approval Required.
WST	5934	Selected Topics	1-4	AS	WST	PR: DPR.	Study of current research methods and scholarship on women from a multidisciplinary perspective.
WST	5940	Internship in Women's Studies	3-6	AS	WST	PR: Majors only. All required courses in MA program, CC. Permit.	Student placement in an approved intern setting for a minimum of 240 hours of supervised experience. S/U only.
WST	6001	Feminist Research and Methodology	3	AS	WST		To develop a more comprehensive understanding of the situation of women in society and to develop a theoretical basis for integrating this knowledge into the student's graduate course of study. Available to non-majors.
WST	6002	Feminist Scholarship and Pedagogy	3	AS	WST		Introduces students to techniques of feminist teaching and scholarly writing. Covers issues of professionalism, an overview of contemporary scholarly issues in feminist studies, and basic feminist pedagogy. Department Approval Required.

WST	6406	Women of Color:Activism and Social Change	3	AS	WST		Intensive reading and discussion of the participation of women of color in contemporary and reformist activities.
WST	6560	Advanced Feminist Theory	3	AS	WST		An in-depth exploration of current issues and debates in Feminist Theories. Topics may include: representation, essentialism, authority structures, subjectivity, identity and difference. Department Approval Required.
WST	6562	Body Politics	3	AS	WST		An in-depth feminist exploration of how the body is produced, inscribed, replicated, and often disciplined as a result of various powers at work.
WST	6705	Women and Policy	3	AS	WST		Examination of policy areas such as employment, violence, welfare which have a significant impact on women. The aim is to achieve a deeper understanding of the way in which gender functions as a category of analysis in policy decision, and also examines and critiques the area from which policy is produced.
WST	6900	Directed Readings	1-3	AS	WST	PR: CI.	Supervised program of intensive readings of an interdisciplinary nature focusing on women. Student must have contract with instructor.
WST	6910	Directed Research	1-3	AS	WST	PR: CC and signed contract. S/U.	Provide graduate students with research experience in areas of specific interest utilizing feminist perspectives and research methods.
WST	6936	Selected Topics in Women's Studies	3	AS	WST		Content varies according to scholarship focus of students and instructor. Repeatable-- content and instructor will vary.
ZOO	5456	Ichthyology	3	AS	BIN	PR: Senior or GS in Biology; ZOO 2701C, CI. PCB 4674 is suggested.	Evolution, systematics, structure, behavior, physiology, and ecology of fishes.
ZOO	5456L	Ichthyology Lab	1	AS	BIN	CR/PR: ZOO 5456	Laboratory portion of Ichthyology relating to evolution, systematics, structure, behavior, physiology and ecology of fishes.
ZOO	5463C	Herpetology	4	AS	BIN	PR: CI.	Major aspects of amphibian and reptilian biology emphasizing fossil history, evolutionary morphology, sensory physiology, life history and reproductive behavior. Lec.-lab. Field trip.
ZOO	5555C	Marine Animal Ecology	4	AS	BIN	PR: PCB 3043, senior standing, CI.	Investigation of energy flow, biogeochemical cycles, and community structure in marine environments. Lec.-lab.
ZOO	6455	Advances in Ichthyology	1	AS	BIN	PR: CI.	This course discusses current topics in Ichthyology. Readings are taken from the primary literature. The course is restricted to graduate students with a background in Ichthyology.