Graduate Majors and Concentrations

The following majors[+] are offered by the University of Florida Graduate School. Graduate concentrations[+] are listed within the pages linked below. For a full listing of available concentrations, please see the Graduate Degrees Offered by the University of Florida Section of this Catalog.

College of Agricultural and Life Sciences

- Agricultural and Biological Engineering (CALS)
- Agricultural Education and Communication
- Agronomy
- Animal Molecular and Cellular Biology
- Animal Sciences
- Entomology and Nematology
- Family, Youth, and Community Sciences
- Fisheries and Aquatic Sciences
- Food and Resource Economics
- Food Science
- Food Science and Human Nutrition
- Forest Resources and Conservation
- Genetics and Genomics (CALS)
- Horticultural Sciences
- Interdisciplinary Ecology
- Microbiology and Cell Science
- Nutritional Sciences
- Plant Medicine
- Plant Molecular and Cellular Biology (CALS)
- Plant Pathology
- Soil and Water Sciences
- Wildlife Ecology and Conservation
- Youth Development and Family Science

College of the Arts

- Art
- Art Education
- Art History
- Arts in Medicine
- Digital Arts and Sciences (Arts)
- Museology
- Music
- Music Education
- Theatre

Warrington College of Business

- Accounting
- Business Administration (Accounting)
- Business Administration (Finance, Insurance, and Real Estate)
- Business Administration (Information Systems and Operations Management)
- Business Administration (M.A.)
- Business Administration (M.B.A)
- Business Administration (M.S.)
- Business Administration (Management)
- Business Administration (Marketing - Master's)
- Business Administration (Marketing - Ph.D.)
- Business Administration (Ph.D.)
- Entrepreneurship
- Finance
- Information Systems and Operations Management
- International Business
- Management
- Real Estate

College of Dentistry

- Dental Sciences

College of Design, Construction, and Planning

- Architecture
- Construction Management
- Design, Construction, and Planning (Ph.D.)
- Fire and Emergency Sciences
- Historic Preservation
- Interior Design
- International Construction Management
- Landscape Architecture
- Sustainable Construction
- Urban and Regional Planning

College of Education

- Counseling and Counselor Education
- Curriculum and Instruction (CCD)
- Curriculum and Instruction (ISC)
- Early Childhood Education
- Educational Leadership
- Elementary Education
- English Education
- Higher Education Administration
- Marriage and Family Counseling

- Mathematics Education
- Mental Health Counseling
- Program Evaluation in Educational Environments
- Reading Education
- Research and Evaluation Methodology
- School Counseling and Guidance
- School Psychology
- Science Education
- Social Studies Education
- Special Education
- Student Personnel in Higher Education

Herbert Wertheim College of Engineering

- Aerospace Engineering
- Agricultural and Biological Engineering (Engineering)
- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Coastal and Oceanographic Engineering
- Computer Engineering
- Computer Science (Engineering)
- Digital Arts and Sciences (Engineering)
- Electrical and Computer Engineering
- Environmental Engineering Sciences
- Human-Centered Computing
- Industrial and Systems Engineering
- Materials Science and Engineering
- Mechanical Engineering
- Nuclear Engineering Sciences

College of Health and Human Performance

- Applied Physiology and Kinesiology
- Health and Human Performance
- Health Education and Behavior
- Sport Management
- Tourism and Recreation Management

College of Journalism and Communications

- Advertising
- Mass Communication

Fredric G. Levin College of Law

- Comparative Law
- Environmental and Land Use Law
- International Taxation
- Taxation

College of Liberal Arts and Sciences

- Animal Molecular and Cellular Biology
- Anthropology
- Astronomy
- Botany
- Chemistry
- Classical Studies
- Computer Science (CLAS)
- Counseling Psychology
- Creative Writing
- Criminology, Law and Society
- Economics
- English
- French and Francophone Studies
- Genetics and Genomics (CLAS)
- Geography
- Geology
- German
- History
- Latin
- Latin American Studies
- Linguistics
- Mathematics
- Philosophy
- Physics
- Plant Molecular and Cellular Biology (CLAS)
- Political Science
- Political Science - International Relations
- Psychology (CLAS)
- Religion
- Romance Languages (Language, Literature and Culture)
- Romance Languages (Spanish and Portuguese Studies)
- Sociology
- Spanish
- Statistics
- Sustainable Development Practice
- Women's Studies
- Zoology

College of Medicine

- Biochemistry and Molecular Biology
- Biostatistics (Medicine)
- Epidemiology (Medicine)
- Genetics and Genomics (Medicine)
- Medical Sciences

College of Nursing

- Nursing
- Nursing Sciences

College of Pharmacy

- Pharmaceutical Sciences (Medicinal Chemistry)
- Pharmaceutical Sciences (Pharmaceutical Outcomes and Policy)
- Pharmaceutical Sciences (Pharmaceutics)
- Pharmaceutical Sciences (Pharmacodynamics)
- Pharmaceutical Sciences (Pharmacotherapy and Translational Research)

College of Public Health and Health Professions

- Audiology
- Biostatistics (PHHP)
- Communication Sciences and Disorders
- Environmental and Global Health (M.H.S. - One Health)
- Epidemiology (PHHP)
- Health Administration
- Health Services Research
- Occupational Therapy
- Psychology (Clinical and Health Psychology - PHHP)
- Public Health (M.P.H.)
- Public Health (Ph.D. - Environmental and Global Health)
- Public Health (Ph.D. - One Health)
- Public Health (Ph.D. - Social and Behavioral Sciences)
- Public Health (Ph.D.)
- Rehabilitation Science

College of Veterinary Medicine

- Animal Molecular and Cellular Biology
- Veterinary Medical Sciences

Academic Program Majors by College and Department

College of Agricultural and Life Sciences

Dean: Elaine Turner

The College of Agricultural and Life Sciences offers academic programs and grants advanced degrees in 14 departments and the Schools of Forest Resources and Conservation, and Natural Resources and Environment. These academic units are all a part of the Institute of Food and Agricultural Sciences (IFAS). Additional components of IFAS include 12 research and education centers located throughout the state and cooperative extension offices in each of the 67 counties of the state.

For more information, please see our website: http://cals.ufl.edu.

Agricultural and Biological Engineering Department

College of Agricultural and Life Sciences

Chair: Dorota Z. Haman
Graduate Coordinator: Greg Kiker

The degrees of Master of Science and Doctor of Philosophy are offered with graduate programs in agricultural and biological engineering in the areas of agricultural operations management and applied sciences through the College of Agricultural and Life Sciences. Requirements for these degrees are given in the Graduate Degrees section of this catalog.

The Master of Science and Doctor of Philosophy in the agricultural operations management area of specialization provide for scientific training and research in technical agricultural management. Typical plans of study focus on advanced training in environmental systems management, production systems management, construction and process management and technical sales management.

For students with basic science degrees, the Master of Science and Doctor of Philosophy programs with a specialization in applied sciences through the College of Agricultural and Life Sciences provides advanced training in problem-solving capabilities, interdisciplinary research, and methods for applying science to real-world problems and issues. Typical emphasis is on (1) the use of engineering methods and approaches, such as mathematical modeling, optimization, and information technologies, in application of science to problems of various spatial and temporal scales; and (2) an interdisciplinary experience in research at the doctoral level.

The requirements for a master's degree normally take 2 years to complete. The length of time required for the Doctor of Philosophy degree depends partly on the research topic, but normally takes 3 to 4 years.

For more information about the program, please visit the program link below and the graduate studies pages on the departmental website at http://www.abe.ufl.edu.

Agricultural and Biological Engineering (CALS)

College of Agricultural and Life Sciences
Agricultural and Biological Engineering Department

Agricultural and Biological Engineering Program

The degrees of Master of Science, Master of Engineering, and Doctor of Philosophy are offered with graduate programs in agricultural and biological engineering through the College of Engineering. Students must have an undergraduate or graduate degree in Engineering or meet specific articulation requirements in order to pursue an advanced degree in engineering.

For students without an engineering degree, The Master of Science and Doctor of Philosophy degrees in agricultural and biological engineering are offered in the areas of agricultural operations management and applied science through the College of Agricultural and Life Sciences. Students must have a degree in a related field or meet specific articulation requirements.

Requirements for these degrees are given in the Graduate Degrees section of this catalog.

A combined B.S./M.S. or B.S./M.E. for Engineering students program allows up to 12 graduate credits to be double-counted toward fulfillment of both degrees. Contact the graduate coordinator for qualifications and details. A 30-credit, nonthesis master's degree program is also available to students interested in completing the requirements in 1 year.

The **Master of Science, Master of Engineering, and Doctor of Philosophy** (Engineering) degrees are offered in the following areas of research:

Agricultural production engineering includes development and application of precision agriculture concepts and tools, weather and climate risk in agriculture, decision support systems, food security, pesticide application, post-harvest operations robotics and other machine systems and environmental control systems. Applications to space biology are included in cooperation with NASA at Kennedy Space Center.

Biological engineering includes includes biocomplexity analysis, ecological modeling, risk and decision analysis, bioprocess design, plant biotechnology, process microbiology, food process engineering, environmental biotechnology, bioreactors, and packaging science.

Information systems includes development and application of GIS and remote sensing, communications, mathematical modeling, data solutions, and expert systems techniques to biological and agricultural systems.

Land and water resources includes soil-water-plant relations, irrigation, water quality, watershed hydrology, BMP and TMDL studies, hydrologic modeling, ecological restoration, environmental fate and transport of nanoparticles, waste management, and water reuse.

Students also may choose to participate in interdisciplinary concentrations in hydrologic sciences, geographic information sciences, particle science and technology, and interdisciplinary ecology.

The **Master of Science and Doctor of Philosophy** (CALS) in the **agricultural operations management** area of specialization provide for scientific training and research in technical agricultural management. Typical plans of study focus on advanced training in environmental systems management, production systems management, construction and process management and technical sales management.

In addition, for students with basic science degrees, the Master of Science and Doctor of Philosophy programs with a specialization in **applied sciences** through the College of Agricultural and Life Sciences provides advanced training in problem-solving capabilities, interdisciplinary research, and methods for applying science to real-world problems and

issues. Typical emphasis is on (1) the use of engineering methods and approaches, such as mathematical modeling, optimization, and information technologies, in application of science to problems of various spatial and temporal scales; and (2) an interdisciplinary experience in research at the doctoral level.

The requirements for a master's degree normally take 2 years to complete. The length of time required for the Doctor of Philosophy degree depends partly on the research topic, but normally takes 3 to 4 years.

Additional information can also be found on the graduate studies pages on the department website at www.abe.ufl.edu.

Degrees Offered with a Major in Agricultural and Biological Engineering

Doctor of Philosophy

without a concentration
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Wetland Sciences

Master of Science

without a concentration
concentration in Agroecology
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Wetland Sciences

Agricultural and Biological Engineering Courses

- ABE 5015: Empirical Models of Crop Growth and Yield Response
- ABE 5038: Recent Developments and Applications in Biosensors
- ABE 5152: Electro-Hydraulic Circuits and Controls
- ABE 5332: Advanced Agricultural Structures
- ABE 5442: Advanced Agricultural Process Engineering
- ABE 5643C: Biological Systems Modeling
- ABE 5646: Biological and Agricultural Systems Simulation
- ABE 5653: Rheology and Mechanics of Agricultural and Biological Materials
- ABE 5663: Advanced Applied Microbial Biotechnology
- ABE 5707C: Agricultural Waste Management
- ABE 5815C: Food and Bioprocess Engineering Design
- ABE 5936: Writing Grant Proposals for Scholarships and Fellowships
- ABE 6005: Applied Control for Automation and Robots
- ABE 6031: Instrumentation in Agricultural Engineering Research
- ABE 6035: Advanced Remote Sensing: Science and Sensors
- ABE 6037C: Remote Sensing in Hydrology
- ABE 6252: Advanced Soil and Water Management Engineering
- ABE 6254: Simulation of Agricultural Watershed Systems
- ABE 6265: Vadose Zone Modeling
- ABE 6266: Nanotechnology in Water Research
- ABE 6615: Advanced Heat and Mass Transfer in Biological Systems
- ABE 6644: Agricultural Decision Systems
- ABE 6645C: Computer Simulation of Crop Growth and Management Responses
- ABE 6654C: Advanced Bio-Based Products from Renewable Resources
- ABE 6816: Food and Bioprocess Sterilization

- ABE 6905: Individual Work in Agricultural and Biological Engineering
- ABE 6910: Supervised Research
- ABE 6931: Seminar
- ABE 6933: Special Topics in Agricultural and Biological Engineering
- ABE 6940: Supervised Teaching
- ABE 6971: Research for Master's Thesis
- ABE 6972: Research for Engineer's Thesis
- ABE 6974: Nonthesis Project
- ABE 6986: Applied Mathematics in Engineering and Agriculture
- ABE 7979: Advanced Research
- ABE 7980: Research for Doctoral Dissertation
- AGG 5607: Communicating in Academia
- AOM 5334C: Agricultural Chemical Application Technology
- AOM 5431: GIS and Remote Sensing in Agriculture and Natural Resources
- AOM 5435: Advanced Precision Agriculture
- AOM 6735: Irrigation Principles and Management
- AOM 6736: Principles and Issues in Environmental Hydrology
- AOM 6905: Individual Work in Agricultural Operations Management
- AOM 6932: Special Topics in Agricultural Operations Management
- CWR 6536: Stochastic Subsurface Hydrology
- PKG 5003: Advanced Distribution and Transport Packaging
- PKG 5006: Advanced Packaging Principles
- PKG 5105: Advanced Consumer Products Packaging
- PKG 5206C: Advanced Package Decoration
- PKG 5256C: Advanced Analytical Packaging Methods
- PKG 6100: Advanced Computer Tools for Packaging
- PKG 6905: Individual Work in Packaging
- PKG 6932: Special Topics in Packaging Sciences

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Agricultural Education and Communication Department

Chair: B. E. Myers
Graduate Coordinator: G.D. Israel

The Department of Agricultural Education and Communication offers the degrees of Master of Science and Doctor of Philosophy. Graduate students who obtain a degree in Agricultural Education and Communication will focus their study in one of four areas of specialization. The areas of specialization are agricultural communication, agricultural education, extension education, and leadership development. These degree programs are individually tailored to meet the student's unique needs for professional development. The requirements for each degree are described in the Graduate Degrees section of the University of Florida Graduate Catalog. More information about our program can be found by following the link below.

Agricultural Education and Communication

College of Agricultural and Life Sciences
Agricultural Education and Communication Department

Agricultural Education and Communication Program

The Master of Science program is designed to prepare graduates for domestic and international teaching, research, extension, administrative and leadership positions in both the public and private sectors. Courses are taught in an agricultural and natural resources context and are broadly applicable in educational, business, government, and agency settings. The Master of Science program is delivered on-campus and online via the AEC e-Learning Institute (eLI). The Doctor of Philosophy degree program is primarily designed to prepare graduates for academic positions in teaching, research, and extension within the realm of Agricultural Education and Communication. In addition, graduates may obtain positions in administration, human resource management, or training and development.

The **Agricultural Communication** specialization prepares students for professional communication careers in or dealing with agriculture and agribusiness. It is intended primarily for students who enter with a bachelor's degree in journalism, agricultural communication/journalism, advertising, broadcasting, public relations, or related fields. Graduates of this option are employed in: (1) communication or management positions with the numerous commodity or special-interest associations in agriculture and related fields; (2) communication support positions in agricultural extension and research information departments of land-grant universities, agencies of USDA, state Departments of Agriculture, and agricultural development projects overseas; (3) advertising and public relations positions with agribusiness firms or commodity associations; and (4) media positions involved in reporting on agriculture, agribusiness, and natural resource issues. Students in Agricultural Communication also develop strong skills/application in media writing, production, campaign strategies and/or Web design/desktop publishing. Graduates become prepared for positions in both public and private sectors in both industry and educational settings.

The **Agricultural Education** specialization is designed to enhance the careers of those employed in the educational professions in agriculture and natural resources. Regardless if one is employed in public school teaching, community college instruction, or training and development in agribusiness, students gain valuable knowledge and experience in designing, implementing, and evaluating educational programs. In addition, graduates of the program command added depth in the understanding of the teaching and learning process. This specialization may be designed to allow students to complete the requirements of teacher certification while completing their master's degree program. The PhD is a research-oriented degree that has a primary focus of preparing candidates to assume faculty positions in colleges or university teacher education programs. Candidates develop an individual program of study that provides a comprehensive knowledge of teaching and learning processes. The degree also seeks to extend the candidate's development by providing instruction, research opportunities, and experiences that enhance the depth and breadth of the candidate's prior learning opportunities.

The **Extension Education** specialization is designed to prepare students for careers in the Cooperative Extension service, outreach education, and/ or other international agencies. Through coursework and research, students will gain valuable knowledge and experience in designing, implementing, and evaluating educational programs. Extension graduate students choose between a domestic or international focus in regards to coursework and/or research. In addition, graduates of the program command tremendous depth of the teaching and learning process. Candidates who select the **Extension Education** specialization develop an individual program of study that focuses on such topics as program development, experiential education, the change process, educational technologies and extension, program evaluation and organizational accountability, administration and leadership, and international extension. Graduates become prepared for a variety of positions including extension specialists, county and district extension directors, outreach education coordinators for private and public agencies, 4-H Extension agents and specialists, and educator specialists with international agencies.

The **Leadership Development** specialization is designed to prepare students for educational leadership, training, and outreach positions in agricultural, extension, community and governmental agencies. Course work in the major will focus on a core of agricultural courses along with emphasis in designing educational/training programs, professional presentation enhancement, leadership development, teaching/training methods, and interpersonal communication. Candidates who select the **Leadership Development** specialization develop an individual program that focuses on leadership theory and measurement, critical and creative thinking, and leadership in cross-cultural settings. Students will encompass a strong research and theory-based program with a strong knowledge of training and development, and human resource management. Graduates become prepared for positions in both public and private sectors in both industry and educational settings.

Degrees Offered with a Major in Agricultural Education and Communication

Doctor of Philosophy

without a concentration
concentration in Tropical Conservation and Development

Master of Science

without a concentration
concentration in Tropical Conservation and Development

Agricultural Education and Communication Courses

- AEC 5032: Agricultural Media Writing
- AEC 5037: Agricultural Media Production
- AEC 5060: Public Opinion and Agricultural and Natural Resource Issues
- AEC 5074: Agriculture, Resources, People, and the Environment: A Global Perspective
- AEC 5201: Teaching in Colleges of Agricultural and Life Sciences
- AEC 5203: Advanced Teaching in Colleges of Agricultural and Life Sciences
- AEC 5206: Teaching Methods in Agricultural Education
- AEC 5227: Teaching in Agricultural Education Laboratory Facilities
- AEC 5302: Professional Skill Development in Agriscience Education I
- AEC 5324: Philosophy and Development of Agricultural Education
- AEC 5440: Interpersonal Leadership in Agricultural and Life Sciences
- AEC 5454: Leadership Development for Extension and Community Nonprofit Organizations
- AEC 5501: Professional Skill Development in Agriscience Education II
- AEC 5541: Communication and Instructional Technologies in Agricultural and Life Sciences
- AEC 5544: Curriculum Development and Assessment Techniques in Emerging Agricultural Technologies
- AEC 5545: Special Methods in Teaching Agriculture
- AEC 5546: Program Planning in Agricultural Education

- AEC 6205: Advanced Curriculum and Teaching Methods
- AEC 6210: Designing Educational Programs in Agricultural Settings
- AEC 6211: Delivering Educational Programs in Agricultural Settings
- AEC 6212: Teacher Education in Agriculture
- AEC 6229: Laboratory Instruction: Theory and Practice
- AEC 6300: Methodology of Planned Change
- AEC 6316: From America to Zimbabwe: An Overview of International Extension Systems
- AEC 6321: The Land Grant University and University Governance
- AEC 6325: History and Philosophy of Agricultural Education
- AEC 6411: Organizational Leadership in Agriculture and Life Sciences
- AEC 6419: Communication and Competencies for Global Leadership
- AEC 6426: Development of a Volunteer Leadership Program
- AEC 6512: Program Development in Extension Education
- AEC 6540: Agricultural and Natural Resources Communications Theory and Strategies
- AEC 6543: Teaching and Learning Theory: Applications in Agricultural Education
- AEC 6552: Evaluating Programs in Extension Education
- AEC 6611: Agricultural and Extension Adult Education
- AEC 6704: Extension Administration and Supervision
- AEC 6767: Research Strategies in Agricultural Education and Communication
- AEC 6905: Problems in Agricultural and Extension Education
- AEC 6910: Supervised Research
- AEC 6912: Nonthesis Research in Agricultural and Extension Education
- AEC 6932: Special Topics In Agricultural Education and Communication
- AEC 6933: Seminar in Agricultural Education and Communication
- AEC 6940: Supervised Teaching
- AEC 6945: Practicum in Agricultural Education and Communication
- AEC 6947: Experiential Learning in Agricultural Education
- AEC 6971: Research for Master's Thesis
- AEC 7979: Advanced Research
- AEC 7980: Research for Doctoral Dissertation
- AEC 5416: Critical and Creative Thinking in Problem Solving and Decision Making

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations

- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Agronomy Department

Chair: R. A. Gilbert
Graduate Coordinator: L. E. Sollenberger

The Agronomy Department offers the degrees of Doctor of Philosophy and Master of Science (thesis and non-thesis options) in agronomy with specializations in plant physiology, ecology, management and nutrition, weed science (terrestrial and aquatic), and plant breeding and genetics. Requirements for these degrees are given in the *Graduate Degrees* section of this catalog.

Graduate programs emphasize the development and subsequent application of basic principles in each specialization to the management of agricultural and natural ecosystems in Florida and throughout the world. The continuing need for increased plant production for food, fiber and energy to meet the demands of a rapidly escalating population is reflected in departmental research programs. When compatible with a student's program and permitted by prevailing circumstances, some thesis and dissertation research may be conducted wholly or in part in other countries.

Students seeking a graduate program in the Agronomy Department should hold a Bachelor of Science degree from an accredited college or university with a major in an area of plant science, or closely related discipline. A science background with basic courses in biology, botany, mathematics, chemistry, and physics is required of new graduate students.

For more information, please see https://agronomy.ifas.ufl.edu/.

Agronomy

College of Agricultural and Life Sciences
Agronomy Department

Agronomy Program Information

The Agronomy Department offers the degrees of Doctor of Philosophy and Master of Science (thesis and non-thesis option) in agronomy with specializations in plant physiology, ecology, management and nutrition, weed science (terrestrial and aquatic), and plant breeding and genetics. Requirements for these degrees are given in the Graduate Degrees section of this catalog.

Graduate programs emphasize the development and subsequent application of basic principles in each specialization to the management of plants in Florida and throughout the world. The continuing need for increased plant production for food, fiber and energy to meet the demands of a rapidly escalating population is reflected in departmental research programs. When compatible with a student's program and permitted by prevailing circumstances, some thesis and dissertation research may be conducted wholly or in part in other countries.

Students seeking a graduate program in the Agronomy Department should hold a Bachelor of Science degree from an accredited college or university with a major in an area of plant science, or closely related discipline. A science background with basic courses in biology, botany, mathematics, chemistry, and physics is required of new graduate students.

Degrees Offered with a Major in Agronomy

Doctor of Philosophy
without a concentration

concentration in Global Systems Agroecology
concentration in Toxicology
concentration in Tropical Conservation and Development

Master of Science

without a concentration
concentration in Agroecology
concentration in Geographic Information Systems
concentration in Tropical Conservation and Development

Agronomy Departmental Courses

- AGR 5215C: Integrated Field Crop Science
- AGR 5230C: Florida Grassland Agroecosystems
- AGR 5266C: Field Plot Techniques
- AGR 5277C: Tropical Crop Production
- AGR 5307: Molecular Genetics for Crop Improvement
- AGR 5321C: Genetic Improvement of Plants
- AGR 5444: Ecophysiology of Crop Production
- AGR 5511: Crop Ecology
- AGR 6233: Tropical Grassland Agroecosystems
- AGR 6237C: Research Techniques in Forage Evaluation
- AGR 6322: Advanced Plant Breeding
- AGR 6325L: Plant Breeding Techniques
- AGR 6353: Cytogenetics
- AGR 6422C: Environmental Crop Nutrition
- AGR 6442C: Physiology of Agronomic Plants
- AGR 6905: Agronomic Problems
- AGR 6932: Topics in Agronomy
- AGR 6933: Graduate Agronomy Seminar
- AGR 6940: Supervised Teaching
- AGR 6971: Research for Master's Thesis
- AGR 7979: Advanced Research
- AGR 7980: Research for Doctoral Dissertation
- ALS 5155: Global Agroecosystems
- ALS 6031: Project Team Research: Building Skills in Agrobiology
- IPM 5305: Principles of Pesticides
- PLS 5632C: Integrated Weed Management
- PLS 5652: Advanced Weed Science
- PLS 6623: Weed Ecology
- PLS 6626: Invasive Plant Ecology
- PLS 6655: Plant/Herbicide Interaction

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing

- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Animal Molecular and Cellular Biology Department

Director: P.J. Hansen
For more information about the program, contact P.J. Hansen at pjhansen@ufl.edu, follow the link below to our catalog page, or visit the program's website at http://www.animal.ufl.edu/amcb/.

Animal Molecular and Cellular Biology

- College of Agricultural and Life Sciences
- College of Liberal Arts and Sciences
- College of Veterinary Medicine
- Animal Molecular and Cellular Biology Department

Animal Molecular and Cellular Biology Program

The animal molecular and cell biology (AMCB) graduate program offers Master of Science and Doctor of Philosophy degrees. Faculty are drawn from these disciplines:

- Animal Sciences
- Biochemistry and Molecular Biology
- Large Animal Clinical Sciences
- Obstetrics and Gynecology
- Zoology

Early in the program, students choose a faculty supervisor who will ensure the quality of their research experience. Students may also do optional rotations through the laboratories of one or more other faculty. The Annual Research Symposium features guest speakers and student research presentations. A weekly journal club and monthly seminars draw on the knowledge and diversity the campus offers in molecular and cell biology.

Core course requirements for the M.S. degree are BCH 5045, registration in a 1-credit graduate seminar course and successful completion of a course on responsible and ethical conduct of research. Core course requirements for the Ph.D. include BCH 5413 and GMS 6421, registration in two graduate seminar courses and successful completion of a course on responsible and ethical conduct of research.

Contact P.J. Hansen at pjhansen@ufl.edu or visit the program's website at http://www.animal.ufl.edu/amcb/.

Degrees Offered with a Major in Animal Molecular and Cellular Biology

Doctor of Philosophy

Master of Science

Animal Molecular and Cellular Biology Courses

- ABE 6933: Special Topics in Agricultural and Biological Engineering
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ANS 5446: Animal Nutrition
- ANS 5935: Reproductive Biology Seminar and Research Studies
- ANS 6288: Experimental Techniques and Analytical Procedures in Meat Research
- ANS 6313: Current Concepts in Reproductive Biology
- ANS 6387: Genetic Analysis of Complex Traits in Livestock
- ANS 6447: Ruminant Nutrition
- ANS 6449: Vitamins
- ANS 6458: Advanced Methods in Nutrition Technology
- ANS 6636: Meat Technology
- ANS 6666L: Molecular and Cellular Research Methods
- ANS 6702: Physiology of the Mammary Gland and Lactation
- ANS 6704: Mammalian Endocrinology
- ANS 6705: Muscle Physiology
- ANS 6707: Growth Physiology in Farm Animals
- ANS 6711: Current Topics in Equine Nutrition and Exercise Physiology
- ANS 6715: Gastrointestinal and Feed Microbiology
- ANS 6716: Physiology in Farm Animals
- ANS 6718: Nutritional Physiology of Domestic Animals
- ANS 6723: Mineral Nutrition and Metabolism
- ANS 6745: Introduction to Statistical Genetics
- ANS 6750: Reproductive Physiology in Farm Animals
- ANS 6751: Physiology of Reproduction
- ANS 6767: Advanced Endocrinology
- ANS 6905: Problems in Animal Science
- ANS 6910: Supervised Research
- ANS 6932: Special Topics in Animal Science
- ANS 6936: Graduate Seminar in Animal Molecular and Cell Biology
- ANS 6939: Animal Molecular and Cellular Biology Journal Colloquy
- ANS 6940: Supervised Teaching
- ANS 6942: Supervised Extension in the Animal Sciences
- ANS 6971: Research for Master's Thesis
- ANS 7979: Advanced Research
- ANS 7980: Research for Doctoral Dissertation
- BCH 5045: Graduate Survey of Biochemistry
- BCH 5413: Mammalian Molecular Biology and Genetics
- BCH 6206: Advanced Metabolism
- BCH 6415: Advanced Molecular and Cell Biology
- BCH 6740: Physical Biochemistry/Structural Biology

- BCH 6876: Recent Advances in Membrane Biology
- BCH 6877: Recent Advances in Structural Biology
- BCH 6878: Recent Advances in Cytoskeletal Processes
- BME 5401: Biomedical Engineering and Physiology I
- GMS 6012: Human Genetics
- GMS 6013: Developmental Genetics
- GMS 6014: Applications of Bioinformatics to Genetics
- GMS 6017C: In-Vitro Fertilization Laboratory Practicum A
- GMS 6018L: Advanced in-Vitro Fertilization Laboratory Practicum
- GMS 6051: Signal Transduction
- GMS 6061: Nuclear Structure and Dynamics
- GMS 6062: Protein Trafficking
- GMS 6065: Fundamentals of Cancer Biology
- GMS 6072: Neuroendocrinology and Neuroimmunology
- GMS 6079: Computers in Biology
- GMS 6140: Principles of Immunology
- GMS 6143: Cells of the Innate Immune System
- GMS 6155: DNA Microarray Data Analysis
- GMS 6221: Ethics in Genetics
- GMS 6231: Genomics and Bioinformatics
- GMS 6233: Quantitative Models of Protein Evolution and Phylogenetics
- GMS 6331: Stem Cell Biology
- GMS 6400C: Principles of Physiology
- GMS 6421: Cell Biology
- GMS 6647: Transcriptional and Translational Control of Cell Growth and Proliferation
- GMS 6861: Applied Biostatistics I
- GMS 6862: Applied Biostatistics II
- MCB 5305L: Microbial Genetics and Biotechnology Laboratory
- MCB 6485: Advanced Techniques in Microbiology and Cell Science
- PCB 5065: Advanced Genetics
- PCB 5235: Immunology
- PCB 5615: Molecular Evolution and Systematics
- PCB 6816: Thermal Physiology
- PHA 6449: Pharmacogenomics
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- VME 5244: Physiology: Organ Systems
- VME 6464: Molecular Pathogenesis
- VME 6602: General Toxicology
- VME 6650: Principles of Mammalian Pharmacology
- VME 6767: Issues in the Responsible Conduct of Research

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory

- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Animal Sciences Department

Chair: Geoffrey E. Dahl
Graduate Coordinator: Raluca Mateescu

Animal Sciences is an academic department of the College of Agriculture and Life Sciences (CALS), a unit of the Institute of Food and Agricultural Sciences (IFAS). Creating new solutions to tomorrow's problems underlies everything we do in the Animal Sciences Program. In the areas of teaching, research, and extension, our faculty integrate the most modern technologies available with personal expertise and attention to the needs of students and our industry. For more information about the Animal Sciences program, contact Raluca Mateescu at raluca@ufl.edu, follow the link below to our program page, or visit the program's website at http://animal.ifas.ufl.edu/students/graduate/index.shtml.

Animal Sciences

College of Agricultural and Life Sciences
Animal Sciences Department

Animal Sciences Program

The Department of Animal Sciences offers the degrees of Master of Science (thesis and non-thesis) and Doctor of Philosophy in Animal Sciences with emphasis in beef or dairy cattle, swine, or equine. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

The following specializations are available:

- Breeding, genetics and genomics
- Behavior
- Management
- Immunology
- Nutrition (nutritional physiology, nutrient metabolism, and feedstuff utilization)
- Physiology (environmental, lactational, muscle and reproductive)
- Molecular biology (embryology, endocrinology, and genetics)
- Meat science (meat processing, meat quality, muscle biology, and food safety)

A student may work on a problem covering more than one area of study. Animal resources (beef cattle, dairy cattle, horses, swine, sheep, and laboratory animals) are available for use in various research programs. Nutrition, physiology, immunology and meats laboratories are available for detailed chemical and carcass quality evaluations, and excellent computer facilities are available. Special arrangements may be made to conduct research at the various branch agricultural experiment stations throughout Florida.

Departmental and program prerequisites for admission to graduate study include a sound science background, with basic courses in microbiology, biology, mathematics, and chemistry. All courses in the animal sciences program area are acceptable for graduate credit as part of the candidate's major.

The Graduate School restricts graduate students from pursuing minors in academic units that contribute major credit toward their degree program. Therefore, graduate students majoring in Animal Sciences cannot pursue a minor in Food and Resource Economics, Food Science and Human Nutrition, Medicine-Biochemistry, and Veterinary Medical Sciences. In addition, undergraduate credits at the 3000–4000 level in the major of any of these listed academic units are not eligible to count toward degree requirements.

Combined programs: Qualified students are encouraged to apply to the combined degree program. Acceptance into the program will allow both a bachelor's degree and master's degree with a savings of 1 semester.

Degrees Offered with a Major in Animal Sciences

Doctor of Philosophy
without a concentration
concentration in Animal Molecular and Cellular Biology
Master of Science
without a concentration

Animal Sciences Departmental Courses

- ANS 6312C: Applied Ruminant Reproductive Management
- ANS 5446: Animal Nutrition
- ANS 5935: Reproductive Biology Seminar and Research Studies
- ANS 6040: Concepts in Applied Ethology
- ANS 6288: Experimental Techniques and Analytical Procedures in Meat Research
- ANS 6313: Current Concepts in Reproductive Biology
- ANS 6314: Experimental Embryology
- ANS 6387: Genetic Analysis of Complex Traits in Livestock
- ANS 6447: Ruminant Nutrition
- ANS 6449: Vitamins
- ANS 6452: Principles of Forage Quality Evaluation
- ANS 6458: Advanced Methods in Nutrition Technology
- ANS 6636: Meat Technology
- ANS 6637: Quantitative Microbial Risk Assessment of Pathogens in Food Systems
- ANS 6702: Physiology of the Mammary Gland and Lactation
- ANS 6704: Mammalian Endocrinology
- ANS 6705: Muscle Physiology
- ANS 6707: Growth Physiology in Farm Animals
- ANS 6711: Current Topics in Equine Nutrition and Exercise Physiology
- ANS 6714: Current Topics in Microbial Physiology in Animals

- ANS 6715: Gastrointestinal and Feed Microbiology
- ANS 6716: Physiology in Farm Animals
- ANS 6718: Nutritional Physiology of Domestic Animals
- ANS 6723: Mineral Nutrition and Metabolism
- ANS 6750: Reproductive Physiology in Farm Animals
- ANS 6751: Physiology of Reproduction
- ANS 6767: Advanced Endocrinology
- ANS 6775: Essentials of Livestock Immunology
- ANS 6905: Problems in Animal Science
- ANS 6910: Supervised Research
- ANS 6932: Special Topics in Animal Science
- ANS 6933: Graduate Seminar in Animal Science
- ANS 6936: Graduate Seminar in Animal Molecular and Cell Biology
- ANS 6939: Animal Molecular and Cellular Biology Journal Colloquy
- ANS 6940: Supervised Teaching
- ANS 6942: Supervised Extension in the Animal Sciences
- ANS 6971: Research for Master's Thesis
- ANS 7979: Advanced Research
- ANS 7980: Research for Doctoral Dissertation
- PCB 6816: Thermal Physiology

Additional Courses for Major Credit in Animal Sciences

- AEB 5326: Agribusiness Financial Management
- AEB 6385: Management Strategies for Agribusiness Firms
- AEB 7182: Agricultural Risk Analysis and Decision Making
- FOS 5205: Current Issues in Food Safety and Sanitation
- FOS 5225C: Principles in Food Microbiology
- FOS 5437C: Food Product Development
- FOS 5732: Current Issues in Food Regulations
- FOS 5126C: Psychophysical Aspects of Foods
- FOS 6226C: Advanced Food Microbiology
- FOS 6315C: Advanced Food Chemistry
- FOS 6317C: Flavor Chemistry and Technology
- FOS 6355C: Instrumental Analysis and Separations
- FOS 6428C: Advanced Food Processing
- FOS 6455C: Industrial Food Fermentations
- HUN 5447: Nutrition and Immunity
- HUN 6245: Advanced Human Nutrition
- HUN 6301: Nutritional Aspects of Lipid Metabolism
- HUN 6305: Nutritional Aspects of Carbohydrates
- HUN 6321: Proteins and Amino Acids in Nutrition
- VME 5162C: Avian Diseases
- VME 5244: Physiology: Organ Systems

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Entomology and Nematology Department

College of Agricultural and Life Sciences

Chair: Blair Siegfried
Graduate Coordinator: Heather J. McAuslane

The Entomology and Nematology Department offers the Master of Science (thesis and nonthesis options) and Doctor of Philosophy degrees in entomology and nematology. Minimum requirements for the M.S. and Ph.D. degrees are described in the Graduate Degrees section of this catalog.

The Department also offers a cooperative Doctor of Philosophy degree with Florida A&M University and distance education courses leading to the Master of Science degree with specializations in basic entomology, medical entomology, urban pest management, and landscape pest management. Members of the Graduate Faculty include the department resident faculty, faculty located on University of Florida campuses away from Gainesville, scientists with other State of Florida agencies such as the Division of Plant Industry and Florida Department of Agriculture and Consumer Services, and scientists of the U.S. Department of Agriculture. The Graduate Faculty is qualified to direct graduate students in all specialties of entomology and nematology.

New graduate students should have backgrounds in biology, chemistry, physics, and mathematics. Minor deficiencies may be made up after entering graduate school.

The Department offers a combined bachelor's/master's degree program. Contact the graduate coordinator for information.

For more information, please see the program page below, and visit our website: http://entnemdept.ifas.ufl.edu/academics-directory/.

Entomology and Nematology

College of Agricultural and Life Sciences
Entomology and Nematology Department

Entomology and Nematology Program Information

The Entomology and Nematology department offers research-based M.S. (thesis) and PhD degrees in entomology and in nematology. Our large faculty in Gainesville and at Research and Education Centers around the state allow for study in many important areas. Insect and nematode pests cause significant losses to agricultural and horticultural crops and livestock, and are important vectors of pathogens that cause diseases in plants, livestock and humans. Urban pests can affect quality of life and cause significant loss to property. However, these organisms also provide important services through decomposition, pollination of fruits and vegetables, and as natural enemies of other pest species. Our department is uniquely positioned to address these fundamental and applied biological questions because of our strong interdisciplinary research and education programs, from molecular to whole organism and population ecology studies.

In addition to our research based degree programs, the M.S. degree can be taken in a non-thesis format, in Gainesville or entirely online, with a specialization in either entomology or pest management (with foci on pests of medical, urban or landscape importance). Online M.S. degrees are designed to accommodate place-bound students interested in biological science with emphasis on insects and other arthropods, including extension faculty and other educators; state and federal employees in agricultural, environmental and regulatory positions; consultants; pest control industry personnel; and others who want to further their education.

Certificates, comprising 15 credit hours of specific coursework, are available online or to residential students with concentrations in urban pest management, landscape pest management or medical entomology. These certificates document specialization and proficiency in sub-disciplines within entomology for enrolled graduate students and provide evidence of expertise for non-degree seeking students.

Students entering graduate programs in entomology and nematology should have a strong science background, including biology, chemistry, and algebra. Physics and statistics are recommended. Admissions criteria can be found on the Graduate School's Admission page.

Degrees Offered with a Major in Entomology and Nematology

Doctor of Philosophy
Master of Science
concentration in Agroecology

Entomology and Nematology Departmental Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6935: Topics in Biological Invasions
- ENY 5006: Graduate Survey of Entomology
- ENY 5006L: Graduate Survey of Entomology Laboratory
- ENY 5031C: Insect Field Biology
- ENY 5151C: Techniques in Insect Systematics
- ENY 5160C: Survey of Science with Insects
- ENY 5164: Graduate Survey of Invertebrate Field Biology
- ENY 5212: Insects and Wildlife
- ENY 5223C: Biology and Identification of Urban Pests
- ENY 5226C: Principles of Urban Pest Management
- ENY 5332: Graduate Survey of Urban Vertebrate Pest Management
- ENY 5236: Insect Pest and Vector Management
- ENY 5241: Biological Control
- ENY 5245: Agricultural Acarology
- ENY 5405: Insects as Vectors of Plant Pathogens
- ENY 5516: Turf and Ornamental Entomology
- ENY 5566: Tropical Entomology
- ENY 5567: Tropical Entomology Field Laboratory
- ENY 5572: Advanced Apiculture
- ENY 5611: Immature Insects
- ENY 5820: Insect Molecular Genetics
- ENY 6166: Insect Classification
- ENY 6203: Insect Ecology
- ENY 6203L: Insect Ecology Laboratory
- ENY 6206: Ecology of Vector-Borne Disease
- ENY 6248: Termite Biology and Control
- ENY 6401: Insect Physiology
- ENY 6401L: Insect Physiology Laboratory
- ENY 6454: Behavioral Ecology and Systematics of Insects
- ENY 6591C: Advanced Mosquito Identification

- ENY 6593: Advanced Mosquito Biology
- ENY 6651C: Insect Toxicology
- ENY 6665: Advanced Medical and Veterinary Entomology I
- ENY 6665L: Advanced Medical and Veterinary Entomology Laboratory
- ENY 6706: Forensic Entomology
- ENY 6821: Insect Microbiology
- ENY 6822C: Molecular Biology Techniques with Invertebrates and Their Pathogens
- ENY 6905: Problems in Entomology
- ENY 6910: Supervised Research
- ENY 6931: Entomology Seminar
- ENY 6932: Special Topics in Entomology
- ENY 6934: Selected Studies in Entomology
- ENY 6940: Supervised Teaching
- ENY 6942: Insect Diagnostics
- ENY 6943: Entomology Internship
- ENY 6944: Entomology Extension Internship
- ENY 6971: Research for Master's Thesis
- ENY 7979: Advanced Research
- ENY 7980: Research for Doctoral Dissertation
- NEM 5004C: Graduate Survey of Nematology
- NEM 5707C: Plant Nematology
- NEM 6101C: Nematode Morphology and Anatomy
- NEM 6102: Nematode Systematics and Molecular Phylogeny
- NEM 6102L: Nematode Systematics and Molecular Phylogeny Laboratory
- NEM 6103: Insect Parasitic Nematodes
- NEM 6103L: Entomopathogenic Nematodes Laboratory
- NEM 6201: Nematode Ecology
- NEM 6708: Field Plant Nematology
- NEM 6905: Problems in Nematology
- NEM 6931: Nematology Seminar
- NEM 6932: Special Topics in Nematology
- NEM 6934: Selected Studies in Nematology
- NEM 6940: Supervised Teaching
- NEM 6942: Nematode Diagnostics
- NEM 6943: Nematode Internship
- NEM 6944: Nematode Extension Internship
- NEM 6971: Research for Master's Thesis
- NEM 7979: Advanced Research
- NEM 7980: Research for Doctoral Dissertation
- PMA 5205: Citrus Pest Management
- PMA 6228: Field Techniques in Integrated Pest Management

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Plant Medicine

College of Agricultural and Life Sciences
Entomology and Nematology Department

Plant Medicine Program Information

Coordinator: Amanda C. Hodges

Campus Program

The Doctor of Plant Medicine (DPM) program is an intensive doctorate-level graduate level training program for students interested in plant health diagnosis and management. Requirements for the degree can be found in the Graduate Degrees section of this catalog.

DPM students complete rigorous coursework and intensive internships. Only DPM students jointly enrolled in one of our discipline department M.S. programs complete a thesis. DPM students often participate in applied research within laboratory programs, and may participate in the publication of peer-reviewed scientific and extension papers. More information regarding the latest policies for the DPM program is available in the DPM graduate handbook.

The DPM program is a partnership among faculty mentors and teaching faculty within the following primary departments:

- Entomology and Nematology Department
- Department of Plant Pathology
- Agronomy Department
- Horticulture Sciences Department
- Environmental Horticulture Department
- Soil and Water Sciences Department
- Food Science and Human Nutrition Department

Distance Program

The College of Agricultural and Life Sciences offers a distance education program leading to the D.P.M. degree for highly qualified students. The D.P.M. degree is awarded after a 3- to 4-year program of graduate student. Foreign languages are not required. The distance education program leading to a D.P.M. degree is administered by the Entomology and Nematology Department, College of Agricultural and Life Sciences, and the Graduate School.

Admission: Students must meet the following minimum requirements:

Entrance requirements:

- A graduate degree (Master's or Doctoral) with a concentration in plant health science, plant pathology, agronomy, horticulture, environmental horticulture, forestry, entomology, nematology, soil science or a similar field.

- A passing score for the Certified Crop Advisor (CCA) exam administered by the Agronomy Society of America (ASA).

- Completion of at least two years of full-time work in a professional job associated with the Plant Doctor (DPM/H) profession. Examples of professional jobs associated with the Plant Doctor profession include: crop consultant, industry scientist, extension specialist, diagnostician, identifier, survey specialist, plant pest risk analyst, plant health technician, or instructor.

- A minimum score of a 300 on the Graduate Record Examination (GRE). Verbal and quantitative portions of the GRE should be approximately 150 each. Exceptions to the minimum may be considered by the DPM admissions committee.

- International applicants must also have a TOEFL score above 80.

- A graduate (Master's or Doctoral) grade point average of 3.0 or higher.

- A passing score (80% or higher) on the Plant Pathology Written Comprehensive Exam. The exam must be completed in Gainesville, Florida.

Course requirements: Students enter the program with a Master's or Doctoral degree and must earn 60 credits. Transfer of graduate credits from another graduate degree are not allowed for the distance education program. All D.P.M. students must complete two substantial 3-credit internships. Signed approval by a student's Committee and the D.P.M. Director is required prior to registering for substantial internship credits.

Comprehensive examination: Both written and oral comprehensive examinations are required of all D.P.M. students. The written examination has three sections: entomology/nematology, plant pathology, and plant/soil science. Faculty from the appropriate disciplines are appointed by the D.P.M. Program Director and D.P.M. Competency Exam Coordinators to develop and grade the final written examination. Students enrolled in the distance education program must pass the plant pathology written competency area exam prior to admission. The two remaining sections of the written exam may be taken independently throughout the program at the discretion of the supervisory committee and the D.P.M. Director. Students are encouraged to complete the exam prior to the last full year of the D.P.M. program and his/her anticipated semester of graduation. Students should also complete the D.P.M. Competency Area Exams before the completion of a substantial internship. After a student passes all three sections of the final written examination (80% or higher is considered a passing grade), the supervisory committee administers an oral examination that tests the student's ability to diagnose and manage plant health problems. A student who fails to pass a comprehensive examination may retake an exam once with the recommendation of his/her supervisory committee.

For more information, please see the DPM website: http://dpm.ifas.ufl.edu.

Degrees Offered with a Major in Plant Medicine

Doctor of Plant Medicine

without a concentration
concentration in Tropical Conservation and Development

Agronomy Departmental Courses

- AGR 5215C: Integrated Field Crop Science
- AGR 5230C: Florida Grassland Agroecosystems
- AGR 5266C: Field Plot Techniques
- AGR 5277C: Tropical Crop Production
- AGR 5307: Molecular Genetics for Crop Improvement
- AGR 5321C: Genetic Improvement of Plants
- AGR 5444: Ecophysiology of Crop Production
- AGR 5511: Crop Ecology
- AGR 6233: Tropical Grassland Agroecosystems
- AGR 6237C: Research Techniques in Forage Evaluation
- AGR 6322: Advanced Plant Breeding
- AGR 6325L: Plant Breeding Techniques
- AGR 6353: Cytogenetics
- AGR 6422C: Environmental Crop Nutrition
- AGR 6442C: Physiology of Agronomic Plants
- AGR 6905: Agronomic Problems
- AGR 6932: Topics in Agronomy
- AGR 6933: Graduate Agronomy Seminar
- AGR 6940: Supervised Teaching
- AGR 6971: Research for Master's Thesis
- AGR 7979: Advanced Research
- AGR 7980: Research for Doctoral Dissertation
- ALS 5155: Global Agroecosystems
- ALS 6031: Project Team Research: Building Skills in Agrobiology
- IPM 5305: Principles of Pesticides
- PLS 5632C: Integrated Weed Management
- PLS 5652: Advanced Weed Science
- PLS 6623: Weed Ecology
- PLS 6626: Invasive Plant Ecology
- PLS 6655: Plant/Herbicide Interaction

Botany Courses

- BOT 5225C: Plant Anatomy
- BOT 5305: Paleobotany
- BOT 5505C: Intermediate Plant Physiology
- BOT 5625: Plant Geography
- BOT 5655C: Physiological Plant Ecology
- BOT 5685C: Tropical Botany
- BOT 5695C: Ecosystems of Florida
- BOT 5725C: Taxonomy of Vascular Plants
- BOT 6508C: Proteomics Theory and Practice
- BOT 6516: Plant Metabolism
- BOT 6566: Plant Growth and Development
- BOT 6656: Plant Symbiosis
- BOT 6716C: Advanced Taxonomy
- BOT 6726C: Principles of Systematic Biology
- BOT 6905: Individual Studies in Botany
- BOT 6910: Supervised Research
- BOT 6927: Advances in Botany
- BOT 6935: Special Topics
- BOT 6936: Graduate Student Seminar
- BOT 6940: Supervised Teaching
- BOT 6943: Internship in College Teaching
- BOT 6971: Research for Master's Thesis
- BOT 7979: Advanced Research
- BOT 7980: Research for Doctoral Dissertation
- PCB 5046C: Advanced Ecology
- PCB 5338: Principles of Ecosystem Ecology
- PCB 5356: Tropical Ecology
- PCB 6675C: Evolutionary Biogeography
- PLP 6656C: Fungal Biology

Entomology and Nematology Departmental Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6935: Topics in Biological Invasions
- ENY 5006: Graduate Survey of Entomology
- ENY 5006L: Graduate Survey of Entomology Laboratory
- ENY 5031C: Insect Field Biology
- ENY 5151C: Techniques in Insect Systematics
- ENY 5160C: Survey of Science with Insects
- ENY 5164: Graduate Survey of Invertebrate Field Biology
- ENY 5212: Insects and Wildlife
- ENY 5223C: Biology and Identification of Urban Pests

- ENY 5226C: Principles of Urban Pest Management
- ENY 5332: Graduate Survey of Urban Vertebrate Pest Management
- ENY 5236: Insect Pest and Vector Management
- ENY 5241: Biological Control
- ENY 5245: Agricultural Acarology
- ENY 5405: Insects as Vectors of Plant Pathogens
- ENY 5516: Turf and Ornamental Entomology
- ENY 5566: Tropical Entomology
- ENY 5567: Tropical Entomology Field Laboratory
- ENY 5572: Advanced Apiculture
- ENY 5611: Immature Insects
- ENY 5820: Insect Molecular Genetics
- ENY 6166: Insect Classification
- ENY 6203: Insect Ecology
- ENY 6203L: Insect Ecology Laboratory
- ENY 6206: Ecology of Vector-Borne Disease
- ENY 6248: Termite Biology and Control
- ENY 6401: Insect Physiology
- ENY 6401L: Insect Physiology Laboratory
- ENY 6454: Behavioral Ecology and Systematics of Insects
- ENY 6591C: Advanced Mosquito Identification
- ENY 6593: Advanced Mosquito Biology
- ENY 6651C: Insect Toxicology
- ENY 6665: Advanced Medical and Veterinary Entomology I
- ENY 6665L: Advanced Medical and Veterinary Entomology Laboratory
- ENY 6706: Forensic Entomology
- ENY 6821: Insect Microbiology
- ENY 6822C: Molecular Biology Techniques with Invertebrates and Their Pathogens
- ENY 6905: Problems in Entomology
- ENY 6910: Supervised Research
- ENY 6931: Entomology Seminar
- ENY 6932: Special Topics in Entomology
- ENY 6934: Selected Studies in Entomology
- ENY 6940: Supervised Teaching
- ENY 6942: Insect Diagnostics
- ENY 6943: Entomology Internship
- ENY 6944: Entomology Extension Internship
- ENY 6971: Research for Master's Thesis
- ENY 7979: Advanced Research
- ENY 7980: Research for Doctoral Dissertation
- NEM 5004C: Graduate Survey of Nematology
- NEM 5707C: Plant Nematology
- NEM 6101C: Nematode Morphology and Anatomy
- NEM 6102: Nematode Systematics and Molecular Phylogeny
- NEM 6102L: Nematode Systematics and Molecular Phylogeny Laboratory
- NEM 6103: Insect Parasitic Nematodes

- NEM 6103L: Entomopathogenic Nematodes Laboratory
- NEM 6201: Nematode Ecology
- NEM 6708: Field Plant Nematology
- NEM 6905: Problems in Nematology
- NEM 6931: Nematology Seminar
- NEM 6932: Special Topics in Nematology
- NEM 6934: Selected Studies in Nematology
- NEM 6940: Supervised Teaching
- NEM 6942: Nematode Diagnostics
- NEM 6943: Nematode Internship
- NEM 6944: Nematode Extension Internship
- NEM 6971: Research for Master's Thesis
- NEM 7979: Advanced Research
- NEM 7980: Research for Doctoral Dissertation
- PMA 5205: Citrus Pest Management
- PMA 6228: Field Techniques in Integrated Pest Management

School of Forest Resources and Conservation Courses

Geomatics Concentration Courses

- GIS 6103: GIS Programming and Customization
- GIS 6116: Geographic Information Systems Analysis
- SUR 5365: Digital Mapping
- SUR 5385: Remote Sensing Applications
- SUR 5386: Image Processing for Remote Sensing
- SUR 5391C: Geomatics: Spatial Foundations of GIS
- SUR 5425: Cadastral Information Systems
- SUR 5525: Least Squares Adjustment Computations
- SUR 6375: Terrain Analysis and Mapping
- SUR 6395: Topics in Geographic Information Systems
- SUR 6427: Land Tenure and Administration
- SUR 6535: GPS-INS Integration
- SUR 6905: Special Problems in Geomatics
- SUR 6934: Topics in Geomatics

Fisheries and Aquatic Sciences Program Courses

- FAS 5015: Aquaculture I
- FAS 5203C: Biology of Fishes
- FAS 5255C: Diseases of Warmwater Fish
- FAS 5276C: Field Ecology of Aquatic Organisms
- FAS 5335C: Applied Fisheries Statistics
- FAS 5407: Biology of Fishery and Aquaculture Invertebrates
- FAS 5901: Scientific Thinking in Ecology
- FAS 6154: Marine Adaptations: Environmental Physiology
- FAS 6165: Fish and Crustacean Nutrition
- FAS 6176: Algae Biology and Ecology

- FAS 6256: Fish and Aquatic Invertebrate Histology
- FAS 6272: Marine Ecological Processes
- FAS 6273: Trophic Ecology of Fishes
- FAS 6337C: Fish Population Dynamics
- FAS 6339C: Advanced Quantitative Fisheries Assessment
- FAS 6355C: Fisheries Management
- FAS 6408: Aquaculture II
- FAS 6416: Spatial Ecology and Modeling of Fish Populations
- FAS 6905: Individual Study
- FAS 6910: Supervised Research
- FAS 6932: Special Topics in Fisheries and Aquatic Sciences
- FAS 6933: Graduate Symposium
- FAS 6935: Contemporary Problems in Fisheries and Aquatic Sciences
- FAS 6940: Supervised Teaching
- FAS 6971: Research for Master's Thesis
- FAS 7979: Advanced Research
- FAS 7980: Research for Doctoral Dissertation

Forest Resources and Conservation Program Courses

- FNR 5072C: Environmental Education Program Development
- FNR 5335: Agroforestry
- FNR 5462: Spatial Models and Decision Analysis
- FNR 5608: Research Planning
- FNR 6061: Conflict and Collaboration in Natural Resources
- FNR 6560: Intro to Bayesian Statistics for Life Sciences
- FNR 6564: Ecohydrology
- FOR 5157: Ecosystem Restoration Principles and Practice
- FOR 5159: Ecology and Restoration of Longleaf Pine Ecosystems
- FOR 5161: Forest Productivity and Health
- FOR 5435: Forest Information Systems
- FNR 6628: Watershed Management and Restoration
- FNR 6669: Policy and Economics of Natural Resources
- FOR 5625: Forest Water Resources Management
- FOR 5756: Non-Timber Forest Products
- FOR 6005: Conservation Behavior
- FOR 6151: Forest Ecosystem Health
- FOR 6154: Analysis of Forest Ecosystems
- FOR 6156: Simulation Analysis of Forest Ecosystems
- FOR 6164: Silviculture: Concepts and Application
- FOR 6170: Tropical Forestry
- FOR 6172C: Tropical Forestry Field Course
- FOR 6215: Fire Paradigms
- FOR 6340: Physiology of Forest Trees
- FOR 6345C: Plant Water Relations Techniques
- FOR 6543: Natural Resource Economics and Valuation
- FOR 6628: Community Forest Management

- FOR 6665: Landscape Planning for Ecotourism
- FOR 6905: Research Problems in Forest Resources and Conservation
- FOR 6910: Supervised Research
- FOR 6933: Seminar
- FOR 6934: Topics in Forest Resources and Conservation
- FOR 6940: Supervised Teaching
- FOR 6971: Research for Master's Thesis
- FOR 7979: Advanced Research
- FOR 7980: Research for Doctoral Dissertation
- PCB 5530: Plant Molecular Biology and Genomics
- PCB 6528: Plant Cell and Developmental Biology
- PCB 6555: Introduction to Quantitative Genetics
- SUR 6377: Geospatial Application of UASs
- SUR 6502C: Foundations of UAS Mapping
- SUR 6940C: Practicum in UAS Mapping

Horticultural Sciences Departmental Courses

- ALS 5934: Graduate Professional Development Seminar
- HOS 5085C: Principles of Postharvest Horticulture
- HOS 5117C: Horticultural Plant Morphology and Identification
- HOS 5242: Genetics & Breeding of Vegetable Crops
- HOS 5306: Molecular Biology of Plant Hormones
- HOS 5330: Postharvest Technologies for Horticultural Crops
- HOS 5432: Advanced Nutritional Management of Ornamental Crops
- HOS 5515C: Greenhouse and Nursery Operations
- HOS 5516C: Advanced Production of Greenhouse and Nursery Crops
- HOS 5555: Tropical Fruit Production and Research in Florida
- HOS 5711: Phytochemicals in Food & Health
- HOS 6070: Plant Materials for Conservation and Restoration
- HOS 6201: Breeding Perennial Cultivars
- HOS 6236: Molecular Marker Assisted Plant Breeding
- HOS 6331: Postharvest Biology
- HOS 6345: Environmental Physiology
- HOS 6412: Nutrition of Horticultural Crops
- HOS 6523: Research and Development in Turfgrass Science
- HOS 6545: Advanced Citriculture I
- HOS 6546: Advanced Citriculture II
- HOS 6905: Problems in Horticultural Science
- HOS 6910: Supervised Research
- HOS 6931: Horticultural Science Seminar
- HOS 6932: Special Topics
- HOS 6940: Supervised Teaching
- HOS 6941: Practicum in Horticultural Science
- HOS 6971: Research for Master's Thesis
- HOS 7979: Advanced Research
- HOS 7980: Research for Doctoral Dissertation

- ORH 5026C: Advanced Annual and Perennial Gardening
- ORH 5086: Advanced Golf and Sports Turf Management
- ORH 5282: Orchid Biology and Culture
- ORH 5817C: Advanced Florida Native Landscaping
- PCB 5065: Advanced Genetics
- PCB 5530: Plant Molecular Biology and Genomics
- PCB 6528: Plant Cell and Developmental Biology
- PLS 5222C: Propagation of Horticultural Crops
- PLS 5241C: Advanced Plant Micropropagation
- PLS 5405: Advanced Composting Technology

Plant Pathology Departmental Courses

- PLP 5005C: General Plant Pathology
- PLP 5102: Theory and Practice of Plant Disease Control
- PLP 5115C: Citrus Pathology
- PLP 5155: Microbiological Control of Plant Diseases and Weeds
- PLP 6105: Applied Plant Disease Management
- PLP 6656C: Fungal Biology
- PLP 6223C: Viral Pathogens of Plants
- PLP 6241C: Bacterial Plant Pathogens
- PLP 6262C: Fungal Plant Pathogens
- PLP 6291: Plant Disease Diagnosis
- PLP 6303: Host-Parasite Interactions II
- PLP 6404: Epidemiology of Plant Disease
- PLP 6502: Host-Parasite Interactions I
- PLP 6621C: Pop Genetics Microbes
- PLP 6636: Frontiers in Plant Biotechnology
- PLP 6905: Problems in Plant Pathology
- PLP 6910: Supervised Research
- PLP 6921: Colloquium in Principles of Plant Pathology
- PLP 6932: Seminar in Plant Pathology
- PLP 6940: Supervised Teaching
- PLP 6942: Professional Internship in Plant Disease Clinic
- PLP 6971: Research for Master's Thesis
- PLP 7946: Plant Pathology Internship
- PLP 7979: Advanced Research
- PLP 7980: Research for Doctoral Dissertation

Soil and Water Sciences Departmental Courses

- AGG 5607: Communicating in Academia
- ALS 5027: Reusable Learning Objects
- ALS 5155: Global Agroecosystems
- AGG 6503: Nanotechnology in Food, Agriculture, and Environment
- CWR 6537: Contaminant Subsurface Hydrology
- SWS 5050: Soils for Environmental Professionals
- SWS 5050L: Soils for Environmental Professionals Laboratory

- SWS 5115: Environmental Nutrient Management
- SWS 5132: Tropical Soil Management
- SWS 5182: Earth System Analysis
- SWS 5208: Sustainable Agricultural and Urban Land Management
- SWS 5224: Environmental Biogeochemistry
- SWS 5234: Environmental Soil, Water, and Land Use
- SWS 5235: South Florida Ecosystems
- SWS 5246: Water Resource Sustainability
- SWS 5247: Hydric Soils
- SWS 5248: Wetlands and Water Quality
- SWS 5305C: Soil Microbial Ecology
- SWS 5308: Ecology of Waterborne Pathogens
- SWS 5406: Soil and Water Chemistry
- SWS 5424C: Soil Chemical Analysis
- SWS 5551: Soils, Water, and Public Health
- SWS 5605C: Environmental Soil Physics
- SWS 5716C: Environmental Pedology
- SWS 5721C: GIS in Land Resource Management
- SWS 5805: Environmental Soil and Water Monitoring Techniques
- SWS 6134: Soil Quality
- SWS 6136: Soil Fertility
- SWS 6161: Bioavailability of Soil Nutrients
- SWS 6209: Urban Soil and Water Systems
- SWS 6262: Soil Contamination and Remediation
- SWS 6323: Advanced Microbial Ecology
- SWS 6366: Biodegradation and Bioremediation
- SWS 6448: Biogeochemistry of Wetlands and Aquatic Systems
- SWS 6454: Advanced Soil and Water Chemistry
- SWS 6456: Advanced Biogeochemistry
- SWS 6464C: Soil Mineralogy
- SWS 6622: Vadose Zone Hydrology
- SWS 6722: Soil-Landscape Modeling
- SWS 6905: Special Problems
- SWS 6910: Supervised Research
- SWS 6920: Journal Colloquium in Environmental Science
- SWS 6931: Seminar
- SWS 6932: Topics in Soils
- SWS 6940: Supervised Teaching
- SWS 6971: Research for Master's Thesis
- SWS 7979: Advanced Research
- SWS 7980: Research for Doctoral Dissertation

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study

- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Family, Youth, and Community Sciences Department

Interim Chair: Tracy Irani
Graduate Coordinator: David C. Diehl

The FYCS graduate program is an interdisciplinary applied social science program that prepares students for advanced degrees (e.g., Ph.D.) and careers in such areas as family and youth services, Extension and community-based education, community development and nonprofit management, program planning and evaluation, and social policy. Graduates find careers in both the public and private sectors including:

- Child and Youth Development in areas such as juvenile justice, dropout prevention programs, recreational and camp programs, and youth ministry;
- Community Development Practice in local and regional government, private nonprofit organizations (such as chambers of commerce, local development corporations, and local, national and international foundations) and citizen's groups;
- Nonprofit Organizational Management, such as management of community based, nonprofit organizations;
- Family and Social Services, such as family preservation programs, assistance for abused and neglected children and other public assistance programs; and
- Cooperative Extension Service in such areas as youth development, family and consumer sciences and community development.

Contact the graduate coordinator for more information or visit http://fycs.ifas.ufl.edu/.

Family, Youth, and Community Sciences

College of Agricultural and Life Sciences
Family, Youth, and Community Sciences Department

Master of Science in Family, Youth and Community Sciences

The **Master of Science** in FYCS seeks to prepare students for careers in human services, youth professions, and community development in public, private, and nonprofit organizations. There are two degree options: thesis and non-thesis project. The thesis option prepares students to conduct independent research needed to develop science-based solutions to problems, issues, and policies that affect families, youth, and communities. Students develop expertise in a subject matter area directly relevant to the problem or need they want to address with the thesis research. The non-

thesis project option provides the student with a broad base of knowledge and skills in the discipline. Projects vary in nature and may include program development and evaluation, improving aspects of organizational/community development, grant writing, or other empirically-based projects.

Students in the Master of Science program have the option to complete one of three concentrations: **Concentration in Nonprofit Organizational Development**. The concentration helps students build a foundation of skills to develop and sustain an effective nonprofit organization, including coursework that examines essential topics like governance, strategic planning, fundraising, risk management, and financial planning. The **Concentration in Family and Youth Development** helps students build the leadership skills needed to effectively develop, implement, and evaluate services and programs affecting youth and families within their communities. The **Concentration in Community Studies** prepares students to serve as leaders and managers for community-based organizations and programs.

Students both inside and outside the major may complete a **Graduate Certificate in Nonprofit Leadership.** This 12-credit certificate covers the core competencies of: governance, strategic planning, fundraising, human resources management, and risk management, as well as other emerging strategies.

An online professional development program in **Personal and Family Financial Planning** is available. The program is registered with the Certified Financial Planner™ Board of Standards to offer courses that cover education requirements for sitting for the CFP examination.

The Family, Youth and Community Sciences Department offers two minors for non-majors. The **Minor in Organizational Leadership for Nonprofits** introduces students to the core management and leadership competencies necessary to work in the nonprofit sector. The **Minor in Family, Youth and Community Sciences** provides students with knowledge about the theories and body of research that explain how families, youth, and communities develop and interact.

Combined program: The Department offers a combined bachelor's/master's degree program, which allows qualified students to earn both a bachelor's degree and a master's degree with a savings of up 12 credits.

Degrees Offered with a Major in Family, Youth, and Community Sciences

Master of Science

without a concentration
concentration in Community Studies
concentration in Family and Youth Development
concentration in Nonprofit Organizational Development

Courses

- FYC 5008: Personal and Family Tax Planning
- FYC 5009: Personal and Family Insurance Planning
- FYC 5106: Personal and Family Retirement and Estate Planning
- FYC 5935: Personal and Family Financial Planning Capstone
- FYC 6020: Principles of Family, Youth, and Community Sciences
- FYC 6111: Families and Violence
- FYC 6117: Military Families in Community Context
- FYC 6131: Ethics for FYCS Practitioners
- FYC 6207: Adolescent Problematic Behavior
- FYC 6221: Grant Proposals for Community-Based Organizations
- FYC 6222: Parenting and Child Relationships
- FYC 6223: Promoting Positive Youth Development
- FYC 6224: Resilience and Positive Youth Development
- FYC 6230: Theories of Family Development, Systems and Change

- FYC 6234: Theoretical Approaches to Youth Development
- FYC 6235: Prevention Science in Youth Development and Family Science
- FYC 6302: Sustainable Community Development
- FYC 6320: Community Development and Civic Engagement
- FYC 6330: Theories of Community Development
- FYC 6421: Nonprofit Organizations
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- FYC 6423: Non-Governmental Organizations
- FYC 6424: Fund Raising for Community Nonprofit Organizations
- FYC 6425: Risk Management in Nonprofit Organizations
- FYC 6620: Program Planning and Evaluation for Human Service Delivery
- FYC 6662: Public Policy and Human Resource Development
- FYC 6800: Scientific Reasoning and Research Design
- FYC 6802: Advanced Research Methods for Family, Youth, and Community Sciences
- FYC 6901: Problems in Family, Youth, and Community Sciences
- FYC 6912: Nonthesis Project in Family, Youth, and Community Sciences
- FYC 6932: Topics, in Family, Youth, and Community Sciences
- FYC 6933: Seminar in Human Resource Development
- FYC 6934: Professional Internship/Practicum in Family, Youth, and Community Sciences
- FYC 6971: Research for Master's Thesis
- FYC 7979: Advanced Research
- FYC 7980: Research for Doctoral Dissertation

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Youth Development and Family Science

College of Agricultural and Life Sciences

Family, Youth, and Community Sciences Department

Youth Development and Family Science Program

The **Doctor of Philosophy** in Youth Development and Family Sciences will prepare students to conduct high-impact research on youth, their families, and the communities in which they live. Graduates will be trained to become faculty members in academic departments such as human development and family studies, child and family sciences, community resource development, and family and consumer sciences, as well as for research positions in the public and private sector. Research in this field considers the influence of human growth and development, interpersonal and family processes and systems, and community contexts on the behavioral, psychosocial, and socio-emotional well-being of children, adolescents, and emerging adults. Students will be able to apply this knowledge to the development and rigorous evaluation of prevention and promotion programs and activities.

Degrees Offered with a Major in Youth Development and Family Science

Doctor of Philosophy

without a concentration

Youth Development and Family Science Program Courses

- FYC 6230: Theories of Family Development, Systems and Change
- FYC 6234: Theoretical Approaches to Youth Development
- FYC 6330: Theories of Community Development
- FYC 6800: Scientific Reasoning and Research Design
- FYC 6802: Advanced Research Methods for Family, Youth, and Community Sciences
- FYC 6932: Topics, in Family, Youth, and Community Sciences

Electives

- EDF 6402: Quantitative Foundations in Educational Research: Inferential Statistics
- EDF 6403: Quantitative Foundations of Educational Research
- EDF 6471: Survey Design and Analysis in Educational Research
- EDF 6475: Qualitative Foundations of Educational Research
- EDF 7412: Structural Equation Models
- EDF 7474: Multilevel Models
- EDF 7479: Qualitative Data Analysis: Approaches and Techniques
- EDF 7483: Qualitative Data Collection: Approaches and Techniques
- EDF 7932: Multivariate Analysis in Educational Research
- FYC 6111: Families and Violence
- FYC 6207: Adolescent Problematic Behavior
- FYC 6221: Grant Proposals for Community-Based Organizations
- FYC 6222: Parenting and Child Relationships
- FYC 6223: Promoting Positive Youth Development
- FYC 6320: Community Development and Civic Engagement
- FYC 6421: Nonprofit Organizations
- FYC 6620: Program Planning and Evaluation for Human Service Delivery
- FYC 6662: Public Policy and Human Resource Development
- FYC 6932: Topics, in Family, Youth, and Community Sciences
- MMC 6423: Content-Analysis Methods

- MMC 6426: Qualitative Research
- STA 6126: Statistical Methods in Social Research I
- STA 6127: Statistical Methods in Social Research II
- STA 6207: Regression Analysis
- STA 6208: Basic Design and Analysis of Experiments
- STA 6505: Analysis of Categorical Data
- STA 7249: Generalized Linear Models
- STA 7346: Statistical Inference
- SYA 6315: Qualitative Research Methods

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Food and Resource Economics Department

College of Agricultural and Life Sciences

Chair: Spiro Stefanou
Associate Chair: Rodney Clouser
Graduate Coordinator: Lisa House

The Food and Resource Economics Department offers the Master of Agribusiness (M.AB) (non-thesis), Master of Science with Concentration in Agribusiness (M.S.AB.) (non-thesis), Master of Science (thesis), and Doctor of Philosophy. Requirements for these degrees are given in the Graduate Degrees section of this catalog.

The Department participates in programs with the Center for Latin American Studies, the Center for African Studies, the Center for Tropical Agriculture, the School of Natural Resources and Environment, the College of Law, and the Florida Sea Grant College Program.

The Department programs reflects the diversity of Florida's agriculture which has more than fifty major commodities. With over thirty faculty involved in a full range of research, extension, and teaching programs in areas including Agricultural Marketing, International Trade, Policy, Production/Farm Management, International Development, Marine

Economics, Natural Resource and Environmental Economics, Community/Regional Development and Labor Economics. In addition to the main campus location, the department has faculty at research centers throughout the state.

Several members of the faculty have garnered international reputations in diverse fields such as trade policy, generic advertising, citrus economics, sugar policy, business retention and expansion, leadership development, consumer attitudes towards genetically modified food, and dairy marketing.

The Department offers a combined bachelor's/master's degree program for the Master of Science and Master of Science with Concentration in Agribusiness. Contact the Graduate Program Office in 1179 McCarty Hall for information.

For more information, please see the program pages below, and see our website: http://www.fred.ifas.ufl.edu.

Food and Resource Economics

College of Agricultural and Life Sciences

Food and Resource Economics Department

Food and Resource Economics Program Information

The Food and Resource Economics Department offers the Master of Agribusiness (M.AB.) (non-thesis), Master of Science with Concentration in Agribusiness (M.S.AB.) (non-thesis), Master of Science (thesis), and Doctor of Philosophy. Requirements for these degrees are given in the Graduate Degrees section of this catalog.

The **Ph.D. in Food and Resource Economics** is designed to provide the student with rigorous training in economics, statistics, and applied quantitative techniques. Each student is exposed to core theory and to fields of specialization with the purpose to prepare the candidate for a professional career in post-secondary education, government, non-governmental organizations, private business, and international agencies.

The **Master of Agribusiness** is designed for students with no academic background in economics. Students who come from diverse academic backgrounds including Accounting, Agricultural Education and Communication, Agricultural Operations Management, Agronomy, Animal Science, Business Administration, Finance, English, Food Science, History, Horticulture, Management, Marketing, Soil and Water Science, Turfgrass, and Wildlife Ecology and Conservation. The graduate coursework prepares students for careers in banking, investing, financial analysis, sales, management, marketing, human resources, policy, production, and entrepreneurial pursuits working in private industry, international firms, non-profit organizations and government.

The **Master of Science** in the Food and Resource Economics Department provides broad training in applied economics as it relates to food production, policy, marketing and trade, regional economics, and natural resource issues. Students are taught to use economic principles and quantitative methods to address empirical problems. The core consists of courses in microeconomics, policy, econometrics, statistics and survey research methods. Many students continue their education with a Ph.D. while others opt for employment with government agencies, nongovernmental organizations, foreign agencies, private consulting firms, or corporations.

The **Master of Science with Concentration in Agribusiness** is designed for students with an academic background in economics. The quantitative courses include microeconomics, policy, econometrics and survey research methods and provide solid economic theory and prepares students for careers in banking, investing, financial analysis, sales, management, marketing, human resources, policy, production, and entrepreneurial pursuits working in private industry, international firms, non-profit organizations and government.

For more information, please see our website: http://www.fred.ifas.ufl.edu.

Degrees Offered with a Major in Food and Resource Economics

Doctor of Philosophy
without a concentration
with a concentration in Tropical Conservation and Development
Master of Agribusiness
without a concentration
with a concentration in Tropical Conservation and Development
Master of Science
without a concentration
with a concentration in Agribusiness
with a concentration in Tropical Conservation and Development

Courses

- AEB 5167: Economic Analysis in Small Farm Livelihood Systems
- AEB 5188: Economics of Agribusiness Decisions
- AEB 5326: Agribusiness Financial Management
- AEB 5516: Quantitative Methods in Agribusiness Decisions
- AEB 5757: Strategic Agribusiness Human Resource Management
- AEB 6106: Microeconomic Principles and Analysis
- AEB 6139: Strategic Agribusiness Management
- AEB 6145: Agricultural Finance
- AEB 6183: Agribusiness Risk Management
- AEB 6225: Public Policy and the Agribusiness Firm
- AEB 6301: Food Wholesale and Retail Marketing
- AEB 6363: Agricultural Marketing
- AEB 6385: Management Strategies for Agribusiness Firms
- AEB 6533: Static and Dynamic Optimization Models in Agriculture
- AEB 6553: Elements of Econometrics
- AEB 6592: Mathematical Programming for Economic Analysis
- AEB 6675: International Agribusiness Marketing
- AEB 6817: Survey Research Methods for Economists
- AEB 6905: Problems in Food and Resource Economics
- AEB 6921: Workshop in Food and Resource Economics I
- AEB 6933: Special Topics
- AEB 6934: Workshop in Food and Resource Economics II
- AEB 6942: Advanced Applications in Agribusiness Experience
- AEB 6971: Research for Master's Thesis
- AEB 7108: Microeconomic Theory II
- AEB 7174: Economic Coordination and Organizational Behavior in Agribusiness
- AEB 7182: Agricultural Risk Analysis and Decision Making
- AEB 7184: Production Economics
- AEB 7240: Macroeconomic Theory in Open Economies II
- AEB 7373: Consumer Demand and Applied Analysis
- AEB 7453: Natural Resource and Environmental Economics

- AEB 7483: Seminar in Natural Resource and Environmental Economics
- AEB 7571: Econometric Methods I
- AEB 7572: Econometric Methods II
- AEB 7645: Economic Development and Agriculture
- AEB 7979: Advanced Research
- AEB 7980: Research for Doctoral Dissertation

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Food Science and Human Nutrition Department

College of Agricultural and Life Sciences

Chair: Susan S. Percival
Graduate Coordinators: Renee Goodrich-Schneider (M.S. in Food Science and Human Nutrition / Ph.D. in Food Science), James F. Collins (Ph.D. in Nutritional Sciences)

The Food Science and Human Nutrition Department (FSHN) is one of the world's largest combined academic programs where food science, nutritional sciences, and dietetics are all studied within one department. FSHN has nearly 30 full-time faculty members, 80 graduate assistants, and close to 1,000 undergraduate students. Our programs are accredited by the Institute of Food Technologists (IFT) and the Accreditation Counsel for Education in Nutrition and Dietetics (ACEND). After completing undergraduate degrees, our students typically move on to professional employment, further education or training in food or nutrition graduate programs, or on to professional school programs. We have a strong record of excellent placement of our graduate students in industry and professional organization employment positions, as faculty members at colleges and universities, or in postdoctoral training experiences.

Our faculty has trained at institutions from around the world; they have been widely successful in their teaching, research, and extension efforts. Throughout our programs in food science, nutrition, and dietetics, our faculty is recognized nationally and internationally as experts in their respective fields.

The Food Science and Human Nutrition Department offers programs leading to the degrees of Master of Science in Food Science and Human Nutrition, Doctor of Philosophy in Food Science, and Doctor of Philosophy in Nutritional Sciences (offered under the auspices of the Center for Nutritional Sciences). Minimum requirements for these degrees are located in the Graduate Degrees section of this catalog.

For more information please click the links to the program pages below, or see our website: http://fshn.ifas.ufl.edu.

Food Science

College of Agricultural and Life Sciences
Food Science and Human Nutrition Department

Food Science Program Information

The Ph.D. program in Food Science is a multidisciplinary program consisting of Food Chemistry, Food Processing and Engineering, and Food Microbiology and Safety. Students are expected to obtain a breadth of food science knowledge by taking courses in all program areas with the majority of courses stressing one of the three areas of emphasis.

For further information, please see our website at: http://fshn.ifas.ufl.edu.

Doctor of Philosophy

without a concentration
concentration in Toxicology

Food Science and Human Nutrition Departmental Courses

- DIE 6241: Advanced Medical Nutrition Therapy
- DIE 6242: Advanced Medical Nutrition Therapy II
- DIE 6516: Professional Development in Dietetics
- DIE 6905: Problems in Dietetics
- DIE 6938: Advanced Dietetic Seminar
- DIE 6942: Dietetic Internship I
- DIE 6944: Dietetic Internship II
- FOS 5205: Current Issues in Food Safety and Sanitation
- FOS 5225C: Principles in Food Microbiology
- FOS 5437C: Food Product Development
- FOS 5561C: Citrus Processing Technology
- FOS 5645: Functional Foods and Nutraceuticals
- FOS 5732: Current Issues in Food Regulations
- FOS 6125C: Sensory Evaluation of Food
- FOS 5126C: Psychophysical Aspects of Foods
- FOS 6215: Principles of Food Safety
- FOS 6216: Food Safety Systems
- FOS 6217: Food Safety, Sanitation, and Microbiology
- FOS 6226C: Advanced Food Microbiology
- FOS 6315C: Advanced Food Chemistry
- FOS 6317C: Flavor Chemistry and Technology
- FOS 6355C: Instrumental Analysis and Separations
- FOS 6428C: Advanced Food Processing
- FOS 6455C: Industrial Food Fermentations
- FOS 6736: Food Regulations
- FOS 6905: Problems in Food Science
- FOS 6910: Supervised Research
- FOS 6915: Research Planning
- FOS 6936: Topics in Food Science
- FOS 6938: Food Science Seminar
- FOS 6940: Supervised Teaching
- FOS 6971: Research for Master's Thesis
- FOS 7979: Advanced Research
- FOS 7980: Research for Doctoral Dissertation
- HUN 5441: Metabolic Response to Enteral and Parenteral Nutrition
- HUN 5447: Nutrition and Immunity
- HUN 6245: Advanced Human Nutrition
- HUN 6255: Clinical Nutrition
- HUN 6301: Nutritional Aspects of Lipid Metabolism
- HUN 6305: Nutritional Aspects of Carbohydrates
- HUN 6321: Proteins and Amino Acids in Nutrition
- HUN 6331: Vitamins in Human Nutrition
- HUN 6356: Minerals in Nutrition
- HUN 6812C: Analytical Techniques in Nutritional Biochemistry

- HUN 6905: Problems in Nutritional Sciences
- HUN 6936: Topics in Nutritional Sciences
- HUN 6938: Nutritional Sciences Seminar
- HUN 6939: Advanced Clinical Nutrition
- HUN 6940: Supervised Teaching
- HUN 6971: Research for Master's Thesis
- HUN 7979: Advanced Research
- HUN 7980: Research for Doctoral Dissertation

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Food Science and Human Nutrition

College of Agricultural and Life Sciences
Food Science and Human Nutrition Department

Food Science and Human Nutrition Program

The M.S. program offers tracks in food science and in nutritional sciences. The Institute of Food Technologists and the American Society for Nutrition recognize these concentrations. The department also offers a combined Master of Science-Dietetics Internship (MS-DI) program accredited by the Accreditation for Education in Nutrition and Dietetics (ACEND). Students who complete this program are eligible to take the national registration examination to become a registered dietitian. Only graduates from an ACEND accredited/approved Didactic Program in Dietetics are eligible for the MS-DI program.

Specific areas of study include nutritional biochemistry/molecular biology, nutrient function/metabolism, medical nutrition therapy/dietetics, nutritional immunology, food processing/engineering, food chemistry/biochemistry, and food safety/microbiology/quality.

Applicants must have an adequate background in physical and biological sciences and food science or nutritional sciences. Students with specific deficiencies will be required to take prerequisite courses.

For additional information, e-mail Dr. James F. Collins, Director at jfcollins@ufl.edu or Dr. Mitchell D. Knutson, Graduate Coordinator at mknutson@ufl.edu.

Degrees Offered with a Major in Food Science and Human Nutrition

Master of Science
without a concentration
concentration in Nutritional Sciences

Food Science and Human Nutrition Departmental Courses

- DIE 6241: Advanced Medical Nutrition Therapy
- DIE 6242: Advanced Medical Nutrition Therapy II
- DIE 6516: Professional Development in Dietetics
- DIE 6905: Problems in Dietetics
- DIE 6938: Advanced Dietetic Seminar
- DIE 6942: Dietetic Internship I
- DIE 6944: Dietetic Internship II
- FOS 5205: Current Issues in Food Safety and Sanitation
- FOS 5225C: Principles in Food Microbiology
- FOS 5437C: Food Product Development
- FOS 5561C: Citrus Processing Technology
- FOS 5645: Functional Foods and Nutraceuticals
- FOS 5732: Current Issues in Food Regulations
- FOS 6125C: Sensory Evaluation of Food
- FOS 5126C: Psychophysical Aspects of Foods
- FOS 6215: Principles of Food Safety
- FOS 6216: Food Safety Systems
- FOS 6217: Food Safety, Sanitation, and Microbiology
- FOS 6226C: Advanced Food Microbiology
- FOS 6315C: Advanced Food Chemistry
- FOS 6317C: Flavor Chemistry and Technology
- FOS 6355C: Instrumental Analysis and Separations
- FOS 6428C: Advanced Food Processing
- FOS 6455C: Industrial Food Fermentations
- FOS 6736: Food Regulations
- FOS 6905: Problems in Food Science
- FOS 6910: Supervised Research
- FOS 6915: Research Planning
- FOS 6936: Topics in Food Science
- FOS 6938: Food Science Seminar
- FOS 6940: Supervised Teaching
- FOS 6971: Research for Master's Thesis
- FOS 7979: Advanced Research
- FOS 7980: Research for Doctoral Dissertation
- HUN 5441: Metabolic Response to Enteral and Parenteral Nutrition
- HUN 5447: Nutrition and Immunity

- HUN 6245: Advanced Human Nutrition
- HUN 6255: Clinical Nutrition
- HUN 6301: Nutritional Aspects of Lipid Metabolism
- HUN 6305: Nutritional Aspects of Carbohydrates
- HUN 6321: Proteins and Amino Acids in Nutrition
- HUN 6331: Vitamins in Human Nutrition
- HUN 6356: Minerals in Nutrition
- HUN 6812C: Analytical Techniques in Nutritional Biochemistry
- HUN 6905: Problems in Nutritional Sciences
- HUN 6936: Topics in Nutritional Sciences
- HUN 6938: Nutritional Sciences Seminar
- HUN 6939: Advanced Clinical Nutrition
- HUN 6940: Supervised Teaching
- HUN 6971: Research for Master's Thesis
- HUN 7979: Advanced Research
- HUN 7980: Research for Doctoral Dissertation

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Nutritional Sciences

College of Agricultural and Life Sciences
Food Science and Human Nutrition Department

Nutritional Sciences Program

The field of nutritional science has unprecedented public interest. This is fostered by evolving links between diet and health, and the impact of one's individual genetic makeup on nutrient utilization. The Ph.D. degree program in Nutritional Sciences is interdisciplinary, with participating CALS, COM, CLAS, and CVM faculty directing research of doctoral students, where the full spectrum of Nutritional Sciences is available. Emphasis areas include basic nutritional sciences, biochemistry and molecular biology, genetics, immunology, physiology, clinical nutrition, microbiology, and biostatistics.

Students are admitted to the program after the bachelor's degree or a master's degree in nutritional sciences or a related field. Applicants should have a strong undergraduate background in biological sciences and chemistry. Deficiencies may be made up during the first year of graduate study.

Additional information can be found at http://nutritionalsciences.centers.ufl.edu.

For additional information, e-mail Dr. James F. Collins, Director at jfcollins@ufl.edu or Dr. Mitchell D. Knutson, Graduate Coordinator at mknutson@ufl.edu.

Degrees Offered with a Major in Nutritional Sciences

Doctor of Philosophy
without a concentration
concentration in Clinical and Translational Science

Nutritional Sciences Program Core Courses

BCH 6206: Advanced Metabolism
HUN 6938: Nutritional Sciences Seminar
STA 6166: Statistical Methods in Research I
HUN 6301: Nutritional Aspects of Lipid Metabolism
HUN 6305: Nutritional Aspects of Carbohydrates
HUN 6321: Proteins and Amino Acids in Nutrition
HUN 6331: Vitamins in Human Nutrition
HUN 6356: Minerals in Nutrition

Additional Course Offerings

The following courses may be taken to contribute to the overall degree award requirements.

Food Science and Human Nutrition Departmental Courses

- DIE 6241: Advanced Medical Nutrition Therapy
- DIE 6242: Advanced Medical Nutrition Therapy II
- DIE 6516: Professional Development in Dietetics
- DIE 6905: Problems in Dietetics
- DIE 6938: Advanced Dietetic Seminar
- DIE 6942: Dietetic Internship I
- DIE 6944: Dietetic Internship II
- FOS 5205: Current Issues in Food Safety and Sanitation
- FOS 5225C: Principles in Food Microbiology

- FOS 5437C: Food Product Development
- FOS 5561C: Citrus Processing Technology
- FOS 5645: Functional Foods and Nutraceuticals
- FOS 5732: Current Issues in Food Regulations
- FOS 6125C: Sensory Evaluation of Food
- FOS 5126C: Psychophysical Aspects of Foods
- FOS 6215: Principles of Food Safety
- FOS 6216: Food Safety Systems
- FOS 6217: Food Safety, Sanitation, and Microbiology
- FOS 6226C: Advanced Food Microbiology
- FOS 6315C: Advanced Food Chemistry
- FOS 6317C: Flavor Chemistry and Technology
- FOS 6355C: Instrumental Analysis and Separations
- FOS 6428C: Advanced Food Processing
- FOS 6455C: Industrial Food Fermentations
- FOS 6736: Food Regulations
- FOS 6905: Problems in Food Science
- FOS 6910: Supervised Research
- FOS 6915: Research Planning
- FOS 6936: Topics in Food Science
- FOS 6938: Food Science Seminar
- FOS 6940: Supervised Teaching
- FOS 6971: Research for Master's Thesis
- FOS 7979: Advanced Research
- FOS 7980: Research for Doctoral Dissertation
- HUN 5441: Metabolic Response to Enteral and Parenteral Nutrition
- HUN 5447: Nutrition and Immunity
- HUN 6245: Advanced Human Nutrition
- HUN 6255: Clinical Nutrition
- HUN 6301: Nutritional Aspects of Lipid Metabolism
- HUN 6305: Nutritional Aspects of Carbohydrates
- HUN 6321: Proteins and Amino Acids in Nutrition
- HUN 6331: Vitamins in Human Nutrition
- HUN 6356: Minerals in Nutrition
- HUN 6812C: Analytical Techniques in Nutritional Biochemistry
- HUN 6905: Problems in Nutritional Sciences
- HUN 6936: Topics in Nutritional Sciences
- HUN 6938: Nutritional Sciences Seminar
- HUN 6939: Advanced Clinical Nutrition
- HUN 6940: Supervised Teaching
- HUN 6971: Research for Master's Thesis
- HUN 7979: Advanced Research
- HUN 7980: Research for Doctoral Dissertation

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Horticultural Sciences Department

College of Agricultural and Life Sciences

Chairs : K.M. Folta (Chair, Horticultural Sciences) and Rosemary Loria (Interim Chair, Environmental Horticulture)
Graduate Coordinator: Bala Rathinasabapathi (Horticultural Sciences) and Hector Perez (Environmental Horticulture)

The Horticultural Sciences Department Graduate Program at the University of Florida has a wide array of opportunities for graduate study.

The Horticultural Sciences (HOS) graduate program is administered jointly by the Environmental Horticulture (HSE) and Horticultural Sciences (HS) departments and offers graduate programs leading to the Master of Science (thesis or nonthesis options) and the Doctor of Philosophy degrees. Members of the program's Graduate Faculty include department resident faculty and faculty at University of Florida Research and Education Centers located throughout Florida.

The Horticultural Sciences Department offers a combined bachelor's/master's degree program. Please contact the graduate coordinator for information.

For admission to the HOS graduate program, apply to either the HS or HSE departments, depending on your career/research interest. Details about the program and how to apply are listed on their website:

HOS http://hos.ufl.edu

HSE http://hort.ufl.edu

Horticultural Sciences

College of Agricultural and Life Sciences

Horticultural Sciences Department
Environmental Horticulture Department

Horticultural Sciences Program Information

The Horticultural Sciences (HOS) graduate program is administered jointly by the Environmental Horticulture (HSE) and Horticultural Sciences (HS) departments and offers graduate programs leading to the Master of Science (thesis or nonthesis options) and the Doctor of Philosophy degrees. The Department offers a combined bachelor's/master's degree program. Contact the graduate coordinator for information. Members of the program's Graduate Faculty include department resident faculty and faculty at University of Florida Research and Education Centers located throughout Florida.

For admission to the HOS graduate program, apply to either the HS or HSE departments, depending on your career/research interest.

Requirements:

A strong undergraduate or graduate background in horticultural, biological, agronomic, or other disciplines in the life sciences and undergraduate coursework in chemistry, physics, and mathematics. A prospective graduate student need not have majored in horticulture as an undergraduate or master's student; however, students with curriculum deficiencies are required to take prerequisite subjects during the first year of graduate study. Undergraduate courses taken to correct curriculum deficiencies do not count for graduate program credit.

Specializations in the HS department focus on vegetable and fruit crops and include
–Plant Breeding and Genetics
–Crop Production and Nutrient Management
–Postharvest Biology
–Organic Sustainable Agriculture
–Weed Science
–Physiology and Biochemistry
–Plant Molecular Biology
–Protected Agriculture

Numerous HS and HSE faculty participate in the interdisciplinary Plant Molecular and Cellular Biology Program. Students interested in molecular biology/biotechnology may pursue molecular-oriented studies in any listed specialization. Students interested in full specialization in molecular and related disciplines should contact the Plant Molecular and Cellular Biology interdisciplinary program for specific requirements.

Specializations in the HSE department:
–Breeding and Genetics
–Restoration Ecology
–Floriculture
–Foliage Production
–Plant anatomy and development
–Plant Biotechnology
– Plant Restoration Conservation Biotechnology
–Stress Physiology
–Taxonomy
–Tissue Culture
–Turfgrass Science

–Woody Plants

Graduate School Degree Program Requirements Master of Science (thesis option):
Students must earn at least 30 credits as a graduate student at UF. No more than 9 of the 30 credits (earned with a grade of A, B+, or B) may be transferred from institutions approved for this purpose by the Dean of the Graduate School. A minimum of 12 credits is required in the Horticultural Sciences major; additionally, a maximum of 6 credits in HOS 6971- Master's Research - may be counted toward the total credits. See here for information on M.S. graduate degrees.

A minor may be chosen in an academic unit other than the major. If a minor is chosen, at least 6 credits of course work are required in the minor field. Two 6-credit minors may be taken with the major academic unit's permission. A 3.00 (truncated) GPA is required for minor credit. In addition, a representative from the department in which the minor is being received must be on the supervisory committee.

Master of Science non-thesis option:
This option offers additional training beyond the bachelor's degree in a horticultural specialization. Essential elements of this program include a program of courses and a comprehensive written and/or final oral qualifying examination. There is no thesis requirement. A minimum of 30 credit hours of course work is required. Courses taken for program credit must be numbered 5000 or higher with at least 15 of these credits in the Horticultural Science major. With supervisory committee and college dean approval, 6 hours of 3000- or 4000-level undergraduate courses, taught outside the major department, may count toward the minimum requirements for the degree. Click for information on all graduate degrees.

A minor may be chosen in an academic unit other than the major. If a minor is chosen, at least 6 credits of work are required in the minor field. Two 6-credit minors may be taken with the major academic unit's permission. A 3.00 (truncated) GPA is required for minor credit. In addition, a representative from the department in which the minor is being received must be on the supervisory committee.

Doctor of Philosophy:
The Doctor of Philosophy is a research degree and is granted on evidence of general proficiency, distinctive attainment in a special field, and ability to conduct independent investigation as demonstrated in a dissertation presenting original research with a high degree of literary skill. Consequently, doctoral programs are more flexible and varied than those leading to M.S. degree programs. The Ph.D. degree requires at least 90 credits beyond the bachelor's degree, although specific course requirements vary from field to field and from student to student. Up to 30 credits of master's degree may be transferred to a doctoral program. Any credits counted from an M.S. degree program must have been earned within the previous seven years (or by petition). The Graduate Council does not specify the courses required for the Ph.D. degree.

General requirements for the program include
–a clear objective for research
–approval of the student's entire supervisory committee
–an appropriate number of credits of doctoral research

Click for information on all graduate degrees.

Minor: With the supervisory committee's approval, the student may choose one or more minor fields. Minor work may be completed in any academic unit outside the major, if approved for M.S. or doctoral programs listed in this catalog. The collective grade for courses included in a minor must be "B" (3.00) or higher. If one minor is chosen, the supervisory committee member representing the minor suggests 12 to 24 credits of courses numbered 5000 or higher as preparation for a qualifying examination. Part of this credit may have been earned in the M.S. degree program. If two minors are chosen, each must include at least 8 credits. Competence in the minor area is demonstrated by written examination by the minor academic unit, or by the oral qualifying examination. Minor course work at the doctoral level may include courses in more than one academic unit; if the objective of the minor is clearly stated and the combination

of courses is approved by the Graduate School (this approval is not required for a minor in one academic unit). Further requirements for the Master of Science and the Doctor of Philosophy degrees are listed under those headings in the General Information section of this catalog.

Degrees Offered with a Major in Horticultural Sciences

Doctor of Philosophy

without a concentration
concentration in Environmental Horticulture
concentration in Horticultural Sciences
concentration in Toxicology

Master of Science

without a concentration
concentration in Environmental Horticulture
concentration in Horticultural Sciences

Horticultural Sciences Program Courses

- ALS 6935: Topics in Biological Invasions
- BCH 5045: Graduate Survey of Biochemistry
- BOT 6935: Special Topics
- HOS 6934: Professional Seminar Preparation
- PLS 5222C: Propagation of Horticultural Crops
- PLS 5241C: Advanced Plant Micropropagation
- PLS 5405: Advanced Composting Technology

Additional Course Offerings

The following courses may be taken to contribute to the overall degree award requirements.

Horticultural Sciences Departmental Courses

- ALS 5934: Graduate Professional Development Seminar
- HOS 5085C: Principles of Postharvest Horticulture
- HOS 5117C: Horticultural Plant Morphology and Identification
- HOS 5242: Genetics & Breeding of Vegetable Crops
- HOS 5306: Molecular Biology of Plant Hormones
- HOS 5330: Postharvest Technologies for Horticultural Crops
- HOS 5432: Advanced Nutritional Management of Ornamental Crops
- HOS 5515C: Greenhouse and Nursery Operations
- HOS 5516C: Advanced Production of Greenhouse and Nursery Crops
- HOS 5555: Tropical Fruit Production and Research in Florida
- HOS 5711: Phytochemicals in Food & Health
- HOS 6070: Plant Materials for Conservation and Restoration
- HOS 6201: Breeding Perennial Cultivars
- HOS 6236: Molecular Marker Assisted Plant Breeding
- HOS 6331: Postharvest Biology
- HOS 6345: Environmental Physiology
- HOS 6412: Nutrition of Horticultural Crops
- HOS 6523: Research and Development in Turfgrass Science
- HOS 6545: Advanced Citriculture I
- HOS 6546: Advanced Citriculture II
- HOS 6905: Problems in Horticultural Science

- HOS 6910: Supervised Research
- HOS 6931: Horticultural Science Seminar
- HOS 6932: Special Topics
- HOS 6940: Supervised Teaching
- HOS 6941: Practicum in Horticultural Science
- HOS 6971: Research for Master's Thesis
- HOS 7979: Advanced Research
- HOS 7980: Research for Doctoral Dissertation
- ORH 5026C: Advanced Annual and Perennial Gardening
- ORH 5086: Advanced Golf and Sports Turf Management
- ORH 5282: Orchid Biology and Culture
- ORH 5817C: Advanced Florida Native Landscaping
- PCB 5065: Advanced Genetics
- PCB 5530: Plant Molecular Biology and Genomics
- PCB 6528: Plant Cell and Developmental Biology
- PLS 5222C: Propagation of Horticultural Crops
- PLS 5241C: Advanced Plant Micropropagation
- PLS 5405: Advanced Composting Technology

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Botany Courses

- BOT 5225C: Plant Anatomy
- BOT 5305: Paleobotany
- BOT 5505C: Intermediate Plant Physiology
- BOT 5625: Plant Geography
- BOT 5655C: Physiological Plant Ecology
- BOT 5685C: Tropical Botany
- BOT 5695C: Ecosystems of Florida
- BOT 5725C: Taxonomy of Vascular Plants
- BOT 6508C: Proteomics Theory and Practice
- BOT 6516: Plant Metabolism
- BOT 6566: Plant Growth and Development
- BOT 6656: Plant Symbiosis
- BOT 6716C: Advanced Taxonomy
- BOT 6726C: Principles of Systematic Biology
- BOT 6905: Individual Studies in Botany
- BOT 6910: Supervised Research
- BOT 6927: Advances in Botany
- BOT 6935: Special Topics
- BOT 6936: Graduate Student Seminar
- BOT 6940: Supervised Teaching
- BOT 6943: Internship in College Teaching
- BOT 6971: Research for Master's Thesis
- BOT 7979: Advanced Research
- BOT 7980: Research for Doctoral Dissertation
- PCB 5046C: Advanced Ecology
- PCB 5338: Principles of Ecosystem Ecology
- PCB 5356: Tropical Ecology
- PCB 6675C: Evolutionary Biogeography
- PLP 6656C: Fungal Biology

Microbiology and Cell Science Department

Chair: E. Triplett
Graduate Coordinator: Tony Romeo

Graduate study is offered leading to the Master of Science and Doctor of Philosophy degrees in microbiology and cell science, with emphasis in one or more of the disciplines of biochemistry, cell biology, and microbiology.

Requirements for these degrees are provided in the Graduate Degrees section of this catalog and also at the Department webpage: http://microcell.ufl.edu/.

Instruction and guidance are collaborative among faculty in the Colleges of Agricultural and Life Sciences, Liberal Arts and Sciences, and Medicine.

Research spans broad areas in the cellular and molecular aspects of bacterial, plant, and animal life functions: Areas of research include microbial biochemistry, biotechnology; biomass conversion; genetic and metabolic regulation;

environmental microbiology; cell biology; molecular biology; molecular genetics; genomics and bioinformatics; immunology; virology; parasitology, host-pathogen interactions; cellular ultrastructure.

Prerequisites for admission to graduate study, in addition to those of the Graduate School, are a broad educational background including mathematics, physics, and chemistry through organic, analytical, and physical chemistry; basic courses in biology, botany, and/or zoology; and at least one course in microbiology and biochemistry. An undergraduate major in biochemistry, physical or chemical science, engineering, or general biology may be an acceptable alternative to a degree in microbiology or cell science. Receipt of an advanced degree requires detailed knowledge in microbiology, biochemistry, and chemistry; undergraduate deficiencies may necessitate additional course work prior to entry into the graduate program.

In addition, the Microbiology and Cell Science Department also offers a combined B.S./M.S. program that allows qualified students to earn both the Bachelor's and Master's degrees with 12 credit hours of jointly counted course work. This program is considered a "4/1" because students may be awarded both degrees within a five-year period. For further information on this program, follow this link: http://microcell.ufl.edu/programsmcs/.

Microbiology and Cell Science

College of Agricultural and Life Sciences

Microbiology and Cell Science Department

Microbiology and Cell Science Program Information

The Department of Microbiology and Cell Science offers a top-10 education for students who wish to earn their M.S. or Ph.D. in Microbiology and Cell Science. Graduates are well prepared to pursue careers in government, industry, research and teaching in microbiology, cell biology, cellular biochemistry, and molecular genetics. For more information on how to apply for these programs, please visit our Microbiology and Cell Science Graduate Program Website – http://microcell.ufl.edu/programsmcs.

Currently there are 25 tenure eligible faculty positions staffed, 2 emeritus faculty, 5 non-tenure eligible faculty, 16 post-doctoral fellows, over 56 graduate students, and 2 full time academic advisors. Most faculty are involved in both teaching and research programs that complement one another. The faculty's research programs span areas of broad interest in the cellular and molecular aspects bacterial, plant and animal life functions. Areas of research include:

- Microbial Biochemistry, Physiology, Metabolism and Regulation
- Molecular Biology
- Molecular Genetics
- Immunology
- Virology
- Host-pathogen Interactions
- Environmental Microbiology
- Bioinformatics
- Functional and Comparative Genomics
- Astrobiology
- Human Parisitology
- Cellular Ultrastructure and Function
- Microbial Communities
- Microbial Processing of Plant Biomass

For more information, please see our website: http://microcell.ufl.edu. For Microbiology and Cell Science Academic Advising, contact Jonathan Orsini at 352-846-1330 or jorsini@ufl.edu.

Degrees Offered with a Major in Microbiology and Cell Science

Doctor of Philosophy

without a concentration

concentration in Toxicology

Master of Science

without a concentration

concentration in Medical Microbiology and Biochemistry

Microbiology and Cell Science Courses

- BSC 6438: R for Functional Genomics
- BSC 6459: Fundamentals of Bioinformatics
- MCB 5205: Microbiology of Human Pathogens
- MCB 5252: Microbiology, Immunology, and Immunotherapeutics
- MCB 5305L: Microbial Genetics and Biotechnology Laboratory
- MCB 5408: Anaerobic Microbiology and Biotechnology
- MCB 5505: General Virology
- MCB 6151: Prokaryotic Diversity
- MCB 6317: Molecular Biology of Gene Expression
- MCB 6318: Comparative Microbial Genomics
- MCB 6355: Microbial/Host Defense
- MCB 6417: Microbial Metabolism and Energetics
- MCB 6457: Metabolic Regulation
- MCB 6465: Microbial Metabolic Engineering
- MCB 6485: Advanced Techniques in Microbiology and Cell Science
- MCB 6670C: The Microbiome
- MCB 6772: Advanced Topics in Cell Biology
- MCB 6781: Archaea and Biotechnology
- MCB 6905: Experimental Microbiology
- MCB 6910: Supervised Research
- MCB 6930: Seminar
- MCB 6937: Special Topics in Microbiology
- MCB 6940: Supervised Teaching
- MCB 6971: Research for Master's Thesis
- MCB 7922: Journal Colloquy
- MCB 7979: Advanced Research
- MCB 7980: Research for Doctoral Dissertation
- PCB 5136L: Techniques in Microbial and Cell Biology
- PCB 5235: Immunology

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Plant Molecular and Cellular Biology Department

College of Agricultural and Life Sciences
College of Liberal Arts and Sciences
College of Medicine

Plant Molecular and Cellular Biology (PMCB) currently has 45 faculty members in the program. They are based in the departments of Agronomy, Biology, Environmental Horticulture, Forest Resources and Conservation, Horticultural Sciences, Microbiology and Cell Science, Molecular Genetics and Microbiology, and Plant Pathology within the colleges of Agriculture and Life Sciences, Medicine, and Liberal Arts and Sciences.

Plant Molecular and Cellular Biology (CALS)

College of Agricultural and Life Sciences

Plant Molecular and Cellular Biology Department

Plant Molecular and Cellular Biology Program Information

Director: Dr. Svetlana Folimonova
Graduate Coordinator: Dr. Gilles Basset
Program Coordinator: Eliana Kampf

Plant Molecular and Cellular Biology (PCMB) is an interdisciplinary and interdepartmental graduate degree program that emphasizes understanding the molecular and cellular mechanisms that mediate plant development, adaptation, and evolution. Students can pursue an M.S. or a Ph.D. degree through the PMCB program. All students complete core courses in Advanced Genetics, Plant Molecular Biology and Genomics, Plant Cellular and Developmental Biology, and Plant Biochemistry. In addition to the core classes, students can select from a variety of courses in biochemistry, molecular biology, physiology, breeding, genetics, evolution, microbiology, and plant pathology.

New students are exposed to a variety of faculty and experimental systems while they rotate through several laboratories during their first two semesters before selecting an adviser and dissertation research area. Both M.S. and Ph.D. students take four required courses: PCB 5065 Advanced Genetics, PCB 5530 Plant Molecular Biology and Genomics, PCB 6528 Plant Cell and Developmental Biology and BOT 6935 Plant Biochemistry, as well as journal colloquium classes (PCB 7922 Journal Colloquium). Additional elective courses are taken after approval by the student's supervisory committee. For additional information see http://pmcb.ifas.ufl.edu. Successful candidates should have a strong interest in plant molecular and cellular mechanisms controlling development, metabolism, adaptation, and evolution. Applicants typically have a B.S. or M.S. in the agricultural, forestry, biological or chemical sciences.

Degrees Offered with a Major in Plant Molecular and Cellular Biology

Doctor of Philosophy

without a concentration

concentration in Toxicology

Master of Science

Plant Molecular and Cellular Biology Courses

- BOT 6935: Special Topics
- PCB 5065: Advanced Genetics
- PCB 5530: Plant Molecular Biology and Genomics
- PCB 6528: Plant Cell and Developmental Biology
- PCB 6910: Supervised Research
- PCB 6937: Special Topics in Plant Molecular and Cellular Biology
- PCB 6971: Research for Master's Thesis
- PCB 7922: Journal Colloquy in Plant Molecular and Cellular Biology
- PCB 7979: Advanced Research
- PCB 7980: Research for Doctoral Dissertation

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Plant Pathology Department

Chair: R. Loria
Graduate Coordinators: J. Jones

The Department of Plant Pathology offers graduate studies leading to the Master of Science (thesis and nonthesis option) and Doctor of Philosophy degrees. The Department also participates in the Doctor of Plant Medicine interdisciplinary professional degree.

The Department offers a combined bachelor's/master's degree program. Contact the graduate coordinator for information.

For more information, please visit http://plantpath.ifas.ufl.edu/.

Plant Pathology

College of Agricultural and Life Sciences
Plant Pathology Department

Plant Pathology Program Information

A student may pursue studies in one of several basic areas of plant pathology. These areas include fungal plant pathology, plant bacteriology, plant virology, diagnostics, control, and also molecular and biochemical aspects of host-pathogen systems, biological control of pathogens and weeds, epidemiology, etiology, genetics of host-pathogen systems, soil microbiology, and pathogen taxonomy. In Florida, the variety of cultivated plants, coupled with an environment ideal for plant disease development, offers the student opportunities to study diseases of many crops as they develop. First-hand knowledge can be gained of diseases of field, fruit, ornamental, pasture, range, turf, and vegetable crops in temperate, subtropical, and tropical environments. Students who anticipate study in plant pathology at the University of Florida should include in their undergraduate programs training in botany, chemistry (through biochemistry), genetics, and microbiology.

Courses in nematology are offered by the Department of Entomology and Nematology.

Degrees Offered with a Major in Plant Pathology

Doctor of Philosophy
without a concentration
concentration in Toxicology
Master of Science

Plant Pathology Departmental Courses

- PLP 5005C: General Plant Pathology
- PLP 5102: Theory and Practice of Plant Disease Control
- PLP 5115C: Citrus Pathology
- PLP 5155: Microbiological Control of Plant Diseases and Weeds
- PLP 6105: Applied Plant Disease Management
- PLP 6656C: Fungal Biology
- PLP 6223C: Viral Pathogens of Plants
- PLP 6241C: Bacterial Plant Pathogens

- PLP 6262C: Fungal Plant Pathogens
- PLP 6291: Plant Disease Diagnosis
- PLP 6303: Host-Parasite Interactions II
- PLP 6404: Epidemiology of Plant Disease
- PLP 6502: Host-Parasite Interactions I
- PLP 6621C: Pop Genetics Microbes
- PLP 6636: Frontiers in Plant Biotechnology
- PLP 6905: Problems in Plant Pathology
- PLP 6910: Supervised Research
- PLP 6921: Colloquium in Principles of Plant Pathology
- PLP 6932: Seminar in Plant Pathology
- PLP 6940: Supervised Teaching
- PLP 6942: Professional Internship in Plant Disease Clinic
- PLP 6971: Research for Master's Thesis
- PLP 7946: Plant Pathology Internship
- PLP 7979: Advanced Research
- PLP 7980: Research for Doctoral Dissertation|

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

School of Forest Resources and Conservation

College of Agricultural and Life Sciences

Director: Terrell "Red" Baker III
Graduate Coordinator: T.V. Stein

Since 1937 the School of Forest Resources & Conservation has prepared students for professional careers caring for natural resources. We emphasis the role of people in managing both terrestrial and aquatic systems, to produce the myriad of benefits and services they provide. Our faculty have a broad range of interests, including ecology, economics/policy, and recreation/education, and are united by an interest in environmental resources, rather than by traditional academic discipline. The School is composed of three programmatic areas: Fisheries and Aquatic Sciences, Forest Resources and Conservation, and Geomatics. Combined, these programs offer seven different degree options (including two professional masters degrees), as well as concentrations and certificates in a diversity of specific areas. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

Joint program: Students may simultaneously earn a juris doctorate from the College of Law and a graduate degree (M.F.R.C., M.S., or Ph.D.) in Forest Resources and Conservation.

Combined programs: The School offers a combined bachelor's/master's degree program, which allows qualified students to earn both a bachelor's degree and a master's degree with a savings of 1 semester. Ph.D. students may pursue a co-major with the Department of Statistics (see below).

Concentration in geomatics: Students completing 15 or more credits with an SUR designation, as part of an SFRC graduate degree, may earn the concentration in geomatics. Geomatics is the collection, analysis, and management of spatial information and includes such fields as surveying, mapping, land tenure, cadastral systems, geographic information systems, and remote sensing.

Concentration in ecological restoration: This concentration is available to M.S. non-thesis students. To earn this concentration a student must complete Ecosystem Restoration Principles and Practice and four of the following courses: Ecological Distribution and Management of Invasive Plants, Ecology and Restoration of Invaded Ecosystems, Ecology and Restoration of Longleaf Pine Ecosystem, Watershed Restoration and Management, Natural Resource Policy and Administration, or Agroforestry in the Southeastern US. Ecological restoration seeks to return ecosystems to a close approximation of condition before a disturbance.

Statistics co-major: Ph.D. students with the School may elect the co-major offered jointly with the Department of Statistics. Students focusing on forest genetics, tree improvement, and other statistics-intensive aspects of natural resource management are potential candidates for this option.

Certificates: The School administers the Graduate Certificate in Agroforestry, and SFRC students regularly earn certificates in Geographic Information Systems and in Environmental Education and Communication. Requirements are described under *Interdisciplinary Graduate Certificates and Concentrations* in this catalog.

For additional information, please visit the School's web page at http://sfrc.ufl.edu.

For details on what terms courses will be offered, please visit http://sfrc.ufl.edu/gradcourses.html.

Fisheries and Aquatic Sciences

College of Agricultural and Life Sciences
School of Forest Resources and Conservation

Fisheries and Aquatic Sciences Program

Director: Terrell "Red" Baker III
Graduate Coordinator: William J. Lindberg

Since 1937 the School of Forest Resources & Conservation has prepared students for professional careers caring for natural resources. We emphasize the role of people in managing both terrestrial and aquatic systems, to produce the myriad of benefits and services they provide. Our faculty have a broad range of interests, including ecology, economics/policy, and recreation/education, and are united by an interest in environmental resources, rather than by traditional academic discipline. The School is composed of three programmatic areas: Fisheries and Aquatic Sciences, Forest Resources and Conservation, and Geomatics. Combined, these programs offer seven different degree options (including two professional masters degrees), as well as concentrations and certificates in a diversity of specific areas.

The School's program in Fisheries and Aquatic Sciences leads to the Master of Science, Master of Fisheries and Aquatic Sciences (nonthesis), and Doctor of Philosophy degrees with a program in Fisheries and Aquatic Sciences. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

The Fisheries and Aquatic Sciences program also offers a combined bachelor's/master's degree program. Contact the graduate coordinator for information.

The School of Forest Resources and Conservation's program in Fisheries and Aquatic Sciences conducts research, teaching, and extension programs in four broad areas:

- Sustainable fisheries
- Aquaculture
- Aquatic animal health
- Conservation and management of aquatic environments

Faculty encompass both freshwater and marine environments, as well as managed aquaculture systems. Collaborators include the UF College of Veterinary Medicine, National Biological Survey, National Marine Fisheries Service, Harbor Branch Oceanographic Institute, Mote Marine Laboratory, the US Geologic Survey, the Florida Fish and Wildlife Conservation Commission, and others. Academic programs are structured to emphasize direct engagement of students with faculty. Further information, including specific degree options, faculty biographies, and information on the admissions process, is available at: http://sfrc.ufl.edu.

Degrees Offered with a Major in Fisheries and Aquatic Sciences

Doctor of Philosophy

without a concentration
concentration in Geographic Information Systems
concentration in Natural Resource Policy and Administration
concentration in Wetland Sciences

Master of Fisheries and Aquatic Sciences

without a concentration
concentration in Geographic Information Systems
concentration in Natural Resource Policy and Administration
concentration in Wetland Sciences

Master of Science

without a concentration

concentration in Geographic Information Systems
concentration in Natural Resource Policy and Administration
concentration in Wetland Sciences

School of Forest Resources and Conservation Courses

Geomatics Concentration Courses

- GIS 6103: GIS Programming and Customization
- GIS 6116: Geographic Information Systems Analysis
- SUR 5365: Digital Mapping
- SUR 5385: Remote Sensing Applications
- SUR 5386: Image Processing for Remote Sensing
- SUR 5391C: Geomatics: Spatial Foundations of GIS
- SUR 5425: Cadastral Information Systems
- SUR 5525: Least Squares Adjustment Computations
- SUR 6375: Terrain Analysis and Mapping
- SUR 6395: Topics in Geographic Information Systems
- SUR 6427: Land Tenure and Administration
- SUR 6535: GPS-INS Integration
- SUR 6905: Special Problems in Geomatics
- SUR 6934: Topics in Geomatics

Fisheries and Aquatic Sciences Program Courses

- FAS 5015: Aquaculture I
- FAS 5203C: Biology of Fishes
- FAS 5255C: Diseases of Warmwater Fish
- FAS 5276C: Field Ecology of Aquatic Organisms
- FAS 5335C: Applied Fisheries Statistics
- FAS 5407: Biology of Fishery and Aquaculture Invertebrates
- FAS 5901: Scientific Thinking in Ecology
- FAS 6154: Marine Adaptations: Environmental Physiology
- FAS 6165: Fish and Crustacean Nutrition
- FAS 6176: Algae Biology and Ecology
- FAS 6256: Fish and Aquatic Invertebrate Histology
- FAS 6272: Marine Ecological Processes
- FAS 6273: Trophic Ecology of Fishes
- FAS 6337C: Fish Population Dynamics
- FAS 6339C: Advanced Quantitative Fisheries Assessment
- FAS 6355C: Fisheries Management
- FAS 6408: Aquaculture II
- FAS 6416: Spatial Ecology and Modeling of Fish Populations
- FAS 6905: Individual Study
- FAS 6910: Supervised Research
- FAS 6932: Special Topics in Fisheries and Aquatic Sciences
- FAS 6933: Graduate Symposium
- FAS 6935: Contemporary Problems in Fisheries and Aquatic Sciences
- FAS 6940: Supervised Teaching
- FAS 6971: Research for Master's Thesis

- FAS 7979: Advanced Research
- FAS 7980: Research for Doctoral Dissertation

Forest Resources and Conservation Program Courses

- FNR 5072C: Environmental Education Program Development
- FNR 5335: Agroforestry
- FNR 5462: Spatial Models and Decision Analysis
- FNR 5608: Research Planning
- FNR 6061: Conflict and Collaboration in Natural Resources
- FNR 6560: Intro to Bayesian Statistics for Life Sciences
- FNR 6564: Ecohydrology
- FOR 5157: Ecosystem Restoration Principles and Practice
- FOR 5159: Ecology and Restoration of Longleaf Pine Ecosystems
- FOR 5161: Forest Productivity and Health
- FOR 5435: Forest Information Systems
- FNR 6628: Watershed Management and Restoration
- FNR 6669: Policy and Economics of Natural Resources
- FOR 5625: Forest Water Resources Management
- FOR 5756: Non-Timber Forest Products
- FOR 6005: Conservation Behavior
- FOR 6151: Forest Ecosystem Health
- FOR 6154: Analysis of Forest Ecosystems
- FOR 6156: Simulation Analysis of Forest Ecosystems
- FOR 6164: Silviculture: Concepts and Application
- FOR 6170: Tropical Forestry
- FOR 6172C: Tropical Forestry Field Course
- FOR 6215: Fire Paradigms
- FOR 6340: Physiology of Forest Trees
- FOR 6345C: Plant Water Relations Techniques
- FOR 6543: Natural Resource Economics and Valuation
- FOR 6628: Community Forest Management
- FOR 6665: Landscape Planning for Ecotourism
- FOR 6905: Research Problems in Forest Resources and Conservation
- FOR 6910: Supervised Research
- FOR 6933: Seminar
- FOR 6934: Topics in Forest Resources and Conservation
- FOR 6940: Supervised Teaching
- FOR 6971: Research for Master's Thesis
- FOR 7979: Advanced Research
- FOR 7980: Research for Doctoral Dissertation
- PCB 5530: Plant Molecular Biology and Genomics
- PCB 6528: Plant Cell and Developmental Biology
- PCB 6555: Introduction to Quantitative Genetics
- SUR 6377: Geospatial Application of UASs
- SUR 6502C: Foundations of UAS Mapping
- SUR 6940C: Practicum in UAS Mapping

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Forest Resources and Conservation

College of Agricultural and Life Sciences
School of Forest Resources and Conservation

Forest Resources and Conservation Program Information

Director: Terrell "Red" Baker III
Graduate Coordinator: T.V. Stein

Since 1937 the School of Forest Resources & Conservation has prepared students for professional careers caring for natural resources. We emphasize the role of people in managing both terrestrial and aquatic systems, to produce the myriad of benefits and services they provide. Our faculty have a broad range of interests, including ecology, economics/policy, and recreation/education, and are united by an interest in environmental resources, rather than by traditional academic discipline. The School is composed of three programmatic areas: Fisheries and Aquatic Sciences, Forest Resources and Conservation, and Geomatics. Combined, these programs offer seven different degree options (including two professional masters degrees), as well as concentrations and certificates in a diversity of specific areas.

The SFRC offers graduate programs leading to the Master of Forest Resources and Conservation (professional, non-thesis), Master of Science (thesis and non-thesis), and Doctor of Philosophy degrees in Forest Resources and Conservation. The Master of Science non-thesis degree may be taken entirely online. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

The School of Forest Resources and Conservation also offers an interdisciplinary concentration in Agroforestry. For more information, contact the Agroforestry Program Leader, 330 Newins-Ziegler Hall, Phone (352) 846-0880, Fax (352) 846-1277, Email pknair@ufl.edu.

The Forest Resources and Conservation program prepares students to work with the ecological, economic, and social aspects of natural resources, including the management of spatial information gathered through traditional surveying as well as remote sensing. Faculty have a wide variety of specializations, including fire ecology, land tenure, tree genetics, recreation management, environmental education, geographic information systems, silviculture, forest economics, and environmental policy. Further information, including specific degree options, faculty biographies, and information on the admissions process, is available at: http://sfrc.ufl.edu.

Degrees Offered with a Major in Forest Resources and Conservation

Doctor of Philosophy

without a concentration
concentration in Agroforestry
concentration in Ecological Restoration
concentration in Geographic Information Systems
concentration in Geomatics
concentration in Hydrologic Sciences
concentration in Natural Resource Policy and Administration
concentration in Tropical Conservation and Development
concentration in Toxicology
concentration in Wetland Sciences

Master of Forest Resources and Conservation

without a concentration
concentration in Agroforestry
concentration in Geographic Information Systems
concentration in Geomatics
concentration in Natural Resource Policy and Administration
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Master of Science

without a concentration
concentration in Agroforestry
concentration in Ecological Restoration
concentration in Geographic Information Systems
concentration in Geomatics
concentration in Hydrologic Sciences
concentration in Natural Resource Policy and Administration
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

School of Forest Resources and Conservation Courses

Geomatics Concentration Courses

- GIS 6103: GIS Programming and Customization
- GIS 6116: Geographic Information Systems Analysis
- SUR 5365: Digital Mapping
- SUR 5385: Remote Sensing Applications
- SUR 5386: Image Processing for Remote Sensing
- SUR 5391C: Geomatics: Spatial Foundations of GIS
- SUR 5425: Cadastral Information Systems
- SUR 5525: Least Squares Adjustment Computations
- SUR 6375: Terrain Analysis and Mapping
- SUR 6395: Topics in Geographic Information Systems
- SUR 6427: Land Tenure and Administration

- SUR 6535: GPS-INS Integration
- SUR 6905: Special Problems in Geomatics
- SUR 6934: Topics in Geomatics
-

Fisheries and Aquatic Sciences Program Courses

- FAS 5015: Aquaculture I
- FAS 5203C: Biology of Fishes
- FAS 5255C: Diseases of Warmwater Fish
- FAS 5276C: Field Ecology of Aquatic Organisms
- FAS 5335C: Applied Fisheries Statistics
- FAS 5407: Biology of Fishery and Aquaculture Invertebrates
- FAS 5901: Scientific Thinking in Ecology
- FAS 6154: Marine Adaptations: Environmental Physiology
- FAS 6165: Fish and Crustacean Nutrition
- FAS 6176: Algae Biology and Ecology
- FAS 6256: Fish and Aquatic Invertebrate Histology
- FAS 6272: Marine Ecological Processes
- FAS 6273: Trophic Ecology of Fishes
- FAS 6337C: Fish Population Dynamics
- FAS 6339C: Advanced Quantitative Fisheries Assessment
- FAS 6355C: Fisheries Management
- FAS 6408: Aquaculture II
- FAS 6416: Spatial Ecology and Modeling of Fish Populations
- FAS 6905: Individual Study
- FAS 6910: Supervised Research
- FAS 6932: Special Topics in Fisheries and Aquatic Sciences
- FAS 6933: Graduate Symposium
- FAS 6935: Contemporary Problems in Fisheries and Aquatic Sciences
- FAS 6940: Supervised Teaching
- FAS 6971: Research for Master's Thesis
- FAS 7979: Advanced Research
- FAS 7980: Research for Doctoral Dissertation

Forest Resources and Conservation Program Courses

- FNR 5072C: Environmental Education Program Development
- FNR 5335: Agroforestry
- FNR 5462: Spatial Models and Decision Analysis
- FNR 5608: Research Planning
- FNR 6061: Conflict and Collaboration in Natural Resources
- FNR 6560: Intro to Bayesian Statistics for Life Sciences
- FNR 6564: Ecohydrology
- FOR 5157: Ecosystem Restoration Principles and Practice
- FOR 5159: Ecology and Restoration of Longleaf Pine Ecosystems
- FOR 5161: Forest Productivity and Health

- FOR 5435: Forest Information Systems
- FNR 6628: Watershed Management and Restoration
- FNR 6669: Policy and Economics of Natural Resources
- FOR 5625: Forest Water Resources Management
- FOR 5756: Non-Timber Forest Products
- FOR 6005: Conservation Behavior
- FOR 6151: Forest Ecosystem Health
- FOR 6154: Analysis of Forest Ecosystems
- FOR 6156: Simulation Analysis of Forest Ecosystems
- FOR 6164: Silviculture: Concepts and Application
- FOR 6170: Tropical Forestry
- FOR 6172C: Tropical Forestry Field Course
- FOR 6215: Fire Paradigms
- FOR 6340: Physiology of Forest Trees
- FOR 6345C: Plant Water Relations Techniques
- FOR 6543: Natural Resource Economics and Valuation
- FOR 6628: Community Forest Management
- FOR 6665: Landscape Planning for Ecotourism
- FOR 6905: Research Problems in Forest Resources and Conservation
- FOR 6910: Supervised Research
- FOR 6933: Seminar
- FOR 6934: Topics in Forest Resources and Conservation
- FOR 6940: Supervised Teaching
- FOR 6971: Research for Master's Thesis
- FOR 7979: Advanced Research
- FOR 7980: Research for Doctoral Dissertation
- PCB 5530: Plant Molecular Biology and Genomics
- PCB 6528: Plant Cell and Developmental Biology
- PCB 6555: Introduction to Quantitative Genetics
- SUR 6377: Geospatial Application of UASs
- SUR 6502C: Foundations of UAS Mapping
- SUR 6940C: Practicum in UAS Mapping

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management

- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

School of Natural Resources and Environment

Graduate coordinator: T. Frazer

The University of Florida School of Natural Resources and Environment offers interdisciplinary coursework in the basic and applied science of ecology, the related social sciences, and sustainability, leading to M.S. and Ph.D. degrees. Choose from about 450 courses, 280 faculty advisors, and 44 participating departments. Research areas of ecology graduate students range across natural resource ecology, environmental policy and management, and sustainable development.

Environmental problems are fundamentally human problems and should be understood in terms of human motivations and actions in a biophysical context. Their solution requires holistic thinking about dynamic ecological systems and the social, economic, and political forces driving human action. To this end, the goal of the Interdisciplinary Ecology graduate program is to provide advanced training in ecosystems thinking and the main theories and methodologies of the biophysical and social sciences to foster integrative approaches to complex real-world problems. Interdisciplinary Ecology students are intensely interested in the sustainability problem, and they welcome the challenge of addressing it through more than one traditional discipline.

Combined programs: The School offers a combined bachelor's/master's degree program, which allows qualified students to earn both a bachelor's degree and a master's degree with a savings of 1 semester.

Interdisciplinary Ecology

College of Agricultural and Life Sciences
School of Natural Resources and Environment

Interdisciplinary Ecology Program

Director of Academic Programs and Graduate Coordinator: T. Frazer

Graduate students are advised by one of the 280 members of the School's affiliate faculty and have a supervisory committee with interdisciplinary composition. For the list of Graduate Faculty, see http://snre.ifas.ufl.edu/people/affiliated-faculty/. Graduate students are hosted in one of 44 participating academic units.

The School offers a program of study leading to the Master of Science (thesis and non-thesis options), and Doctor of Philosophy degrees in interdisciplinary ecology. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog. The course work requirements and curriculum are described in more detail at http://snre.ifas.ufl.edu/academics/graduate/courses-syllabi-and-curriculum/. Choices among 450 courses are custom-fitted by the student and the supervisory committee to meet the student's specific needs and interests.

The Interdisciplinary Ecology program views the social-ecological system as the proper framework for addressing the full scope of complex, adaptive systems comprising humans in the natural world. The degree program challenges students to understand both natural and human dynamics to obtain a holistic view and to foster integration of human activities with natural resources and the environment. The learning outcomes of the program are to develop a

thorough understanding of the components, processes, and interactions of the social-ecological system, competence in scientific research methodologies, and experience in professional interaction with peers.

The degree programs combine 1) course work in the science of ecology and additional natural and social sciences; and 2) competence in a recognized discipline in one of these fields of study. The former is achieved with a core-course and distribution requirement and the latter by extra course work for the master's and a concentration for the doctoral degree. A thesis or dissertation provides first-hand experience creating scientific knowledge. The non-thesis master's option provides rapid, advanced preparation for the job market in 3 to 4 semesters, without research experience. Course requirements are 36 semester hours for the thesis option, 38 hours for the non-thesis option, and 60 hours beyond the master's degree for the doctoral degree.

Combined programs: The School offers a combined bachelor's/master's degree program, which allows qualified students to earn both a bachelor's degree and a master's degree with a savings of 1 semester.

Degrees Offered with a Major in Interdisciplinary Ecology

Doctor of Philosophy

without a concentration
concentration in Agricultural and Biological Engineering
concentration in Agricultural Education and Communication
concentration in Agronomy
concentration in Anthropology
concentration in Architecture
concentration in Biochemistry and Molecular Biology
concentration in Botany
concentration in Business Administration
concentration in Chemistry
concentration in Civil Engineering
concentration in Climate Science
concentration in Coastal and Oceanographic Engineering
concentration in Economics
concentration in English
concentration in Entomology and Nematology
concentration in Environmental Engineering Sciences
concentration in Family, Youth and Community Sciences
concentration in Farming Systems
concentration in Fisheries and Aquatic Sciences
concentration in Food and Resource Economics
concentration in Food Science
concentration in Forest Resources and Conservation
concentration in Foundations of Education
concentration in Geographic Information Systems
concentration in Geography
concentration in Geology
concentration in Health and Human Performance
concentration in Horticultural Sciences
concentration in Hydrologic Sciences
concentration in Landscape Architecture
concentration in Mathematics
concentration in Microbiology and Cell Science
concentration in Nuclear and Radiological Engineering
concentration in Philosophy
concentration in Political Science

concentration in Religion
concentration in Sociology
concentration in Soil and Water Science
concentration in Statistics
concentration in Tropical Conservation and Development
concentration in Urban and Regional Planning
concentration in Veterinary Medical Sciences
concentration in Wetland Sciences
concentration in Wildlife Ecology And Conservation
concentration in Women's/Gender Studies
concentration in Zoology

Master of Science

without a concentration
concentration in Agricultural and Biological Engineering
concentration in Agricultural Education and Communication
concentration in Agronomy
concentration in Anthropology
concentration in Architecture
concentration in Biochemistry and Molecular Biology
concentration in Botany
concentration in Business Administration
concentration in Chemistry
concentration in Civil Engineering
concentration in Climate Science
concentration in Coastal and Oceanographic Engineering
concentration in Economics
concentration in English
concentration in Entomology and Nematology
concentration in Environmental Engineering Sciences
concentration in Family, Youth and Community Sciences
concentration in Farming Systems
concentration in Fisheries and Aquatic Sciences
concentration in Food and Resource Economics
concentration in Food Science
concentration in Forest Resources and Conservation
concentration in Foundations of Education
concentration in Geographic Information Systems
concentration in Geography
concentration in Geology
concentration in Health and Human Performance
concentration in Horticultural Sciences
concentration in Hydrologic Sciences
concentration in Landscape Architecture
concentration in Mathematics
concentration in Microbiology and Cell Science
concentration in Nuclear and Radiological Engineering
concentration in Philosophy
concentration in Political Science
concentration in Religion
concentration in Sociology
concentration in Soil and Water Science
concentration in Statistics

concentration in Tropical Conservation and Development
concentration in Urban and Regional Planning
concentration in Veterinary Medical Sciences
concentration in Wetland Sciences
concentration in Wildlife Ecology And Conservation
concentration in Women's/Gender Studies
concentration in Zoology

Courses

- http://snre.ifas.ufl.edu/academics/graduate/courses-syllabi-and-curriculum/

- EVR 5705: Natural Resources and Innovation Systems
- EVR 6320: Sustainable Natural Resource Management
- EVR 6933: Seminar
- EVR 6934: Internship
- EVR 6979: Nonthesis Master's Project
- PCB 6971: Research for Master's Thesis
- PCB 7979: Advanced Research
- PCB 7980: Research for Doctoral Dissertation

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Soil and Water Sciences Department

Chair: K. Ramesh Reddy
Graduate Coordinator: Willie Harris

The Soil and Water Sciences Department offers Master of Science (thesis or professional non-thesis option) and Doctor of Philosophy degrees in soil and water sciences with the following specializations: ecology, environmental science, hydrologic science, and soil science. The Department also offers Master of Science (thesis or professional option) track in environmental science via distance education for place bound students (http://soils.ifas.ufl.edu/academics/degree-environscience.shtml). Requirements for the M.S. and Ph.D. degrees are given in the Graduate Degrees section of this catalog.

Soil and Water are vital resources in urban, agricultural, and natural ecosystems. The Soil and Water Sciences Department (SWSD) provides highly visible leadership in teaching, research, and extension/outreach programs as related to improving the productivity of agriculture with environmentally sound management practices, improving water quality, and protection and conservation of natural resources. Our department is one of the few in the nation that offers a comprehensive research and educational programs (molecular to landscape level) involving terrestrial, wetlands and aquatic ecosystems of the landscape. In addition to traditional on-campus educational programs, we use innovative e-technologies to offer educational programs to place-bound students. Our graduates and postdoctoral fellows are well placed at universities, state and federal agencies, and private industry.

The SWSD programs are designed to meet the changing needs of our clientele at state, national and international levels. To meet new challenges and explore new opportunities, the SWSD's research, teaching, and extension programs are focused in five areas, with broader implication to water quality, carbon sequestration, greenhouse gases, and climate change:

- Nutrient, Pesticide, and Waste Management
- Soil, Water, and Aquifer Remediation
- Carbon Dynamics and Ecosystem Services
- Landscape Analysis and Modeling
- Wetlands and Aquatic Ecosystems

The Department offers graduate level certificates in Biodegradation and Remediation, Global Agroecology, Soil Ecosystem Services, Sustainable Agroecosystems, Sustainable Land Resource and Nutrient Management and Wetland and Water Resource Management for both on-campus students and via distance education for place bound students (http://soils.ifas.ufl.edu/academics/degree-certificates.shtml).

An additional option offered by the Department is a combined bachelor's/master's degree program that permits a B.S in Soil and Water Science or Interdisciplinary Studies – Environmental Management in Agriculture and Natural Resources and M.S. Degree to be completed in five years. Contact the graduate coordinator for more information.

For more information, please see the program page below and our website: http://soils.ifas.ufl.edu.

Soil and Water Sciences

College of Agricultural and Life Sciences
Soil and Water Sciences Department

Soil and Water Sciences Program Information

The Soil and Water Sciences Department offers Master of Science (thesis or professional non-thesis option) and Doctor of Philosophy degrees in soil and water sciences with the following specializations: ecology, environmental science,

hydrologic science, and soil science. The department also offers Master of Science (thesis or professional option) track in environmental science via distance education for place bound students (http://soils.ifas.ufl.edu/academics/degree-environscience.shtml). Requirements for the M.S. and Ph.D. degrees are given in the Graduate Degrees section of this catalog.

Students can also develop specializations in several interdisciplinary areas including biogeochemistry, ecology, geographic information systems, hydrologic science, tropical agriculture, turfgrass management, and wetland science. The Department emphasizes (but is not limited to) the following research areas:

- Nutrient, Pesticide, and Waste Management
- Soil, Water, and Aquifer Remediation
- Carbon Dynamics and Ecosystem Services
- Landscape Analysis and Modeling
- Wetlands and Aquatic Ecosystems

Interests of the student and faculty, the facilities, and funding available will determine the student's research area. A specific program of study is prepared by an appointed supervisory committee for each student. Students will present a thesis or dissertation in their major field (M.S. thesis option and Ph.D.). In addition, Ph.D. candidates must pass a qualifying examination covering several areas of soil and water science and related fields.

Prerequisites: Students who expect to do graduate work in the Soil and Water Sciences Department should hold a bachelor's degree from an accredited college or university with a major in soil and water science or the equivalent background in another field of science. Graduate students should have backgrounds in biology, chemistry, physics, and mathematics and knowledge of basic soil and water science.

For more information, please see our website: http://soils.ifas.ufl.edu.

Degrees Offered with a Major in Soil and Water Sciences

Doctor of Philosophy

without a concentration
concentration in Climate Science
concentration in Geographic Information Systems
concentration in Global Systems Agroecology
concentration in Hydrologic Sciences
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Master of Science

without a concentration
concentration in Agroecology
concentration in Climate Science
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Soil and Water Sciences Departmental Courses

- AGG 5607: Communicating in Academia
- ALS 5027: Reusable Learning Objects
- ALS 5155: Global Agroecosystems
- AGG 6503: Nanotechnology in Food, Agriculture, and Environment

- CWR 6537: Contaminant Subsurface Hydrology
- SWS 5050: Soils for Environmental Professionals
- SWS 5050L: Soils for Environmental Professionals Laboratory
- SWS 5115: Environmental Nutrient Management
- SWS 5132: Tropical Soil Management
- SWS 5182: Earth System Analysis
- SWS 5208: Sustainable Agricultural and Urban Land Management
- SWS 5224: Environmental Biogeochemistry
- SWS 5234: Environmental Soil, Water, and Land Use
- SWS 5235: South Florida Ecosystems
- SWS 5246: Water Resource Sustainability
- SWS 5247: Hydric Soils
- SWS 5248: Wetlands and Water Quality
- SWS 5305C: Soil Microbial Ecology
- SWS 5308: Ecology of Waterborne Pathogens
- SWS 5406: Soil and Water Chemistry
- SWS 5424C: Soil Chemical Analysis
- SWS 5551: Soils, Water, and Public Health
- SWS 5605C: Environmental Soil Physics
- SWS 5716C: Environmental Pedology
- SWS 5721C: GIS in Land Resource Management
- SWS 5805: Environmental Soil and Water Monitoring Techniques
- SWS 6134: Soil Quality
- SWS 6136: Soil Fertility
- SWS 6161: Bioavailability of Soil Nutrients
- SWS 6209: Urban Soil and Water Systems
- SWS 6262: Soil Contamination and Remediation
- SWS 6323: Advanced Microbial Ecology
- SWS 6366: Biodegradation and Bioremediation
- SWS 6448: Biogeochemistry of Wetlands and Aquatic Systems
- SWS 6454: Advanced Soil and Water Chemistry
- SWS 6456: Advanced Biogeochemistry
- SWS 6464C: Soil Mineralogy
- SWS 6622: Vadose Zone Hydrology
- SWS 6722: Soil-Landscape Modeling
- SWS 6905: Special Problems
- SWS 6910: Supervised Research
- SWS 6920: Journal Colloquium in Environmental Science
- SWS 6931: Seminar
- SWS 6932: Topics in Soils
- SWS 6940: Supervised Teaching
- SWS 6971: Research for Master's Thesis
- SWS 7979: Advanced Research
- SWS 7980: Research for Doctoral Dissertation

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Wildlife Ecology and Conservation Department

College of Agricultural and Life Sciences

Chair: Eric C. Hellgren
Graduate Coordinator: Kathryn E. Sieving

The Department of Wildlife Ecology and Conservation offers Master of Science (thesis and nonthesis option) and Doctor of Philosophy degrees in wildlife ecology and conservation. Requirements for these degrees are described in the Graduate Degrees section of this catalog.

Program emphases include wildlife biology, ecology, and management; landscape ecology and restoration; human dimensions; tropical and international conservation; and conservation education. Graduate students should have appropriate undergraduate training in the biological, social, and physical sciences including physics, chemistry, and mathematics. Students with inadequate backgrounds may be required to take (without credit at the graduate level) remedial undergraduate courses pertinent to their fields of interest.

For more information, please see our website: http://www.wec.ufl.edu.

Wildlife Ecology and Conservation

College of Agricultural and Life Sciences
Wildlife Ecology and Conservation Department

Wildlife Ecology and Conservation Program

The Department of Wildlife Ecology and Conservation offers a breadth of graduate programs that are designed to prepare students for professional employment in conservation of natural resources in a changing world. WEC faculty teach, conduct research, and provide service and extension in the following areas: avian ecology, behavioral ecology, community ecology, conservation biology, conservation education, conservation genetics, ecosystem management, environmental interpretation, habitat restoration, global change ecology, herpetofaunal ecology, human dimensions of wildlife management, international conservation, introduced species, landscape ecology, macroecology, mammalian behavior, marine mammal ecology, plant ecology, population biology, range ecology, systems ecology, tropical conservation, urban wildlife relations, wetlands ecology, wildlife diseases, and wildlife management.

The **Doctor of Philosophy (PhD) program** in Wildlife Ecology and Conservation serves graduate students conducting advanced, original studies of fundamental ecological and social sciences (e.g., ecosystem, community, landscape ecology, human dimensions), usually with applications to further society's understanding of wildlife ecology and to improve conservation of wildlife resources.

The **Master of Science (MS) thesis program** in Wildlife Ecology and Conservation: (a) prepares graduate students for entry-level professional positions in areas of wildlife biology and ecology, natural resource management, conservation, and (b) provides a solid scientific foundation for further graduate work leading to the PhD degree.

The **Master of Science, non-thesis (MS) program** in Wildlife Ecology and Conservation provides advanced training for students in technical and professional aspects of wildlife management, conservation, and public education, emphasizing written and oral communication of scientific information.

For more information, please see our website: http://www.wec.ufl.edu.

Degrees Offered with a Major in Wildlife Ecology and Conservation

Doctor of Philosophy

without a concentration
concentration in Geographic Information Systems
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Master of Science

without a concentration
concentration in Geographic Information Systems
concentration in Tropical Conservation and Development
concentration in Wetland Sciences
concentration in Wildlife Forensic Sciences and Conservation

Wildlife Ecology and Conservation Courses

- WIS 5323C: Impact of Diseases on Wildlife Population
- WIS 5376
- WIS 5496: Research Design in Wildlife Ecology
- WIS 5521: Plant-Animal Interactions
- WIS 5555C: Conservation Biology
- WIS 6421: Wildlife Toxicology: The Ecohealth Perspective
- WIS 6425: Carrion Ecology and Evolution
- WIS 6444: Advanced Wetlands Ecology
- WIS 6455: Wildlife Population Ecology
- WIS 6466: Wildlife Population Modeling
- WIS 6468C: Pattern and Process in Landscape Ecology
- WIS 6525: Environmental Interpretation
- WIS 6544: Administration in Natural Resources
- WIS 6556: Trade in Wild Resources
- WIS 6563: Wildlife Forensic Pathology
- WIS 6575: Mammalian Carnivores: Conservation and Management Issues
- WIS 6576: Human and Wildlife Conflict
- WIS 6578: Human Dimensions of Biological Conservation
- WIS 6905: Research Problems in Wildlife and Range Sciences
- WIS 6910: Supervised Research
- WIS 6933: Seminar
- WIS 6934: Topics in Wildlife and Range Sciences
- WIS 6940: Supervised Teaching
- WIS 6971: Research for Master's Thesis
- WIS 6543: Wildlife and Agriculture
- WIS 7979: Advanced Research
- WIS 7980: Research for Doctoral Dissertation

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

Genetics and Genomics (CALS)

- College of Agricultural and Life Sciences
- College of Liberal Arts and Sciences
- College of Medicine

Genetics and Genomics Program Information

Program Co-Directors: Doug Soltis and Maurice Swanson

The University of Florida Genetics Institute is a multi-college, multi-faceted research center which offers the a degree program leading to the Ph.D. in Genetics and Genomics. Minimum requirements for this degree are available in the Graduate Degrees section of this catalog.

What defines the Genetics & Genomics Graduate Program is the philosophy that good geneticists are integrative geneticists, who incorporate many different subfields of genetics into their work. Accordingly, faculty interests and graduate research opportunities include a wide range of areas: advances in gene therapy, understanding the maintenance of genetic variation, understanding plant immune responses, developing improved algorithms for identifying regulatory motifs in DNA sequences, and the challenges of bioethics to strategies for controlling malaria. Due to the fundamental nature of genetics in the life sciences, our training program is distributed across several colleges at UF, including but not limited to the College of Medicine, the College of Liberal Arts and Sciences, the College of Agricultural and the Life Sciences, and the Florida Museum of Natural History.

Graduate Program Overview

First Year:

- Advanced Genetics (PCB 5065)
- Genomics & Bioinformatics (GMS 6231)
- Big Data (GMS 5905)
- Advanced Molecular & Cellular Biology (BCH 6415)
- Ethics in Genetics (GMS 6221)

- Seminar in Genetics (GMS 6290) begins in the first semester and continues throughout students' graduate careers
- Laboratory Rotations (ANG 7979)

The first year core training is the research rotation program, in which students "rotate" through three labs in a minimum of two colleges. Rotations are critical to selecting a graduate advisor: they provide a hands-on opportunity to participate in the research being conducted in a lab, and a mutual opportunity to evaluate fit between advisor and prospective student.

Second Year:

- Individual program of courses and requirements is developed in consultation with major professor and dissertation committee

Admission Standards: Prospective students should have strong backgrounds in biology and other hard sciences. Exceptional students with other backgrounds will also be considered. The research statement required as part of the application has a particularly important part in the admissions decision. Each applicant must describe his/her research interests, so that Graduate Faculty can evaluate knowledge of the discipline, fit to the program, and ability to articulate and motivate an interesting research problem. The required Letters of Recommendation are also extremely important in helping identify applicants with exceptional aptitude for genetics, and with research experience and promise.

Contact the Genetics and Genomics Graduate Program by email, UFGI-Info@ad.ufl.edu or by phone, 352-273-8100.

For more information, visit our website: http://www.ufgi.ufl.edu.

Degrees Offered with a Major in Genetics and Genomics

Doctor of Philosophy
Doctor of Philosophy - Clinical and Translational Science

Courses

- AGR 6322: Advanced Plant Breeding
- ANG 6532: Molecular Genetics of Disease
- ANG 7979: Advanced Research
- ANG 7980: Research for Doctoral Dissertation
- BCH 6415: Advanced Molecular and Cell Biology
- BCH 7410: Advanced Gene Regulation
- CAP 5510: Bioinformatics
- CAP 5515: Computational Molecular Biology
- CAP 5805: Computer Simulation Concepts
- CIS 6930: Special Topics in CIS
- COT 5405: Analysis of Algorithms
- FOR 6934: Topics in Forest Resources and Conservation
- FOR 7979: Advanced Research
- FOR 7980: Research for Doctoral Dissertation
- GMS 6012: Human Genetics
- GMS 6013: Developmental Genetics
- GMS 6014: Applications of Bioinformatics to Genetics
- GMS 6015: Human Genetics II
- GMS 6920: Genetics Journal Colloquy

- GMS 7979: Advanced Research
- GMS 7980: Research for Doctoral Dissertation
- HOS 6201: Breeding Perennial Cultivars
- PCB 5065: Advanced Genetics
- PCB 5235L: Experiments in Immunology
- PCB 5615: Molecular Evolution and Systematics
- PCB 6528: Plant Cell and Developmental Biology
- PCB 7979: Advanced Research
- PCB 7980: Research for Doctoral Dissertation
- STA 5325: Fundamentals of Probability
- STA 5328: Fundamentals of Statistical Theory
- STA 6166: Statistical Methods in Research I
- STA 6167: Statistical Methods in Research II
- STA 6208: Basic Design and Analysis of Experiments
- STA 6329: Matrix Algebra and Statistical Computing
- STA 6934: Special Topics in Statistics
- STA 7979: Advanced Research
- STA 7980: Research for Doctoral Dissertation
- ZOO 6927: Special Topics in Zoology
- ZOO 7979: Advanced Research
- ZOO 7980: Research for Doctoral Dissertation
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College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

College of the Arts

Dean: O. Ozuzu
Associate Dean: J. Setlow

The arts program at UF began in the 1920s to serve the state of Florida's needs. Meeting these needs over the past 80 years has propelled the college to excel on a national and international level and has defined its mission to provide instruction for students seeking professional careers in the arts. In addition to providing rich educational experiences and programs in the arts, the college brings national and international recognition to the university through the high-level professionalism associated with the faculty and alumni, and the competence of students and graduates.

For more information about the College of the Arts, please see our website: http://www.arts.ufl.edu.

Arts in Medicine

College of the Arts

Arts in Medicine Program Information

Center for Arts in Medicine Director: Jill Sonke
Center for Arts in Medicine Graduate Advisor: Eleanor K. Sommer

The Center for Arts in Medicine is committed to advancing research, education, and practice in the arts in healthcare, locally and globally. The Center offers an online Master of Arts (MA) in Arts in Medicine. Minimum requirements for the degree are available in the Graduate Degrees section of this catalog.

Prerequisites and Requirements: Admission to the MA in Arts in Medicine program requires a bachelor's degree in an arts, health, or related field of study; a GRE exam score (no minimum score is required) or previous graduate degree; and completion of one of the following prerequisites: the Introduction to Arts in Medicine in a Global Context course at UF, completion of an Arts in Medicine Summer Intensive, completion of the online course Creating for the Health of It, or a minimum of one year of professional experience as an artist or administrator in the arts in health field. Requirements of the degree include completion of 35 credits of coursework with a 3.0 or higher GPA.

Commitment of time: The MA in Arts in Medicine is designed to be completed in two years when students are enrolled in two classes per 16-week semester (most of the courses are offered in 8-week terms). Students should expect to dedicate 16 hours per week to each 8-week, 3-credit-hour course and 8 hours per week for 16-week courses.

For more information, please go the Center for Arts in Medicine website: http://www.arts.ufl.edu/cam.

Degrees Offered with a Major in Arts in Medicine

Master of Arts

Arts in Medicine Courses

Practicum

- HUM 6358: Arts in Medicine Capstone Proposal
- HUM 6596: Arts in Medicine Capstone
- HUM 6942: Arts in Medicine Graduate Practicum

Core Curriculum

- HUM 5357: Creativity and Health: Foundations of the Arts in Medicine

- HUM 5595: Arts in Medicine in Practice
- HUM 6353: Arts in Medicine Professional Seminar
- HUM 6354: Arts in Medicine Advanced Professional Seminar
- HUM 6597: Research and Evaluation in Arts in Medicine

Electives

- HUM 6308: Arts and Compassion
- HUM 6350: The Art of Self-Care
- HUM 6352: Art and Design in the Environment of Care
- HUM 6355: Arts in Medicine Summer Intensive
- HUM 6365: Collaborating Across Disciplines: The Arts Therapies
- HUM 6375: The Arts and Human Development
- HUM 6930: Special Topics in Fine Arts
- MVV 6651: Vocal Pedagogy
- PHC 6104: Evidence-Based Management of Public Health Programs
- THE 6933: Arts and Public Health Professional Seminar
- THE 6948: Arts and Public Health Practicum

College of the Arts Courses

- HUM 5357: Creativity and Health: Foundations of the Arts in Medicine
- HUM 5595: Arts in Medicine in Practice
- HUM 6308: Arts and Compassion
- HUM 6340: Arts Advocacy and Public Policy
- HUM 6350: The Art of Self-Care
- HUM 6352: Art and Design in the Environment of Care
- HUM 6353: Arts in Medicine Professional Seminar
- HUM 6354: Arts in Medicine Advanced Professional Seminar
- HUM 6355: Arts in Medicine Summer Intensive
- HUM 6358: Arts in Medicine Capstone Proposal
- HUM 6359: Arts in Medicine Capstone
- HUM 6365: Collaborating Across Disciplines: The Arts Therapies
- HUM 6375: The Arts and Human Development
- HUM 6596: Arts in Medicine Capstone
- HUM 6942: Arts in Medicine Graduate Practicum
- HUM 6944: Arts in Action: Consulting Project in Performing Arts Management

School of Art and Art History

College of the Arts

Director: Lynn Tomaszewski
Graduate Coordinator: Patrick Grigsby

The School of Art and Art History offers the M.F.A. degree in art with specializations in art + technology, ceramics, creative photography, drawing, graphic design, painting, printmaking, and sculpture. The school also offers Master of Arts degrees in art education, art history, and museology (museum studies) and the Doctor of Philosophy degree in art history. Requirements for these degrees can be found in the Graduate Degrees section of this catalog, and information about each of these graduate programs can be found at the links below.

For more information, please see our website: http://arts.ufl.edu/academics/art-and-art-history/.

Art

College of the Arts
School of Art and Art History

Art Program

Master of Fine Arts degree: The school offers the M.F.A. degree in art with specializations in art + technology, ceramics, creative photography, drawing, graphic design, painting, printmaking, and sculpture. Enrollment is competitive and limited. Candidates for admission should have adequate undergraduate training in art. Deficiencies may be corrected before beginning graduate study. Applicants must submit a portfolio for admission consideration (for comprehensive admission information: http://www.arts.ufl.edu/programs/grad.aspx). A minimum of 3 years residency is normally needed to complete the requirements for this degree, which for studio students culminates with an M.F.A. exhibition.

The M.F.A. requires a minimum of 60 credit hours: 24 hours must be in an area of specialization. Normal course requirements include

- 12 hours of studio electives outside the area of specialization
- 6 hours of art history electives
- 3 hours of outside SA+AH electives (research/discipline appropriate)
- 6 hours of electives
- 6 hours of individual project or thesis research.

Although the M.F.A. is a thesis degree, students usually produce a creative project in lieu of thesis. Students should see the graduate program adviser for the School's requirements for the creative project.

Degrees Offered with a Major in Art

Master of Fine Arts

School of Art and Art History Departmental Courses

- ARE 6049: History of Teaching Art
- ARE 6148: Curriculum in Teaching Art

- ARE 6246C: Principles of Teaching Art
- ARE 6247C: Teaching Art: The Study of Practice
- ARE 6386: Teaching Art in Higher Education
- ARE 6641: Issues in Art Education
- ARE 6746: Methods of Research in Art Education
- ARE 6905: Individual Study
- ARE 6910: Capstone Project
- ARE 6933: Special Topics in Art Education
- ARE 6944: Internship in Teaching Art
- ARE 6971: Research for Master's Thesis
- ARE 6973: Individual Project
- ARH 5357: French Art of the Ancien Regime: 1680-1780
- ARH 5420: Art in the Age of Revolution
- ARH 5440: Beginnings of Modernism
- ARH 5527: Arts of Central Africa
- ARH 5528: Art of West Africa
- ARH 5529: Clothing and Textiles in Africa
- ARH 5655: Indigenous American Art
- ARH 5667: Colonial Andean Art
- ARH 5816: Methods of Research and Bibliography
- ARH 5877: Gender, Representation, and the Visual Arts: 1600-1900
- ARH 5905: Individual Study
- ARH 6141: Greek Art Seminar
- ARH 6292: Medieval Art Seminar
- ARH 6394: Renaissance Art Seminar
- ARH 6422: Beginnings of Modernism. Realism to Post-Impressionism 1848-1890
- ARH 6477: Eighteenth-Century European Art Seminar
- ARH 6481: Contemporary Art Seminar
- ARH 6496: Modern Art Seminar
- ARH 6596: Chinese Art Seminar
- ARH 6597: African Art Seminar
- ARH 6654: Pre-Columbian Art Seminar
- ARH 6666: Colonial Latin American Art Seminar
- ARH 6694: Nineteenth-Century Art–Seminar
- ARH 6696: American Art Seminar
- ARH 6797: Museum Education
- ARH 6836: Exhibitions Seminar
- ARH 6895: Collections Management Seminar
- ARH 6900: Independent Study in Museology
- ARH 6910: Supervised Research
- ARH 6911: Advanced Study
- ARH 6914: Independent Study in Ancient Art History
- ARH 6915: Independent Study in Medieval Art History
- ARH 6916: Independent Study in Renaissance and Baroque Art History
- ARH 6917: Independent Study in Modern Art History
- ARH 6918: Independent Study in Non-Western Art History

- ARH 6930: Special Topics in Museology
- ARH 6938: Seminar in Museum Studies
- ARH 6941: Supervised Internship
- ARH 6946: Museum Practicum
- ARH 6948: Gallery Practicum
- ARH 6971: Research for Master's Thesis
- ARH 7979: Advanced Research
- ARH 7980: Research for Doctoral Dissertation
- ART 5674C: Digital Fabrication
- ART 5905C: Directed Study
- ART 5930C: Special Topics
- ART 6410C: Printmaking Seminar: Mastering Process and Content
- ART 6411C: Printmaking Seminar: Transformation and Change
- ART 6412C: Printmaking Seminar: Ideation, Studies, and Completed Works
- ART 6413C: Printmaking Seminar: Interdisciplinary Studio
- ART 6671C: Advanced Experiments in Digital Art
- ART 6672: Hypermedia
- ART 6673C: Video Art
- ART 6675C: Digital Art and Animation
- ART 6691: Digital Art Studio
- ART 6794C: Vessel Aesthetic 1
- ART 6795C: Vessel Aesthetic 2
- ART 6797C: Ceramic Sculpture 2
- ART 6835C: Research in Methods and Materials of the Artist
- ART 6849C: Reactive Environments
- ART 6897: Professional Practices for the Visual Artist
- ART 6910C: Supervised Research
- ART 6925C: Art + Technology Workshop
- ART 6926C: Advanced Study I
- ART 6927C: Advanced Study II
- ART 6928C: Advanced Study III
- ART 6929C: Advanced Study IV
- ART 6933: Area Methods: Rotating Topics
- ART 6971: Research for Master's Thesis
- ART 6973C: Individual Project
- DIG 6746C: Graduate Seminar in Sensors and Electronics
- GRA 6930: Seminar: Rotating Topics
- GRA 6931C: Research and Practice
- GRA 6944: Practicum
- GRA 6973: Project in Lieu of Thesis
- IDC 6505C: Programming for Artists

College of the Arts Courses

- HUM 5357: Creativity and Health: Foundations of the Arts in Medicine
- HUM 5595: Arts in Medicine in Practice

- HUM 6308: Arts and Compassion
- HUM 6340: Arts Advocacy and Public Policy
- HUM 6350: The Art of Self-Care
- HUM 6352: Art and Design in the Environment of Care
- HUM 6353: Arts in Medicine Professional Seminar
- HUM 6354: Arts in Medicine Advanced Professional Seminar
- HUM 6355: Arts in Medicine Summer Intensive
- HUM 6358: Arts in Medicine Capstone Proposal
- HUM 6359: Arts in Medicine Capstone
- HUM 6365: Collaborating Across Disciplines: The Arts Therapies
- HUM 6375: The Arts and Human Development
- HUM 6596: Arts in Medicine Capstone
- HUM 6942: Arts in Medicine Graduate Practicum
- HUM 6944: Arts in Action: Consulting Project in Performing Arts Management

Art Education

College of the Arts
School of Art and Art History

Art Education Program

Master of Arts degree in Art Education: The School offers the M.A. in art education. In addition to meeting requirements of the Graduate School for admission, prospective students should:

- Hold a degree in studio art, art history, design, or art education
- Send up to 10 images of original works of art (on CD or in slide form) and a research paper, article, or other sample of academic writing
- Official transcripts from all colleges/universities previously attended
- Statement of professional goals for attending graduate school and earning an M.A. degree in art education
- Current Curriculum Vitae or Resume
- Submit three current letters of recommendation.

The M.A. in art education requires a minimum of 36 credit hours. ARE 6049, ARE 6148, and ARE 6641 are required. The basic plan of study includes 3 credits of an approved art education elective; 9 credits in studio courses; 3 credits in art history; 6 credits in art history, studio, art education, or education electives; 3 credits of ARE 6746 ; and 3 credits of ARE 6971 or ARE 6973. To be admitted to candidacy, students must pass a comprehensive examination at the beginning of the second year. The program culminates in an oral examination on the thesis or project in lieu of thesis.

Degrees Offered with a Major in Art Education

Master of Arts

School of Art and Art History Departmental Courses

- ARE 6049: History of Teaching Art
- ARE 6148: Curriculum in Teaching Art
- ARE 6246C: Principles of Teaching Art
- ARE 6247C: Teaching Art: The Study of Practice
- ARE 6386: Teaching Art in Higher Education

- ARE 6641: Issues in Art Education
- ARE 6746: Methods of Research in Art Education
- ARE 6905: Individual Study
- ARE 6910: Capstone Project
- ARE 6933: Special Topics in Art Education
- ARE 6944: Internship in Teaching Art
- ARE 6971: Research for Master's Thesis
- ARE 6973: Individual Project
- ARH 5357: French Art of the Ancien Regime: 1680-1780
- ARH 5420: Art in the Age of Revolution
- ARH 5440: Beginnings of Modernism
- ARH 5527: Arts of Central Africa
- ARH 5528: Art of West Africa
- ARH 5529: Clothing and Textiles in Africa
- ARH 5655: Indigenous American Art
- ARH 5667: Colonial Andean Art
- ARH 5816: Methods of Research and Bibliography
- ARH 5877: Gender, Representation, and the Visual Arts: 1600-1900
- ARH 5905: Individual Study
- ARH 6141: Greek Art Seminar
- ARH 6292: Medieval Art Seminar
- ARH 6394: Renaissance Art Seminar
- ARH 6422: Beginnings of Modernism. Realism to Post-Impressionism 1848-1890
- ARH 6477: Eighteenth-Century European Art Seminar
- ARH 6481: Contemporary Art Seminar
- ARH 6496: Modern Art Seminar
- ARH 6596: Chinese Art Seminar
- ARH 6597: African Art Seminar
- ARH 6654: Pre-Columbian Art Seminar
- ARH 6666: Colonial Latin American Art Seminar
- ARH 6694: Nineteenth-Century Art–Seminar
- ARH 6696: American Art Seminar
- ARH 6797: Museum Education
- ARH 6836: Exhibitions Seminar
- ARH 6895: Collections Management Seminar
- ARH 6900: Independent Study in Museology
- ARH 6910: Supervised Research
- ARH 6911: Advanced Study
- ARH 6914: Independent Study in Ancient Art History
- ARH 6915: Independent Study in Medieval Art History
- ARH 6916: Independent Study in Renaissance and Baroque Art History
- ARH 6917: Independent Study in Modern Art History
- ARH 6918: Independent Study in Non-Western Art History
- ARH 6930: Special Topics in Museology
- ARH 6938: Seminar in Museum Studies
- ARH 6941: Supervised Internship

- ARH 6946: Museum Practicum
- ARH 6948: Gallery Practicum
- ARH 6971: Research for Master's Thesis
- ARH 7979: Advanced Research
- ARH 7980: Research for Doctoral Dissertation
- ART 5674C: Digital Fabrication
- ART 5905C: Directed Study
- ART 5930C: Special Topics
- ART 6410C: Printmaking Seminar: Mastering Process and Content
- ART 6411C: Printmaking Seminar: Transformation and Change
- ART 6412C: Printmaking Seminar: Ideation, Studies, and Completed Works
- ART 6413C: Printmaking Seminar: Interdisciplinary Studio
- ART 6671C: Advanced Experiments in Digital Art
- ART 6672: Hypermedia
- ART 6673C: Video Art
- ART 6675C: Digital Art and Animation
- ART 6691: Digital Art Studio
- ART 6794C: Vessel Aesthetic 1
- ART 6795C: Vessel Aesthetic 2
- ART 6797C: Ceramic Sculpture 2
- ART 6835C: Research in Methods and Materials of the Artist
- ART 6849C: Reactive Environments
- ART 6897: Professional Practices for the Visual Artist
- ART 6910C: Supervised Research
- ART 6925C: Art + Technology Workshop
- ART 6926C: Advanced Study I
- ART 6927C: Advanced Study II
- ART 6928C: Advanced Study III
- ART 6929C: Advanced Study IV
- ART 6933: Area Methods: Rotating Topics
- ART 6971: Research for Master's Thesis
- ART 6973C: Individual Project
- DIG 6746C: Graduate Seminar in Sensors and Electronics
- GRA 6930: Seminar: Rotating Topics
- GRA 6931C: Research and Practice
- GRA 6944: Practicum
- GRA 6973: Project in Lieu of Thesis
- IDC 6505C: Programming for Artists

College of the Arts Courses

- HUM 5357: Creativity and Health: Foundations of the Arts in Medicine
- HUM 5595: Arts in Medicine in Practice
- HUM 6308: Arts and Compassion
- HUM 6340: Arts Advocacy and Public Policy
- HUM 6350: The Art of Self-Care

- HUM 6352: Art and Design in the Environment of Care
- HUM 6353: Arts in Medicine Professional Seminar
- HUM 6354: Arts in Medicine Advanced Professional Seminar
- HUM 6355: Arts in Medicine Summer Intensive
- HUM 6358: Arts in Medicine Capstone Proposal
- HUM 6359: Arts in Medicine Capstone
- HUM 6365: Collaborating Across Disciplines: The Arts Therapies
- HUM 6375: The Arts and Human Development
- HUM 6596: Arts in Medicine Capstone
- HUM 6942: Arts in Medicine Graduate Practicum
- HUM 6944: Arts in Action: Consulting Project in Performing Arts Management

Art History

College of the Arts
School of Art and Art History

Art History Program

The School of Art & Art History offers graduate programs leading to the M.A. and Ph.D. degrees. Minimum requirements for these degrees are available in the Graduate Degrees section of this catalog. For complete details of the M.A. and Ph.D. degree requirements, see the Director of Graduate Studies—Art History. Art History students may participate in courses offered by the State University System's programs in Paris, London, and Florence. Other study-abroad programs may be approved by the director of graduate studies.

For the M.A. degree, the School offers areas of emphasis in Ancient, Medieval, Renaissance/Baroque, Modern, and non-Western art history (including African, Asian, and Oceanic). A minimum of 36 credit hours is required: ARH 5816 (3 credits), 27 hours of course work, and ARH 6971 (6 credits). Course work requires a graduate seminar in each of the following areas: Ancient, Renaissance/Baroque, Modern/Contemporary, and Non-West (a total of 12 credit hours). Nine credits may be taken in related areas with the graduate program adviser's approval. Reading proficiency in a foreign language appropriate to the major area of study must be demonstrated before thesis research is begun. Language courses cannot apply toward degree credit.

For the Ph.D. degree, the School offers the same areas of specialization as for the M.A. degree. Up to 30 credits from the M.A. degree may apply toward the 90 credit Ph.D. degree. A program of 60 credit hours beyond the M.A. degree is required. Core courses will consist of a minimum of 30 hours in art history:

- 18 hours in a primary area (5000-level or above)
- 9 hours in a secondary area (5000-level or above)
- 3 hours of theory/methodology of art history (if ARH 5816 or its equivalent has not been taken as part of the M.A.)
- An additional 12 hours of outside electives taken in other schools or departments are required in a discipline(s) related to the primary area of study
- Finally, 27 hours of dissertation research and writing is required.

By the end of the second semester or equivalent full-time study, students should form their supervisory committee that must include a minimum of four Graduate Faculty members; one of whom must agree to serve as primary

dissertation adviser and supervisory committee chair. The supervisory committee will also act as the qualifying examination committee. Normally students will take the qualifying examination during the spring term of the third year in residence. The examination is both written and oral. It will cover the major and minor art history areas of emphasis as well as the student's preliminary formulation of a dissertation topic and provisional statement of the approaches to that topic as expressed in the dissertation prospectus. On successful completion of the qualifying examination, the approval by the supervisory committee of the dissertation prospectus, and fulfilling all other course and language requirements, the student makes formal application for a change of status to Ph.D. candidacy. Normally, a student will be expected to present the completed dissertation and defend it at an oral defense conducted by the supervisory committee by the end of the sixth year in the program. For Ph.D. students, reading knowledge of two research languages other than English must be demonstrated by the end of the second year of course work, or by the end of the first semester in the case of transfer students. Language courses are not applicable toward degree credit.

For more information, please see our website: http://arts.ufl.edu/academics/art-and-art-history.

Degrees Offered with a Major in Art History

Doctor of Philosophy
Master of Arts

School of Art and Art History Departmental Courses

- ARE 6049: History of Teaching Art
- ARE 6148: Curriculum in Teaching Art
- ARE 6246C: Principles of Teaching Art
- ARE 6247C: Teaching Art: The Study of Practice
- ARE 6386: Teaching Art in Higher Education
- ARE 6641: Issues in Art Education
- ARE 6746: Methods of Research in Art Education
- ARE 6905: Individual Study
- ARE 6910: Capstone Project
- ARE 6933: Special Topics in Art Education
- ARE 6944: Internship in Teaching Art
- ARE 6971: Research for Master's Thesis
- ARE 6973: Individual Project
- ARH 5357: French Art of the Ancien Regime: 1680-1780
- ARH 5420: Art in the Age of Revolution
- ARH 5440: Beginnings of Modernism
- ARH 5527: Arts of Central Africa
- ARH 5528: Art of West Africa
- ARH 5529: Clothing and Textiles in Africa
- ARH 5655: Indigenous American Art
- ARH 5667: Colonial Andean Art
- ARH 5816: Methods of Research and Bibliography
- ARH 5877: Gender, Representation, and the Visual Arts: 1600-1900
- ARH 5905: Individual Study
- ARH 6141: Greek Art Seminar
- ARH 6292: Medieval Art Seminar
- ARH 6394: Renaissance Art Seminar
- ARH 6422: Beginnings of Modernism. Realism to Post-Impressionism 1848-1890
- ARH 6477: Eighteenth-Century European Art Seminar

- ARH 6481: Contemporary Art Seminar
- ARH 6496: Modern Art Seminar
- ARH 6596: Chinese Art Seminar
- ARH 6597: African Art Seminar
- ARH 6654: Pre-Columbian Art Seminar
- ARH 6666: Colonial Latin American Art Seminar
- ARH 6694: Nineteenth-Century Art–Seminar
- ARH 6696: American Art Seminar
- ARH 6797: Museum Education
- ARH 6836: Exhibitions Seminar
- ARH 6895: Collections Management Seminar
- ARH 6900: Independent Study in Museology
- ARH 6910: Supervised Research
- ARH 6911: Advanced Study
- ARH 6914: Independent Study in Ancient Art History
- ARH 6915: Independent Study in Medieval Art History
- ARH 6916: Independent Study in Renaissance and Baroque Art History
- ARH 6917: Independent Study in Modern Art History
- ARH 6918: Independent Study in Non-Western Art History
- ARH 6930: Special Topics in Museology
- ARH 6938: Seminar in Museum Studies
- ARH 6941: Supervised Internship
- ARH 6946: Museum Practicum
- ARH 6948: Gallery Practicum
- ARH 6971: Research for Master's Thesis
- ARH 7979: Advanced Research
- ARH 7980: Research for Doctoral Dissertation
- ART 5674C: Digital Fabrication
- ART 5905C: Directed Study
- ART 5930C: Special Topics
- ART 6410C: Printmaking Seminar: Mastering Process and Content
- ART 6411C: Printmaking Seminar: Transformation and Change
- ART 6412C: Printmaking Seminar: Ideation, Studies, and Completed Works
- ART 6413C: Printmaking Seminar: Interdisciplinary Studio
- ART 6671C: Advanced Experiments in Digital Art
- ART 6672: Hypermedia
- ART 6673C: Video Art
- ART 6675C: Digital Art and Animation
- ART 6691: Digital Art Studio
- ART 6794C: Vessel Aesthetic 1
- ART 6795C: Vessel Aesthetic 2
- ART 6797C: Ceramic Sculpture 2
- ART 6835C: Research in Methods and Materials of the Artist
- ART 6849C: Reactive Environments
- ART 6897: Professional Practices for the Visual Artist
- ART 6910C: Supervised Research

- ART 6925C: Art + Technology Workshop
- ART 6926C: Advanced Study I
- ART 6927C: Advanced Study II
- ART 6928C: Advanced Study III
- ART 6929C: Advanced Study IV
- ART 6933: Area Methods: Rotating Topics
- ART 6971: Research for Master's Thesis
- ART 6973C: Individual Project
- DIG 6746C: Graduate Seminar in Sensors and Electronics
- GRA 6930: Seminar: Rotating Topics
- GRA 6931C: Research and Practice
- GRA 6944: Practicum
- GRA 6973: Project in Lieu of Thesis
- IDC 6505C: Programming for Artists

College of the Arts Courses

- HUM 5357: Creativity and Health: Foundations of the Arts in Medicine
- HUM 5595: Arts in Medicine in Practice
- HUM 6308: Arts and Compassion
- HUM 6340: Arts Advocacy and Public Policy
- HUM 6350: The Art of Self-Care
- HUM 6352: Art and Design in the Environment of Care
- HUM 6353: Arts in Medicine Professional Seminar
- HUM 6354: Arts in Medicine Advanced Professional Seminar
- HUM 6355: Arts in Medicine Summer Intensive
- HUM 6358: Arts in Medicine Capstone Proposal
- HUM 6359: Arts in Medicine Capstone
- HUM 6365: Collaborating Across Disciplines: The Arts Therapies
- HUM 6375: The Arts and Human Development
- HUM 6596: Arts in Medicine Capstone
- HUM 6942: Arts in Medicine Graduate Practicum
- HUM 6944: Arts in Action: Consulting Project in Performing Arts Management

Museology

College of the Arts
School of Art and Art History

Museology Program Information

Master of Arts degree in Museology (Museum Studies): The School offers this interdisciplinary program that consists of both academic and practical work. The curriculum allows students to do graduate work in a disciplinary emphasis (art history, anthropology, history, education, or the natural sciences, for example) and at the same time complete a concentrated study in professional museum practice. The M.A. degree in museology requires 48 credit hours including:

- 15 credits of museum studies courses (museology seminar, 3 credits; collections management, 3 credits; museum education, 3 credits; exhibitions, 3 credits; special topics, 3 credits)
- 15 graduate credits in a disciplinary focus
- 6 credits of internship
- 6 credits of electives
- 6 credits of individual credit.

Several on-campus sites provide the program with laboratories for training students in museum work, including the University Galleries, Harn Museum of Art, Florida Museum of Natural History, and the gallery at the Reitz Union. Students must complete a 6-credit internship of at least 320 hours at an approved museum. In this experience, students undertake specific projects in which they gain first-hand experience in museum work. The Harn Museum of Art or the Florida Museum of Natural History may be able to oversee a few interns, but students are encouraged to apply for internships at other U.S. institutions or abroad.

A project-in-lieu-of-thesis (or thesis) is selected, researched, and carried out under the direction of a supervisory committee.

Degrees Offered with a Major in Museology

Master of Arts

concentration in Historic Preservation
without a concentration

School of Art and Art History Departmental Courses

- ARE 6049: History of Teaching Art
- ARE 6148: Curriculum in Teaching Art
- ARE 6246C: Principles of Teaching Art
- ARE 6247C: Teaching Art: The Study of Practice
- ARE 6386: Teaching Art in Higher Education
- ARE 6641: Issues in Art Education
- ARE 6746: Methods of Research in Art Education
- ARE 6905: Individual Study
- ARE 6910: Capstone Project
- ARE 6933: Special Topics in Art Education
- ARE 6944: Internship in Teaching Art
- ARE 6971: Research for Master's Thesis

- ARE 6973: Individual Project
- ARH 5357: French Art of the Ancien Regime: 1680-1780
- ARH 5420: Art in the Age of Revolution
- ARH 5440: Beginnings of Modernism
- ARH 5527: Arts of Central Africa
- ARH 5528: Art of West Africa
- ARH 5529: Clothing and Textiles in Africa
- ARH 5655: Indigenous American Art
- ARH 5667: Colonial Andean Art
- ARH 5816: Methods of Research and Bibliography
- ARH 5877: Gender, Representation, and the Visual Arts: 1600-1900
- ARH 5905: Individual Study
- ARH 6141: Greek Art Seminar
- ARH 6292: Medieval Art Seminar
- ARH 6394: Renaissance Art Seminar
- ARH 6422: Beginnings of Modernism. Realism to Post-Impressionism 1848-1890
- ARH 6477: Eighteenth-Century European Art Seminar
- ARH 6481: Contemporary Art Seminar
- ARH 6496: Modern Art Seminar
- ARH 6596: Chinese Art Seminar
- ARH 6597: African Art Seminar
- ARH 6654: Pre-Columbian Art Seminar
- ARH 6666: Colonial Latin American Art Seminar
- ARH 6694: Nineteenth-Century Art–Seminar
- ARH 6696: American Art Seminar
- ARH 6797: Museum Education
- ARH 6836: Exhibitions Seminar
- ARH 6895: Collections Management Seminar
- ARH 6900: Independent Study in Museology
- ARH 6910: Supervised Research
- ARH 6911: Advanced Study
- ARH 6914: Independent Study in Ancient Art History
- ARH 6915: Independent Study in Medieval Art History
- ARH 6916: Independent Study in Renaissance and Baroque Art History
- ARH 6917: Independent Study in Modern Art History
- ARH 6918: Independent Study in Non-Western Art History
- ARH 6930: Special Topics in Museology
- ARH 6938: Seminar in Museum Studies
- ARH 6941: Supervised Internship
- ARH 6946: Museum Practicum
- ARH 6948: Gallery Practicum
- ARH 6971: Research for Master's Thesis
- ARH 7979: Advanced Research
- ARH 7980: Research for Doctoral Dissertation
- ART 5674C: Digital Fabrication
- ART 5905C: Directed Study

- ART 5930C: Special Topics
- ART 6410C: Printmaking Seminar: Mastering Process and Content
- ART 6411C: Printmaking Seminar: Transformation and Change
- ART 6412C: Printmaking Seminar: Ideation, Studies, and Completed Works
- ART 6413C: Printmaking Seminar: Interdisciplinary Studio
- ART 6671C: Advanced Experiments in Digital Art
- ART 6672: Hypermedia
- ART 6673C: Video Art
- ART 6675C: Digital Art and Animation
- ART 6691: Digital Art Studio
- ART 6794C: Vessel Aesthetic 1
- ART 6795C: Vessel Aesthetic 2
- ART 6797C: Ceramic Sculpture 2
- ART 6835C: Research in Methods and Materials of the Artist
- ART 6849C: Reactive Environments
- ART 6897: Professional Practices for the Visual Artist
- ART 6910C: Supervised Research
- ART 6925C: Art + Technology Workshop
- ART 6926C: Advanced Study I
- ART 6927C: Advanced Study II
- ART 6928C: Advanced Study III
- ART 6929C: Advanced Study IV
- ART 6933: Area Methods: Rotating Topics
- ART 6971: Research for Master's Thesis
- ART 6973C: Individual Project
- DIG 6746C: Graduate Seminar in Sensors and Electronics
- GRA 6930: Seminar: Rotating Topics
- GRA 6931C: Research and Practice
- GRA 6944: Practicum
- GRA 6973: Project in Lieu of Thesis
- IDC 6505C: Programming for Artists

College of the Arts Courses

- HUM 5357: Creativity and Health: Foundations of the Arts in Medicine
- HUM 5595: Arts in Medicine in Practice
- HUM 6308: Arts and Compassion
- HUM 6340: Arts Advocacy and Public Policy
- HUM 6350: The Art of Self-Care
- HUM 6352: Art and Design in the Environment of Care
- HUM 6353: Arts in Medicine Professional Seminar
- HUM 6354: Arts in Medicine Advanced Professional Seminar
- HUM 6355: Arts in Medicine Summer Intensive
- HUM 6358: Arts in Medicine Capstone Proposal
- HUM 6359: Arts in Medicine Capstone
- HUM 6365: Collaborating Across Disciplines: The Arts Therapies
- HUM 6375: The Arts and Human Development

- HUM 6596: Arts in Medicine Capstone
- HUM 6942: Arts in Medicine Graduate Practicum
- HUM 6944: Arts in Action: Consulting Project in Performing Arts Management

Digital Worlds Institute

College of the Arts

Director: James C. Oliverio
Graduate Coordinator: Justin Marlin

The Digital Worlds Institute exists to nurture leading edge education between the arts, communications, engineering and the sciences, utilizing advanced media systems and digital culture. By bringing together the diverse talents of University of Florida faculty, students, and staff in a multifaceted collaborative environment, the Institute serves as a platform for interdisciplinary research and teaching that would not have occurred within the confines of any one college or department. Through the use of interactive tools and technologies, the Institute promotes transdisciplinary creativity across classrooms, continents and cultures.

For more information, please see the program page below and our website: http://www.digitalworlds.ufl.edu.

Digital Arts and Sciences (Arts)

College of the Arts
Digital Worlds Institute

Digital Arts and Sciences (Arts) Program Information

The Master of Arts in Digital Arts & Sciences (DAS) degree seeks to allow students from diverse academic backgrounds the opportunity to develop fluency in the technologies, design practices and collaborative interdisciplinary teamwork increasingly required by the media, communications and entertainment industries. Graduates holding the M.A. in DAS degree would typically seek employment in the creative services sector, applying digital techniques and technologies in a variety of professions. Opportunities range from traditional cinema to interactive games; from broadcast media to online international networks to emergent industries.

Although this is a thesis degree, students usually produce a creative project in lieu of thesis. Students should see the graduate coordinator for the requirements for the creative project, which are also provided in the DAS Student Handbook.

Students seeking admission are expected to have an undergraduate background including:

- A degree in one of the fine arts or liberal arts
- A body of work that demonstrates accomplishment in the intended area
- A body of work that can clearly be enhanced with skills to be acquired in the DAS program.

Deficiencies may be corrected before beginning graduate study. In addition to appropriate academic credentials and prior scholastic achievement, admission into the program requires a well-constructed Statement of Purpose and media-related support material (i.e. samples of design, programming, video, web, writing, etc.) that demonstrates both prior interest and/or achievement in New Media/Digital Arts & Sciences.

Degrees Offered with a Major in Digital Arts and Sciences

Master of Arts

Digital Worlds Departmental Courses

- DIG 5555C: Digital Media Projection Design I
- DIG 5931C: Special Topics
- DIG 6027: Digital Storytelling
- DIG 6028: Roots of Digital Culture
- DIG 6050C: Entertainment Technology
- DIG 6125C: Digital Design & Visualization
- DIG 6126C: Interaction Design
- DIG 6256C: Audio Design For Digital Production
- DIG 6358C: Applied 3D Modeling and Animation
- DIG 6556C: Digital Media Projection Design II
- DIG 6589C: Digital Portfolio
- DIG 6719: Videogame Theory and Analysis
- DIG 6744C: Movement, Media and Machines
- DIG 6751C: Protocols for Multimedia Interfaces
- DIG 6788C: Digital Production & Game Design
- DIG 6837C: Digital Tools for Arts and Humanities
- DIG 6840: Interdisciplinary Research Seminar in Digital Arts & Sciences
- DIG 6850: Digital Arts & Sciences Convergence
- DIG 6906: Independent Study - Graduate Level
- DIG 6950C: Digital Performance Production
- DIG 6971: Research for Master's Thesis
- DIG 6972C: Capstone Project
- DIG 6973: Capstone Project in Lieu of Thesis

College of the Arts Courses

- HUM 5357: Creativity and Health: Foundations of the Arts in Medicine
- HUM 5595: Arts in Medicine in Practice
- HUM 6308: Arts and Compassion
- HUM 6340: Arts Advocacy and Public Policy
- HUM 6350: The Art of Self-Care
- HUM 6352: Art and Design in the Environment of Care
- HUM 6353: Arts in Medicine Professional Seminar
- HUM 6354: Arts in Medicine Advanced Professional Seminar
- HUM 6355: Arts in Medicine Summer Intensive
- HUM 6358: Arts in Medicine Capstone Proposal
- HUM 6359: Arts in Medicine Capstone
- HUM 6365: Collaborating Across Disciplines: The Arts Therapies
- HUM 6375: The Arts and Human Development
- HUM 6596: Arts in Medicine Capstone
- HUM 6942: Arts in Medicine Graduate Practicum
- HUM 6944: Arts in Action: Consulting Project in Performing Arts Management

Music Department

College of the Arts

Director: K. Orr
Graduate Coordinator: L. S. Odom

The School of Music offers programs leading to the Master of Music degree in music and music education. Program concentrations in music include choral conducting, composition, instrumental conducting, musicology, ethnomusicology, music theory, performance, and sacred music. In addition, the School of Music offers the Doctor of Philosophy degree in music and in music education.

The Ph.D. program in music education emphasizes college music teaching. The Ph.D. program in music includes concentrations in:

- Music history and literature, with options in traditional musicology and ethnomusicology
- Composition, with options in acoustic and electroacoustic specialization

All Ph.D. students are encouraged to find opportunities to teach and lecture in their specializations; and with the assistance of their principal professors, to prepare papers, workshops, and clinics for presentation at professional conferences, in the public schools, and at colleges and universities. Students also are encouraged to publish their research in appropriate journals. Minimum requirements for the M.M. and Ph.D. degrees are given in the General Information section of this catalog. The week before classes begin, students must take placement examinations in music history and in music theory. Students wanting to study privately in a performance studio must be auditioned and accepted by the appropriate area faculty. Voice students must demonstrate appropriate skills in language and diction. All deficiencies must be remedied.

For more information, please see the program pages below and our website: http://www.arts.ufl.edu/welcome/music.

Music

College of the Arts
Music Department

Music Program Information

The Master of Music (M.M.) degree is offered in music or music education. The music program offers the following concentrations: choral conducting, composition, electronic music, ethnomusicology, instrumental conducting, music education, music history and literature, music theory, performance, and sacred music. The M.M. degree prepares students for careers as teachers in studios, schools, and universities; performers; music historians; music critics; church musicians; composers; conductors; and accompanists. There is also an available online master's program.

For more information, please see our website: http://www.arts.ufl.edu/welcome/music

Degrees Offered with a Major in Music

Doctor of Philosophy
without a concentration
concentration in Composition
concentration in Music History and Literature

Master of Music

without a concentration

concentration in Choral Conducting

optional second concentration in Composition
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Sacred Music
optional second concentration in Piano Pedagogy
optional second concentration in Music Education
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

concentration in Composition

optional second concentration in Choral Conducting
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Piano Pedagogy
optional second concentration in Music Education
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

concentration in Electronic Music

optional second concentration in Choral Conducting
optional second concentration in Composition
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Sacred Music
optional second concentration in Piano Pedagogy
optional second concentration in Music Education
optional second concentration in Ethnomusicology

concentration in Ethnomusicology

optional second concentration in Choral Conducting
optional second concentration in Composition
optional second concentration in Electronic Music
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Sacred Music
optional second concentration in Piano Pedagogy
optional second concentration in Music Education

concentration in Instrumental Conducting

optional second concentration in Composition
optional second concentration in Choral Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Sacred Music
optional second concentration in Piano Pedagogy
optional second concentration in Music Education
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

concentration in Jazz Studies

concentration in Music Education

optional second concentration in Composition
optional second concentration in Choral Conducting
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Sacred Music
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

concentration in Music History and Literature

optional second concentration in Composition
optional second concentration in Choral Conducting
optional second concentration in Instrumental Conducting
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Piano Pedagogy
optional second concentration in Music Education
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

concentration in Music Theory

optional second concentration in Composition
optional second concentration in Choral Conducting
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Performance
optional second concentration in Piano Pedagogy
optional second concentration in Music Education
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

concentration in Performance

optional second concentration in Composition
optional second concentration in Choral Conducting
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Sacred Music

optional second concentration in Piano Pedagogy
optional second concentration in Music Education
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

concentration in Sacred Music

optional second concentration in Composition
optional second concentration in Choral Conducting
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performace
optional second concentration in Piano Pedagogy
optional second concentration in Music Education
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

Music Departmental Courses

- DIG 6288: Music and Sound Design for Digital Media
- MUC 5315: Introduction to Electroacoustic Music
- MUC 6444: Composition of Electronic Music
- MUC 6445: Electroacoustic Music Composition: Digital I
- MUC 6446: Electroacoustic Music Composition--Digital II
- MUC 6625: Jazz Composition and Arranging
- MUC 6900: Secondary Graduate Composition
- MUC 6930: Graduate Composition
- MUC 6932: Composition Seminar
- MUC 7447: Advanced Seminar in Electroacoustic Music
- MUC 7931: Advanced Graduate Composition
- MUC 7938: Seminar in Digital Sound Processing, Control, and Composition
- MUE 6080: Historical and Philosophical Foundations of Music Education
- MUE 6385: Music in Higher Education
- MUE 6399: Creative Thinking in Music
- MUE 6444: Materials and Methods of String Class Teaching
- MUE 6497: Public School Orchestral Literature
- MUE 6647: Trends in Teaching and Learning Music
- MUE 6696: Technology Assisted Music Learning
- MUE 6747: Assessing Music Learning
- MUE 6785: Research in Music Education
- MUE 6790: Capstone Project for Music Education
- MUE 6931: Instructional Design in Music Education
- MUE 7045: Seminar in Music Teacher Education
- MUE 7046: Sociology of Music Education
- MUE 7746: Measurement and Evaluation of Music
- MUE 7784: Quantitative Research Methods
- MUE 7786: Qualitative Research in Music Education
- MUE 7924: Doctoral Colloquium in Music Education

- MUE 7938: Music Education Seminar
- MUE 7940: Internship
- MUG 6105: Graduate Conducting
- MUG 7106: Advanced Graduate Conducting
- MUH 5219: Graduate Music History Review
- MUH 5505: Introduction to Ethnomusicology
- MUH 5684: Introduction to Historical Musicology
- MUH 6515: Musics of the World
- MUH 6526: American Vernacular Music
- MUH 6545: The Guitar in Latin American Culture
- MUH 6548: Seminar in Caribbean Music
- MUH 6549: Seminar in Brazilian Music
- MUH 6635: Seminar in American Music
- MUH 6665: History of Opera
- MUH 6671: Seminar in Renaissance Music
- MUH 6672: Seminar in Baroque Music
- MUH 6673: Seminar in Classical Music
- MUH 6674: Seminar in Nineteenth-Century Music
- MUH 6675: Seminar in Twentieth-Century Music
- MUH 6931: Nationalism in Music
- MUH 6935: Special Topics in Music History
- MUH 7411: Medieval and Renaissance Notation
- MUH 7938: Musicology Seminar
- MUL 6435: String Literature
- MUL 6486: Piano Literature
- MUL 6495: Graduate Organ Literature
- MUL 6555: Survey of Wind Literature
- MUL 6565: Chamber Music Literature
- MUL 6645: Choral Literature
- MUM 6501: Music Production in Commercial Media
- MUN 6010: Graduate Ensemble
- MUN 6125: Concert Band
- MUN 6135: Symphonic Band
- MUN 6145: Symphonic Wind Ensemble
- MUN 6215: University Orchestra
- MUN 6315: University Choir
- MUN 6325: Women's Chorale
- MUN 6335: Men's Glee Club
- MUN 6445: Percussion Ensemble
- MUN 6816: Steel Drum Ensemble
- MUN 6496: World Music Ensemble
- MUN 6497: New Music Ensemble
- MUN 6715: Jazz Band
- MUR 6206: Survey of Hymnody
- MUR 6705: Sacred Music Literature
- MUS 5911: Directed Study

- MUS 6685: Psychology of Music
- MUS 6716: Methods of Musical Research and Bibliography
- MUS 6905: Projects and Problems
- MUS 6910: Supervised Research
- MUS 6940: Supervised Teaching
- MUS 6971: Research for Master's Thesis
- MUS 6973: Individual Project
- MUS 7656: Teaching Music and the Creative Process
- MUS 7905: Projects and Problems
- MUS 7951: Individual Project
- MUS 7955: Preparation for Doctoral Project
- MUS 7956: Doctoral Project
- MUS 7979: Advanced Research
- MUS 7980: Research for Doctoral Dissertation
- MUT 6051: Graduate Music Theory Review
- MUT 6177: Graduate Jazz Theory
- MUT 6445: Advanced Counterpoint
- MUT 6531: Figured Bass and Continuo Performance
- MUT 6565: Late Nineteenth- and Twentieth-Century Styles
- MUT 6576: Contemporary Styles
- MUT 6617: Approaches to Theoretical Analysis in Music Education
- MUT 6624: Seminar in Set Theory
- MUT 6627: Seminar in Reductive Analysis
- MUT 6629: Analytical Techniques
- MUT 6751: Pedagogy of Music Theory
- MUT 6936: Music Theory Seminar
- MUT 7316: Advanced Orchestration
- MUT 7585: Seminar in Musical Style
- MUT 7760: History of Music Theory
- MVK 5156: Improvisational Keyboard Skills and Related Technology
- MVK 6605: Organ Pedagogy
- MVK 6651: Piano Pedagogy
- MVK 6661: Advanced Piano Pedagogy
- MVO 6250: Secondary Music Performance
- MVO 6460: Music Performance
- MVO 7460: Music Performance
- MVS 6651: String Pedagogy I
- MVV 6651: Vocal Pedagogy

College of the Arts Courses

- HUM 5357: Creativity and Health: Foundations of the Arts in Medicine
- HUM 5595: Arts in Medicine in Practice
- HUM 6308: Arts and Compassion
- HUM 6340: Arts Advocacy and Public Policy
- HUM 6350: The Art of Self-Care
- HUM 6352: Art and Design in the Environment of Care

- HUM 6353: Arts in Medicine Professional Seminar
- HUM 6354: Arts in Medicine Advanced Professional Seminar
- HUM 6355: Arts in Medicine Summer Intensive
- HUM 6358: Arts in Medicine Capstone Proposal
- HUM 6359: Arts in Medicine Capstone
- HUM 6365: Collaborating Across Disciplines: The Arts Therapies
- HUM 6375: The Arts and Human Development
- HUM 6596: Arts in Medicine Capstone
- HUM 6942: Arts in Medicine Graduate Practicum
- HUM 6944: Arts in Action: Consulting Project in Performing Arts Management

Music Education

College of the Arts
Music Department

Music Education Program Information

The Master of Music (M.M.) degree is offered in music or music education. The music education program offers the following concentrations: choral conducting, composition, electronic music, ethnomusicology, instrumental conducting, music history and literature, music theory, performance, and paino pedagogy. The M.M. degree prepares students for careers as teachers in studios, schools, and universities; performers; music historians; music critics; church musicians; composers; conductors; and accompanists.

For more information, please see our website: http://www.arts.ufl.edu/welcome/music

Degrees Offered with a Major in Music Education

Doctor of Philosophy

Master of Music

Without a Concentration

Concentration in Choral Conducting

optional second concentration in Piano Pedagogy
optional second concentration in Composition
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

Concentration in Composition

optional second concentration in Choral Conducting
optional second concentration in Piano Pedagogy
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

Concentration in Electronic Music

optional second concentration in Choral Conducting

optional second concentration in Composition
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Piano Pedagogy
optional second concentration in Ethnomusicology

Concentration in Ethnomusicology

optional second concentration in Choral Conducting
optional second concentration in Composition
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Electronic Music
optional second concentration in Piano Pedagogy

Concentration in Instrumental Conducting

optional second concentration in Piano Pedagogy

optional second concentration in Composition
optional second concentration in Choral Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

Concentration in Music History and Literature

optional second concentration in Choral Conducting
optional second concentration in Piano Pedagogy
optional second concentration in Instrumental Conducting
optional second concentration in Composition

optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

Concentration in Music Theory

optional second concentration in Choral Conducting
optional second concentration in Composition
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Piano Pedagogy
optional second concentration in Performance
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

Concentration in Performance

optional second concentration in Choral Conducting
optional second concentration in Piano Pedagogy
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Composition
optional second concentration in Performance
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

Concentration in Piano Pedagogy

optional second concentration in Choral Conducting
optional second concentration in Composition
optional second concentration in Instrumental Conducting
optional second concentration in Music History and Literature
optional second concentration in Music Theory
optional second concentration in Performance
optional second concentration in Electronic Music
optional second concentration in Ethnomusicology

College of the Arts Courses

- HUM 5357: Creativity and Health: Foundations of the Arts in Medicine
- HUM 5595: Arts in Medicine in Practice
- HUM 6308: Arts and Compassion
- HUM 6340: Arts Advocacy and Public Policy
- HUM 6350: The Art of Self-Care
- HUM 6352: Art and Design in the Environment of Care
- HUM 6353: Arts in Medicine Professional Seminar
- HUM 6354: Arts in Medicine Advanced Professional Seminar
- HUM 6355: Arts in Medicine Summer Intensive
- HUM 6358: Arts in Medicine Capstone Proposal
- HUM 6359: Arts in Medicine Capstone
- HUM 6365: Collaborating Across Disciplines: The Arts Therapies
- HUM 6375: The Arts and Human Development
- HUM 6596: Arts in Medicine Capstone
- HUM 6942: Arts in Medicine Graduate Practicum
- HUM 6944: Arts in Action: Consulting Project in Performing Arts Management

Music Departmental Courses

- DIG 6288: Music and Sound Design for Digital Media
- MUC 5315: Introduction to Electroacoustic Music
- MUC 6444: Composition of Electronic Music
- MUC 6445: Electroacoustic Music Composition: Digital I
- MUC 6446: Electroacoustic Music Composition--Digital II
- MUC 6625: Jazz Composition and Arranging
- MUC 6900: Secondary Graduate Composition
- MUC 6930: Graduate Composition
- MUC 6932: Composition Seminar
- MUC 7447: Advanced Seminar in Electroacoustic Music
- MUC 7931: Advanced Graduate Composition
- MUC 7938: Seminar in Digital Sound Processing, Control, and Composition
- MUE 6080: Historical and Philosophical Foundations of Music Education
- MUE 6385: Music in Higher Education
- MUE 6399: Creative Thinking in Music
- MUE 6444: Materials and Methods of String Class Teaching
- MUE 6497: Public School Orchestral Literature

- MUE 6647: Trends in Teaching and Learning Music
- MUE 6696: Technology Assisted Music Learning
- MUE 6747: Assessing Music Learning
- MUE 6785: Research in Music Education
- MUE 6790: Capstone Project for Music Education
- MUE 6931: Instructional Design in Music Education
- MUE 7045: Seminar in Music Teacher Education
- MUE 7046: Sociology of Music Education
- MUE 7746: Measurement and Evaluation of Music
- MUE 7784: Quantitative Research Methods
- MUE 7786: Qualitative Research in Music Education
- MUE 7924: Doctoral Colloquium in Music Education
- MUE 7938: Music Education Seminar
- MUE 7940: Internship
- MUG 6105: Graduate Conducting
- MUG 7106: Advanced Graduate Conducting
- MUH 5219: Graduate Music History Review
- MUH 5505: Introduction to Ethnomusicology
- MUH 5684: Introduction to Historical Musicology
- MUH 6515: Musics of the World
- MUH 6526: American Vernacular Music
- MUH 6545: The Guitar in Latin American Culture
- MUH 6548: Seminar in Caribbean Music
- MUH 6549: Seminar in Brazilian Music
- MUH 6635: Seminar in American Music
- MUH 6665: History of Opera
- MUH 6671: Seminar in Renaissance Music
- MUH 6672: Seminar in Baroque Music
- MUH 6673: Seminar in Classical Music
- MUH 6674: Seminar in Nineteenth-Century Music
- MUH 6675: Seminar in Twentieth-Century Music
- MUH 6931: Nationalism in Music
- MUH 6935: Special Topics in Music History
- MUH 7411: Medieval and Renaissance Notation
- MUH 7938: Musicology Seminar
- MUL 6435: String Literature
- MUL 6486: Piano Literature
- MUL 6495: Graduate Organ Literature
- MUL 6555: Survey of Wind Literature
- MUL 6565: Chamber Music Literature
- MUL 6645: Choral Literature
- MUM 6501: Music Production in Commercial Media
- MUN 6010: Graduate Ensemble
- MUN 6125: Concert Band
- MUN 6135: Symphonic Band
- MUN 6145: Symphonic Wind Ensemble

- MUN 6215: University Orchestra
- MUN 6315: University Choir
- MUN 6325: Women's Chorale
- MUN 6335: Men's Glee Club
- MUN 6445: Percussion Ensemble
- MUN 6816: Steel Drum Ensemble
- MUN 6496: World Music Ensemble
- MUN 6497: New Music Ensemble
- MUN 6715: Jazz Band
- MUR 6206: Survey of Hymnody
- MUR 6705: Sacred Music Literature
- MUS 5911: Directed Study
- MUS 6685: Psychology of Music
- MUS 6716: Methods of Musical Research and Bibliography
- MUS 6905: Projects and Problems
- MUS 6910: Supervised Research
- MUS 6940: Supervised Teaching
- MUS 6971: Research for Master's Thesis
- MUS 6973: Individual Project
- MUS 7656: Teaching Music and the Creative Process
- MUS 7905: Projects and Problems
- MUS 7951: Individual Project
- MUS 7955: Preparation for Doctoral Project
- MUS 7956: Doctoral Project
- MUS 7979: Advanced Research
- MUS 7980: Research for Doctoral Dissertation
- MUT 6051: Graduate Music Theory Review
- MUT 6177: Graduate Jazz Theory
- MUT 6445: Advanced Counterpoint
- MUT 6531: Figured Bass and Continuo Performance
- MUT 6565: Late Nineteenth- and Twentieth-Century Styles
- MUT 6576: Contemporary Styles
- MUT 6617: Approaches to Theoretical Analysis in Music Education
- MUT 6624: Seminar in Set Theory
- MUT 6627: Seminar in Reductive Analysis
- MUT 6629: Analytical Techniques
- MUT 6751: Pedagogy of Music Theory
- MUT 6936: Music Theory Seminar
- MUT 7316: Advanced Orchestration
- MUT 7585: Seminar in Musical Style
- MUT 7760: History of Music Theory
- MVK 5156: Improvisational Keyboard Skills and Related Technology
- MVK 6605: Organ Pedagogy
- MVK 6651: Piano Pedagogy
- MVK 6661: Advanced Piano Pedagogy
- MVO 6250: Secondary Music Performance

- MVO 6460: Music Performance
- MVO 7460: Music Performance
- MVS 6651: String Pedagogy I
- MVV 6651: Vocal Pedagogy

School of Theatre and Dance

Director: R. Remshardt
Graduate Performance Program Coordinator: T. Altmeyer
Graduate Design Program Coordinator: S. Galloway

The graduate program offered by the School of Theatre and Dance leads to the degree of Master of Fine Arts in Theatre. Minimum requirements for this degree are given in the *General Information* section of this catalog.

The M.F.A. degree prepares students for professional entry in acting, production, or teaching. Placement in the M.F.A. program is determined by audition/portfolio review, academic credentials, and personal interview. Candidates for admission should have adequate training in theatre. Deficiencies may be corrected before beginning graduate study.

The program emphasizes the study and practice of theatre as an art and discipline. Students of acting and design study concepts of theatre together while working in their areas of specialization. Focus is on the collaboration and synthesis of theatre artistry. Each incoming class is composed of approximately 12 to 18 students in acting and all design areas.

The student's artistic and academic progress will be reviewed at the end of each semester. The *School of Theatre Handbook* gives details on the form and focus of each review. This information is online at http://www.arts.ufl.edu/theatreanddance/pages/whatyouneedtoknow/downloads/downloads.asp.

During the final year of study, each student must successfully complete the comprehensive examination and oral defense. The project in lieu of thesis includes research, analysis, rehearsal process, and evaluation. Development and execution of the project includes public performance (acting or design). The written document and oral defense of the project which follow must demonstrate the ability to communicate the creative process.

Graduate acting students audition for all departmental productions.

Theatre

College of the Arts
School of Theatre and Dance

Degrees Offered with a Major in Theatre

Master of Fine Arts

College of the Arts Courses

- HUM 5357: Creativity and Health: Foundations of the Arts in Medicine
- HUM 5595: Arts in Medicine in Practice
- HUM 6308: Arts and Compassion
- HUM 6340: Arts Advocacy and Public Policy
- HUM 6350: The Art of Self-Care
- HUM 6352: Art and Design in the Environment of Care

- HUM 6353: Arts in Medicine Professional Seminar
- HUM 6354: Arts in Medicine Advanced Professional Seminar
- HUM 6355: Arts in Medicine Summer Intensive
- HUM 6358: Arts in Medicine Capstone Proposal
- HUM 6359: Arts in Medicine Capstone
- HUM 6365: Collaborating Across Disciplines: The Arts Therapies
- HUM 6375: The Arts and Human Development
- HUM 6596: Arts in Medicine Capstone
- HUM 6942: Arts in Medicine Graduate Practicum
- HUM 6944: Arts in Action: Consulting Project in Performing Arts Management

Theatre and Dance Departmental Courses

- ARC 6670: Lighting Design Seminar
- DAN 6436: Laban Movement Analysis
- DAA 6757: Pilates Technique for the Dancer
- DAA 6905: Graduate Dance Project
- DAN 6949: Dance Clinical Practice
- THE 5238: African-American Theatre History and Practice
- THE 5287: History of Decor and Architecture for the Stage
- THE 5910: Introduction to Graduate Study in Theatre
- THE 6265: Costume History
- THE 6525: History, Literature, and Criticism I
- THE 6526: History, Literature, and Criticism II
- THE 6565: Seminar in Creative Process
- THE 6905: Individual Study
- THE 6933: Arts and Public Health Professional Seminar
- THE 6940: Supervised Teaching
- THE 6941: Internship
- THE 6948: Arts and Public Health Practicum
- THE 6950: Applied Theatre
- THE 6955: Summer Repertory Theatre
- THE 6971: Research for Master's Thesis
- THE 6973C: Project in Lieu of Thesis
- TPA 5025: Lighting Design I
- TPA 5047: Costume Design I
- TPA 5067: Scene Design I
- TPA 5072: Drawing and Rendering
- TPA 5079: Graduate Scene Painting
- TPA 5082: Advanced Theatre Graphics
- TPA 5236: Costume Technologies Workshop
- TPA 6005: Design I
- TPA 6006: Design II
- TPA 6009: Design Studio
- TPA 6026: Lighting Design II
- TPA 6048: Costume Design II

- TPA 6054: Detail Design for Costume Designers
- TPA 6069: Scene Design II
- TPA 6235: Costume Construction
- TPA 6237: Pattern Making: Flat Patterning
- TPA 6243: Pattern Making: Draping
- TPA 6258: Computer Drafting 2D
- TPA 6357: Programming and Presentation for the Lighting Designer
- TPP 5234: Mutli-Cultural Performance Workshop
- TPP 6115: Graduate Acting I: Modern Acting Theory and Practice
- TPP 6116: Graduate Acting II: Shakespeare and High Style
- TPP 6145: Graduate Acting III: Period Styles
- TPP 6149: Acting IV: Contemporary Realism
- TPP 6225: Professional Seminar: Acting
- TPP 6237: MFA Company Acting Workshop
- TPP 6266: Acting for the Camera
- TPP 6285: Voice and Movement I
- TPP 6286: MFA Voice and Speech II: Shakespeare and High Styles
- TPP 6297: The Alexander Technique I
- TPP 6298: The Alexander Technique II
- TPP 6299: The Alexander Technique III
- TPP 6385: Directing
- TPP 6515: Graduate Movement Training
- TPP 6536: Graduate Stage Combat
- TPP 6717: MFA Voice and Speech III: Period Styles
- TPP 6718: MFA Voice and Speech IV: Advanced Vocal Training for the Actor
- TPP 6946: Performance Practicum

Warrington College of Business

Dean: John Kraft

The mission of the Warrington College of Business is to build a better society by creating influential research and educating tomorrow's business leaders. The mission emphasizes service to society, a key feature of a Land Grant university. The activities through which the College achieves this global aim are research and teaching. These two activities are highly complementary, indeed intertwined, and both are vital to the continued excellence of the Warrington College. The Hough Graduate School of Business has specialized programs tailored to fit students' strengths and interests.

Graduate degrees offered by the Warrington College of Business are the Doctor of Philosophy with major programs in business administration; the Master of Science with major programs in Business Administration, in Finance, in Management, and in Real Estate; the Master of Business Administration; the Master of Entrepreneurship; the Master of Science in Information Systems and Operations Management; the Master of International Business; and the Master of Accounting. Fields of concentration and minimum requirements for the M.B.A. are given in the Graduate Degrees section of this catalog, as well as admission and degree requirements for the Ph.D.

For more information, please see the associated department and program pages in this catalog, and our website: http://warrington.ufl.edu.

Business Administration (M.A.)

Warrington College of Business Administration

Degrees Offered with a Major in Business Administration

Master of Arts

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting
- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk
- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting
- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting

- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II
- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting
- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research
- TAX 6105: Corporate Taxation
- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance

- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions

- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I
- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications
- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics
- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management
- MAN 6586: Project Management

- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics
- QMB 5304: Introduction to Managerial Statistics
- QMB 5305: Advanced Managerial Statistics
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II
- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis
- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research
- QMB 7980: Research for Doctoral Dissertation

Management Departmental Courses

- BUL 5810: Legal Environment of Business
- BUL 5811: Law, Ethics, and Organizations
- BUL 5832: Commercial Law for Accountants
- BUL 6441: Business Ethics and Corporate Social Responsibility
- BUL 6516: Law of Real Estate Transactions
- BUL 6656: Law for Entrepreneurs
- BUL 6821: Cyberlaw and Ethics
- BUL 6841: Employment Law
- BUL 6852: International Business Law
- BUL 6905: Individual Work
- BUL 6930: Special Topics
- ENT 6706: Global Entrepreneurship
- MAN 5141: Leadership Skills
- MAN 5245: Organizational Behavior
- MAN 5246: Organizational Behavior
- MAN 5265: Managing Groups and Teams
- MAN 6149: Developing Leadership Skills

- MAN 6257: Power and Politics in Organizations
- MAN 6266: Managing Groups and Teams in Organizations
- MAN 6331: Compensation in Organizations
- MAN 6365: Organizational Staffing
- MAN 6366: Organizational Staffing
- MAN 6446: Negotiations
- MAN 6447: Art and Science of Negotiation
- MAN 6635: International Aspects of Human Resource Management
- MAN 6636: Global Strategic Management
- MAN 6637: Global Strategic Management
- MAN 6721: Business Policy
- MAN 6724: Strategic Management
- MAN 6900: Capstone Project
- MAN 6905: Individual Work in Management
- MAN 6910: Supervised Research
- MAN 6930: Special Topics
- MAN 6940: Supervised Teaching
- MAN 6973: Project in Lieu of Thesis
- MAN 7108: Seminar in Research Concepts and Methods in Management
- MAN 7109: Seminar in Motivation and Attitudes
- MAN 7208: Seminar in Contemporary Approaches to Organizations
- MAN 7267: Seminar on Groups and Teams Research
- MAN 7328: Seminar on Staffing and Selection
- MAN 7778: Seminar in Strategic Adaptation to Environment
- MAN 7779: Strategic Processes and Structure in Organizations
- MAN 7979: Advanced Research
- MAN 7980: Research for Doctoral Dissertation

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II
- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making
- MAR 6722: Web-Based Marketing
- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)

- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design
- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management
- MAR 6905: Individual Work
- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching
- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Business Administration (M.B.A)

Warrington College of Business Administration

Business Administration (M.B.A) Program Information

The Master of Business Administration (M.B.A.) degree gives students (1) conceptual knowledge for understanding the functions and behaviors common to business organizations and (2) analytical, problem-solving, and decision-making skills essential for effective management. Emphasis is on developing the student's capacities and skills for business decision making. All programs (except the Executive, which requires eight years) require at least two years of full-time, post-undergraduate work experience as well as a bachelor's degree from an accredited four-year institution.

The MBA program is structured so that students may complete coursework through a variety of educational platforms. Students may earn the MBA degree in our full-time format, attending class during the week in Gainesville; on the weekends, once a month in Gainesville; and online, participating mostly via online lectures and discussions and attending class in Gainesville quarterly.

For more information, please see our website: http://floridamba.ufl.edu.

M.B.A. Program Options

Full-time

- Full-Time Two-Year:
    - 48 credit program requires 4 terms of full-time study over two academic years.
    - Students are admitted for the fall term only.
    - Students spend the summer between academic years working at internships.
- Full-Time One-Year All Majors:
    - 48 credit program requires 3 terms, students are expected to complete coursework within 12 months.
    - Program starts in late spring/ early summer.
- Full-Time One-Year Business Majors:
    - 32 credit program requires two and a half terms
    - Program starts in mid-summer and students expected to complete all course work within 10 months.
    - Applicants to this program are required to have a bachelor's degree in business from a four-year accredited institution (conferred within the last seven years) and at least two years of post-undergraduate work experience.

Executive

- Executive MBA Program:
    - 48 credit, 20-month program for working professionals, students attend classes one extended weekend per month (Friday-Sunday).
    - Program is divided into five terms each lasting about four months.
    - Program requires and includes a one-week two credit international experience.
    - This option requires eight years of post-undergraduate work experience, and students are expected to have people or project management responsibilities in their current positions.

Professional (class one weekend per month)

- Professional Two-Year MBA:
    - 27-month program is five terms.
    - Students attend classes one weekend per month (Saturday-Sunday) and must attend a one-week in-residence elective class.
- Professional One-Year MBA:
    - 16-month, three term option starts only in January.
    - Students attend classes one weekend per month (Saturday-Sunday) and must attend a one-week in-residence elective class. The first meeting includes a one-week, on-campus foundations review of basic course work.
    - Applicants to this program are required to have a bachelor's degree in business from a four-year accredited institution (conferred within the last seven years) and at least two years of post-undergraduate work experience.
- Professional MBA in South Florida:
    - 24-month, five term program and students attend classes once every three weeks (Saturday-Sunday) at the UF MBA Sunrise Center in Sunrise, Florida.
    - Program requires and includes a one-week three credit international experience.

Online

- Online Two-Year MBA:
    - 27-month program allows students to earn their MBA through streamed or downloaded class lectures. Students interact with faculty and classmates via e-mail, online group discussions, and multimedia courseware.

    - Students visit campus one weekend (Saturday-Sunday) every four months.

- Online One-Year MBA:

    - 16-month option gives students and faculty the same interactive technology as the Online Two-Year MBA.

    - Students visit campus one weekend (Saturday-Sunday) every four months. The first meeting includes a mandatory five-day, on-campus foundations review of core business concepts.

    - Applicants to this program are required to have a bachelor's degree in business from a four-year accredited institution (conferred within the last seven years) and at least two years of post-undergraduate work experience.

Full-time Joint Degree Options

M.B.A./M.S. in medical sciences (biotechnology) program: Concurrent studies leading to the Master of Business Administration and Master of Science degrees, offered in cooperation with the College of Medicine, are in response to the needs of businesses engaged in biotechnological sciences. Both degrees can be obtained in 3 years. The program requires 1 year of science courses, 1 year of business courses, and a year devoted to research and electives in business and science. Research is done in one of the Interdisciplinary Center for Biotechnology Research core laboratories. Students must meet the admission and curriculum requirements of both degrees. Requirements of the M.B.A. program are those in effect when an applicant is admitted to the program. A student must at all times remain in good standing in both degree programs to remain in the M.B.A. program. Applicants are expected to have previous professional work experience prior to starting the MBA program.

M.B.A./Ph.D. in medical sciences program: Concurrent studies leading to the Master of Business Administration and Doctor of Philosophy degrees are offered in cooperation with the College of Medicine. This 120-credit program trains research scientists to assume responsibilities as managers of biotechnical industries. Estimated time to complete both degrees is 5 to 7 years. Students must meet the admission and curriculum requirements of both programs. Requirements of the M.B.A. program are those in effect when an applicant is admitted to the program. Applicants are expected to have previous professional work experience prior to starting the MBA program.

MBA./J.D. program: A program of joint studies leading to the Master of Business Administration and Juris Doctor degrees is offered under the joint auspices of the Warrington College of Business Administration and the Levin College of Law. Current M.B.A. or J.D. students must declare their intent to apply for the second degree during their first year. Applications are then due according to admission schedules for that year. Both degrees are awarded after a 4-year course of study. Students must take both the LSAT and the GMAT before admission and meet the admission and curriculum requirements of both degrees. Requirements of the M.B.A. program are those in effect when an applicant is admitted to the program. Applicants are expected to have previous professional work experience prior to starting the MBA program.

M.B.A./Pharm.D. program in management and pharmacy administration: A program of concurrent studies culminating in both the Master of Business Administration and Doctor of Pharmacy degrees allows students interested in both management and pharmacy administration to obtain the appropriate education in both areas. Candidates must meet the entrance requirements and follow the entrance procedures of both the Warrington College of Business Administration and the College of Pharmacy. The degrees may be granted after 5 years of study. Requirements of the M.B.A. program are those in effect when an applicant is admitted to the program. Applicants are expected to have previous professional work experience prior to starting the MBA program.

M.B.A./M.I.M. program in international management: A dual degree program between the University of Florida (UF) and the American Graduate School of International Management (Thunderbird) makes it possible to earn both

degrees after 3 years of study. Students start the program at UF and apply to Thunderbird in their first year. Requirements of the M.B.A. program are those in effect when an applicant is admitted to the program. This program requires 2 years of post-undergraduate work experience.

Exchange programs: The M.B.A. program offers students exchange opportunities at numerous international universities. Currently, exchange programs exist with schools in Australia, Belgium, Brazil, Chile, China, Canada, Denmark, England, Finland, France, Germany, Italy, Japan, Korea, Liechtenstein, the Netherlands, Norway, Poland, Spain, Sweden, Taiwan, Thailand, and Turkey. For a complete list of exchange partners, see http://warrington.ufl.edu/graduate/academics/maib/exchange.asp.

Degrees Offered with a Major in Business Administration

Master of Business Administration

without a concentration
concentration in Competitive Strategy
concentration in Finance
concentration in Human Capital
concentration in Marketing
concentration in Real Estate
concentration in Supply Chain Management

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting
- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk
- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting
- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting
- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II
- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting

- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research
- TAX 6105: Corporate Taxation
- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project

- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate

- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I
- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications
- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics
- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management
- MAN 6586: Project Management
- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics
- QMB 5304: Introduction to Managerial Statistics
- QMB 5305: Advanced Managerial Statistics

- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II
- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis
- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research
- QMB 7980: Research for Doctoral Dissertation

Management Departmental Courses

- BUL 5810: Legal Environment of Business
- BUL 5811: Law, Ethics, and Organizations
- BUL 5832: Commercial Law for Accountants
- BUL 6441: Business Ethics and Corporate Social Responsibility
- BUL 6516: Law of Real Estate Transactions
- BUL 6656: Law for Entrepreneurs
- BUL 6821: Cyberlaw and Ethics
- BUL 6841: Employment Law
- BUL 6852: International Business Law
- BUL 6905: Individual Work
- BUL 6930: Special Topics
- ENT 6706: Global Entrepreneurship
- MAN 5141: Leadership Skills
- MAN 5245: Organizational Behavior
- MAN 5246: Organizational Behavior
- MAN 5265: Managing Groups and Teams
- MAN 6149: Developing Leadership Skills
- MAN 6257: Power and Politics in Organizations
- MAN 6266: Managing Groups and Teams in Organizations
- MAN 6331: Compensation in Organizations
- MAN 6365: Organizational Staffing
- MAN 6366: Organizational Staffing
- MAN 6446: Negotiations
- MAN 6447: Art and Science of Negotiation

- MAN 6635: International Aspects of Human Resource Management
- MAN 6636: Global Strategic Management
- MAN 6637: Global Strategic Management
- MAN 6721: Business Policy
- MAN 6724: Strategic Management
- MAN 6900: Capstone Project
- MAN 6905: Individual Work in Management
- MAN 6910: Supervised Research
- MAN 6930: Special Topics
- MAN 6940: Supervised Teaching
- MAN 6973: Project in Lieu of Thesis
- MAN 7108: Seminar in Research Concepts and Methods in Management
- MAN 7109: Seminar in Motivation and Attitudes
- MAN 7208: Seminar in Contemporary Approaches to Organizations
- MAN 7267: Seminar on Groups and Teams Research
- MAN 7328: Seminar on Staffing and Selection
- MAN 7778: Seminar in Strategic Adaptation to Environment
- MAN 7779: Strategic Processes and Structure in Organizations
- MAN 7979: Advanced Research
- MAN 7980: Research for Doctoral Dissertation

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II
- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making
- MAR 6722: Web-Based Marketing
- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)
- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design
- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management

- MAR 6905: Individual Work
- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching
- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Business Administration (M.S.)

Warrington College of Business Administration

Business Administration (M.S.) Program Information

Specialized Masters of Sciences degrees offered are

- Master of Science in Information Systems and Operations Management
- Master of Science in Entrepreneurship
- Master of Science in Finance
- Master of Science in Management
- Master of Science in Real Estate

For more information, please see the program pages above or our website: http://warrington.ufl.edu/graduate/academics.

Degrees Offered with a Major in Business Administration

Master of Science

without a concentration

concentration in Retailing

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting
- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk
- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting
- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting
- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II

- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting
- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research
- TAX 6105: Corporate Taxation
- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions

- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis

- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I
- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications
- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics
- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management
- MAN 6586: Project Management
- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics

- QMB 5304: Introduction to Managerial Statistics
- QMB 5305: Advanced Managerial Statistics
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II
- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis
- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research
- QMB 7980: Research for Doctoral Dissertation

Management Departmental Courses

- BUL 5810: Legal Environment of Business
- BUL 5811: Law, Ethics, and Organizations
- BUL 5832: Commercial Law for Accountants
- BUL 6441: Business Ethics and Corporate Social Responsibility
- BUL 6516: Law of Real Estate Transactions
- BUL 6656: Law for Entrepreneurs
- BUL 6821: Cyberlaw and Ethics
- BUL 6841: Employment Law
- BUL 6852: International Business Law
- BUL 6905: Individual Work
- BUL 6930: Special Topics
- ENT 6706: Global Entrepreneurship
- MAN 5141: Leadership Skills
- MAN 5245: Organizational Behavior
- MAN 5246: Organizational Behavior
- MAN 5265: Managing Groups and Teams
- MAN 6149: Developing Leadership Skills
- MAN 6257: Power and Politics in Organizations
- MAN 6266: Managing Groups and Teams in Organizations
- MAN 6331: Compensation in Organizations
- MAN 6365: Organizational Staffing
- MAN 6366: Organizational Staffing

- MAN 6446: Negotiations
- MAN 6447: Art and Science of Negotiation
- MAN 6635: International Aspects of Human Resource Management
- MAN 6636: Global Strategic Management
- MAN 6637: Global Strategic Management
- MAN 6721: Business Policy
- MAN 6724: Strategic Management
- MAN 6900: Capstone Project
- MAN 6905: Individual Work in Management
- MAN 6910: Supervised Research
- MAN 6930: Special Topics
- MAN 6940: Supervised Teaching
- MAN 6973: Project in Lieu of Thesis
- MAN 7108: Seminar in Research Concepts and Methods in Management
- MAN 7109: Seminar in Motivation and Attitudes
- MAN 7208: Seminar in Contemporary Approaches to Organizations
- MAN 7267: Seminar on Groups and Teams Research
- MAN 7328: Seminar on Staffing and Selection
- MAN 7778: Seminar in Strategic Adaptation to Environment
- MAN 7779: Strategic Processes and Structure in Organizations
- MAN 7979: Advanced Research
- MAN 7980: Research for Doctoral Dissertation

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II
- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making
- MAR 6722: Web-Based Marketing
- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)
- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design

- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management
- MAR 6905: Individual Work
- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching
- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Business Administration (Ph.D.)

Warrington College of Business Administration

Business Administration (Ph.D.) Program Information

For the Ph.D. in Business Administration, students must have a concentration in one of the following:

- Accounting
- Finance
- Information Systems and Operation Management
- Insurance
- Management
- Quantitative Finance
- Marketing
- Real Estate and Urban Analysis

Minimum requirements for the various departments and specialties are given in the Graduate Degrees section in this catalog.

All candidates for the Ph.D. in business administration must satisfy the following general requirements:

Breadth requirement: All applicants for Ph.D. in the business administration program are expected to have completed prior business-related course work at either the advanced undergraduate or graduate level. Students entering without prior work are required to take a minimum of three graduate courses in at least two fields other than their chosen area of concentration. Most often, the appropriate courses will be found in the M.B.A. first-year core; the particular courses to be taken by a student will be decided in consultation with the student's academic adviser. After a student enters the Ph.D. program, the courses taken to satisfy the breadth requirement must be taken in the College of Business Administration.

Research foundations requirement: All students must complete a six-course research skills sequence that prepares them for scholarly research in their chosen area of concentration. Research foundations are defined as essential methodological tools (e.g., statistics, quantitative analysis) and/or substantive content domains (e.g., psychology, economics) outside the student's major field that are considered essential to conducting high quality research in the chosen field. The specific research skills required by each area of concentration can be found in the field descriptions in this Catalog.

Other requirements include satisfactory completion of graduate course work in the major field of concentration, as well as one or two minor fields designed to add depth to the student's research training. Minors are selected by the student in consultation with his or her advisory committee, and may be within or outside the College of Business Administration.

For more information, please see the links above and our website: http://warrington.ufl.edu/graduate/academics.

Degrees Offered with a Major in Business Administration

Doctor of Philosophy

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting

- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk
- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting
- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting
- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II
- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting
- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research
- TAX 6105: Corporate Taxation
- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship

- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance

- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I
- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications
- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming

- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics
- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management
- MAN 6586: Project Management
- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics
- QMB 5304: Introduction to Managerial Statistics
- QMB 5305: Advanced Managerial Statistics
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II
- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis
- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research
- QMB 7980: Research for Doctoral Dissertation

Management Departmental Courses

- BUL 5810: Legal Environment of Business
- BUL 5811: Law, Ethics, and Organizations
- BUL 5832: Commercial Law for Accountants
- BUL 6441: Business Ethics and Corporate Social Responsibility
- BUL 6516: Law of Real Estate Transactions
- BUL 6656: Law for Entrepreneurs
- BUL 6821: Cyberlaw and Ethics
- BUL 6841: Employment Law
- BUL 6852: International Business Law
- BUL 6905: Individual Work
- BUL 6930: Special Topics
- ENT 6706: Global Entrepreneurship
- MAN 5141: Leadership Skills
- MAN 5245: Organizational Behavior
- MAN 5246: Organizational Behavior
- MAN 5265: Managing Groups and Teams
- MAN 6149: Developing Leadership Skills
- MAN 6257: Power and Politics in Organizations
- MAN 6266: Managing Groups and Teams in Organizations
- MAN 6331: Compensation in Organizations
- MAN 6365: Organizational Staffing
- MAN 6366: Organizational Staffing
- MAN 6446: Negotiations
- MAN 6447: Art and Science of Negotiation
- MAN 6635: International Aspects of Human Resource Management
- MAN 6636: Global Strategic Management
- MAN 6637: Global Strategic Management
- MAN 6721: Business Policy
- MAN 6724: Strategic Management
- MAN 6900: Capstone Project
- MAN 6905: Individual Work in Management
- MAN 6910: Supervised Research
- MAN 6930: Special Topics
- MAN 6940: Supervised Teaching
- MAN 6973: Project in Lieu of Thesis
- MAN 7108: Seminar in Research Concepts and Methods in Management
- MAN 7109: Seminar in Motivation and Attitudes
- MAN 7208: Seminar in Contemporary Approaches to Organizations
- MAN 7267: Seminar on Groups and Teams Research
- MAN 7328: Seminar on Staffing and Selection
- MAN 7778: Seminar in Strategic Adaptation to Environment
- MAN 7779: Strategic Processes and Structure in Organizations
- MAN 7979: Advanced Research
- MAN 7980: Research for Doctoral Dissertation

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II
- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making
- MAR 6722: Web-Based Marketing
- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)
- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design
- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management
- MAR 6905: Individual Work
- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching
- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business

- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Fisher School of Accounting

Warrington College of Business

Director: Gary A. McGill
Graduate Coordinators: John Laibson and Jenny Tucker

As a professional school in a major public research university, the Fisher School of Accounting (FSOA) is committed to scholarly research, teaching, and service to advance knowledge and prepare future leaders for business, professional, and academic careers.

The Fisher School of Accounting offers graduate work leading to the Master of Accounting (M.Acc.) degree with a major in accounting and optional concentrations in auditing and taxation, and the Ph.D. degree with a major in business administration and an accounting concentration. Requirements for these degrees are available in the Graduate Degrees section of this catalog.

For more information, please see the program pages below, or visit our website: http://warrington.ufl.edu/accounting.

Accounting

Warrington College of Business

Fisher School of Accounting

Accounting Program Information

Master of Accounting: Three variations of the Master of Accounting degree program are available. These allow students to select one of three options: a concentration in Auditing, a concentration in Taxation, or no concentration. Minimum admission requirements include an acceptable score on the Graduate Management Admission Test (GMAT), with a minimum score of 550 and completion of essays with a minimum score of 4. International students must submit a satisfactory score on the following: TOEFL (Test of English as a Foreign Language: internet based, minimum score 100), or IELTS (International English Language Testing System: minimum overall score 7.0). Minimum scores on individual test sections are also required. Additional information, including minimum GPA standards for admission, may be viewed at http://warrington.ufl.edu/accounting/academics/macc.

Combined degree program: The recommended curriculum to prepare for a professional career in accounting is the 3/2 five-year program with a joint awarding of the Bachelor of Science in Accounting and Master of Accounting degrees upon completion of the 150-hour program. The entry point into the 3/2 program is the beginning of the senior year.

Traditional Master of Accounting program: Students who have already completed an undergraduate degree in accounting may enter the 1-year M.Acc. degree program which requires satisfactory completion of 34 hours of course

work. A minimum of 28 credits must be in graduate-level courses; a minimum of 20 credits must be in graduate-level accounting courses. The remaining credits are selected from business core courses and elective courses. Students are cautioned to seek early advisement, since many graduate courses are offered only once a year.

J.D./M.Acc. program: A joint program leading to the Juris Doctor and Master of Accounting degrees is offered by the Fisher School of Accounting and Levin College of Law.

Specific details for the M.Acc., J.D./M.Acc., and Ph.D. programs are available at http://warrington.ufl.edu/accounting/.

Degrees Offered with a Major in Accounting

Master of Accounting

no concentration
concentration in Auditing
concentration in Taxation

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting
- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk
- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting
- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting
- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II
- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting
- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research

- TAX 6105: Corporate Taxation
- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Business Administration (Accounting)

Warrington College of Business
Fisher School of Accounting

Business Administration (Accounting) Program Information

The Ph.D. program offers a broad-based interdisciplinary training that prepares students to conduct empirical research. The curriculum consists of course work of three types: the major field, a breadth requirement, and a research foundation requirement. In addition, students must demonstrate competence in conducting research and teaching, and must complete a dissertation on an accounting topic.

The major field in accounting consists of course work including research analysis, archival research, experimental research, readings, a research project, and dissertation. The breadth requirement consists of course work including microeconomic theory, game theory, information economics, corporate finance theory, and asset pricing. The research foundation requirement consists of graduate course work in mathematical economics, statistics, or econometrics. Students demonstrate competency in conducting research by completing a research project in the summer of the first year. Teaching competence is demonstrated by completing a teaching traning class and by teaching for at least one 1 semester.

Admission requirements include a history of academic excellence, adequate score on the GMAT (the average score of recently admitted applicants is 690 for GMAT) with a writing score of at least 5, competence in written and spoken English (TOEFL Internet-Based test (iBT) required for applicants whose native language is not English), appreciation of accounting issues, and institutional and math competency. The school requires a total score of 91 on the TOEFL, including a minimum of 26 on the speaking section.

Degrees Offered with a Major in Business Administration

Doctor of Philosophy
concentration in Accounting

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting
- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk

- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting
- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting
- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II
- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting
- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research
- TAX 6105: Corporate Taxation
- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets

- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project

- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I
- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications
- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics
- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems

- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management
- MAN 6586: Project Management
- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics
- QMB 5304: Introduction to Managerial Statistics
- QMB 5305: Advanced Managerial Statistics
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II
- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis
- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research
- QMB 7980: Research for Doctoral Dissertation

Management Departmental Courses

- BUL 5810: Legal Environment of Business
- BUL 5811: Law, Ethics, and Organizations
- BUL 5832: Commercial Law for Accountants
- BUL 6441: Business Ethics and Corporate Social Responsibility
- BUL 6516: Law of Real Estate Transactions
- BUL 6656: Law for Entrepreneurs
- BUL 6821: Cyberlaw and Ethics
- BUL 6841: Employment Law
- BUL 6852: International Business Law
- BUL 6905: Individual Work
- BUL 6930: Special Topics
- ENT 6706: Global Entrepreneurship
- MAN 5141: Leadership Skills

- MAN 5245: Organizational Behavior
- MAN 5246: Organizational Behavior
- MAN 5265: Managing Groups and Teams
- MAN 6149: Developing Leadership Skills
- MAN 6257: Power and Politics in Organizations
- MAN 6266: Managing Groups and Teams in Organizations
- MAN 6331: Compensation in Organizations
- MAN 6365: Organizational Staffing
- MAN 6366: Organizational Staffing
- MAN 6446: Negotiations
- MAN 6447: Art and Science of Negotiation
- MAN 6635: International Aspects of Human Resource Management
- MAN 6636: Global Strategic Management
- MAN 6637: Global Strategic Management
- MAN 6721: Business Policy
- MAN 6724: Strategic Management
- MAN 6900: Capstone Project
- MAN 6905: Individual Work in Management
- MAN 6910: Supervised Research
- MAN 6930: Special Topics
- MAN 6940: Supervised Teaching
- MAN 6973: Project in Lieu of Thesis
- MAN 7108: Seminar in Research Concepts and Methods in Management
- MAN 7109: Seminar in Motivation and Attitudes
- MAN 7208: Seminar in Contemporary Approaches to Organizations
- MAN 7267: Seminar on Groups and Teams Research
- MAN 7328: Seminar on Staffing and Selection
- MAN 7778: Seminar in Strategic Adaptation to Environment
- MAN 7779: Strategic Processes and Structure in Organizations
- MAN 7979: Advanced Research
- MAN 7980: Research for Doctoral Dissertation

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II
- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making
- MAR 6722: Web-Based Marketing

- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)
- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design
- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management
- MAR 6905: Individual Work
- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching
- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Finance, Insurance, and Real Estate Department

Chair: Andy Naranjo
Graduate Coordinator: Mahen Nimalendran

The Department of Finance, Insurance, and Real Estate offers graduate work leading to the Master of Science degree with major programs in finance and real estate; the Master of Science in Entrepreneurship (M.S.E.); and the Doctor of Philosophy degree in business administration with a concentration in finance, insurance, quantitative analysis, or real estate. Complete descriptions of the minimum requirements for the M.S., M.S.E, and Ph.D. degrees are provided in the *Graduate Degrees* section of this catalog.

Finance, Real Estate, and Entrepreneurship are also available as concentrations within the M.B.A program. For information about the M.B.A. program, please consult that listing in the *Graduate Degrees* section.

For more information see the program pages below and visit our website: http://warrington.ufl.edu/departments/fire.

Business Administration (Finance, Insurance, and Real Estate)

Warrington College of Business
Finance, Insurance, and Real Estate Department

Business Administration (Finance, Insurance, and Real Estate) Program Information

The Ph.D. in Business Administration - Finance and Real Estate program prepares students to engage in productive scholarly research and teaching in the broad area of financial and real estate economics. Graduates of this program typically are placed with major universities in the United States, although some students choose to work in research positions at non-academic institutions.

The Ph.D. program has a strong emphasis on scholarly research training. Admissions are based on several criteria including academic performance in the undergraduate and graduate programs, standardized test scores, proficiency in English, and potential for research and teaching. For more specific admission information on our Ph.D. program, please visit our website at http://warrington.ufl.edu/graduate/academics/phd-fre/. Generally, admitted students will also be considered for financial aid.

Finance

The student pursuing a concentration in finance typically specializes in corporate finance, financial markets and institutions, or investments. The Ph.D. curriculum consists of course work of four types: research foundations, the major field, a minor or supporting field, and a breadth requirement.

The research foundation requirements are comprised of courses in microeconomic theory, macroeconomic theory, mathematical methods and applications to economics, mathematical statistics, and econometrics. The actual courses will depend on the student's background and proposed thesis research.

The major field in finance consists of at least 16 credit hours in graduate course work in finance including financial theory, corporate finance, and seminars in empirical methods, market micro structure, and special topics. Students may elect to have one "strong" minor (16 credit hours), two "weak" minors (8 credit hours each), or a supporting field which is not declared as a minor. If a supporting field is chosen, at least 16 hours of course work acceptable to the student's supervisory committee must be taken. The supporting field option is selected when a student wishes to take courses across a number of departments. The department offers a combined B.S./M.S. program. Contact the graduate coordinator for information.

The breadth requirement applies only to students with no prior course work in business and consists of financial and managerial accounting or their equivalents, plus two courses out of the following areas: managerial economics, production operations management, or problems and methods in marketing management.

Real Estate

The research foundations are identical to those listed above for finance. The major field, minor, and supporting field requirements have the same credit stipulation as those outlined above for finance, except that the major work is in real estate.

The breadth requirement, as in all concentrations for the business administration program, applies only to students entering without prior course work in business. It consists of at least three courses from the following list (two or more fields must be represented): managers and legal environment of business, finance, money and capital markets, problems and methods of marketing management, consumer behavior, and financial and managerial accounting.

Other degree requirements are listed in the Graduate Degrees section of this catalog.

For more information, please see our website: http://warrington.ufl.edu/graduate/academics/phd-fre.

Degrees Offered with a Major in Business Administration

Doctor of Philosophy

concentration in Finance
concentration in Insurance
concentration in Quantitative Finance
concentration in Real Estate and Urban Analysis

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making

- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal

- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting
- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk
- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting
- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting
- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II
- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting
- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research
- TAX 6105: Corporate Taxation

- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I
- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications
- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics
- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management
- MAN 6586: Project Management
- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics
- QMB 5304: Introduction to Managerial Statistics

- QMB 5305: Advanced Managerial Statistics
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II
- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis
- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research
- QMB 7980: Research for Doctoral Dissertation

Management Departmental Courses

- BUL 5810: Legal Environment of Business
- BUL 5811: Law, Ethics, and Organizations
- BUL 5832: Commercial Law for Accountants
- BUL 6441: Business Ethics and Corporate Social Responsibility
- BUL 6516: Law of Real Estate Transactions
- BUL 6656: Law for Entrepreneurs
- BUL 6821: Cyberlaw and Ethics
- BUL 6841: Employment Law
- BUL 6852: International Business Law
- BUL 6905: Individual Work
- BUL 6930: Special Topics
- ENT 6706: Global Entrepreneurship
- MAN 5141: Leadership Skills
- MAN 5245: Organizational Behavior
- MAN 5246: Organizational Behavior
- MAN 5265: Managing Groups and Teams
- MAN 6149: Developing Leadership Skills
- MAN 6257: Power and Politics in Organizations
- MAN 6266: Managing Groups and Teams in Organizations
- MAN 6331: Compensation in Organizations
- MAN 6365: Organizational Staffing
- MAN 6366: Organizational Staffing
- MAN 6446: Negotiations
- MAN 6447: Art and Science of Negotiation

- MAN 6635: International Aspects of Human Resource Management
- MAN 6636: Global Strategic Management
- MAN 6637: Global Strategic Management
- MAN 6721: Business Policy
- MAN 6724: Strategic Management
- MAN 6900: Capstone Project
- MAN 6905: Individual Work in Management
- MAN 6910: Supervised Research
- MAN 6930: Special Topics
- MAN 6940: Supervised Teaching
- MAN 6973: Project in Lieu of Thesis
- MAN 7108: Seminar in Research Concepts and Methods in Management
- MAN 7109: Seminar in Motivation and Attitudes
- MAN 7208: Seminar in Contemporary Approaches to Organizations
- MAN 7267: Seminar on Groups and Teams Research
- MAN 7328: Seminar on Staffing and Selection
- MAN 7778: Seminar in Strategic Adaptation to Environment
- MAN 7779: Strategic Processes and Structure in Organizations
- MAN 7979: Advanced Research
- MAN 7980: Research for Doctoral Dissertation

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II
- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making
- MAR 6722: Web-Based Marketing
- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)
- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design
- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management
- MAR 6905: Individual Work

- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching
- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Entrepreneurship

Warrington College of Business
Finance, Insurance, and Real Estate Department

Entrepreneurship Program Information

The Masters of Science in Entrepreneurship (M.S.E.) program is a one-year, 36-credit, campus-based program designed for young and aspiring entrepreneurs and change-makers. Offered to both business and non-business majors alike, the program is a combination of classroom delivery and experiential learning activities with a focus on opportunity assessment, feasibility analysis, lean entrepreneurial concept testing, business plan development, entrepreneurial leadership, and the sourcing of capital. Students are exposed to cutting edge entrepreneurial theory, which they apply immediately by consulting for small business, commercializing UF technology, and creating their own businesses.

Combined Degree: The Master of Science in Entrepreneurship offers a combined bachelor's/master's degree option for students pursuing a bachelor's degree in any discipline.

For more information, please see our website: http://warrington.ufl.edu/graduate/academics/mse.

Degrees Offered with a Major in Entrepreneurship

Master of Science in Entrepreneurship

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation

- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants

- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Finance

Warrington College of Business

Finance, Insurance, and Real Estate Department

Finance Program Information

The student pursuing a major in finance typically specializes in corporate finance, financial markets and institutions, or investments.

Master of Science degree in Finance, non-thesis option: This M.S. program option consists of at least 32 credits in letter-graded courses. It is designed to ensure that each student acquires a basic knowledge of the major financial economics subject areas: corporate finance, derivatives, fixed income securities, investments, international finance, and real estate. The program is designed to prepare students for positions in commercial banking, asset management, investment banking, securities markets and more. See the program's website or contact the Associate Director for further information and criteria. This program is predominantly a **combined bachelor's/master's program**, with applications due early in the sophomore year at UF.

Master of Science degree in Finance/Juris Doctorate joint degree program: This joint degree program culminates in the M.S. and J.D. degrees. Applicants must meet the entrance requirements for both the Warrington College of Business Administration and the Levin College of Law. Admission to the second degree program is required no later than the end of the second consecutive semester after beginning one degree in the joint program.

For more information, please see our website: http://warrington.ufl.edu/graduate/academics/msf.

Degrees Offered with a Major in Finance

Master of Science

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures

- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments

- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Real Estate

Warrington College of Business
Finance, Insurance, and Real Estate Department

Real Estate Program Information

The ten-month, full-time in residence, Nathan S. Collier Master of Science in Real Estate (MSRE) Program, housed in the Warrington College of Business Administration (WCBA), thrives on innovation, a dynamic student body, significant interaction with high-level working professionals, and nationally recognized professors. The program is a unique combination of theory and practice that will both enhance your real estate education and develop your professional skills.

Master of Science degree in real estate, nonthesis option: This M.S. option consists of at least 34 credits of letter-graded courses. It is designed to ensure that each student acquires a basic knowledge of the various functional areas in real estate, real estate finance and investment, real estate development, real estate law and institutions, real estate asset management, international real estate, and advanced training in specialized areas. The capstone course (REE 6948) involves actual projects in which students work in teams to undertake a real estate problem for real clients. This two-tiered program of study provides both a firm theoretical foundation for later professional effectiveness and an applied bridge to professional practice.

Master of Science degree in real estate/juris doctorate joint program: This joint degree program culminates in the M.S. and J.D. degrees. Applicants must meet the entrance requirements for both the Warrington College of Business Administration and the Levin College of Law. Admission to the second degree program is required no later than the end of the second consecutive semester after beginning one degree of the joint program.

The Department also offers a combined bachelor's / master's program for all undergraduate disciplines.

For more information, please contact the admissions director and see our website: http://warrington.ufl.edu/graduate/academics/msre.

Degrees Offered with a Major in Real Estate

Master of Science

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance

- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis

- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Information Systems and Operations Management Department

Warrington College of Business

Chair: Haldun Aytug
Graduate Coordinator: Shubho Bandyopadhyay

The primary mission of the Department of Information Systems & Operations Management is a commitment to scholarly research, teaching and service to advance the state of knowledge in information systems and supply chain management and to train future leaders for professional and academic careers.

The Department offers graduate courses leading to the Master of Science in Information Systems and Operations Management (M.S.ISOM); the Ph.D. degree in Business Administration; and a concentration in the Master of Business Administration (M.B.A.) program. Minimum requirements for these degrees are available in the Graduate Degrees section of this catalog.

Combined Bachelor/Master of Science: The Department also offers a combined bachelor's/master's degree program. This program allows qualified students to earn both the bachelor's and master's degrees, using 12 to 16 credit hours of graduate-level courses for both degrees.

For more information, please see the program pages below and our website: http://warrington.ufl.edu/departments/isom.

Business Administration (Information Systems and Operations Management)

Warrington College of Business
Information Systems and Operations Management Department

Business Administration (Information Systems and Operations Management)

The Department of Information Systems & Operations Management offers graduate courses leading to the Master of Science in Information Systems and Operations Management (M.S.ISOM); the Ph.D. degree in Business Administration; and a concentration in the Master of Business Administration (M.B.A.) program. Minimum requirements for these degrees are available in the Graduate Degrees section of this catalog.

Doctor of Philosophy: The mission of the Ph.D. Program is to educate scholars who will make substantial contributions in their field of research. Our primary goal is to train graduate students to make such contributions. To achieve this goal, we attempt to place students in productive academic research environments. The major areas of study within the department are Information Systems/Information Technology (IS/IT) and Operations Management OM).

Students come from a variety of backgrounds, with the most common being engineering computer sciences, mathematics, business, and statistics. Students admitted for the Ph.D. choose to specialize either in information systems/information technology or in operations management. The course schedule taken by each student is always personalized to fit the background of the student and is developed in consultation with the Ph.D. program coordinator and/or chair of the dissertation committee. Additionally, doctoral students will be required to attend all ISOM Workshops and the Department Seminar Series (regardless of area of specialization) held at the University of Florida.

Admission requirements for the Ph.D. include

- A minimum grade point average of 3.2
- A minimum GMAT score of 650, or GRE scores acceptable to the program
- For nonnative speakers of English, submit an acceptable score on one of the following: TOEFL (Test of English as a Foreign Language: computer=213, paper=550, web=80), IELTS (International English Language Testing System: 6), MELAB (Michigan English Language Assessment Battery: 77), or successful completion of the UF English Language Institute program.

For more information, please see our website: http://warrington.ufl.edu/graduate/academics/phd-isom.

Degrees Offered with a Major in Business Administration

Doctor of Philosophy
concentration in Information Systems and Operations Management

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I
- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications

- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics
- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management
- MAN 6586: Project Management
- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics
- QMB 5304: Introduction to Managerial Statistics
- QMB 5305: Advanced Managerial Statistics
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II
- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis
- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research

- QMB 7980: Research for Doctoral Dissertation

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting
- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk
- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting
- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting
- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II
- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting
- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research
- TAX 6105: Corporate Taxation
- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity

- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II

- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Management Departmental Courses

- BUL 5810: Legal Environment of Business
- BUL 5811: Law, Ethics, and Organizations
- BUL 5832: Commercial Law for Accountants
- BUL 6441: Business Ethics and Corporate Social Responsibility
- BUL 6516: Law of Real Estate Transactions
- BUL 6656: Law for Entrepreneurs
- BUL 6821: Cyberlaw and Ethics
- BUL 6841: Employment Law
- BUL 6852: International Business Law
- BUL 6905: Individual Work
- BUL 6930: Special Topics
- ENT 6706: Global Entrepreneurship
- MAN 5141: Leadership Skills

- MAN 5245: Organizational Behavior
- MAN 5246: Organizational Behavior
- MAN 5265: Managing Groups and Teams
- MAN 6149: Developing Leadership Skills
- MAN 6257: Power and Politics in Organizations
- MAN 6266: Managing Groups and Teams in Organizations
- MAN 6331: Compensation in Organizations
- MAN 6365: Organizational Staffing
- MAN 6366: Organizational Staffing
- MAN 6446: Negotiations
- MAN 6447: Art and Science of Negotiation
- MAN 6635: International Aspects of Human Resource Management
- MAN 6636: Global Strategic Management
- MAN 6637: Global Strategic Management
- MAN 6721: Business Policy
- MAN 6724: Strategic Management
- MAN 6900: Capstone Project
- MAN 6905: Individual Work in Management
- MAN 6910: Supervised Research
- MAN 6930: Special Topics
- MAN 6940: Supervised Teaching
- MAN 6973: Project in Lieu of Thesis
- MAN 7108: Seminar in Research Concepts and Methods in Management
- MAN 7109: Seminar in Motivation and Attitudes
- MAN 7208: Seminar in Contemporary Approaches to Organizations
- MAN 7267: Seminar on Groups and Teams Research
- MAN 7328: Seminar on Staffing and Selection
- MAN 7778: Seminar in Strategic Adaptation to Environment
- MAN 7779: Strategic Processes and Structure in Organizations
- MAN 7979: Advanced Research
- MAN 7980: Research for Doctoral Dissertation

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II
- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making

- MAR 6722: Web-Based Marketing
- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)
- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design
- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management
- MAR 6905: Individual Work
- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching
- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Information Systems and Operations Management

Warrington College of Business
Information Systems and Operations Management Department

Information Systems and Operations Management Program Information

The Department of Information Systems & Operations Management offers graduate courses leading to the Master of Science in Information Systems and Operations Management (M.S.ISOM); the Ph.D. degree in Business Administration; and a concentration in the Master of Business Administration (M.B.A.) program. Minimum requirements for these degrees are available in the Graduate Degrees section of this catalog.

Master of Science: The M.S.ISOM program provides computing, analytical, and application skills to be used in a business setting. The primary areas of emphasis in the M.S.ISOM program are business intelligence and analytics, information systems/information technology, and supply chain management. Requirements span traditional academic disciplines to produce a multiple-discipline focus. Typical positions for graduates include decision support specialist, information systems specialist, systems analyst, and logistic support specialist.

For a student with a bachelor's degree in business, the M.S.ISOM non-thesis on-campus program consists of a minimum of 36 credit hours, normally requiring a minimum of three semesters of study, not including summer. For students without a bachelor's degree in business, the M.S.ISOM non-thesis on-campus program consists of a minimum of 40 credit hours, normally requiring a minimum of four semesters of study, not including summer.

All M.S.ISOM candidates must complete 26 credits of core coursework:

- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6222: Business Telecom Strategy and Applications I
- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6485: Electronic Commerce and Logistics (capstone course)
- MAN 6581: Project Management
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II

All M.S.ISOM candidates must also complete 6 credits of track coursework for the information technology, supply chain management, or business intelligence and analytics track:

Information Technology Track

- ISM 6216: Business Database Systems II
- ISM 6236: Business Objects I
- ISM 6259: Business Programming

Supply Chain Management Track

- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management

Business Intelligence and Analytics Track

- ISM 6216: Business Database Systems II
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support

These required courses total 32 credit hours. In addition, each M.S.ISOM student with an undergraduate major or minor in business must take a minimum of 4 additional hours of approved graduate business electives for a total of 36 credit hours required for the M.S.ISOM degree. For students without an undergraduate business degree or minor, instead of graduate business electives, they must complete four of the following core business courses: ACG 5005, ACG 5075, ECP 5702, FIN 5437, FIN 5439, MAN 5246, MAR 5806.

Bachelor/Master of Science: The Department also offers a combined bachelor's/master's degree program. This program allows qualified students to earn both the bachelor's and master's degrees, using 12 to 16 credit hours of graduate-level courses for both degrees.

For more information, please see our website: http://warrington.ufl.edu/graduate/academics/ms-isom/combined/.

Degrees Offered with a Major in Information Systems and Operations Management

Master of Science in Information Systems and Operations Management

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I
- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications
- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics

- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management
- MAN 6586: Project Management
- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics
- QMB 5304: Introduction to Managerial Statistics
- QMB 5305: Advanced Managerial Statistics
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II
- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis
- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research
- QMB 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing

- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Management Department

Warrington College of Business

Chair: Mo Wang
Graduate Coordinator: Joyce Bono

The Management Department offers graduate work leading to a Ph.D. degree with a major in Business Administration and a concentration in Management; a Master of Business Administration degree with a concentration in Management; a Master of Science degree with a major in Management; and a Master of International Business (M.I.B.). Complete descriptions of the minimum requirements for these degrees are provided in the Graduate Degrees Section of this catalog.

The Department participates in combined bachelor's/master's degree programs for the Master of International Business (M.I.B.) and Master of Science (M.S.) with a major in management. The Master of International Business is open to students pursuing a bachelor's degree in a business discipline or minor in business administration. The M.S. with a major in management program is only open to non-business majors. Contact the graduate coordinator for information.

For more information, please see the program pages below and our website: http://warrington.ufl.edu/departments/mgt.

Business Administration (Management)

Warrington College of Business
Management Department

Business Administration (Management) Program Information

The Ph.D. program in business administration in the Department of Management prepares students for careers as faculty members of universities that emphasize research and teaching. The program is designed so that the student will (1) develop strong competence in the base discipline crucial to the study of organizations and organization processes and (2) follow a field of specialization in organizational behavior or strategy. Admission requirements for the Ph.D. include (a) a minimum grade point average of 3.0, (b) a minimum GMAT score of 600, and (c) for nonnative speakers of English, a minimum score of 550 on the TOEFL. Although these are the minimum requirements, most students accepted into the Ph.D. in management have a GPA above 3.5 and a GMAT score above 650.

The research interests of the faculty are quite broad and details of current research interests can be found on the management departments' faculty page. Students will also have exposure to scholars and faculty members from other universities, and from other departments in the University, who are invited to give workshops in the Department.

Breadth Requirement: It is preferred, but not required that students pursuing the Ph.D. be well versed in the structure and functioning of business organizations and the environment within which they operate. This expectation may be

met through undergraduate or master's level work in business administration, but a background in business administration is not required for the Ph.D.

Research Skills Requirement: The general nature of the research requirement has been specified by the Graduate Committee of the Warrington College of Business. Students must take at least six methods and statistical courses, some which are offered in the department and college, and some which are taken through other colleges. The specific program is determined by the Ph.D. Coordinator in conjunction with the student's advisor and will be tailored to fit the student's prior preparation and the specialization that the student chooses.

Major Course Requirements: The program of study for each student will include required management seminars covering topics in both Organizational Behavior and Strategy.

Program Milestones: To maintain acceptable progress in the Ph.D. program, each student is required to present a first year research project in the second year and a second year research project in the third year. Procedures for these qualifying papers, dissertation, and final examination are given in the Requirements for the PhD. section of this catalog.

For more information, please see our website: http://warrington.ufl.edu/graduate/academics/phd-mgt.

Degrees Offered with a Major in Business Administration

Doctor of Philosophy

concentration in Management

Management Departmental Courses

- BUL 5810: Legal Environment of Business
- BUL 5811: Law, Ethics, and Organizations
- BUL 5832: Commercial Law for Accountants
- BUL 6441: Business Ethics and Corporate Social Responsibility
- BUL 6516: Law of Real Estate Transactions
- BUL 6656: Law for Entrepreneurs
- BUL 6821: Cyberlaw and Ethics
- BUL 6841: Employment Law
- BUL 6852: International Business Law
- BUL 6905: Individual Work
- BUL 6930: Special Topics
- ENT 6706: Global Entrepreneurship
- MAN 5141: Leadership Skills
- MAN 5245: Organizational Behavior
- MAN 5246: Organizational Behavior
- MAN 5265: Managing Groups and Teams
- MAN 6149: Developing Leadership Skills
- MAN 6257: Power and Politics in Organizations
- MAN 6266: Managing Groups and Teams in Organizations
- MAN 6331: Compensation in Organizations
- MAN 6365: Organizational Staffing
- MAN 6366: Organizational Staffing
- MAN 6446: Negotiations
- MAN 6447: Art and Science of Negotiation
- MAN 6635: International Aspects of Human Resource Management
- MAN 6636: Global Strategic Management

- MAN 6637: Global Strategic Management
- MAN 6721: Business Policy
- MAN 6724: Strategic Management
- MAN 6900: Capstone Project
- MAN 6905: Individual Work in Management
- MAN 6910: Supervised Research
- MAN 6930: Special Topics
- MAN 6940: Supervised Teaching
- MAN 6973: Project in Lieu of Thesis
- MAN 7108: Seminar in Research Concepts and Methods in Management
- MAN 7109: Seminar in Motivation and Attitudes
- MAN 7208: Seminar in Contemporary Approaches to Organizations
- MAN 7267: Seminar on Groups and Teams Research
- MAN 7328: Seminar on Staffing and Selection
- MAN 7778: Seminar in Strategic Adaptation to Environment
- MAN 7779: Strategic Processes and Structure in Organizations
- MAN 7979: Advanced Research
- MAN 7980: Research for Doctoral Dissertation

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting
- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk
- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting
- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting
- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II
- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting

- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research
- TAX 6105: Corporate Taxation
- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory

- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate

- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I
- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications
- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics
- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management
- MAN 6586: Project Management
- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics
- QMB 5304: Introduction to Managerial Statistics
- QMB 5305: Advanced Managerial Statistics
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II

- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis
- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research
- QMB 7980: Research for Doctoral Dissertation

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II
- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making
- MAR 6722: Web-Based Marketing
- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)
- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design
- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management
- MAR 6905: Individual Work
- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching

- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

International Business

Warrington College of Business
Management Department

International Business Program

The Master of International Business (M.I.B.) is a non-thesis interdisciplinary graduate business program designed to enhance a student's knowledge and understanding of global business trends and problems.

All M.I.B. candidates must complete the 30-credit curriculum, which consists of 14 core credits and 16 elective credits, with a grade point average (major and overall) of 3.0 or higher. The curriculum includes a mandatory global immersion experience and a non-thesis capstone project.

Combined Degree: The Master of International Business offers a combined bachelor's/master's degree option for students pursuing a bachelor's degree in a business discipline or minor in business administration.

For more information, please see our website: http://warrington.ufl.edu/graduate/academics/mib.

Degrees Offered with a Major in International Business

Master of International Business

Management Departmental Courses

- BUL 5810: Legal Environment of Business
- BUL 5811: Law, Ethics, and Organizations
- BUL 5832: Commercial Law for Accountants
- BUL 6441: Business Ethics and Corporate Social Responsibility
- BUL 6516: Law of Real Estate Transactions
- BUL 6656: Law for Entrepreneurs
- BUL 6821: Cyberlaw and Ethics
- BUL 6841: Employment Law
- BUL 6852: International Business Law
- BUL 6905: Individual Work
- BUL 6930: Special Topics
- ENT 6706: Global Entrepreneurship
- MAN 5141: Leadership Skills
- MAN 5245: Organizational Behavior
- MAN 5246: Organizational Behavior
- MAN 5265: Managing Groups and Teams
- MAN 6149: Developing Leadership Skills
- MAN 6257: Power and Politics in Organizations
- MAN 6266: Managing Groups and Teams in Organizations
- MAN 6331: Compensation in Organizations
- MAN 6365: Organizational Staffing
- MAN 6366: Organizational Staffing
- MAN 6446: Negotiations
- MAN 6447: Art and Science of Negotiation
- MAN 6635: International Aspects of Human Resource Management
- MAN 6636: Global Strategic Management
- MAN 6637: Global Strategic Management
- MAN 6721: Business Policy
- MAN 6724: Strategic Management
- MAN 6900: Capstone Project
- MAN 6905: Individual Work in Management
- MAN 6910: Supervised Research
- MAN 6930: Special Topics
- MAN 6940: Supervised Teaching
- MAN 6973: Project in Lieu of Thesis
- MAN 7108: Seminar in Research Concepts and Methods in Management
- MAN 7109: Seminar in Motivation and Attitudes
- MAN 7208: Seminar in Contemporary Approaches to Organizations
- MAN 7267: Seminar on Groups and Teams Research
- MAN 7328: Seminar on Staffing and Selection
- MAN 7778: Seminar in Strategic Adaptation to Environment
- MAN 7779: Strategic Processes and Structure in Organizations

- MAN 7979: Advanced Research
- MAN 7980: Research for Doctoral Dissertation

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting
- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk
- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting
- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting
- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II
- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting
- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research
- TAX 6105: Corporate Taxation
- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets

- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I

- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications
- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics
- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management
- MAN 6586: Project Management
- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics
- QMB 5304: Introduction to Managerial Statistics
- QMB 5305: Advanced Managerial Statistics
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II
- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis

- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research
- QMB 7980: Research for Doctoral Dissertation

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II
- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making
- MAR 6722: Web-Based Marketing
- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)
- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design
- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management
- MAR 6905: Individual Work
- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching
- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Management

Warrington College of Business
Management Department

Management Program Information

Master of Science degree with a major in Management, non-thesis option: This M.S. program is designed to afford general business competency to students who possess little or no educational business background. The M.S. with a major in management program is only open to non-business majors. Students must complete the 32-credit curriculum, which consists of 22 core credits and 10 elective credits, with a grade point average (major and overall) of 3.0 or higher.

Combined Degree Program: The M.S. with a major in management offers a combined bachelor's/master's degree option.

For more information, please see our website: http://warrington.ufl.edu/graduate/academics/msm.

Degrees Offered with a Major in Management

Master of Science
without a concentration

Management Program Core Courses

- ACG 5005: Financial Accounting
- ACG 5075: Managerial Accounting
- BUL 5811: Law, Ethics, and Organizations
- ECP 5702: Managerial Economics
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- MAN 5246: Organizational Behavior
- MAN 5502: Production and Operations Management
- MAN 6636: Global Strategic Management
- MAR 5806: Problems and Methods in Marketing Management
- QMB 5304: Introduction to Managerial Statistics

Management Departmental Courses

- BUL 5810: Legal Environment of Business
- BUL 5811: Law, Ethics, and Organizations
- BUL 5832: Commercial Law for Accountants
- BUL 6441: Business Ethics and Corporate Social Responsibility
- BUL 6516: Law of Real Estate Transactions
- BUL 6656: Law for Entrepreneurs
- BUL 6821: Cyberlaw and Ethics
- BUL 6841: Employment Law
- BUL 6852: International Business Law
- BUL 6905: Individual Work
- BUL 6930: Special Topics
- ENT 6706: Global Entrepreneurship
- MAN 5141: Leadership Skills
- MAN 5245: Organizational Behavior
- MAN 5246: Organizational Behavior
- MAN 5265: Managing Groups and Teams
- MAN 6149: Developing Leadership Skills
- MAN 6257: Power and Politics in Organizations
- MAN 6266: Managing Groups and Teams in Organizations
- MAN 6331: Compensation in Organizations
- MAN 6365: Organizational Staffing
- MAN 6366: Organizational Staffing
- MAN 6446: Negotiations
- MAN 6447: Art and Science of Negotiation
- MAN 6635: International Aspects of Human Resource Management
- MAN 6636: Global Strategic Management
- MAN 6637: Global Strategic Management
- MAN 6721: Business Policy
- MAN 6724: Strategic Management
- MAN 6900: Capstone Project
- MAN 6905: Individual Work in Management
- MAN 6910: Supervised Research
- MAN 6930: Special Topics
- MAN 6940: Supervised Teaching
- MAN 6973: Project in Lieu of Thesis
- MAN 7108: Seminar in Research Concepts and Methods in Management
- MAN 7109: Seminar in Motivation and Attitudes
- MAN 7208: Seminar in Contemporary Approaches to Organizations
- MAN 7267: Seminar on Groups and Teams Research
- MAN 7328: Seminar on Staffing and Selection
- MAN 7778: Seminar in Strategic Adaptation to Environment
- MAN 7779: Strategic Processes and Structure in Organizations
- MAN 7979: Advanced Research
- MAN 7980: Research for Doctoral Dissertation

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting
- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk
- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting
- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting
- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II
- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting
- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research
- TAX 6105: Corporate Taxation
- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value
- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets

- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology
- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I

- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications
- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics
- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management
- MAN 6586: Project Management
- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics
- QMB 5304: Introduction to Managerial Statistics
- QMB 5305: Advanced Managerial Statistics
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II
- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis

- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research
- QMB 7980: Research for Doctoral Dissertation

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II
- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making
- MAR 6722: Web-Based Marketing
- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)
- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design
- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management
- MAR 6905: Individual Work
- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching
- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Marketing Department

Chair: Richard J. Lutz
Graduate Coordinator: Aner Sela

Complete faculty listing: Follow this link

The Marketing Department at the University of Florida is a recognized leader in the discipline of marketing. For over a decade, our faculty has ranked as one of the most productive and influential in the field. Our faculty is known for conducting provocative, cutting-edge research that contributes both to the scientific understanding and practice of marketing. Our Ph.D. program has produced many leading researchers in the discipline. And the David F. Miller Center for Retailing Education and Research is known as one of the foremost centers for developing the science of retailing.

The Marketing Department offers a graduate program leading to the degree of Ph.D. in Business Administration (Marketing). Requirements for the Ph.D. degree are described in the Graduate Degrees section of this catalog.

For more information, please see our website: http://warrington.ufl.edu/departments/mkt.

Business Administration (Marketing - Master's)

Warrington College of Business Administration
Marketing Department

Business Administration (Marketing - Master's)

The Marketing Department only accepts master's students in special cases. If you are interested in this program, please contact the department graduate coordinator in the first instance. Do not submit an online application without first contacting the graduate coordinator.

The M.A. degree in Business Administration with a concentration in marketing focuses on consumer behavior, marketing management, and marketplace phenomena. Students study the critical linkages between an organization and its environment, particularly customers and competitors.

The M.S. degree in Business Administration with a concentration in marketing is intended for students whose ultimate objective is to earn a Ph.D. in marketing at another institution. Applicants must have (a) an undergraduate degree from a nationally accredited program, (b) a minimum 3.5 undergraduate GPA, (c) a minimum 600 GMAT (1250 GRE), and (d) evidence of a strong interest in academic research in marketing. The concentration requires 30 credits of graduate-level courses, at least half of which must be in marketing.

Degrees Offered with a Major in Business Administration

Master of Arts

concentration in Marketing

Master of Science

concentration in Marketing

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II
- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making
- MAR 6722: Web-Based Marketing
- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)
- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design
- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management
- MAR 6905: Individual Work
- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching
- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

Business Administration (Marketing - Ph.D.)

Warrington College of Business
Marketing Department

Business Administration (Marketing - Ph.D.)

The doctoral program is research-focused and offers the opportunity for concentrated study in consumer behavior or in quantitative or analytical modeling of marketplace phenomena.

The Ph.D. curriculum consists of course work in three areas: research foundations, the major field, and electives. In addition, students are required to complete a first-year summer research project, a second year summer paper, a third-year review paper, and a dissertation. Other requirements are outlined in the Graduate Degrees section of this catalog.

The research foundations requirement comprises a set of research methods and data analysis courses chosen from statistics, psychology, and/or economics. The major field course work is made up of a set of four required marketing seminars that are completed during the student's first 2 years in the program. Electives are selected from both advanced marketing seminars and other related disciplines to complement the student's research program.

Degrees Offered with a Major in Business Administration

Doctor of Philosophy
concentration in Marketing

Marketing Departmental Courses

- MAR 5805: Problems and Methods in Marketing Management
- MAR 5806: Problems and Methods in Marketing Management
- MAR 6157: International Marketing
- MAR 6158: International Marketing
- MAR 6237: The Art and Science of Pricing
- MAR 6256: Strategy and Tactics of Pricing
- MAR 6335: Building and Managing Brand Equity
- MAR 6456: Business-to-Business Marketing
- MAR 6508: Customer Analysis
- MAR 6601: Entrepreneurial Marketing I
- MAR 6602: Entrepreneurial Marketing II

- MAR 6646: Marketing Research for Managerial Decision Making
- MAR 6648: Marketing Research for Managerial Decision Making
- MAR 6722: Web-Based Marketing
- MAR 6725: Introduction to Electronic Commerce
- MAR 6816: Advanced Marketing Management (MBA)
- MAR 6818: Advanced Marketing Management
- MAR 6833: Product Development and Management
- MAR 6834: Marketing of Science and Technology
- MAR 6835: Marketing of Science and Technology
- MAR 6837: Consumer-Centered Product Design
- MAR 6861: Customer Relationship Management
- MAR 6862: Customer Relationship Management
- MAR 6905: Individual Work
- MAR 6910: Supervised Research
- MAR 6930: Special Topics in Marketing
- MAR 6940: Supervised Teaching
- MAR 6957: International Studies in Marketing
- MAR 6971: Research for Master's Thesis
- MAR 7507: Perspectives on Consumer Behavior
- MAR 7588: Consumer Information Processing and Decision Making
- MAR 7589: Judgment and Decision Making
- MAR 7626: Multivariate Statistical Methods in Marketing
- MAR 7636: Research Methods in Marketing
- MAR 7666: Marketing Decision Models
- MAR 7786: Marketing Literature
- MAR 7925: Workshop in Marketing Research
- MAR 7979: Advanced Research
- MAR 7980: Research for Doctoral Dissertation

Accounting Departmental Courses

- ACG 5005: Financial Accounting
- ACG 5065: Financial and Managerial Accounting
- ACG 5075: Managerial Accounting
- ACG 5226: Advanced Accounting
- ACG 5505: Governmental Accounting
- ACG 5637: Auditing I
- ACG 5647: Auditing II
- ACG 5815: Accounting Regulation
- ACG 6107: Accounting for Income Taxes
- ACG 6136: Accounting Theory
- ACG 6175: Financial Reporting and Analysis
- ACG 6207: Accounting for Risk
- ACG 6265: International Accounting and Taxation
- ACG 6385: Controllership
- ACG 6635: Issues in Audit Practice
- ACG 6685: Forensic Accounting

- ACG 6691: International Auditing
- ACG 6697: Information Systems Assurance
- ACG 6905: Individual Work in Accounting
- ACG 6935: Special Topics in Accounting
- ACG 6940: Supervised Teaching
- ACG 7399: Accounting Research and Analysis
- ACG 7885: Accounting Research I
- ACG 7886: Accounting Research II
- ACG 7887: Research Analysis in Accounting
- ACG 7939: Theoretical Constructs in Accounting
- ACG 7979: Advanced Research
- ACG 7980: Research for Doctoral Dissertation
- TAX 5005: Introduction to Federal Income Taxation
- TAX 5025: Federal Income Tax 1
- TAX 5027: Federal Income Tax 2
- TAX 5065: Tax Professional Research
- TAX 6105: Corporate Taxation
- TAX 6115: Advanced Corporate Taxation
- TAX 6205: Partnership Taxation
- TAX 6526: International Taxation
- TAX 6726: Executive Tax Planning
- TAX 6877: State and Local Taxation

Finance, Insurance, and Real Estate Departmental Courses

- ENT 5275: Family Business Management
- ENT 6006: Entrepreneurship
- ENT 6008: Entrepreneurial Opportunity
- ENT 6016: Venture Analysis
- ENT 6116: Business Plan Formation
- ENT 6416: Venture Finance
- ENT 6506: Social Entrepreneurship
- ENT 6616: Creativity in Entrepreneurship
- ENT 6905: Individual Work in Entrepreneurship
- ENT 6930: Special Topics
- ENT 6933: Entrepreneurship Lecture Series
- ENT 6946: Entrepreneurial Consulting Project
- ENT 6950: Integrated Technology Ventures
- FIN 5405: Business Financial Management
- FIN 5437: Finance I: Asset Valuation, Risk, and Return
- FIN 5439: Finance II: Capital Structure and Risk Management Issues
- FIN 6108: Personal Financial Management
- FIN 6246: Money and Capital Markets
- FIN 6296: Capitalism
- FIN 6306: Investment Banking
- FIN 6425: Corporation Finance
- FIN 6427: Measuring and Managing Value

- FIN 6429: Financial Decision Making
- FIN 6432: Asset Valuation and Corporate Finance
- FIN 6438: Study in Valuation
- FIN 6465: Financial Statement Analysis
- FIN 6477: Entrepreneurial Finance
- FIN 6489: Financial Risk Management
- FIN 6496: Mergers & Acquisitions
- FIN 6518: Investment Concepts
- FIN 6525: Asset Management Project
- FIN 6526: Portfolio Theory
- FIN 6528: Asset Allocation and Investment Strategy
- FIN 6537: Derivative Securities
- FIN 6545: Fixed Income Security Valuation
- FIN 6547: Interest Rate Risk Management
- FIN 6549: Special Topics in Fixed Income Securities
- FIN 6575: Emerging Markets Finance I
- FIN 6576: Emerging Markets Finance II
- FIN 6585: Securities Trading
- FIN 6596: Introduction to Computational Methods & Derivative Pricing
- FIN 6608: Financial Management of the Multinational Corporation
- FIN 6626: International Finance
- FIN 6638: International Finance
- FIN 6727: Economic Organizations and Markets
- FIN 6728: Capitalism and Regulation
- FIN 6729: Economics Organizations and Markets
- FIN 6785: Investment Banking and Corporate Financial Modeling I
- FIN 6786: Investment Banking and Corporate Financial Modeling II
- FIN 6905: Individual Work in Finance
- FIN 6930: Special Topics in Finance
- FIN 6935: Finance Professional Speaker Series
- FIN 6936: Special Topics In Investment Finance
- FIN 6957: International Studies in Finance
- FIN 6958: International Finance Study Tour
- FIN 7446: Financial Theory I
- FIN 7447: Financial Theory II
- FIN 7808: Corporate Finance
- FIN 7809: Investments
- FIN 7938: Finance Research Workshop
- FIN 7979: Advanced Research
- FIN 7980: Research for Doctoral Dissertation
- GEB 5114: Entrepreneurship and Venture Finance
- GEB 6157: Entrepreneurship Experiential Learning Project
- GEB 6366: Fundamentals of International Business
- REE 6007: Fundamentals of Real Estate Development
- REE 6045: Introduction to Real Estate
- REE 6058: Real Estate Research and Technology

- REE 6105: Real Estate Appraisal
- REE 6206: Primary Mortgage Markets and Institutions
- REE 6208: Secondary Mortgage Markets and Securitization
- REE 6315: Real Estate Market and Transaction Analysis
- REE 6395: Investment Property Analysis
- REE 6397: Real Estate Securities and Portfolios
- REE 6705: Geographic Information Systems and Location Analysis
- REE 6737: Real Estate Development
- REE 6905: Individual Work in Real Estate
- REE 6930: Special Topics in Real Estate
- REE 6935: Real Estate Case Studies
- REE 6948: Capstone Seminar and Applied Project

Information Systems and Operations Management Departmental Courses

- ISM 5021: Information Systems in Organizations
- ISM 6022: Management Information Systems
- ISM 6123: Systems Analysis and Design
- ISM 6128: Advanced Business Systems Design and Development I
- ISM 6129: Advanced Business Systems Design and Development II
- ISM 6215: Business Database Systems I
- ISM 6216: Business Database Systems II
- ISM 6217: Database Management Systems
- ISM 6222: Business Telecom Strategy and Applications I
- ISM 6223: Business Telecom Strategy and Applications II
- ISM 6224: Business Telecom Strategy and Applications III
- ISM 6226: Business Telecom Strategy and Applications
- ISM 6236: Business Objects I
- ISM 6239: Business Objects II
- ISM 6257: Intermediate Business Programming
- ISM 6258: Advanced Business Programming
- ISM 6259: Business Programming
- ISM 6405: Business Intelligence
- ISM 6423: Data Analysis for Decision Support
- ISM 6485: Electronic Commerce and Logistics
- ISM 6486: eCommerce Technologies
- ISM 6487: Risks and Controls in eCommerce
- ISM 6942: Electronic Commerce Practicum
- ISM 7166: Advanced Business Systems Design and Development III
- MAN 5501: Management
- MAN 5502: Production and Operations Management
- MAN 6508: Management of Service Operations
- MAN 6511: Production Management Problems
- MAN 6528: Principles of Logistics/Transportation Systems
- MAN 6573: Purchasing and Materials Management
- MAN 6575: Purchasing and Supplier Relationship Management
- MAN 6581: Project Management

- MAN 6586: Project Management
- MAN 6598: Logistics and Distribution Management
- MAN 6599: Tactical Logistics Planning
- MAN 6617: International Operations/Logistics
- MAN 6619: International Logistics
- QMB 5303: Managerial Statistics
- QMB 5304: Introduction to Managerial Statistics
- QMB 5305: Advanced Managerial Statistics
- QMB 6358: Statistical Analysis for Managerial Decisions I
- QMB 6359: Statistical Analysis for Managerial Decisions II
- QMB 6607: Decision Processes Under Uncertainty I
- QMB 6616: Business Process Analysis
- QMB 6693: Quality Management and Control Systems
- QMB 6697: Optimization in Simulation Modeling I
- QMB 6755: Managerial Quantitative Analysis I
- QMB 6756: Managerial Quantitative Analysis II
- QMB 6905: Individual Work in Information Systems and Operations Management
- QMB 6910: Supervised Research
- QMB 6930: Special Topics in Information Systems and Operations Management
- QMB 6940: Supervised Teaching
- QMB 6941: Internship
- QMB 6957: International Studies in Quantitative Methods
- QMB 6971: Research for Master's Thesis
- QMB 7931: Special Topics in Information Systems and Operations Management
- QMB 7933: Seminar in Information Systems and Operations Management
- QMB 7979: Advanced Research
- QMB 7980: Research for Doctoral Dissertation

Management Departmental Courses

- BUL 5810: Legal Environment of Business
- BUL 5811: Law, Ethics, and Organizations
- BUL 5832: Commercial Law for Accountants
- BUL 6441: Business Ethics and Corporate Social Responsibility
- BUL 6516: Law of Real Estate Transactions
- BUL 6656: Law for Entrepreneurs
- BUL 6821: Cyberlaw and Ethics
- BUL 6841: Employment Law
- BUL 6852: International Business Law
- BUL 6905: Individual Work
- BUL 6930: Special Topics
- ENT 6706: Global Entrepreneurship
- MAN 5141: Leadership Skills
- MAN 5245: Organizational Behavior
- MAN 5246: Organizational Behavior
- MAN 5265: Managing Groups and Teams
- MAN 6149: Developing Leadership Skills

- MAN 6257: Power and Politics in Organizations
- MAN 6266: Managing Groups and Teams in Organizations
- MAN 6331: Compensation in Organizations
- MAN 6365: Organizational Staffing
- MAN 6366: Organizational Staffing
- MAN 6446: Negotiations
- MAN 6447: Art and Science of Negotiation
- MAN 6635: International Aspects of Human Resource Management
- MAN 6636: Global Strategic Management
- MAN 6637: Global Strategic Management
- MAN 6721: Business Policy
- MAN 6724: Strategic Management
- MAN 6900: Capstone Project
- MAN 6905: Individual Work in Management
- MAN 6910: Supervised Research
- MAN 6930: Special Topics
- MAN 6940: Supervised Teaching
- MAN 6973: Project in Lieu of Thesis
- MAN 7108: Seminar in Research Concepts and Methods in Management
- MAN 7109: Seminar in Motivation and Attitudes
- MAN 7208: Seminar in Contemporary Approaches to Organizations
- MAN 7267: Seminar on Groups and Teams Research
- MAN 7328: Seminar on Staffing and Selection
- MAN 7778: Seminar in Strategic Adaptation to Environment
- MAN 7779: Strategic Processes and Structure in Organizations
- MAN 7979: Advanced Research
- MAN 7980: Research for Doctoral Dissertation

Warrington College of Business Courses

- BTE 7171: Preparing to Teach in Business
- GEB 5212: Professional Writing in Business
- GEB 5215: Professional Communication in Business
- GEB 5225: Advanced Business Writing
- GEB 5929: Foundations Review
- GEB 6229: Professional Communication for Accountants
- GEB 6365: International Business
- GEB 6905: Individual Work
- GEB 6930: Special Topics
- GEB 6941: Internship
- GEB 6957: International Studies in Business

College of Dentistry

Dean: Isabel Garcia
Associate Dean & Director: Roberta Pileggi

Advanced education has progressed over the years to be an integral component of the College of Dentistry, growing from six certificate residency programs, with an enrollment of only 36 students in 1979, to fourteen certificate programs and various fellowship programs. Enrollment is now over 140. In 1993, the college started master degree programs in endodontics, orthodontics, periodontics and prosthodontics, and continues today to grow.

Follow this link for more information about UF's College of Dentistry graduate programs:
http://admissions.dental.ufl.edu/advanced-graduate-programs/programs-application-process/

Dental Sciences Department

College of Dentistry

Endodontics Chair and Graduate Coordinator: Roberta Pileggi
Orthodontics Chair and Graduate Coordinator: Calogero Dolce
Periodontology Chair: Ikramuddin Aukhil; Graduate Coordinator: Rodrigo Neiva
Restorative Dental Sciences Interim Chair: Deborah Dilbone; Graduate Coordinator: Edgar O'Neill

The College of Dentistry offers the Master of Science degree in dental sciences with concentrations in endodontics, orthodontics, periodontics, and prosthodontics. These concentrations include a minimum of 38 hours of appropriate course work and research in topics relevant to each specialization. Requirements for the master's degree include a minimum of 38 hours of appropriate course work and research in topics relevant to each specialization. Requirements for the master's degree include

- Satisfactory completion of all course work
- Meeting the requirements for clinical certification in the respective dental specialty
- Thesis or project based on research.

Prerequisites for admission, in addition to those of the Graduate School, include

- D.D.S. or D.M.D. degree
- Completion of Parts I and II of the American Dental Association's National Board of Dental Examinations.
- The application deadline for Endodontics, Periodontics, and Prosthodontics is August 1
- The application deadline of Orthodontics is September 2

Send applications to
Master of Science Program,
College of Dentistry,
P.O. Box 100402,
Health Science Center,
University of Florida,
Gainesville, FL 32610-0402

Requirements for the M.S. degree are provided in the Graduate Degrees section of this catalog.
For further information, see the Dental Science program page below.

Dental Sciences

College of Dentistry
Dental Sciences Department

Dental Sciences Program Information

The College of Dentistry offers the Master of Science degree in dental sciences with concentrations in endodontics, orthodontics, periodontics, and prosthodontics. These concentrations include a minimum of 38 hours of appropriate course work and research in topics relevant to each specialization. Requirements for the master's degree include

- Satisfactory completion of all course work
- Meeting the requirements for clinical certification in the respective dental specialty
- Thesis or project based on research.

Prerequisites for admission, in addition to those of the Graduate School, include

- D.D.S. or D.M.D. degree
- Completion of Parts I and II of the American Dental Association's National Board of Dental Examinations according to individual program requirements.
- Application deadlines for these programs can be found on the webpage http://admissions.dental.ufl.edu/advanced-graduate-programs/programs-application-process/

Send applications to:

Master of Science Program,
College of Dentistry,
P.O. Box 100402,
Health Science Center,
University of Florida,
Gainesville, FL 32610-0402.

Those not in Dentistry are given in-department graduate credit. Registration in the courses listed below is restricted to students currently admitted to a program in the College of Dentistry.

Degrees Offered with a Major in Dental Sciences

Master of Science

without a concentration
concentration in Endodontics
concentration in Orthodontics
concentration in Periodontics
concentration in Prosthodontics
concentration in Operative and Esthetic Dentistry

General Courses

- DEN 6937
- DEN 6674: Advanced Oral Pathology
- DEN 6675: Craniofacial Pain
- DEN 6678: Advanced Oral Medicine and Drug Interactions in Dentistry

- DEN 6679: Advanced Radiology and Interpretation
- DEN 6905: Individual Study
- DEN 6910: Supervised Research
- DEN 6934: Special Topics in Dentistry
- DEN 6935: Special Topics in Dentistry
- DEN 6936: Practice Management
- DEN 6940: Supervised Teaching
- DEN 6941: Clinical Teaching in Dentistry
- DEN 6942: Grand Rounds
- DEN 6971: Research for Master's Thesis
- DEN 6973: Project in Lieu of Thesis

Endodontics Courses

- DEN 6642: Introduction to Advanced Endodontics
- DEN 6643: Treatment Planning/Cases Presentation
- DEN 6644: Nonsurgical Endodontic Care I
- DEN 6645: Nonsurgical Endodontic Care II
- DEN 6646: Surgical Endodontics I
- DEN 6647: Surgical Endodontics II|

Orthodontics Courses

- DEN 6602: Orthodontic Treatment–Appliance Management and Effect of Treatment Part 1: Class I Treatment
- DEN 6603: Orthodontic Treatment–Appliance Management and Effect of Treatment Part 2: Class II Treatment
- DEN 6604: Orthodontic Treatment–Appliance Management and Effect of Treatment Part 3: Class II Treatment and Overbite Treatments
- DEN 6605: Orthodontic Treatment–Appliance Management and Effect of Treatment Part 4: Class II Treatment and Overbite Treatments
- DEN 6606: Orthodontic Treatment–Appliance Management and Effect of Treatment Part 5: Class III and Crossbite Treatments and Soft Tissue Considerations
- DEN 6607: Orthodontic Treatment–Appliance Management and Effect of Treatment Part 6: Impactions, Transplantations and Stability
- DEN 6608: Analysis, Diagnosis, and Treatment Planning: Part I
- DEN 6609: Analysis, Diagnosis, and Treatment Planning: Part II
- DEN 6610: Biology of Tooth Movement: Part I
- DEN 6612: Orthodontic Biomechanics: Part I
- DEN 6613: Orthodontic Biomechanics: Part II
- DEN 6614: Ortho-Perio Relationships: Part I
- DEN 6615: Ortho-Perio Relationships: Part II
- DEN 6616: Orthognathic Surgery: Part I
- DEN 6617: Orthognathic Surgery: Part II
- DEN 6618: Postnatal Growth and Development
- DEN 6670: Craniofacial Anomalies
- DEN 6671: Prenatal Growth and Development
- DEN 6672: Materials in Orthodontics

Periodontics Courses

- DEN 6652: Review of Periodontics Literature I
- DEN 6653: Review of Periodontics Literature II
- DEN 6654: Review of Periodontics Literature III
- DEN 6655: Review of Periodontics Literature IV
- DEN 6656: Introduction to Advanced Periodontology
- DEN 6657: Periodontal Histology and Histopathology
- DEN 6658: Treatment Planning in Periodontal Therapy

Prosthodontics Courses

- DEN 6622: Principles of Occlusion
- DEN 6623: Maxillofacial Prosthetics
- DEN 6624: Dental Implant Restoration
- DEN 6625: Fixed Prosthodontic Ceramics
- DEN 6626: Advanced Removable Partial Dentures
- DEN 6627: Treatment Planning Seminar

College of Design, Construction, and Planning

Dean: Chimay Anumba

DCP is home to five independent professional disciplines: architecture, construction management, interior design, landscape architecture and urban and regional planning. The college also is home to an interdisciplinary program in historic preservation, which allows graduate students to gain expertise in research and application of historic preservation in the United States and abroad.

Accreditation and Degrees

The academic programs in the college have an accreditation process from the professional organizations of each discipline.

- Architecture – National Architectural Accrediting Board
- Construction Management – American Council for Construction Education
- Interior Design – Foundation for Interior Design Education Research
- Landscape Architecture – American Society of Landscape Architects
- Urban and Regional Planning – Planning Accreditation Board

DCP offers both undegraduate and graduate degrees and programs. Through its academic units, the college offers doctoral, master's, and bachelor's degrees, as well as distance education programs, combined degrees, joint degrees, certificate programs, and academic minors.

College Institutes, Centers and Programs

Research and service projects conducted through the research centers and institutes often entail multidisciplinary, cross-campus student input and effort. Each division of the college is involved in on-going projects that advance both scholarly study and professional practice. The college contributes to community, state, regional and national efforts to conserve and improve the quality of the natural and built environments through its research centers. The college's teaching and research programs have national and international prominence.

For more information, please see our website: http://www.dcp.ufl.edu.

Design, Construction, and Planning (Ph.D.)

College of Design, Construction, and Planning

Design, Construction, and Planning (Ph.D.) Program Information

The Department of Design, Construction and Planning offers a Doctor of Philosophy degree. The department also offers Doctor of Philosophy degrees with the following specializations: historic preservation, urban and regional planning, landscape architecture, construction management, interior design, and geographic information systems.

Degrees Offered with a Major in Design, Construction, and Planning

Doctor of Philosophy

without a concentration
concentration in Construction Management
optional second concentration in Geographic Information Systems
optional second concentration in Hydrologic Sciences
concentration in Geographic Information Systems
concentration in Historic Preservation
optional second concentration in Geographic Information Systems
concentration in Interior Design
optional second concentration in Geographic Information Systems
concentration in Landscape Architecture
optional second concentration in Geographic Information Systems
concentration in Urban and Regional Planning
optional second concentration in Geographic Information Systems

Architecture Departmental Courses

- ARC 6176: Advanced Computer-Aided Design
- ARC 6212: Topics in Phenomena and Architecture
- ARC 6228: Film and Architecture
- ARC 6241: Advanced Studio I
- ARC 6242: Research Methods
- ARC 6281: Professional Practice
- ARC 6355: Advanced Studio II
- ARC 6356: Advanced Studio III
- ARC 6357: Advanced Topics in Architectural Design
- ARC 6391: Architecture, Energy, and Ecology
- ARC 6393: Advanced Architectural Connections
- ARC 6399: Advanced Topics in Urban Design
- ARC 6505: Architectural Structural Systems: Wood, Steel, and Concrete
- ARC 6576: Architectural Structures
- ARC 6611: Advanced Topics in Architectural Technology
- ARC 6621: Graduate Environmental Technology 2
- ARC 6642: Architectural Acoustic Design Laboratory
- ARC 6643: Architectural Acoustics
- ARC 6670: Lighting Design Seminar
- ARC 6685: Life Safety, Sanitation, and Plumbing Systems
- ARC 6686: LEED for Sustainable Design and Construction
- ARC 6705: Graduate Architectural History 3
- ARC 6711: Architecture of the Ancient World
- ARC 6750: Architectural History: America
- ARC 6773: Strains of Modernism
- ARC 6793: Advanced Topics in Regional Architecture
- ARC 6805: Architectural Conservation
- ARC 6821: Preservation Problems and Processes
- ARC 6822: Preservation Programming and Design
- ARC 6851: Technology of Preservation: Materials and Methods I
- ARC 6883: Vernacular Architecture & Sustainablility

- ARC 6911: Architectural Research
- ARC 6912: Architectural Research II
- ARC 6913: Architectural Research III
- ARC 6932: Advanced Topics in Architectural Methods
- ARC 6933: Sustainable Site Design
- ARC 6934: European Approach to Sustainable Design
- ARC 6935: Seminar in Sustainable Design
- ARC 6940: Supervised Teaching
- ARC 6971: Research for Master's Thesis
- ARC 6979: Master's Research Project

Construction Management Departmental Courses

- BCN 5470: Construction Methods Improvements
- BCN 5618C: Comprehensive Estimating
- BCN 5625: Construction Cost Analysis
- BCN 5705C: Project Management for Construction
- BCN 5715: Advanced Construction Labor Problems
- BCN 5722: Advanced Construction Planning and Control
- BCN 5729: Design-Build Delivery Methods
- BCN 5737: Advanced Issues in Construction Safety and Health
- BCN 5754C: Site Development
- BCN 5776: International Construction Business Management
- BCN 5778: Facilities Operation and Maintenance
- BCN 5789C: Construction Project Delivery
- BCN 5874: Equipment and Methods for Heavy Construction
- BCN 5885: Methods and Management for Heavy Construction
- BCN 5905: Special Studies in Construction
- BCN 5949: Graduate Construction Management Internship
- BCN 5957: Advanced International Studies in Construction
- BCN 6036: Research Methods in Construction
- BCN 6580: High-Performance Green Building Delivery Systems
- BCN 6583: Sustainable Housing
- BCN 6584C: Building Energy Modeling
- BCN 6585: Sustainable Construction
- BCN 6586: Construction Ecology and Metabolism
- BCN 6621: Bidding Strategy
- BCN 6641: Construction Value Engineering
- ICM 6642: Lean for Construction
- BCN 6748: Construction Law
- BCN 6755: Construction Financial Management
- BCN 6756: Housing Economics and Policy
- BCN 6777: Construction Management Processes
- BCN 6785: Construction Information Systems
- BCN 6905: Directed Independent Study in Construction
- BCN 6933: Advanced Construction Management
- BCN 6940: Supervised Teaching

- BCN 6971: Research for Master's Thesis
- FES 6705: Communications in Emergency Management
- FES 6724: Fire and Emergency Services Response Planning
- FES 6726: Hazard Mitigation and Preparedness
- FES 6735: International Emergency/Disaster Management
- FES 6736: Homeland Security and Emergency Management
- FES 6786: Research Methods in FES
- FES 6806: Disaster Response and Recovery
- FES 6826: Emergency Services - Disaster Planning
- FES 6827: Business Continuity and Disaster Planning
- FES 6836: Impacts of Natural and Man-made Disasters on Buildings
- FES 6916: Research for Master's Report
- FES 6940: Practicum in FES
- FES 6971: Research for Master's Thesis
- ICM 5905: Special Studies
- ICM 6420: Commercial Management and Cost Control
- ICM 6440: Construction Value Management
- ICM 6680: Principles of International Sustainable Construction
- ICM 6682: Construction Ecology and Metabolism
- ICM 6684: High-Performance Green Building Delivery Systems
- ICM 6710: Construction Human Resource Management
- ICM 6716: Construction Productivity and Methods Improvement
- ICM 6750: Managing Construction Information Technology
- ICM 6751: International Construction Management
- ICM 6761: Advanced Planning, Scheduling, and Logistics
- ICM 6762: Construction Risk Management
- ICM 6770: Advanced Project Safety Management
- ICM 6772: International Strategic Management
- ICM 6775: Manufactured Construction Processes
- ICM 6905: Directed Independent Study in International Construction
- ICM 6910: Supervised Research
- ICM 6930: Construction Communication and Research
- ICM 6934: International Construction Research

Interior Design Departmental Courses

- IND 5023: Introduction to Architectural Interiors
- IND 5106: History of Interior Design I
- IND 5136: History of Interior Design II
- IND 5212C: Architectural Interiors I
- IND 5213C: Introduction to Architectural Interiors Lab
- IND 5227C: Advanced Architectural Interiors I
- IND 5231C: Architectural Interiors II
- IND 5232C: Advanced Architectural Interiors II
- IND 5317C: Interior Design Communication Systems
- IND 5326: Color Theory Planning and Practice
- IND 5427C: Interior Design Construction Documents

- IND 5428: Materials for Interior Design
- IND 5434C: Interior Lighting
- IND 5445C: Furniture Design
- IND 5454C: Advanced Interior Design Detailing and Construction Documents
- IND 5464C: Computer Applications in Three-Dimensional Design
- IND 5466: Interior Environmental Technology
- IND 5508: Business and Professional Practices for Interior Designers
- IND 5633: Readings in Design Studies
- IND 5638: Design Environments and Human Interaction
- IND 5937: Current Topics in Interior Design
- IND 6639: Methods of Interior Design Research
- IND 6906: Independent Studies and Readings
- IND 6939: Creativity Applied
- IND 6940: Supervised Teaching
- IND 6941: Interior Design Internship
- IND 6971: Research for Master's Thesis

Landscape Architecture Departmental Courses

- LAA 5331: Site Design Methodologies
- LAA 5366: Principles of Landscape Architecture
- LAA 6231: Landscape Architecture Theory
- LAA 6322: Project Management for Landscape Architects
- LAA 6342: Landscape Architecture Criticism
- LAA 6349C: Design Communications for Landscape Acrhitects
- LAA 6382: Ecological and Environmental Policy
- LAA 6525L: Advanced Landscape Construction Design
- LAA 6536: Landscape Management
- LAA 6656C: Advanced Landscape Architectural Design
- LAA 6713: Cultural Landscapes
- LAA 6716: History of Landscape Architecture
- LAA 6905: Directed Study
- LAA 6931: Water Conservation through Site Design and Green Roofs
- LAA 6931C: Special Topics
- LAA 6933: Topics in European Design: Paris, France
- LAA 6935: Gardens of the World
- LAA 6941: Supervised Internship
- LAA 6952C: European Landscape Architecture Studio
- LAA 6971: Research for Master's Thesis
- LAA 6979: Terminal Project

Urban and Regional Planning Departmental Courses

- URP 6042: Urban Economy
- URP 6061: Planning Administration and Ethics
- URP 6100: Planning Theory and History
- URP 6131: Land Use Planning Law
- URP 6132: Growth Management Seminar

- URP 6203: Planning Research Design
- URP 6231: Quantitative Data Analysis for Planners
- URP 6270: Introduction to Planning Information Systems
- URP 6271: Automation for Geospatial Modeling and Analysis
- URP 6272: Urban Spatial Analysis
- URP 6274: GPS for Planners: Introduction to Global Positioning System
- URP 6275: Intermediate Planning Information Systems
- URP 6278: Web Mapping and Visualization
- URP 6280: 3D Geospatial Modeling and Visualization
- URP 6312: Land Development Planning and Evaluation
- URP 6341: Urban Planning Project
- URP 6409: Sustainable Community Development
- URP 6421: Environmental Land Use Planning and Management
- URP 6424: Sustainable Urbanism in the Americas
- URP 6428: Advanced Environmental Planning
- URP 6429: Natural Resources Planning and Management
- URP 6445: Planning for Climate Change
- URP 6526: Health and the Built Environment
- URP 6541: Economic Development Planning
- URP 6542: Urban Land Economics
- URP 6543: Seminar in Capital Improvement Finance
- URP 6601: State Planning
- URP 6603: Development Review
- URP 6610: International Development Planning
- URP 6716: Transportation Policy and Planning
- URP 6718: Bikeways Planning and Design
- URP 6745: Housing, Public Policy, and Planning
- URP 6746: Topical Debates in Housing
- URP 6821: Transportation and Land-Use Modeling
- URP 6871: Planning and Design I
- URP 6872: Planning and Design II
- URP 6880: Defensible Space and CPTED in Urban Design
- URP 6884: Community Conservation and Revitalization
- URP 6905: Exploration and Directed Study
- URP 6910: Supervised Research
- URP 6920: Colloquium
- URP 6931: Topical Seminar
- URP 6933: Planning Information Seminar
- URP 6941: Urban Planning Internship
- URP 6971: Research for Master's Thesis
- URP 6979: Master's Research Project

College of Design, Construction, and Planning Courses

- BCN 6558C: Building Integrated Renewable Energy Systems
- DCP 6205: Ecological Issues in Sustainability and the Built Environment
- DCP 6211: Preservation Topics, Issues, and Practice

- DCP 6212: Sustainable Design Issues: Ecology, Architecture, and Planning
- DCP 6301: Sustainable Planning and Design Studio
- DCP 6710: History and Theory of Historic Preservation
- DCP 6711: History of the Built Environment for Preservation Practice
- DCP 6712: Preservation Technology: Conserving Modern Buildings
- DCP 6713: Historic Preservation: Principles, Practice, and Engineering
- DCP 6714: Built Heritage Resources: Research, Documentation, And Conservation
- DCP 6715: Preservation Building Technology
- DCP 6716: Cultural Resource Management
- DCP 6730: Preservation Policy
- DCP 6905: Independent Study
- DCP 6931: Special Topics in Design, Construction, and Planning
- DCP 6943: Practicum in Historic Preservation
- DCP 6971: Research for Master's Thesis
- DCP 7790: Doctoral Core I
- DCP 7792: Doctoral Core II
- DCP 7794: Doctoral Seminar
- DCP 7911: Advanced Design, Construction, and Planning Research I
- DCP 7940: Supervised Teaching
- DCP 7949: Professional Internship
- DCP 7979: Advanced Research
- DCP 7980: Research for Doctoral Dissertation

Historic Preservation

College of Design, Construction, and Planning

Degrees Offered with a Major in Historic Preservation

Master of Historic Preservation

Architecture Departmental Courses

- ARC 6176: Advanced Computer-Aided Design
- ARC 6212: Topics in Phenomena and Architecture
- ARC 6228: Film and Architecture
- ARC 6241: Advanced Studio I
- ARC 6242: Research Methods
- ARC 6281: Professional Practice
- ARC 6355: Advanced Studio II
- ARC 6356: Advanced Studio III
- ARC 6357: Advanced Topics in Architectural Design
- ARC 6391: Architecture, Energy, and Ecology
- ARC 6393: Advanced Architectural Connections
- ARC 6399: Advanced Topics in Urban Design
- ARC 6505: Architectural Structural Systems: Wood, Steel, and Concrete
- ARC 6576: Architectural Structures
- ARC 6611: Advanced Topics in Architectural Technology
- ARC 6621: Graduate Environmental Technology 2
- ARC 6642: Architectural Acoustic Design Laboratory
- ARC 6643: Architectural Acoustics
- ARC 6670: Lighting Design Seminar
- ARC 6685: Life Safety, Sanitation, and Plumbing Systems
- ARC 6686: LEED for Sustainable Design and Construction
- ARC 6705: Graduate Architectural History 3
- ARC 6711: Architecture of the Ancient World
- ARC 6750: Architectural History: America
- ARC 6773: Strains of Modernism
- ARC 6793: Advanced Topics in Regional Architecture
- ARC 6805: Architectural Conservation
- ARC 6821: Preservation Problems and Processes
- ARC 6822: Preservation Programming and Design
- ARC 6851: Technology of Preservation: Materials and Methods I
- ARC 6883: Vernacular Architecture & Sustainablility
- ARC 6911: Architectural Research
- ARC 6912: Architectural Research II
- ARC 6913: Architectural Research III
- ARC 6932: Advanced Topics in Architectural Methods
- ARC 6933: Sustainable Site Design
- ARC 6934: European Approach to Sustainable Design
- ARC 6935: Seminar in Sustainable Design

- ARC 6940: Supervised Teaching
- ARC 6971: Research for Master's Thesis
- ARC 6979: Master's Research Project

Construction Management Departmental Courses

- BCN 5470: Construction Methods Improvements
- BCN 5618C: Comprehensive Estimating
- BCN 5625: Construction Cost Analysis
- BCN 5705C: Project Management for Construction
- BCN 5715: Advanced Construction Labor Problems
- BCN 5722: Advanced Construction Planning and Control
- BCN 5729: Design-Build Delivery Methods
- BCN 5737: Advanced Issues in Construction Safety and Health
- BCN 5754C: Site Development
- BCN 5776: International Construction Business Management
- BCN 5778: Facilities Operation and Maintenance
- BCN 5789C: Construction Project Delivery
- BCN 5874: Equipment and Methods for Heavy Construction
- BCN 5885: Methods and Management for Heavy Construction
- BCN 5905: Special Studies in Construction
- BCN 5949: Graduate Construction Management Internship
- BCN 5957: Advanced International Studies in Construction
- BCN 6036: Research Methods in Construction
- BCN 6580: High-Performance Green Building Delivery Systems
- BCN 6583: Sustainable Housing
- BCN 6584C: Building Energy Modeling
- BCN 6585: Sustainable Construction
- BCN 6586: Construction Ecology and Metabolism
- BCN 6621: Bidding Strategy
- BCN 6641: Construction Value Engineering
- ICM 6642: Lean for Construction
- BCN 6748: Construction Law
- BCN 6755: Construction Financial Management
- BCN 6756: Housing Economics and Policy
- BCN 6777: Construction Management Processes
- BCN 6785: Construction Information Systems
- BCN 6905: Directed Independent Study in Construction
- BCN 6933: Advanced Construction Management
- BCN 6940: Supervised Teaching
- BCN 6971: Research for Master's Thesis
- FES 6705: Communications in Emergency Management
- FES 6724: Fire and Emergency Services Response Planning
- FES 6726: Hazard Mitigation and Preparedness
- FES 6735: International Emergency/Disaster Management
- FES 6736: Homeland Security and Emergency Management
- FES 6786: Research Methods in FES

- FES 6806: Disaster Response and Recovery
- FES 6826: Emergency Services - Disaster Planning
- FES 6827: Business Continuity and Disaster Planning
- FES 6836: Impacts of Natural and Man-made Disasters on Buildings
- FES 6916: Research for Master's Report
- FES 6940: Practicum in FES
- FES 6971: Research for Master's Thesis
- ICM 5905: Special Studies
- ICM 6420: Commercial Management and Cost Control
- ICM 6440: Construction Value Management
- ICM 6680: Principles of International Sustainable Construction
- ICM 6682: Construction Ecology and Metabolism
- ICM 6684: High-Performance Green Building Delivery Systems
- ICM 6710: Construction Human Resource Management
- ICM 6716: Construction Productivity and Methods Improvement
- ICM 6750: Managing Construction Information Technology
- ICM 6751: International Construction Management
- ICM 6761: Advanced Planning, Scheduling, and Logistics
- ICM 6762: Construction Risk Management
- ICM 6770: Advanced Project Safety Management
- ICM 6772: International Strategic Management
- ICM 6775: Manufactured Construction Processes
- ICM 6905: Directed Independent Study in International Construction
- ICM 6910: Supervised Research
- ICM 6930: Construction Communication and Research
- ICM 6934: International Construction Research

Interior Design Departmental Courses

- IND 5023: Introduction to Architectural Interiors
- IND 5106: History of Interior Design I
- IND 5136: History of Interior Design II
- IND 5212C: Architectural Interiors I
- IND 5213C: Introduction to Architectural Interiors Lab
- IND 5227C: Advanced Architectural Interiors I
- IND 5231C: Architectural Interiors II
- IND 5232C: Advanced Architectural Interiors II
- IND 5317C: Interior Design Communication Systems
- IND 5326: Color Theory Planning and Practice
- IND 5427C: Interior Design Construction Documents
- IND 5428: Materials for Interior Design
- IND 5434C: Interior Lighting
- IND 5445C: Furniture Design
- IND 5454C: Advanced Interior Design Detailing and Construction Documents
- IND 5464C: Computer Applications in Three-Dimensional Design
- IND 5466: Interior Environmental Technology
- IND 5508: Business and Professional Practices for Interior Designers

- IND 5633: Readings in Design Studies
- IND 5638: Design Environments and Human Interaction
- IND 5937: Current Topics in Interior Design
- IND 6639: Methods of Interior Design Research
- IND 6906: Independent Studies and Readings
- IND 6939: Creativity Applied
- IND 6940: Supervised Teaching
- IND 6941: Interior Design Internship
- IND 6971: Research for Master's Thesis

Landscape Architecture Departmental Courses

- LAA 5331: Site Design Methodologies
- LAA 5366: Principles of Landscape Architecture
- LAA 6231: Landscape Architecture Theory
- LAA 6322: Project Management for Landscape Architects
- LAA 6342: Landscape Architecture Criticism
- LAA 6349C: Design Communications for Landscape Acrhitects
- LAA 6382: Ecological and Environmental Policy
- LAA 6525L: Advanced Landscape Construction Design
- LAA 6536: Landscape Management
- LAA 6656C: Advanced Landscape Architectural Design
- LAA 6713: Cultural Landscapes
- LAA 6716: History of Landscape Architecture
- LAA 6905: Directed Study
- LAA 6931: Water Conservation through Site Design and Green Roofs
- LAA 6931C: Special Topics
- LAA 6933: Topics in European Design: Paris, France
- LAA 6935: Gardens of the World
- LAA 6941: Supervised Internship
- LAA 6952C: European Landscape Architecture Studio
- LAA 6971: Research for Master's Thesis
- LAA 6979: Terminal Project

Urban and Regional Planning Departmental Courses

- URP 6042: Urban Economy
- URP 6061: Planning Administration and Ethics
- URP 6100: Planning Theory and History
- URP 6131: Land Use Planning Law
- URP 6132: Growth Management Seminar
- URP 6203: Planning Research Design
- URP 6231: Quantitative Data Analysis for Planners
- URP 6270: Introduction to Planning Information Systems
- URP 6271: Automation for Geospatial Modeling and Analysis
- URP 6272: Urban Spatial Analysis
- URP 6274: GPS for Planners: Introduction to Global Positioning System
- URP 6275: Intermediate Planning Information Systems

- URP 6278: Web Mapping and Visualization
- URP 6280: 3D Geospatial Modeling and Visualization
- URP 6312: Land Development Planning and Evaluation
- URP 6341: Urban Planning Project
- URP 6409: Sustainable Community Development
- URP 6421: Environmental Land Use Planning and Management
- URP 6424: Sustainable Urbanism in the Americas
- URP 6428: Advanced Environmental Planning
- URP 6429: Natural Resources Planning and Management
- URP 6445: Planning for Climate Change
- URP 6526: Health and the Built Environment
- URP 6541: Economic Development Planning
- URP 6542: Urban Land Economics
- URP 6543: Seminar in Capital Improvement Finance
- URP 6601: State Planning
- URP 6603: Development Review
- URP 6610: International Development Planning
- URP 6716: Transportation Policy and Planning
- URP 6718: Bikeways Planning and Design
- URP 6745: Housing, Public Policy, and Planning
- URP 6746: Topical Debates in Housing
- URP 6821: Transportation and Land-Use Modeling
- URP 6871: Planning and Design I
- URP 6872: Planning and Design II
- URP 6880: Defensible Space and CPTED in Urban Design
- URP 6884: Community Conservation and Revitalization
- URP 6905: Exploration and Directed Study
- URP 6910: Supervised Research
- URP 6920: Colloquium
- URP 6931: Topical Seminar
- URP 6933: Planning Information Seminar
- URP 6941: Urban Planning Internship
- URP 6971: Research for Master's Thesis
- URP 6979: Master's Research Project

College of Design, Construction, and Planning Courses

- BCN 6558C: Building Integrated Renewable Energy Systems
- DCP 6205: Ecological Issues in Sustainability and the Built Environment
- DCP 6211: Preservation Topics, Issues, and Practice
- DCP 6212: Sustainable Design Issues: Ecology, Architecture, and Planning
- DCP 6301: Sustainable Planning and Design Studio
- DCP 6710: History and Theory of Historic Preservation
- DCP 6711: History of the Built Environment for Preservation Practice
- DCP 6712: Preservation Technology: Conserving Modern Buildings
- DCP 6713: Historic Preservation: Principles, Practice, and Engineering
- DCP 6714: Built Heritage Resources: Research, Documentation, And Conservation

- DCP 6715: Preservation Building Technology
- DCP 6716: Cultural Resource Management
- DCP 6730: Preservation Policy
- DCP 6905: Independent Study
- DCP 6931: Special Topics in Design, Construction, and Planning
- DCP 6943: Practicum in Historic Preservation
- DCP 6971: Research for Master's Thesis
- DCP 7790: Doctoral Core I
- DCP 7792: Doctoral Core II
- DCP 7794: Doctoral Seminar
- DCP 7911: Advanced Design, Construction, and Planning Research I
- DCP 7940: Supervised Teaching
- DCP 7949: Professional Internship
- DCP 7979: Advanced Research
- DCP 7980: Research for Doctoral Dissertation

School of Architecture

Director: Jason Alread, AIA, Leed AP
Graduate Coordinator: Bradley Walters

The School of Architecture recognizes design as a synthesis of thinking, analyzing and making — an iterative process that engages, issues of space, historical precedent, sustainability, ecology, urbanity, landscape, built-form, and construction toward innovation. As Florida will soon support the third largest population in the US, the challenges of rapid growth within sensitive natural ecologies, fluctuating tourism, humid and hot climate, multiple urban centers, sprawling suburbs, dwindling agriculture, lack of mass transit, and extensive coastal hurricane threats requires integrative and collaborative design strategies for the future.

The School of Architecture is uniquely positioned to respond to these issues by deploying studio based design methodologies in collaboration with a new generation of experts in engineering, ecology, business, anthropology, energy, fine arts, medicine and construction. Within the University of Florida, the State's flagship research institution, a trove of researchers and faculty dedicated to academic excellence and interdisciplinary collaboration are focused on the demands of changing culture. The SoA is one of seven programs associated within the College of Design, Construction and Planning — Architecture,Landscape Architecture, Planning, Preservation, Sustainability and the Built Environment, Interior Design and Building Construction. SoA faculty and students, working independently and collaboratively across disciplines through teaching, research and practice, have garnered international, national, state and local design awards, publish regularly and secure national, state and local grant funding for research based service learning and design projects. This body of work poses theoretical, poetic, cultural and practical questions and suggests responses through the discipline of design.

The G|SoA is focused on research-based design that explores critical issues of a changing culture — climate, energy, infrastructure, transportation and population growth/redistribution. Students are engaged in design as a collaborative and integrative methodology addressing both real and speculative projects through coordinated studios, seminars and workshops. To support this effort, nationally recognized award winning Architects from practice and the academy in the US and abroad collaborate with faculty and students in studio and intensive issue-oriented workshops strategically scheduled during the academic year.

Architecture

College of Design, Construction, and Planning
School of Architecture

Architecture Program Information

Doctor of Philosophy: The college offers an interdisciplinary program leading to the Doctor of Philosophy degree in design, construction, and planning. Areas of specialization in this program include architecture, building construction, interior design, landscape architecture, and urban and regional planning. For information, write to the Ph.D. Director, College of Design, Construction, and Planning Doctoral Program, 331 ARCH, Box 115701.

Master of Architecture: The School of Architecture offers graduate work leading to the first professional degree, Master of Architecture. During graduate studies, each student has the opportunity to focus on one or more areas, including design, history and theory, urban design, preservation, structures, and technology. Concentrations and certificates are available in historic preservation, sustainable architecture, and sustainable design. The student's overall college experience, both undergraduate and graduate programs, is intended to be a complete unit of professional education leading to practice in architecture or related fields.

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

The University of Florida School of Architecture offers the following NAAB-accredited degree programs:

Master of Architecture (pre-professional degree + 52 graduate credits) Master of Architecture (professional degree + 30 graduate credits) Master of Architecture (non-pre-professional degree + 54 undergraduate credits + 52 graduate credits)

Master of Architecture (pre-professional degree + 52 graduate credits) : For those students who have a 4-year baccalaureate degree from an accredited architectural program, 2 years in residence (52 credits) are normally required to complete the Master of Architecture degree; notification of program length is part of the letter of acceptance and is determined by portfolio and transcript review. ARC 6241, ARC 6355, and ARC 6356 are required of all graduate students in this track and are prerequisites for the required thesis or master's project. Course sequences in history and theory, technology, structures, and practice must also be completed.

Master of Architecture (professional degree + 30 graduate credits): For students who have a baccalaureate degree with an architecture or related major (interior design, landscape architecture) and who have completed 4 or 6 architecture or design studies courses, three years of residence (83 credits, approximately) are normally required to complete the Master of Architecture degree; notification of program length is part of the letter of acceptance and is determined by portfolio and transcript review. ARC 4073, ARC 4074, ARC 6241, ARC 6355, and ARC 6356 are required of all graduate students in this track and are prerequisites for the required thesis or master's project. (Undergraduate courses 3000 and 4000 level in the major do not count toward the minimum requirements for the graduate degree.) Course sequences in history and theory, materials and methods, technology, structures, and practice must be completed.

Master of Architecture (non-pre-professional degree + 54 undergraduate credits + 52 graduate credits): For students with a baccalaureate degree in a nonrelated academic area and have completed fewer than 4 design studies courses, 4 years of residence (112 credits, approximately) are normally required to complete the Master of Architecture degree; notification of program length is part of the letter of acceptance and is determined by portfolio and transcript review. ARC 4071, ARC 4072, ARC 4073, ARC 4074, ARC 6241, ARC 6355, and ARC 6356 are required of all graduate students in this track and are prerequisites for the required thesis or project. Undergraduate courses 3000 and 4000 level in the major do not count toward the 52-hour minimum requirements for the graduate degree. Course sequences in history and theory, materials and methods, technology, structures, and practice must be completed.

Accredited 5-year professional base: For students with a baccalaureate degree in architecture from an accredited 5-year professional degree program, a 1-year degree program is available. In these cases, a specialized curriculum is developed that compliments the needs of the applicant. Minimum registration is 30 credits; however, the minimum may increase if transcript reviews show that further course work is needed to meet registration and curriculum requirements. ARC 6356 is a prerequisite for the thesis or master's project.

Most states require individuals intending to become architects to hold an accredited degree. The National Architectural Accrediting Board acknowledges two types of degrees: the Bachelor of Architecture (minimum 5 five years of study); and the Master of Architecture (minimum 3 years of study after an unrelated bachelor's degree, or 2 years after a related pre-professional bachelor's degree). These professional degrees educate those who aspire to registration and licensure to practice as architects.

Student work: The College may retain student work for the purpose of record, exhibition, or instruction.

Master of Science in Architectural Studies: The M.S.A.S. is a nonprofessional degree for advanced investigations in specialized areas of architectural history, architectural pedagogy, theory, technology, design, preservation, or practice. Students with a bachelor's degree in any discipline from an accredited university are eligible to apply to this program; the proposed area of focus should be precisely defined in the application. This is a 3- to 4-semester program (32 hours minimum) that includes a thesis. (No more than 6 hours of ARC 6971 may be counted in the minimum credit hours for the degree.) Interdisciplinary study is encouraged. Concentrations and certificates are available in historic preservation, sustainable architecture, and sustainable design.

The School sponsors special curricula in architecture to enhance the academic program. *Preservation Institute: Caribbean, Preservation Institute: Nantucket, and Vicenza Institute of Architecture (Italy)* accepts students from the University of Florida, and also from academic circles throughout the United States and the world for year-round study. Any student in a graduate architecture program at the University of Florida may apply for one or more of these programs.

Requirements for the M.Arch., M.S.A.S., and Ph.D. degrees are described in the *General Information* section of this catalog.

The School also participates in a program granting an Interdisciplinary Concentration and Certificate in Sustainable Architecture. For more information, see the *Interdisciplinary Graduate Studies* section of this catalog.

Applications: All applications for fall term graduate admission (including official transcripts, GRE scores, and TOEFL scores, if necessary) must be received by the Office of the Registrar by January 15. In addition to satisfying University requirements for admission, applicants are required to submit to the Graduate Program Assistant, School of Architecture, 231 ARCH, Box 115702, the following: a portfolio of their creative work; a scholarly statement of intent and objectives; and three letters of recommendation. This material must be received by January 15 to be considered for admission in the next fall term. Students may apply after the January 15 deadline but will only be considered if spaces become available. (Updates of portfolios are accepted after January 15; however, applications will not be considered until they are complete.)

The School reserves the right to retain student work for purposes of record, exhibition, or instruction. Field trips are required of all students; students should plan to have adequate funds available. It may be necessary to assess studio fees to defray costs of base maps and other generally used materials.

Degrees Offered with a Major in Architecture

Master of Science in Architectural Studies

without a concentration
concentration in Historic Preservation
concentration in Sustainable Architecture
concentration in Sustainable Design

Master of Architecture

without a concentration
concentration in Historic Preservation
concentration in Sustainable Architecture
concentration in Sustainable Design

Architecture Program Core Courses

- ARC 6512: Structural Modeling
- ARC 6116: Drawing toward Architecture
- ARC 6311C: Building Information Modeling
- ARC 6383: St. Augustine Interdisciplinary Design Studio
- DCP 6218: Developing Sustainable Projects
- DCP 6710: History and Theory of Historic Preservation
- DCP 6715: Preservation Building Technology
- DCP 6971: Research for Master's Thesis
- URP 6272: Urban Spatial Analysis

Architecture Departmental Courses

- ARC 6176: Advanced Computer-Aided Design
- ARC 6212: Topics in Phenomena and Architecture
- ARC 6228: Film and Architecture
- ARC 6241: Advanced Studio I
- ARC 6242: Research Methods
- ARC 6281: Professional Practice
- ARC 6355: Advanced Studio II
- ARC 6356: Advanced Studio III
- ARC 6357: Advanced Topics in Architectural Design
- ARC 6391: Architecture, Energy, and Ecology
- ARC 6393: Advanced Architectural Connections
- ARC 6399: Advanced Topics in Urban Design
- ARC 6505: Architectural Structural Systems: Wood, Steel, and Concrete
- ARC 6576: Architectural Structures
- ARC 6611: Advanced Topics in Architectural Technology
- ARC 6621: Graduate Environmental Technology 2
- ARC 6642: Architectural Acoustic Design Laboratory
- ARC 6643: Architectural Acoustics
- ARC 6670: Lighting Design Seminar
- ARC 6685: Life Safety, Sanitation, and Plumbing Systems

- ARC 6686: LEED for Sustainable Design and Construction
- ARC 6705: Graduate Architectural History 3
- ARC 6711: Architecture of the Ancient World
- ARC 6750: Architectural History: America
- ARC 6773: Strains of Modernism
- ARC 6793: Advanced Topics in Regional Architecture
- ARC 6805: Architectural Conservation
- ARC 6821: Preservation Problems and Processes
- ARC 6822: Preservation Programming and Design
- ARC 6851: Technology of Preservation: Materials and Methods I
- ARC 6883: Vernacular Architecture & Sustainablility
- ARC 6911: Architectural Research
- ARC 6912: Architectural Research II
- ARC 6913: Architectural Research III
- ARC 6932: Advanced Topics in Architectural Methods
- ARC 6933: Sustainable Site Design
- ARC 6934: European Approach to Sustainable Design
- ARC 6935: Seminar in Sustainable Design
- ARC 6940: Supervised Teaching
- ARC 6971: Research for Master's Thesis
- ARC 6979: Master's Research Project

College of Design, Construction, and Planning Courses

- BCN 6558C: Building Integrated Renewable Energy Systems
- DCP 6205: Ecological Issues in Sustainability and the Built Environment
- DCP 6211: Preservation Topics, Issues, and Practice
- DCP 6212: Sustainable Design Issues: Ecology, Architecture, and Planning
- DCP 6301: Sustainable Planning and Design Studio
- DCP 6710: History and Theory of Historic Preservation
- DCP 6711: History of the Built Environment for Preservation Practice
- DCP 6712: Preservation Technology: Conserving Modern Buildings
- DCP 6713: Historic Preservation: Principles, Practice, and Engineering
- DCP 6714: Built Heritage Resources: Research, Documentation, And Conservation
- DCP 6715: Preservation Building Technology
- DCP 6716: Cultural Resource Management
- DCP 6730: Preservation Policy
- DCP 6905: Independent Study
- DCP 6931: Special Topics in Design, Construction, and Planning
- DCP 6943: Practicum in Historic Preservation
- DCP 6971: Research for Master's Thesis
- DCP 7790: Doctoral Core I
- DCP 7792: Doctoral Core II
- DCP 7794: Doctoral Seminar
- DCP 7911: Advanced Design, Construction, and Planning Research I
- DCP 7940: Supervised Teaching
- DCP 7949: Professional Internship

- DCP 7979: Advanced Research
- DCP 7980: Research for Doctoral Dissertation

M.E. Rinker, Sr. School of Construction Management

Interim Director: R. Raymond Issa
Director of Master's Programs: R. Edward Minchin, Jr.
Ph.D. Coordinator: Ian Flood

Doctor of Philosophy: The college offers an interdisciplinary doctoral program in design, construction, and planning. Areas of specialization in the program include architecture, construction management, interior design, landscape architecture, and urban and regional planning. Within the area of construction management, specialization options include, but are not limited to, sustainable construction, information technology and modeling, project management, affordable housing, construction safety, human resource management, construction law, and materials science. These specializations prepare students to assume college-level faculty positions and industry research positions in construction management and the building sciences. To be eligible for admission to the doctoral program, a student must hold a 4-year undergraduate degree from an accredited university, with a master's degree preferred, and have acceptable GRE scores. For information on the PhD program specializations in the Rinker School of Construction Management, write to the PhD Program Coordinator, Rinker School of Construction Management, 304 Rinker Hall, P.O. Box 115703. For more information on the Ph.D. program, write to the Ph.D. Director, College of Design, Construction, and Planning Doctoral Program, 331 ARCH, P.O. Box 115701.

Master of Construction Management (M.C.M.) or Master of Science in Construction Management (M.S.C.M.): The M.E. Rinker Sr. School offers courses leading to the degrees of Master of Science in Construction Management (thesis), Master of Construction Management (nonthesis), and Master of International Construction Management (nonthesis distance education program for experienced professionals). Specialization may be in such areas as sustainable construction, information systems, energy and life cycle modeling, housing, materials science, project management, human resources, and construction law. Requirements for the M.C.M., M.S.C.M., and M.I.C.M. degrees are given in the General Information section of this catalog.

To be eligible for admission to the M.C.M. or M.S.C. programs, a student must hold a 4-year undergraduate degree from an accredited university and have acceptable GRE scores. Students with deficiencies may need longer residence for the master's degree, as they will be required to take specified basic courses to provide a foundation for advanced courses. There is no foreign language requirement. International students from countries where English is not the official language must submit an acceptable score on one of the following: TOEFL (Test of English as a Foreign Language: paper=560, web=84 with 21 in each section), IELTS (International English Language Testing System: 6.5), MELAB (Michigan English Language Assessment Battery: 80 with a 3 on the Speaking Test), or successful completion of the UF English Language Institute program.

No more than 3 credits of BCN 6971 may be used to satisfy the credit requirements for the M.S.C.M. degree without written permission of the Director of Master's Programs.

Master of International Construction Management (M.I.C.M.): This program prepares students to assume upper-level management responsibilities in multinational companies. To be eligible for admission to the M.I.C.M. program, a student must have

- A 4-year undergraduate degree from an accredited university
- Meaningful, supervisory-level construction management experience
- Acceptable GRE scores (verbal and quantitative)
- A grade point average of 3.0 on a 4.0 scale

- International students from countries where English is not the official language must submit an acceptable score on one of the following: TOEFL (Test of English as a Foreign Language: paper=550, web=80), IELTS (International English Language Testing System: 6), MELAB (Michigan English Language Assessment Battery: 77), or successful completion of the UF English Language Institute program.

No more than 3 credits of ICM 6934 may be used to satisfy the credit requirements for the M.I.C.M. without written permission of the Director. All candidates are required to take ICM 6930. In addition to these 6 research-oriented graduate credit hours, the student selects one or two areas of emphasis and then takes the rest of the required 33 credit hours from the remaining courses and special electives. All candidates are required to pass a comprehensive oral and/or written examination at the completion of the course work and their master's research report/project.

The M.E. Rinker, Sr. School reserves the right to retain student work for purposes of record, exhibition, or instruction.

Research facilities: The Shimberg Center for Housing Studies, operating within the School, researches the problems and possible solutions associated with developing and producing affordable housing. The Powell Center for Construction and the Environment conducts research on implementing sustainability in creating, operating, and constructing a built environment. The Fluor Program for Construction Safety researches and disseminates information on matters related to construction safety and health. The Human-Centered Technology in Construction (HCTC) lab focuses on theoretical and experimental investigation of human-computer/robot systems in construction.

Combined program: The School also offers a combined bachelor's/master's degree program which allows qualified students to earn both degrees at an accelerated pace. Qualified students are allowed to begin the M.C.M./M.S.C.M. degree course work in the first senior semester and up to 12 credits of coursework may count two both degrees. Students must have a 3.4 grade point average and acceptable GRE scores in order to be eligible. Contact the Director of Master's Programs for additional information, Rinker School of Construction Management, 304 Rinker Hall, P.O. Box 115703.

For more information, please see our website: http://www.bcn.ufl.edu.

Construction Management

College of Design, Construction, and Planning
M.E. Rinker, Sr. School of Construction Management

Construction Management Program Information

Master of Construction Management (M.C.M.) or Master of Science in Construction Management (M.S.C.M.):

The M.E. Rinker Sr. School of Construction Management offers courses leading to the degrees of M.C.M. (30 credit hours and requires a thesis) and M.S.C.M. (36 credit hours and does not require a thesis). Specialization may be in such areas as sustainable construction, information systems, energy and life cycle modeling, housing, materials science, project management, and construction law. Requirements for the M.C.M. and M.S.C.M. degrees are given in the Graduate Degrees section of this catalog.

To be eligible for admission to the M.C.M. or M.S.C.M. programs, a student must hold a bachelor's degree from an accredited university with an acceptable grade point average, as well as an acceptable score on the Graduate Record Examination (GRE). Students with undergraduate credentials outside the Construction Management area may need a longer residence for the M.C.M. and M.S.C.M. programs, as they will be required to take specified basic courses to provide a foundation for advanced courses. There is no foreign language requirement. International students from countries where English is not the official language must submit an acceptable score on one of the following: TOEFL (Test of English as a Foreign Language: paper=560, web=84 with 21 in each section), IELTS (International English Language Testing System: 6.5), MELAB (Michigan English Language Assessment Battery: 80 with a 3 on the Speaking Test), or successful completion of the UF English Language Institute program.

No more than 3 credits of BCN 6971 (Master's Research) may be used to satisfy the credit requirements for the M.S.C.M. degree without written permission of the Director of Master's Programs.

Degrees Offered with a Major in Construction Management

Master of Construction Management

without a concentration
concentration in Historic Preservation
concentration in Hydrologic Sciences
concentration in Sustainable Construction
concentration in Sustainable Design

Master of Science in Construction Management

without a concentration
concentration in Historic Preservation
concentration in Hydrologic Sciences
concentration in Sustainable Construction
concentration in Sustainable Design

Construction Management Departmental Courses

- BCN 5470: Construction Methods Improvements
- BCN 5618C: Comprehensive Estimating
- BCN 5625: Construction Cost Analysis
- BCN 5705C: Project Management for Construction
- BCN 5715: Advanced Construction Labor Problems
- BCN 5722: Advanced Construction Planning and Control
- BCN 5729: Design-Build Delivery Methods
- BCN 5737: Advanced Issues in Construction Safety and Health
- BCN 5754C: Site Development
- BCN 5776: International Construction Business Management
- BCN 5778: Facilities Operation and Maintenance
- BCN 5789C: Construction Project Delivery
- BCN 5874: Equipment and Methods for Heavy Construction
- BCN 5885: Methods and Management for Heavy Construction
- BCN 5905: Special Studies in Construction
- BCN 5949: Graduate Construction Management Internship
- BCN 5957: Advanced International Studies in Construction
- BCN 6036: Research Methods in Construction
- BCN 6580: High-Performance Green Building Delivery Systems
- BCN 6583: Sustainable Housing
- BCN 6584C: Building Energy Modeling
- BCN 6585: Sustainable Construction
- BCN 6586: Construction Ecology and Metabolism
- BCN 6621: Bidding Strategy
- BCN 6641: Construction Value Engineering
- ICM 6642: Lean for Construction
- BCN 6748: Construction Law
- BCN 6755: Construction Financial Management
- BCN 6756: Housing Economics and Policy

- BCN 6777: Construction Management Processes
- BCN 6785: Construction Information Systems
- BCN 6905: Directed Independent Study in Construction
- BCN 6933: Advanced Construction Management
- BCN 6940: Supervised Teaching
- BCN 6971: Research for Master's Thesis
- FES 6705: Communications in Emergency Management
- FES 6724: Fire and Emergency Services Response Planning
- FES 6726: Hazard Mitigation and Preparedness
- FES 6735: International Emergency/Disaster Management
- FES 6736: Homeland Security and Emergency Management
- FES 6786: Research Methods in FES
- FES 6806: Disaster Response and Recovery
- FES 6826: Emergency Services - Disaster Planning
- FES 6827: Business Continuity and Disaster Planning
- FES 6836: Impacts of Natural and Man-made Disasters on Buildings
- FES 6916: Research for Master's Report
- FES 6940: Practicum in FES
- FES 6971: Research for Master's Thesis
- ICM 5905: Special Studies
- ICM 6420: Commercial Management and Cost Control
- ICM 6440: Construction Value Management
- ICM 6680: Principles of International Sustainable Construction
- ICM 6682: Construction Ecology and Metabolism
- ICM 6684: High-Performance Green Building Delivery Systems
- ICM 6710: Construction Human Resource Management
- ICM 6716: Construction Productivity and Methods Improvement
- ICM 6750: Managing Construction Information Technology
- ICM 6751: International Construction Management
- ICM 6761: Advanced Planning, Scheduling, and Logistics
- ICM 6762: Construction Risk Management
- ICM 6770: Advanced Project Safety Management
- ICM 6772: International Strategic Management
- ICM 6775: Manufactured Construction Processes
- ICM 6905: Directed Independent Study in International Construction
- ICM 6910: Supervised Research
- ICM 6930: Construction Communication and Research
- ICM 6934: International Construction Research

College of Design, Construction, and Planning Courses

- BCN 6558C: Building Integrated Renewable Energy Systems
- DCP 6205: Ecological Issues in Sustainability and the Built Environment
- DCP 6211: Preservation Topics, Issues, and Practice
- DCP 6212: Sustainable Design Issues: Ecology, Architecture, and Planning
- DCP 6301: Sustainable Planning and Design Studio
- DCP 6710: History and Theory of Historic Preservation

- DCP 6711: History of the Built Environment for Preservation Practice
- DCP 6712: Preservation Technology: Conserving Modern Buildings
- DCP 6713: Historic Preservation: Principles, Practice, and Engineering
- DCP 6714: Built Heritage Resources: Research, Documentation, And Conservation
- DCP 6715: Preservation Building Technology
- DCP 6716: Cultural Resource Management
- DCP 6730: Preservation Policy
- DCP 6905: Independent Study
- DCP 6931: Special Topics in Design, Construction, and Planning
- DCP 6943: Practicum in Historic Preservation
- DCP 6971: Research for Master's Thesis
- DCP 7790: Doctoral Core I
- DCP 7792: Doctoral Core II
- DCP 7794: Doctoral Seminar
- DCP 7911: Advanced Design, Construction, and Planning Research I
- DCP 7940: Supervised Teaching
- DCP 7949: Professional Internship
- DCP 7979: Advanced Research
- DCP 7980: Research for Doctoral Dissertation

Fire and Emergency Sciences

College of Design, Construction, and Planning
M.E. Rinker, Sr. School of Construction Management

Fire and Emergency Sciences Program Information

The Master of Science in Fire and Emergency Sciences degree program focuses on Emergency Services/Disaster Management (ES/DM) and is designed for individuals who are seeking knowledge in emergency planning, hazard mitigation, and preparedness, disaster response and recovery, and homeland security. The goal is to create broad experience that includes the many elements of current cases in ES/DM and emphasizes both the critical thinking and leadership skills necessary to advance in the field.

The M.S.F.E.S. degree provides post-professional advancement for the critical technical issues beyond the initial emergency science practices and administrative studies. Major research topics include interdisciplinary studies in material sciences, suppression systems, advanced planning and geographic systems, pre- and post-disaster mitigation planning, computer applications, and technological innovations.

The M.S.F.E.S. is an online distance education program. All courses are conveniently delivered utilizing a web-based e-Learning system. Students must complete 33 credits/11 FES classes in order to fulfill the degree requirements. The classes are selected with the FES Academic Advisor.

For more information, please see our website: http://www.bcn.ufl.edu/academics/masters/msfesesdm.

Degrees Offered with a Major in Fire and Emergency Sciences

Master of Science in Fire and Emergency Sciences

Construction Management Departmental Courses

- BCN 5470: Construction Methods Improvements
- BCN 5618C: Comprehensive Estimating
- BCN 5625: Construction Cost Analysis
- BCN 5705C: Project Management for Construction
- BCN 5715: Advanced Construction Labor Problems
- BCN 5722: Advanced Construction Planning and Control
- BCN 5729: Design-Build Delivery Methods
- BCN 5737: Advanced Issues in Construction Safety and Health
- BCN 5754C: Site Development
- BCN 5776: International Construction Business Management
- BCN 5778: Facilities Operation and Maintenance
- BCN 5789C: Construction Project Delivery
- BCN 5874: Equipment and Methods for Heavy Construction
- BCN 5885: Methods and Management for Heavy Construction
- BCN 5905: Special Studies in Construction
- BCN 5949: Graduate Construction Management Internship
- BCN 5957: Advanced International Studies in Construction
- BCN 6036: Research Methods in Construction
- BCN 6580: High-Performance Green Building Delivery Systems
- BCN 6583: Sustainable Housing
- BCN 6584C: Building Energy Modeling
- BCN 6585: Sustainable Construction
- BCN 6586: Construction Ecology and Metabolism
- BCN 6621: Bidding Strategy
- BCN 6641: Construction Value Engineering
- ICM 6642: Lean for Construction
- BCN 6748: Construction Law
- BCN 6755: Construction Financial Management
- BCN 6756: Housing Economics and Policy
- BCN 6777: Construction Management Processes
- BCN 6785: Construction Information Systems
- BCN 6905: Directed Independent Study in Construction
- BCN 6933: Advanced Construction Management
- BCN 6940: Supervised Teaching
- BCN 6971: Research for Master's Thesis
- FES 6705: Communications in Emergency Management
- FES 6724: Fire and Emergency Services Response Planning
- FES 6726: Hazard Mitigation and Preparedness
- FES 6735: International Emergency/Disaster Management
- FES 6736: Homeland Security and Emergency Management
- FES 6786: Research Methods in FES
- FES 6806: Disaster Response and Recovery
- FES 6826: Emergency Services - Disaster Planning
- FES 6827: Business Continuity and Disaster Planning
- FES 6836: Impacts of Natural and Man-made Disasters on Buildings

- FES 6916: Research for Master's Report
- FES 6940: Practicum in FES
- FES 6971: Research for Master's Thesis
- ICM 5905: Special Studies
- ICM 6420: Commercial Management and Cost Control
- ICM 6440: Construction Value Management
- ICM 6680: Principles of International Sustainable Construction
- ICM 6682: Construction Ecology and Metabolism
- ICM 6684: High-Performance Green Building Delivery Systems
- ICM 6710: Construction Human Resource Management
- ICM 6716: Construction Productivity and Methods Improvement
- ICM 6750: Managing Construction Information Technology
- ICM 6751: International Construction Management
- ICM 6761: Advanced Planning, Scheduling, and Logistics
- ICM 6762: Construction Risk Management
- ICM 6770: Advanced Project Safety Management
- ICM 6772: International Strategic Management
- ICM 6775: Manufactured Construction Processes
- ICM 6905: Directed Independent Study in International Construction
- ICM 6910: Supervised Research
- ICM 6930: Construction Communication and Research
- ICM 6934: International Construction Research

College of Design, Construction, and Planning Courses

- BCN 6558C: Building Integrated Renewable Energy Systems
- DCP 6205: Ecological Issues in Sustainability and the Built Environment
- DCP 6211: Preservation Topics, Issues, and Practice
- DCP 6212: Sustainable Design Issues: Ecology, Architecture, and Planning
- DCP 6301: Sustainable Planning and Design Studio
- DCP 6710: History and Theory of Historic Preservation
- DCP 6711: History of the Built Environment for Preservation Practice
- DCP 6712: Preservation Technology: Conserving Modern Buildings
- DCP 6713: Historic Preservation: Principles, Practice, and Engineering
- DCP 6714: Built Heritage Resources: Research, Documentation, And Conservation
- DCP 6715: Preservation Building Technology
- DCP 6716: Cultural Resource Management
- DCP 6730: Preservation Policy
- DCP 6905: Independent Study
- DCP 6931: Special Topics in Design, Construction, and Planning
- DCP 6943: Practicum in Historic Preservation
- DCP 6971: Research for Master's Thesis
- DCP 7790: Doctoral Core I
- DCP 7792: Doctoral Core II
- DCP 7794: Doctoral Seminar
- DCP 7911: Advanced Design, Construction, and Planning Research I
- DCP 7940: Supervised Teaching

- DCP 7949: Professional Internship
- DCP 7979: Advanced Research
- DCP 7980: Research for Doctoral Dissertation

International Construction Management

College of Design, Construction, and Planning
M.E. Rinker, Sr. School of Construction Management

International Construction Management Program Information

The International Construction Management (ICM) graduate program is an online graduate program tailored specifically for experienced construction industry professionals with busy work schedules and other obligations that make it problematical for them to physically attend classes. ICM was the first ever online graduate program in construction management and it is in the top tier of advanced educational programs serving the construction industry.

Due to the fact that the ICM graduate program is designed specifically for experienced industry professionals, the prerequisites that the on-campus construction management graduate program would require are waived. This means that, based on 5 years or more of industry experience, those students without construction management undergraduate degrees have gained knowledge from their jobs which covers the essential elements of construction management such as estimating, quantity surveying, project management, scheduling, and construction safety. Additionally, based on the requisite industry experience and performance of applicants, the ICM admissions process will examine applicants' university transcripts and Graduate Record Examination (GRE) scores in light of their employment resume in terms of longevity, responsibilities, and overall track record when making admissions decisions.

To earn a Master of International Construction Management (M.I.C.M.) degree, students must successfully complete 11 ICM courses. Of these 11 classes, only two are required: ICM 6930 (Research Methods) and ICM 6934 (Directed Research). The remaining 9 classes are electives. Students select courses based on their priorities and interests. To complete the M.I.C.M. degree, students should make plans to be on campus for one day during their last semester to present their ICM 6934 research report to a committee consisting of three professors who teach ICM courses.

Degrees Offered with a Major in Construction Productivity

Master of International Construction Management

Degrees Offered with a Major in International Construction Management

Master of International Construction Management
without a concentration
concentration in Historic Preservation

Construction Management Departmental Courses

- BCN 5470: Construction Methods Improvements
- BCN 5618C: Comprehensive Estimating
- BCN 5625: Construction Cost Analysis
- BCN 5705C: Project Management for Construction
- BCN 5715: Advanced Construction Labor Problems
- BCN 5722: Advanced Construction Planning and Control
- BCN 5729: Design-Build Delivery Methods
- BCN 5737: Advanced Issues in Construction Safety and Health
- BCN 5754C: Site Development
- BCN 5776: International Construction Business Management

- BCN 5778: Facilities Operation and Maintenance
- BCN 5789C: Construction Project Delivery
- BCN 5874: Equipment and Methods for Heavy Construction
- BCN 5885: Methods and Management for Heavy Construction
- BCN 5905: Special Studies in Construction
- BCN 5949: Graduate Construction Management Internship
- BCN 5957: Advanced International Studies in Construction
- BCN 6036: Research Methods in Construction
- BCN 6580: High-Performance Green Building Delivery Systems
- BCN 6583: Sustainable Housing
- BCN 6584C: Building Energy Modeling
- BCN 6585: Sustainable Construction
- BCN 6586: Construction Ecology and Metabolism
- BCN 6621: Bidding Strategy
- BCN 6641: Construction Value Engineering
- ICM 6642: Lean for Construction
- BCN 6748: Construction Law
- BCN 6755: Construction Financial Management
- BCN 6756: Housing Economics and Policy
- BCN 6777: Construction Management Processes
- BCN 6785: Construction Information Systems
- BCN 6905: Directed Independent Study in Construction
- BCN 6933: Advanced Construction Management
- BCN 6940: Supervised Teaching
- BCN 6971: Research for Master's Thesis
- FES 6705: Communications in Emergency Management
- FES 6724: Fire and Emergency Services Response Planning
- FES 6726: Hazard Mitigation and Preparedness
- FES 6735: International Emergency/Disaster Management
- FES 6736: Homeland Security and Emergency Management
- FES 6786: Research Methods in FES
- FES 6806: Disaster Response and Recovery
- FES 6826: Emergency Services - Disaster Planning
- FES 6827: Business Continuity and Disaster Planning
- FES 6836: Impacts of Natural and Man-made Disasters on Buildings
- FES 6916: Research for Master's Report
- FES 6940: Practicum in FES
- FES 6971: Research for Master's Thesis
- ICM 5905: Special Studies
- ICM 6420: Commercial Management and Cost Control
- ICM 6440: Construction Value Management
- ICM 6680: Principles of International Sustainable Construction
- ICM 6682: Construction Ecology and Metabolism
- ICM 6684: High-Performance Green Building Delivery Systems
- ICM 6710: Construction Human Resource Management
- ICM 6716: Construction Productivity and Methods Improvement

- ICM 6750: Managing Construction Information Technology
- ICM 6751: International Construction Management
- ICM 6761: Advanced Planning, Scheduling, and Logistics
- ICM 6762: Construction Risk Management
- ICM 6770: Advanced Project Safety Management
- ICM 6772: International Strategic Management
- ICM 6775: Manufactured Construction Processes
- ICM 6905: Directed Independent Study in International Construction
- ICM 6910: Supervised Research
- ICM 6930: Construction Communication and Research
- ICM 6934: International Construction Research

College of Design, Construction, and Planning Courses

- BCN 6558C: Building Integrated Renewable Energy Systems
- DCP 6205: Ecological Issues in Sustainability and the Built Environment
- DCP 6211: Preservation Topics, Issues, and Practice
- DCP 6212: Sustainable Design Issues: Ecology, Architecture, and Planning
- DCP 6301: Sustainable Planning and Design Studio
- DCP 6710: History and Theory of Historic Preservation
- DCP 6711: History of the Built Environment for Preservation Practice
- DCP 6712: Preservation Technology: Conserving Modern Buildings
- DCP 6713: Historic Preservation: Principles, Practice, and Engineering
- DCP 6714: Built Heritage Resources: Research, Documentation, And Conservation
- DCP 6715: Preservation Building Technology
- DCP 6716: Cultural Resource Management
- DCP 6730: Preservation Policy
- DCP 6905: Independent Study
- DCP 6931: Special Topics in Design, Construction, and Planning
- DCP 6943: Practicum in Historic Preservation
- DCP 6971: Research for Master's Thesis
- DCP 7790: Doctoral Core I
- DCP 7792: Doctoral Core II
- DCP 7794: Doctoral Seminar
- DCP 7911: Advanced Design, Construction, and Planning Research I
- DCP 7940: Supervised Teaching
- DCP 7949: Professional Internship
- DCP 7979: Advanced Research
- DCP 7980: Research for Doctoral Dissertation

Sustainable Construction

College of Design, Construction, and Planning
M.E. Rinker, Sr. School of Construction Management

Sustainable Construction Program Information

The Major in Sustainable Construction inside of the a Master of Science in Construction Management degree will prepare students to effectively contribute to the design and construction of a high performance built environment comprised of green, energy-efficient buildings, renewable energy systems, and efficient infrastructure. Its objectives are to address: (1) Issues of resource efficiency, waste, human health, ecological economics, ethics, environmental justice, and industrial ecology; (2) Alternative practices that can significantly reduce the environmental impacts of the built environment, and (3) Exploring past and present thinking by leading theorists and practitioners in this newly emerging discipline. The resulting degree awarded upon successful completion of the program will be a Master of Science in Construction Management (thesis) with a Major in Sustainable Construction.

In addition to writing a sustainability themed thesis, students must complete the following coursework:

- BCN 6580, High-Performance Green Building Systems, 3 credits
- BCN 6585, Sustainable Construction, 3 credits
- BCN 6586, Construction Ecology and Metabolism, 3 credits
- BCN 6641, Value Engineering, 3 credits

Degrees Offered with a Major in Sustainable Construction

Master of Science in Construction Management

Construction Management Departmental Courses

- BCN 5470: Construction Methods Improvements
- BCN 5618C: Comprehensive Estimating
- BCN 5625: Construction Cost Analysis
- BCN 5705C: Project Management for Construction
- BCN 5715: Advanced Construction Labor Problems
- BCN 5722: Advanced Construction Planning and Control
- BCN 5729: Design-Build Delivery Methods
- BCN 5737: Advanced Issues in Construction Safety and Health
- BCN 5754C: Site Development
- BCN 5776: International Construction Business Management
- BCN 5778: Facilities Operation and Maintenance
- BCN 5789C: Construction Project Delivery
- BCN 5874: Equipment and Methods for Heavy Construction
- BCN 5885: Methods and Management for Heavy Construction
- BCN 5905: Special Studies in Construction
- BCN 5949: Graduate Construction Management Internship
- BCN 5957: Advanced International Studies in Construction
- BCN 6036: Research Methods in Construction
- BCN 6580: High-Performance Green Building Delivery Systems
- BCN 6583: Sustainable Housing
- BCN 6584C: Building Energy Modeling
- BCN 6585: Sustainable Construction

- BCN 6586: Construction Ecology and Metabolism
- BCN 6621: Bidding Strategy
- BCN 6641: Construction Value Engineering
- ICM 6642: Lean for Construction
- BCN 6748: Construction Law
- BCN 6755: Construction Financial Management
- BCN 6756: Housing Economics and Policy
- BCN 6777: Construction Management Processes
- BCN 6785: Construction Information Systems
- BCN 6905: Directed Independent Study in Construction
- BCN 6933: Advanced Construction Management
- BCN 6940: Supervised Teaching
- BCN 6971: Research for Master's Thesis
- FES 6705: Communications in Emergency Management
- FES 6724: Fire and Emergency Services Response Planning
- FES 6726: Hazard Mitigation and Preparedness
- FES 6735: International Emergency/Disaster Management
- FES 6736: Homeland Security and Emergency Management
- FES 6786: Research Methods in FES
- FES 6806: Disaster Response and Recovery
- FES 6826: Emergency Services - Disaster Planning
- FES 6827: Business Continuity and Disaster Planning
- FES 6836: Impacts of Natural and Man-made Disasters on Buildings
- FES 6916: Research for Master's Report
- FES 6940: Practicum in FES
- FES 6971: Research for Master's Thesis
- ICM 5905: Special Studies
- ICM 6420: Commercial Management and Cost Control
- ICM 6440: Construction Value Management
- ICM 6680: Principles of International Sustainable Construction
- ICM 6682: Construction Ecology and Metabolism
- ICM 6684: High-Performance Green Building Delivery Systems
- ICM 6710: Construction Human Resource Management
- ICM 6716: Construction Productivity and Methods Improvement
- ICM 6750: Managing Construction Information Technology
- ICM 6751: International Construction Management
- ICM 6761: Advanced Planning, Scheduling, and Logistics
- ICM 6762: Construction Risk Management
- ICM 6770: Advanced Project Safety Management
- ICM 6772: International Strategic Management
- ICM 6775: Manufactured Construction Processes
- ICM 6905: Directed Independent Study in International Construction
- ICM 6910: Supervised Research
- ICM 6930: Construction Communication and Research
- ICM 6934: International Construction Research

College of Design, Construction, and Planning Courses

- BCN 6558C: Building Integrated Renewable Energy Systems
- DCP 6205: Ecological Issues in Sustainability and the Built Environment
- DCP 6211: Preservation Topics, Issues, and Practice
- DCP 6212: Sustainable Design Issues: Ecology, Architecture, and Planning
- DCP 6301: Sustainable Planning and Design Studio
- DCP 6710: History and Theory of Historic Preservation
- DCP 6711: History of the Built Environment for Preservation Practice
- DCP 6712: Preservation Technology: Conserving Modern Buildings
- DCP 6713: Historic Preservation: Principles, Practice, and Engineering
- DCP 6714: Built Heritage Resources: Research, Documentation, And Conservation
- DCP 6715: Preservation Building Technology
- DCP 6716: Cultural Resource Management
- DCP 6730: Preservation Policy
- DCP 6905: Independent Study
- DCP 6931: Special Topics in Design, Construction, and Planning
- DCP 6943: Practicum in Historic Preservation
- DCP 6971: Research for Master's Thesis
- DCP 7790: Doctoral Core I
- DCP 7792: Doctoral Core II
- DCP 7794: Doctoral Seminar
- DCP 7911: Advanced Design, Construction, and Planning Research I
- DCP 7940: Supervised Teaching
- DCP 7949: Professional Internship
- DCP 7979: Advanced Research
- DCP 7980: Research for Doctoral Dissertation

Interior Design Department

Chair: M. Portillo
Graduate Coordinator: N. Park

Doctor of Philosophy:
The College offers an interdisciplinary program leading to the Doctor of Philosophy degree in design, construction, and planning. Areas of specialization within this program include architecture, building construction, interior design, landscape architecture, and urban and regional planning. For information, write to the Ph.D. Director, College of Design, Construction, and Planning Doctoral Program, 331 ARCH, P.O. Box 115701.

Master of Interior Design:
The Master of Interior Design (M.I.D.) provides opportunities for students to direct their attention toward a variety of topics, including

- Design pedagogy and processes
- Sustainable, healthy, safe, and secure environments
- Creative performance and innovation
- Built heritage conservation

Regardless of the study emphasis selected by the student, the M.I.D. program has a central focus with three categories of course work:

- Design studio
- Seminars in current interior design topics
- Theories and methods of research.

All M.I.D. students must complete an approved research topic with a written thesis. Requirements for the M.I.D. and Ph.D. degrees are given in the General Information section of this catalog.

Applications:

All applications must include acceptable GRE scores, transcripts for all previous academic work, and if the applicant's native language is not English, a satisfactory score on one of the following: TOEFL (Test of English as a Foreign Language: computer=213, paper=550, web=80), IELTS (International English Language Testing System: 6), MELAB (Michigan English Language Assessment Battery: 77), or successful completion of the UF English Language Institute. This information must be received in the Office of the Registrar by February 2. In addition to satisfying University requirements for admission, the applicants are required to submit to the Department of Interior Design the following:

- A portfolio of your design work (if you received a design-based degree). The portfolio should be emailed to the department as a pdf to mmatckie@dcp.ufl.edu or sent via WeTransfer as a pdf to mmatckie@dcp.ufl.edu.
- A written essay on your goals and aspirations related to graduate studies; attach to your application or email to mmatckie@dcp.ufl.edu.
- Three letters of recommendation; directly sent to the applications system via the on-line request you set up or emailed to the department to mmatckie@dcp.ufl.edu.
- A personal interview is not required, but many applicants choose to visit the campus and Department as a part of the application process.

Students enrolled in the Bachelor of Interior Design program at the University of Florida may apply to the M.I.D. program during their junior year by applying for a Combined Degree(see below).

The Department reserves the right to retain student course work for the purposes of record, exhibition, or instruction. Field trips are required for all students; students should plan to have adequate funds available. Students are required to purchase a computer for course work. It may be necessary to assess studio fees to defray costs of base maps, plans, and other generally used materials.

Admission: Applications are processed through February 2 for fall term and all applicants are encouraged to apply as soon as possible. Admission decisions are made between February and the end of April. All new students begin their studies in the fall to coincide with curriculum sequencing.

Graduate course requirements according to background: After assessment of previous design work, leveling courses may be required to prepare the student for the M.I.D. 36 hours of graduate course work. Therefore, each student entering the Master of Interior Design program works with the graduate coordinator to evaluate the student's unique background to determine the specific courses needed to facilitate interest and experience. Estimated credit hours and length of study time vary according to each student's individual baccalaureate degree and experience.

There are four options.

- For students enrolled in the Bachelor of Design program at the University of Florida, 12 hours of graduate-level course work in the senior year can be counted for both the undergraduate and the M.I.D. degrees. An additional 24 graduate credit hours are required. Expect at least 1 additional year to complete the M.I.D. (Combined Degree form found on the Graduate School site)

- For students who graduated from a Council of Interior Design Accreditation (CIDA) accredited first professional degree program within an architectural framework, the course of study is estimated to be 36 graduate credit hours. Expect 2 years to complete the M.I.D.

- For students who graduated from a design-related (architecture or interior design) baccalaureate degree program, the course of study is estimated to be a maximum of 59 graduate credit hours (includes the 36-hour M.I.D.). Expect 3 years to complete leveling courses and the master's degree.

- For students with a bachelor's degree in a field other than design, the course of study is estimated to be 93 undergraduate and graduate credit hours. Expect 3 to 4 years to complete leveling courses and the M.I.D.

Estimates of the number of credit hours and length of study time may be adjusted based on the individual student's previous preparation including experience as a practicing designer, architect, or other professional.

Program requirements: After leveling courses are completed and with approval by the graduate coordinator and supervisory committee chair, a student completes 24 hours of departmentally approved graduate work in the Department of Interior Design. In addition, with the graduate coordinator's approval, the student is required to take 3 hours of course work in graduate statistics and 9 hours of multidisciplinary graduate electives that reinforce and extend the research.

Courses from such academic units as Psychology, Anthropology, Sociology, Engineering, Education, and Business Administration provide possible electives. The College of Design, Construction and Planning offers the Certificate in Historic Preservation. If the focus of a student is the renovation and preservation of built environments, then historic preservation courses leading to a certificate would strengthen the research and design effort. Likewise, existing appropriate courses in Architecture, Landscape Architecture, Urban and Regional Planning, and Building Construction offer both collaborative study and research opportunities for M.I.D students.

Each student must select a two-member supervisory committee to guide course selection and to guide thesis selection, study, and production.

Interior Design

College of Design, Construction, and Planning
Interior Design Department

Interior Design Program Information

The Master of Interior Design (MID) educates students to become professionals in practice, to engage in research, and to develop a specialization in the design of the built environment. In addition to coursework, the main requirement for the MID degree is a written research thesis, adding to the greater body of knowledge.

The UF-ID MID will

- Aid design and problem-solving skills to achieve excellence in the design of interiors
- Enable students to propose and conduct research that adds to the body of knowledge in the field, building on previous research findings
- Explore a specialized area of interest and expertise

MID graduate students can join practices within interior design and architecture firms or other specialized fields; can achieve advanced study in areas of specialization often of interest to contract public interior design firms; have the opportunity to pursue entry-level teaching positions within interior design programs; can enter Ph.D. Programs for advanced research specialization(s) in interior design or related design disciplines; and are offered the opportunity to disseminate knowledge through publications, conferences, teaching, and collaboration with various professionals in related fields.

For more information, visit https://dcp.ufl.edu/interior/academics/masters-program/

Degrees Offered with a Major in Interior Design

Master of Interior Design
without a concentration
concentration in Historic Preservation
concentration in Sustainable Design

Interior Design Departmental Courses

- IND 5023: Introduction to Architectural Interiors
- IND 5106: History of Interior Design I
- IND 5136: History of Interior Design II
- IND 5212C: Architectural Interiors I
- IND 5213C: Introduction to Architectural Interiors Lab
- IND 5227C: Advanced Architectural Interiors I
- IND 5231C: Architectural Interiors II
- IND 5232C: Advanced Architectural Interiors II
- IND 5317C: Interior Design Communication Systems
- IND 5326: Color Theory Planning and Practice
- IND 5427C: Interior Design Construction Documents
- IND 5428: Materials for Interior Design
- IND 5434C: Interior Lighting
- IND 5445C: Furniture Design

- IND 5454C: Advanced Interior Design Detailing and Construction Documents
- IND 5464C: Computer Applications in Three-Dimensional Design
- IND 5466: Interior Environmental Technology
- IND 5508: Business and Professional Practices for Interior Designers
- IND 5633: Readings in Design Studies
- IND 5638: Design Environments and Human Interaction
- IND 5937: Current Topics in Interior Design
- IND 6639: Methods of Interior Design Research
- IND 6906: Independent Studies and Readings
- IND 6939: Creativity Applied
- IND 6940: Supervised Teaching
- IND 6941: Interior Design Internship
- IND 6971: Research for Master's Thesis

College of Design, Construction, and Planning Courses

- BCN 6558C: Building Integrated Renewable Energy Systems
- DCP 6205: Ecological Issues in Sustainability and the Built Environment
- DCP 6211: Preservation Topics, Issues, and Practice
- DCP 6212: Sustainable Design Issues: Ecology, Architecture, and Planning
- DCP 6301: Sustainable Planning and Design Studio
- DCP 6710: History and Theory of Historic Preservation
- DCP 6711: History of the Built Environment for Preservation Practice
- DCP 6712: Preservation Technology: Conserving Modern Buildings
- DCP 6713: Historic Preservation: Principles, Practice, and Engineering
- DCP 6714: Built Heritage Resources: Research, Documentation, And Conservation
- DCP 6715: Preservation Building Technology
- DCP 6716: Cultural Resource Management
- DCP 6730: Preservation Policy
- DCP 6905: Independent Study
- DCP 6931: Special Topics in Design, Construction, and Planning
- DCP 6943: Practicum in Historic Preservation
- DCP 6971: Research for Master's Thesis
- DCP 7790: Doctoral Core I
- DCP 7792: Doctoral Core II
- DCP 7794: Doctoral Seminar
- DCP 7911: Advanced Design, Construction, and Planning Research I
- DCP 7940: Supervised Teaching
- DCP 7949: Professional Internship
- DCP 7979: Advanced Research
- DCP 7980: Research for Doctoral Dissertation

Landscape Architecture Department

College of Design, Construction, and Planning

Chair: Tina Gurucharri
Graduate Coordinator: Dan Manley

The mission of the Department of Landscape Architecture is to conduct research to enhance the understanding and practice of the profession of landscape architecture, and address societal challenges; train practitioners and scholars who are committed to advancing the efficacy, impact and knowledge of the discipline of landscape architecture; and provide service to the diverse communities of our state, region and abroad. The Master of Landscape Architecture seeks excellence through professional practice and service, and through research and scholarly pursuit.

The department offers a combined bachelor's/master's degree program with the Bachelor of Sustainability and the Built Environment. The department also offers a combined bachelor/master degree program for current UF landscape architecture undergraduate students who intend to complete a graduate landscape architecture degree at UF. Please contact a College of Design, Construction and Planning Advisor and/or Graduate Coordinator for the Department of Landscape Architecture to learn more and for information about application procedures for both combined degree programs.

Interstate field trips are required as a part of the normal program curriculum. Students should plan to have adequate funds for field trips, studio materials, and use of the Infinity Fab Lab. Students are also required to own a laptop computer meeting minimum department requirements. These specifications are available through the Department of Landscape Architecture's website at URL: http://www.dcp.ufl.edu/landscape.

The graduate program in landscape architecture offers flexibility in meeting the needs of applicants with varied backgrounds. Students entering the graduate program in landscape architecture follow one of the four following tracks:

First Professional MLA Program

Graduate students who do not possess an LAAB accredited professional degree in landscape architecture are invited to enroll in the First Professional MLA program.

The First Professional MLA Program aids the development of basic analytical, design and graphic skills. Upon successful completion of the First Professional Summer term, students advance into a two-semester sequence of articulation courses that provide a foundation of applied landscape design and planning theory as well as competencies in landscape construction.

MLA Advanced Graduate Studies Program

Graduate students having completed the summer and first year of the First Professional program or entering the MLA program with an LAAB accredited professional baccalaureate degree in landscape architecture commence a two-year program of advanced graduate coursework towards the completion of the MLA degree.

Graduate students with a non-accredited or non-LAAB accredited degree in landscape architecture may be required to take additional coursework beyond the two-year program of advanced graduate coursework to develop core competencies required for advanced graduate study.

MLA Research Degree

Graduate students with an LAAB accredited professional degree in landscape architecture and a significant history of achievement in professional practice may tailor a program of advanced study to meet their specific needs.

The normal tenure of advanced graduate study is five semesters which includes a summer semester internship. Students complete a minimum of 52 credit hours composed of lecture courses, seminars, design and construction studios, internship and individual study (special studies, supervised research and thesis or terminal project).

This time period would be extended should a student elect to expand the course work or seek a concurrent degree in a related field.

Design studios: Graduate design studios build on required lecture and seminar courses. A core of three advanced design studios are topically-oriented focusing on issues of human, ecological and regional concern. Each studio requires students to engage a method appropriate to the studio's selected projects, to analyze the findings generated by this research and to use the findings to build a rational argument that leads to a defensible design position. Interdisciplinary and multidisciplinary collaborations are encouraged on both a formal and an informal basis. Graduate studio projects also deal with current issues related to the mission of the Department with an additional focus on research and community service.

Thesis or terminal project: The Department recognizes that students have different professional goals and personal strengths and interests. A thesis is appropriate for students interested in further research or teaching, or in pursuing advanced degrees. A project (with a significant research component) is appropriate for students interested in design or project-oriented aspects of landscape architecture, or if their specific areas of interest suggest a nontraditional approach.

Programs, centers, and institutes: The College of Design, Construction, and Planning has several research centers and institutes. Please see the College's webpage for more information (https://dcp.ufl.edu/research/centers-institutes-and-initiatives/).

Graduate advisement: Students are initially advised by the Graduate Coordinator. He or she has guided the student's application through the acceptance process and is familiar with the student's background and needs. A plan of study is developed that includes required and optional courses. By the end of the second semester of the MLA1 year, each student is required to form a supervisory committee composed of two faculty members. The primary purpose of the graduate committee is to advise the student on educational objectives and the thesis or terminal project course work.

Application Procedure

Details of application procedure are found on the Department of Landscape Architecture's website. Applicants are encouraged to familiarize themselves with the details of the application procedures and the application requirements. Applications will ONLY be considered for the track for which they have been submitted. Make certain you are applying to the correct track based on your background and credentials and the criteria detailed above.

Application Dates

Applications are to be completed and submitted prior to the deadline noted on the Department's website. Unless otherwise noted, applications must be received no later than February 1st. Early applications are encouraged.

Application materials to be submitted online and/or to the Office of the Registrar.

Application materials include the online application form accompanied by official transcripts, Letters of Recommendation, GRE scores, and TOEFL scores (applicants with English as a second language) to Office of the Registrar: Admissions Section, Criser Hall, University of Florida, Gainesville, Florida 32611.

In addition, applicants must also submit a letter of intention to the Department of Landscape Architecture.

Application Portfolio

All applicants are encouraged to submit a portfolio of creative works.

Applicants with a baccalaureate landscape architecture degree or other design affiliated degree are required to submit a portfolio that both exhibits creative work experience and shows evidence of acquired technical proficiencies in, or related to, the practice of landscape architecture.

All portfolio must be digital. PDF is preferred.

Application Status

Applications will be processed once all material has been received and must be complete prior to the application deadline. Applicants will be contacted by the program's Academic Assistant if their application is incomplete. Please respond quickly if you have been contacted to increase the chances of your application being considered in the current review period. Only completed applications will be processed for review.

Once the application has been processed for review, applicants will receive written notification of their application status, generally sometime in the middle of March. Please do not contact the department with inquiries of your application status prior to the end of March.

Preparatory courses (see Undergraduate Catalog): LAA 2330, LAA 2360c, LAA 2532, LAA 2710, LAA 3350c, LAA 3352c, LAA 3420, LAA 3421, LAA 4362c, and HOS 5117C.

Landscape Architecture

College of Design, Construction, and Planning
Landscape Architecture Department

Landscape Architecture Program

The Department of Landscape Architecture offers graduate programs leading to the Master of Landscape Architecture (MLA) degree in Landscape Architecture. A Ph.D. degree with a concentration in Landscape Architecture is also offered through the College of Design, Construction and Planning. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

Master of Landscape Architecture: The First Professional MLA is a Landscape Architecture Accreditation Board (LAAB) accredited professional Master's degree in Landscape Architecture. Graduation from an accredited program is an essential first step toward licensing in Florida and other states that regulate the practice of landscape architecture.

For more information, please see our website: http://www.dcp.ufl.edu/landscape.

Degrees Offered with a Major in Landscape Architecture

Master of Landscape Architecture

without a concentration
concentration in Geographic Information Systems
concentration in Historic Preservation
concentration in Sustainable Design
concentration in Wetland Sciences

Landscape Architecture Departmental Courses

- LAA 5331: Site Design Methodologies
- LAA 5366: Principles of Landscape Architecture
- LAA 6231: Landscape Architecture Theory
- LAA 6322: Project Management for Landscape Architects
- LAA 6342: Landscape Architecture Criticism

- LAA 6349C: Design Communications for Landscape Acrhitects
- LAA 6382: Ecological and Environmental Policy
- LAA 6525L: Advanced Landscape Construction Design
- LAA 6536: Landscape Management
- LAA 6656C: Advanced Landscape Architectural Design
- LAA 6713: Cultural Landscapes
- LAA 6716: History of Landscape Architecture
- LAA 6905: Directed Study
- LAA 6931: Water Conservation through Site Design and Green Roofs
- LAA 6931C: Special Topics
- LAA 6933: Topics in European Design: Paris, France
- LAA 6935: Gardens of the World
- LAA 6941: Supervised Internship
- LAA 6952C: European Landscape Architecture Studio
- LAA 6971: Research for Master's Thesis
- LAA 6979: Terminal Project

College of Design, Construction, and Planning Courses

- BCN 6558C: Building Integrated Renewable Energy Systems
- DCP 6205: Ecological Issues in Sustainability and the Built Environment
- DCP 6211: Preservation Topics, Issues, and Practice
- DCP 6212: Sustainable Design Issues: Ecology, Architecture, and Planning
- DCP 6301: Sustainable Planning and Design Studio
- DCP 6710: History and Theory of Historic Preservation
- DCP 6711: History of the Built Environment for Preservation Practice
- DCP 6712: Preservation Technology: Conserving Modern Buildings
- DCP 6713: Historic Preservation: Principles, Practice, and Engineering
- DCP 6714: Built Heritage Resources: Research, Documentation, And Conservation
- DCP 6715: Preservation Building Technology
- DCP 6716: Cultural Resource Management
- DCP 6730: Preservation Policy
- DCP 6905: Independent Study
- DCP 6931: Special Topics in Design, Construction, and Planning
- DCP 6943: Practicum in Historic Preservation
- DCP 6971: Research for Master's Thesis
- DCP 7790: Doctoral Core I
- DCP 7792: Doctoral Core II
- DCP 7794: Doctoral Seminar
- DCP 7911: Advanced Design, Construction, and Planning Research I
- DCP 7940: Supervised Teaching
- DCP 7949: Professional Internship
- DCP 7979: Advanced Research
- DCP 7980: Research for Doctoral Dissertation

Urban and Regional Planning Department

Director of School of Landscape Architecture and Planning: Kristin Larsen
Chair: Kristin Larsen
Graduate Coordinator: Stanley Latimer
Graduate Coordinator of Online Degree program: Jocelyn Widmer

The mission of the Department of Urban and Regional Planning is to educate the next generation of planning professionals to be good stewards of our built and natural environments, to conduct innovative research that improves quality of life for all, and to provide planning services to communities.

Doctor of Philosophy: The College offers an interdisciplinary program leading to the Doctor of Philosophy degree in Design, Construction, and Planning. Areas of specialization within this program include architecture, building construction, interior design, landscape architecture, and urban and regional planning. For information, please see the Design, Construction, and Planning (Ph.D.) program page in this catalog, or the DCP Ph.D. website: https://dcp.ufl.edu/urp/academics/ph-d/.

Master of Urban and Regional Planning: The Department of Urban and Regional Planning offers graduate work leading to the degree of Master of Urban and Regional Planning (M.U.R.P.). The fifty-two credit graduate degree program can be earned on campus or online. The Planning Accreditation Board has accredited the campus-based program; students typically complete the campus-based degree program in two academic years. The online program targets practicing professionals with its flexible scheduling and sequencing of classes. Students with a master's degree in a related field may obtain approval from the Department to transfer up to 18 credit hours toward the 52-credit requirement. The department encourages students with any undergraduate degree who are interested in the field of planning to apply for admission.

The Department of Urban and Regional Planning and the Levin College of Law offer a joint degree program. The four-year program leads to a Juris Doctor and a Master of Urban and Regional Planning. Students may pursue Concurrent Degrees in Latin American Studies and in Transportation Engineering. Concurrent degrees allow the sharing of 9 credits between the two degrees. Areas of concentration with other programs in the Graduate School may be developed to meet the individual needs of students.

The department offers a combined undergraduate/graduate degree program with several UF departments and colleges including Sustainability and the Built Environment, Political Science, Forestry, and more. Please contact a College of Design, Construction and Planning Advisor and/or Graduate Coordinator for Urban and Regional Planning to learn more and for information about application and approval procedures.

In addition to coursework, the student is required to complete an internship with a public agency or private planning firm and to complete a master's thesis or research project (in lieu of thesis) with faculty approval. The Department reserves the right to retain student work for purposes of record, exhibition, or instruction.

Complete descriptions of the requirements for the above-mentioned degrees are provided in the Graduate Degrees section of this catalog.

For more information, please see the program page below and our website: http://www.dcp.ufl.edu/urp.

Urban and Regional Planning

College of Design, Construction, and Planning
Urban and Regional Planning Department

Urban and Regional Planning Program Information

Please note that the Master of Arts in Urban and Regional Planning (M.A.U.R.P.) has been renamed to the Master of Urban and Regional Planning (M.U.R.P.) and is being phased out as of Fall 2014.)

The Department of Urban and Regional Planning offers the degree of Master of Urban and Regional Planning (M.U.R.P.). The 52-credit graduate program is usually completed in two academic years. Students with a master's degree in a related field may obtain approval from the Department to transfer up to 18 credit hours toward the 52-credit requirement. The Department encourages students with any undergraduate degree who are interested in the field of planning to apply for admission.

The M.U.R.P. degree is accredited by the Planning Accreditation Board, a joint undertaking of the American Institute of Certified Planners and the Association of Collegiate Schools of Planning, for having achieved the highest applicable standards for graduate education in the field of planning. Graduates of the Department are prepared to practice urban and regional planning. Complete descriptions of the requirements for the M.U.R.P. and Ph.D. degrees are provided in the General Information section of this catalog.

The Urban and Regional Planning curriculum is designed to provide a set of core studies and contextual projects that prepare the graduate for the practice of planning in public or private agencies at both national and international levels. The core studies include history and theory of planning; planning methods; and related studies in community and regional social, natural, and economic systems. Contextual projects include, among many subject areas, urban design, transportation, regional planning, community redevelopment and preservation, housing, real estate, and economic development. Interstate field trips are required as a part of the normal program curriculum. Students should plan to have adequate funds for field trips and for studio materials.

The program emphasizes planning, policy, and design for the built and natural environments. Areas of specialized knowledge include land use and transportation, urban design, housing, community and economic development, information technologies for planning, and environmental planning. Students are also encouraged to take advantage of the interdisciplinary faculty, course offerings, and other resources available in the College of Design, Construction, and Planning and throughout the University. The Department has several research centers: The Geo-facilities Planning and Information Center (GeoPlan), the Center for International Design and Planning (CIDP), the Center for Building Better Communities (CBBC), and the Center for Health and the Built Environment (CHBE).

For more information, please see our website: http://www.dcp.ufl.edu/urp/academics/degrees.

Degrees Offered with a Major in Urban and Regional Planning

Master of Arts in Urban and Regional Planning - RENAMED (see above)

without a concentration
concentration in Geographic Information Systems
concentration in Historic Preservation
concentration in Sustainable Design
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Master of Urban and Regional Planning

without a concentration
concentration in Geographic Information Systems
concentration in Historic Preservation

concentration in Sustainable Design
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Courses

- URP 6276: Internet Geographic Information Systems
- URP 6277: Land Use Visioning and Analysis
- URP 6610: International Development Planning
- URP 6711: Transportation and Land Use Coordination
- URP 6743: Affordable Housing Law
- URP 6855: Urban Form in Cities throughout the Americas
- URP 6887: Advanced Defensible Space in Urban Design

Urban and Regional Planning Departmental Courses

- URP 6042: Urban Economy
- URP 6061: Planning Administration and Ethics
- URP 6100: Planning Theory and History
- URP 6131: Land Use Planning Law
- URP 6132: Growth Management Seminar
- URP 6203: Planning Research Design
- URP 6231: Quantitative Data Analysis for Planners
- URP 6270: Introduction to Planning Information Systems
- URP 6271: Automation for Geospatial Modeling and Analysis
- URP 6272: Urban Spatial Analysis
- URP 6274: GPS for Planners: Introduction to Global Positioning System
- URP 6275: Intermediate Planning Information Systems
- URP 6278: Web Mapping and Visualization
- URP 6280: 3D Geospatial Modeling and Visualization
- URP 6312: Land Development Planning and Evaluation
- URP 6341: Urban Planning Project
- URP 6409: Sustainable Community Development
- URP 6421: Environmental Land Use Planning and Management
- URP 6424: Sustainable Urbanism in the Americas
- URP 6428: Advanced Environmental Planning
- URP 6429: Natural Resources Planning and Management
- URP 6445: Planning for Climate Change
- URP 6526: Health and the Built Environment
- URP 6541: Economic Development Planning
- URP 6542: Urban Land Economics
- URP 6543: Seminar in Capital Improvement Finance
- URP 6601: State Planning
- URP 6603: Development Review
- URP 6610: International Development Planning
- URP 6716: Transportation Policy and Planning
- URP 6718: Bikeways Planning and Design
- URP 6745: Housing, Public Policy, and Planning
- URP 6746: Topical Debates in Housing
- URP 6821: Transportation and Land-Use Modeling

- URP 6871: Planning and Design I
- URP 6872: Planning and Design II
- URP 6880: Defensible Space and CPTED in Urban Design
- URP 6884: Community Conservation and Revitalization
- URP 6905: Exploration and Directed Study
- URP 6910: Supervised Research
- URP 6920: Colloquium
- URP 6931: Topical Seminar
- URP 6933: Planning Information Seminar
- URP 6941: Urban Planning Internship
- URP 6971: Research for Master's Thesis
- URP 6979: Master's Research Project

College of Design, Construction, and Planning Courses

- BCN 6558C: Building Integrated Renewable Energy Systems
- DCP 6205: Ecological Issues in Sustainability and the Built Environment
- DCP 6211: Preservation Topics, Issues, and Practice
- DCP 6212: Sustainable Design Issues: Ecology, Architecture, and Planning
- DCP 6301: Sustainable Planning and Design Studio
- DCP 6710: History and Theory of Historic Preservation
- DCP 6711: History of the Built Environment for Preservation Practice
- DCP 6712: Preservation Technology: Conserving Modern Buildings
- DCP 6713: Historic Preservation: Principles, Practice, and Engineering
- DCP 6714: Built Heritage Resources: Research, Documentation, And Conservation
- DCP 6715: Preservation Building Technology
- DCP 6716: Cultural Resource Management
- DCP 6730: Preservation Policy
- DCP 6905: Independent Study
- DCP 6931: Special Topics in Design, Construction, and Planning
- DCP 6943: Practicum in Historic Preservation
- DCP 6971: Research for Master's Thesis
- DCP 7790: Doctoral Core I
- DCP 7792: Doctoral Core II
- DCP 7794: Doctoral Seminar
- DCP 7911: Advanced Design, Construction, and Planning Research I
- DCP 7940: Supervised Teaching
- DCP 7949: Professional Internship
- DCP 7979: Advanced Research
- DCP 7980: Research for Doctoral Dissertation

College of Education

Dean: G. Good.

Graduate study in education, allows individuals with bachelor's degrees in agriculture, business, education, engineering, mathematics, sciences, humanities, foreign languages, preprofessional studies and other fields to prepare for rewarding professional careers in education and related fields.

The College of Education offers 19 master's or specialist programs, 12 doctoral programs, and a J.D./Ph.D. program with the College of Law through its three schools: Human Development and Organizational Studies in Education; Special Education, School Psychology and Early Childhood Studies; and School of Teaching and Learning .

Follow these links for more information about UF's College of Education graduate programs:
http://education.ufl.edu/admissions/graduate-programs/
https://education.ufl.edu/admissions/all-programs/

Human Development and Organizational Studies in Education

Director: M. David Miller
Graduate Coordinator: Patricia Ashton

Programs leading to the Master of Arts in Education (M.A.E.), Master of Education (M.Ed.), Education Specialist (Ed.S.), Doctor of Education (Ed.D.), and Doctor of Philosophy (Ph.D.) degrees are offered through this school with programs in Counseling and Counselor Education, Educational Leadership, Higher Education Administration, Marriage and Family Counseling, Mental Health Counseling, Research and Evaluation Methodology, School Counseling and Guidance, and Student Personnel in Higher Education.

Requirements for these degrees are given in the Graduate Degrees section of this catalog.
More information can be found at our website: http://education.ufl.edu/hdose.

Counseling and Counselor Education

College of Education
Human Development and Organizational Studies in Education

Counseling and Counselor Education Program

The doctoral program in Counseling and Counselor Education prepares students for careers in academia and advanced clinical and administrative positions. Our program aligns with the University of Florida mission to prepare the next generation of scholars and professional leaders. Thus, our doctoral program is a good fit for individuals who want to fulfill the roles of counselor educators – research, writing, teaching, service, securing external funding to support scholarship, assuming professional leadership positions, etc. The doctoral program is ideally suited for individuals with previously earned masters and at least two years of clinical experience. Doctoral students complete coursework, a doctoral clinical internship, participate in teaching and supervision, and conduct research leading to the completion of a dissertation. Students average 3 to 5 years to complete the doctorate, many of whom balance work and school commitments.

Degrees Offered with a Major in Counseling and Counselor Education

Doctor of Education

without a concentration
concentration in Marriage and Family Counseling
concentration in Mental Health Counseling
concentration in School Counseling and Guidance

Doctor of Philosophy

without a concentration
concentration in Marriage and Family Counseling
concentration in Mental Health Counseling
concentration in School Counseling and Guidance

Human Development and Organizational Studies in Education Departmental Courses

- EDA 6061: Educational Organization and Administration
- EDA 6107: Leading Change in Educational Organizations
- EDA 6192: Educational Leadership: The Individual
- EDA 6193: Educational Leadership: Instruction
- EDA 6195: Educational Policy Development
- EDA 6215: Communications in Educational Leadership
- EDA 6222: Administration of School Personnel
- EDA 6232: Public School Law
- EDA 6242: Public School Finance
- EDA 6271: Technology Leadership for Educational Administrators
- EDA 6423: Data-Driven Decision Making in Educational Organizations
- EDA 6503: The Principalship
- EDA 6905: Individual Work
- EDA 6931: Special Topics
- EDA 6948: Supervised Practice in School Administration
- EDA 6971: Research for Master's Thesis
- EDA 7206: Organizational Leadership in Education
- EDA 7945: Practicum in Supervision and Administration
- EDA 7979: Advanced Research
- EDA 7980: Research for Doctoral Dissertation
- EDA 7985: Research Design in Educational Administration
- EDF 6416: Quantitative Methods for Evaluation in Educational Environments
- EDF 6463: Culturally Responsive Evaluation in Educational Environments
- EDF 6464: Reading and Designing Qualitative Research
- EDF 6468: Evaluation Management for Grants in Educational Environments
- EDF 6492: Evaluation Communication and Ethics in the Educational Environment
- EDF 6973: Project in Lieu of Thesis
- EDF 7413: Advanced Topics in Structural Equation Modeling
- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EDG 6285: Evaluation in the School Program
- EDH 6006: The College Student
- EDH 6040: Theory of College Student Development
- EDH 6046: Diversity Issues in Higher Education
- EDH 6051: Educational Outcomes of American Colleges and Universities

- EDH 6053: The Community Junior College in America
- EDH 6065: History of American Higher Education
- EDH 6066: American Higher Education
- EDH 6305: College and University Teaching
- EDH 6360: Foundations and Functions of College Student Personnel
- EDH 6361: Theories and Assessment of Higher Educational Environments
- EDH 6503: Resource Development in Higher Education
- EDH 6632: Current Issues in Community College Leadership
- EDH 6637: Crisis Management in Higher Education
- EDH 6931: Special Topics in Higher Education
- EDH 6935: Seminar in College Student Personnel Administration
- EDH 6947: Practicum in Student Personnel
- EDH 7225: Seminar: Curriculum in Higher Education
- EDH 7405: The Law and Higher Education
- EDH 7505: The Financing of Higher Education
- EDH 7631: Administration of Instruction in Higher Education
- EDH 7634: Student Affairs Administration in Higher Education
- EDH 7635: Higher Education Administration
- EDH 7916: Contemporary Research on Higher Education
- EDH 7942: Group Supervision in Student Personnel
- EDH 7948: Internship in Student Personnel
- MHS 5005: Introduction to Counseling
- MHS 6000: Assessment and Treatment of Family Violence
- MHS 6020: Counseling in Community Settings
- MHS 6061: Spiritual Issues in Multicultural Counseling
- MHS 6071: Diagnosis and Treatment of Mental Disorders
- MHS 6200: Assessment in Counseling
- MHS 6340: Career Development
- MHS 6401: Counseling Theories and Applications
- MHS 6421: Play Counseling and Play Process with Children
- MHS 6428: Multicultural Counseling
- MHS 6430: Introduction to Family Counseling
- MHS 6440: Marriage and Couples Counseling
- MHS 6450: Substance Abuse Counseling
- MHS 6464: Introduction to Disaster Mental Health Counseling
- MHS 6466: Trauma and Crisis Intervention: Theory and Practice
- MHS 6467: Disaster Mental Health Counseling and Vulnerable Populations
- MHS 6469: Traumatic Stress and Disaster Mental Health Counseling
- MHS 6471: Sexuality and Mental Health
- MHS 6480: Developmental Counseling Over the Life Span
- MHS 6495: Counseling Lesbian, Gay, Bisexual, and Transgender Clients
- MHS 6500: Group Counseling: Theories and Procedures
- MHS 6705: Professional, Ethical, and Legal Issues in Marriage and Family Counseling
- MHS 6720: Professional Identity and Ethics in Counseling
- MHS 6831: Supervision for a Split Internship
- MHS 6910: Supervised Research

- MHS 6940: Supervised Teaching
- MHS 6971: Research for Master's Thesis
- MHS 7407: Advanced Counseling Theories
- MHS 7431: Advanced Family Counseling
- MHS 7600: Consultation Procedures
- MHS 7610: Practicum in Counseling Supervision
- MHS 7730: Seminar in Counseling Research
- MHS 7740: Research in Counseling
- MHS 7804: Group Supervision in Agency Counseling
- MHS 7805: Practicum in Agency Counseling
- MHS 7806: Practicum in Marriage and Family Counseling
- MHS 7807: Group Supervision in Marriage and Family Counseling
- MHS 7830: Internship in Counseling and Development-600 Hours
- MHS 7840: Internship in Counselor Education
- MHS 7946: Internship in Agency Program Management
- MHS 7979: Advanced Research
- MHS 7980: Research for Doctoral Dissertation
- SDS 6401: Counseling Skills for Non-Counselors
- SDS 6411: Counseling with Children
- SDS 6436: Family-School Intervention
- SDS 6620: Organization and Administration of School Counseling Programs
- SDS 6831: Supervision for a Split Internship
- SDS 6905: Individual Work
- SDS 6936: Seminar in Counselor Education
- SDS 6938: Special Topics
- SDS 7800: Practicum in School Counseling
- SDS 7820: Group Supervision in School Counseling
- SDS 7830: Internship in Counseling and Development-600 Hours

Educational Leadership

College of Education
Human Development and Organizational Studies in Education

Educational Leadership Program Information

Programs in Educational Leadership provide opportunities for professional educators and those who would like to be professional educators to receive quality coursework, mentorship, and degrees in educational administration, policy, and leadership. The programs provided are ideal for vice principals, principals, district directors and supervisors, assistant superintendents, school business managers, teachers aspiring to acquire administrative roles within the K-12 system and educational leaders of other organizations.

Degrees Offered with a Major in Educational Leadership

Doctor of Education

without a concentration

concentration in Educational Policy

Doctor of Philosophy

without a concentration

concentration in Educational Policy

Master of Arts in Education

Master of Education

Specialist in Education

Human Development and Organizational Studies in Education Departmental Courses

- EDA 6061: Educational Organization and Administration
- EDA 6107: Leading Change in Educational Organizations
- EDA 6192: Educational Leadership: The Individual
- EDA 6193: Educational Leadership: Instruction
- EDA 6195: Educational Policy Development
- EDA 6215: Communications in Educational Leadership
- EDA 6222: Administration of School Personnel
- EDA 6232: Public School Law
- EDA 6242: Public School Finance
- EDA 6271: Technology Leadership for Educational Administrators
- EDA 6423: Data-Driven Decision Making in Educational Organizations
- EDA 6503: The Principalship
- EDA 6905: Individual Work
- EDA 6931: Special Topics
- EDA 6948: Supervised Practice in School Administration
- EDA 6971: Research for Master's Thesis
- EDA 7206: Organizational Leadership in Education
- EDA 7945: Practicum in Supervision and Administration
- EDA 7979: Advanced Research
- EDA 7980: Research for Doctoral Dissertation
- EDA 7985: Research Design in Educational Administration
- EDF 6416: Quantitative Methods for Evaluation in Educational Environments
- EDF 6463: Culturally Responsive Evaluation in Educational Environments
- EDF 6464: Reading and Designing Qualitative Research
- EDF 6468: Evaluation Management for Grants in Educational Environments
- EDF 6492: Evaluation Communication and Ethics in the Educational Environment
- EDF 6973: Project in Lieu of Thesis
- EDF 7413: Advanced Topics in Structural Equation Modeling
- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EDG 6285: Evaluation in the School Program
- EDH 6006: The College Student
- EDH 6040: Theory of College Student Development
- EDH 6046: Diversity Issues in Higher Education
- EDH 6051: Educational Outcomes of American Colleges and Universities

- EDH 6053: The Community Junior College in America
- EDH 6065: History of American Higher Education
- EDH 6066: American Higher Education
- EDH 6305: College and University Teaching
- EDH 6360: Foundations and Functions of College Student Personnel
- EDH 6361: Theories and Assessment of Higher Educational Environments
- EDH 6503: Resource Development in Higher Education
- EDH 6632: Current Issues in Community College Leadership
- EDH 6637: Crisis Management in Higher Education
- EDH 6931: Special Topics in Higher Education
- EDH 6935: Seminar in College Student Personnel Administration
- EDH 6947: Practicum in Student Personnel
- EDH 7225: Seminar: Curriculum in Higher Education
- EDH 7405: The Law and Higher Education
- EDH 7505: The Financing of Higher Education
- EDH 7631: Administration of Instruction in Higher Education
- EDH 7634: Student Affairs Administration in Higher Education
- EDH 7635: Higher Education Administration
- EDH 7916: Contemporary Research on Higher Education
- EDH 7942: Group Supervision in Student Personnel
- EDH 7948: Internship in Student Personnel
- MHS 5005: Introduction to Counseling
- MHS 6000: Assessment and Treatment of Family Violence
- MHS 6020: Counseling in Community Settings
- MHS 6061: Spiritual Issues in Multicultural Counseling
- MHS 6071: Diagnosis and Treatment of Mental Disorders
- MHS 6200: Assessment in Counseling
- MHS 6340: Career Development
- MHS 6401: Counseling Theories and Applications
- MHS 6421: Play Counseling and Play Process with Children
- MHS 6428: Multicultural Counseling
- MHS 6430: Introduction to Family Counseling
- MHS 6440: Marriage and Couples Counseling
- MHS 6450: Substance Abuse Counseling
- MHS 6464: Introduction to Disaster Mental Health Counseling
- MHS 6466: Trauma and Crisis Intervention: Theory and Practice
- MHS 6467: Disaster Mental Health Counseling and Vulnerable Populations
- MHS 6469: Traumatic Stress and Disaster Mental Health Counseling
- MHS 6471: Sexuality and Mental Health
- MHS 6480: Developmental Counseling Over the Life Span
- MHS 6495: Counseling Lesbian, Gay, Bisexual, and Transgender Clients
- MHS 6500: Group Counseling: Theories and Procedures
- MHS 6705: Professional, Ethical, and Legal Issues in Marriage and Family Counseling
- MHS 6720: Professional Identity and Ethics in Counseling
- MHS 6831: Supervision for a Split Internship
- MHS 6910: Supervised Research

- MHS 6940: Supervised Teaching
- MHS 6971: Research for Master's Thesis
- MHS 7407: Advanced Counseling Theories
- MHS 7431: Advanced Family Counseling
- MHS 7600: Consultation Procedures
- MHS 7610: Practicum in Counseling Supervision
- MHS 7730: Seminar in Counseling Research
- MHS 7740: Research in Counseling
- MHS 7804: Group Supervision in Agency Counseling
- MHS 7805: Practicum in Agency Counseling
- MHS 7806: Practicum in Marriage and Family Counseling
- MHS 7807: Group Supervision in Marriage and Family Counseling
- MHS 7830: Internship in Counseling and Development-600 Hours
- MHS 7840: Internship in Counselor Education
- MHS 7946: Internship in Agency Program Management
- MHS 7979: Advanced Research
- MHS 7980: Research for Doctoral Dissertation
- SDS 6401: Counseling Skills for Non-Counselors
- SDS 6411: Counseling with Children
- SDS 6436: Family-School Intervention
- SDS 6620: Organization and Administration of School Counseling Programs
- SDS 6831: Supervision for a Split Internship
- SDS 6905: Individual Work
- SDS 6936: Seminar in Counselor Education
- SDS 6938: Special Topics
- SDS 7800: Practicum in School Counseling
- SDS 7820: Group Supervision in School Counseling
- SDS 7830: Internship in Counseling and Development-600 Hours

Higher Education Administration

College of Education
Human Development and Organizational Studies in Education

Higher Education Administration Program Information

The Higher Education Administration program is one of the nation's premier graduate programs for higher education administration and policy evaluation. Our emphasis remains on the role of research in evaluating policies, informing institutional effectiveness, and creating scholarship that connects both scholars and practitioners through a multidisciplinary approach. Focusing on both the two-year and four-year sectors, our nationally respected Higher Education Administration programs offer a Ph.D. and Ed.D. focused on rigorous scholarship and preparing future higher education faculty members, institutional leaders, policymakers, and researchers. Aided by our innovative and nationally respected faculty, the Higher Education Administration program provides students with the opportunity to work on cutting-edge research projects and publish work in top journals within higher education, public policy, and postsecondary administration.

Degrees Offered with a Major in Higher Education Administration

Doctor of Education

without a concentration

concentration in Educational Policy

Doctor of Philosophy

without a concentration

concentration in Educational Policy

Human Development and Organizational Studies in Education Departmental Courses

- EDA 6061: Educational Organization and Administration
- EDA 6107: Leading Change in Educational Organizations
- EDA 6192: Educational Leadership: The Individual
- EDA 6193: Educational Leadership: Instruction
- EDA 6195: Educational Policy Development
- EDA 6215: Communications in Educational Leadership
- EDA 6222: Administration of School Personnel
- EDA 6232: Public School Law
- EDA 6242: Public School Finance
- EDA 6271: Technology Leadership for Educational Administrators
- EDA 6423: Data-Driven Decision Making in Educational Organizations
- EDA 6503: The Principalship
- EDA 6905: Individual Work
- EDA 6931: Special Topics
- EDA 6948: Supervised Practice in School Administration
- EDA 6971: Research for Master's Thesis
- EDA 7206: Organizational Leadership in Education
- EDA 7945: Practicum in Supervision and Administration
- EDA 7979: Advanced Research
- EDA 7980: Research for Doctoral Dissertation
- EDA 7985: Research Design in Educational Administration
- EDF 6416: Quantitative Methods for Evaluation in Educational Environments
- EDF 6463: Culturally Responsive Evaluation in Educational Environments
- EDF 6464: Reading and Designing Qualitative Research
- EDF 6468: Evaluation Management for Grants in Educational Environments
- EDF 6492: Evaluation Communication and Ethics in the Educational Environment
- EDF 6973: Project in Lieu of Thesis
- EDF 7413: Advanced Topics in Structural Equation Modeling
- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EDG 6285: Evaluation in the School Program
- EDH 6006: The College Student
- EDH 6040: Theory of College Student Development
- EDH 6046: Diversity Issues in Higher Education
- EDH 6051: Educational Outcomes of American Colleges and Universities
- EDH 6053: The Community Junior College in America
- EDH 6065: History of American Higher Education
- EDH 6066: American Higher Education
- EDH 6305: College and University Teaching

- EDH 6360: Foundations and Functions of College Student Personnel
- EDH 6361: Theories and Assessment of Higher Educational Environments
- EDH 6503: Resource Development in Higher Education
- EDH 6632: Current Issues in Community College Leadership
- EDH 6637: Crisis Management in Higher Education
- EDH 6931: Special Topics in Higher Education
- EDH 6935: Seminar in College Student Personnel Administration
- EDH 6947: Practicum in Student Personnel
- EDH 7225: Seminar: Curriculum in Higher Education
- EDH 7405: The Law and Higher Education
- EDH 7505: The Financing of Higher Education
- EDH 7631: Administration of Instruction in Higher Education
- EDH 7634: Student Affairs Administration in Higher Education
- EDH 7635: Higher Education Administration
- EDH 7916: Contemporary Research on Higher Education
- EDH 7942: Group Supervision in Student Personnel
- EDH 7948: Internship in Student Personnel
- MHS 5005: Introduction to Counseling
- MHS 6000: Assessment and Treatment of Family Violence
- MHS 6020: Counseling in Community Settings
- MHS 6061: Spiritual Issues in Multicultural Counseling
- MHS 6071: Diagnosis and Treatment of Mental Disorders
- MHS 6200: Assessment in Counseling
- MHS 6340: Career Development
- MHS 6401: Counseling Theories and Applications
- MHS 6421: Play Counseling and Play Process with Children
- MHS 6428: Multicultural Counseling
- MHS 6430: Introduction to Family Counseling
- MHS 6440: Marriage and Couples Counseling
- MHS 6450: Substance Abuse Counseling
- MHS 6464: Introduction to Disaster Mental Health Counseling
- MHS 6466: Trauma and Crisis Intervention: Theory and Practice
- MHS 6467: Disaster Mental Health Counseling and Vulnerable Populations
- MHS 6469: Traumatic Stress and Disaster Mental Health Counseling
- MHS 6471: Sexuality and Mental Health
- MHS 6480: Developmental Counseling Over the Life Span
- MHS 6495: Counseling Lesbian, Gay, Bisexual, and Transgender Clients
- MHS 6500: Group Counseling: Theories and Procedures
- MHS 6705: Professional, Ethical, and Legal Issues in Marriage and Family Counseling
- MHS 6720: Professional Identity and Ethics in Counseling
- MHS 6831: Supervision for a Split Internship
- MHS 6910: Supervised Research
- MHS 6940: Supervised Teaching
- MHS 6971: Research for Master's Thesis
- MHS 7407: Advanced Counseling Theories
- MHS 7431: Advanced Family Counseling

- MHS 7600: Consultation Procedures
- MHS 7610: Practicum in Counseling Supervision
- MHS 7730: Seminar in Counseling Research
- MHS 7740: Research in Counseling
- MHS 7804: Group Supervision in Agency Counseling
- MHS 7805: Practicum in Agency Counseling
- MHS 7806: Practicum in Marriage and Family Counseling
- MHS 7807: Group Supervision in Marriage and Family Counseling
- MHS 7830: Internship in Counseling and Development-600 Hours
- MHS 7840: Internship in Counselor Education
- MHS 7946: Internship in Agency Program Management
- MHS 7979: Advanced Research
- MHS 7980: Research for Doctoral Dissertation
- SDS 6401: Counseling Skills for Non-Counselors
- SDS 6411: Counseling with Children
- SDS 6436: Family-School Intervention
- SDS 6620: Organization and Administration of School Counseling Programs
- SDS 6831: Supervision for a Split Internship
- SDS 6905: Individual Work
- SDS 6936: Seminar in Counselor Education
- SDS 6938: Special Topics
- SDS 7800: Practicum in School Counseling
- SDS 7820: Group Supervision in School Counseling
- SDS 7830: Internship in Counseling and Development-600 Hours

Marriage and Family Counseling

College of Education
Human Development and Organizational Studies in Education

Marriage and Family Counseling Program Information

The Marriage & Family Counseling/Therapy program is designed to equip students with the pre-professional competencies required for Registered Intern status and, after a minimum number of years of post-degree supervised clinical experience, for licensure in the State of Florida as Marriage and Family Counselors. The program emphasizes an eco-systemic approach to understanding human problems and generating solution opportunities to mutual concerns and problems.

Degrees Offered with a Major in Marriage and Family Counseling

Master of Arts in Education
Master of Education
Specialist in Education

Human Development and Organizational Studies in Education Departmental Courses

- EDA 6061: Educational Organization and Administration
- EDA 6107: Leading Change in Educational Organizations
- EDA 6192: Educational Leadership: The Individual
- EDA 6193: Educational Leadership: Instruction
- EDA 6195: Educational Policy Development
- EDA 6215: Communications in Educational Leadership
- EDA 6222: Administration of School Personnel
- EDA 6232: Public School Law
- EDA 6242: Public School Finance
- EDA 6271: Technology Leadership for Educational Administrators
- EDA 6423: Data-Driven Decision Making in Educational Organizations
- EDA 6503: The Principalship
- EDA 6905: Individual Work
- EDA 6931: Special Topics
- EDA 6948: Supervised Practice in School Administration
- EDA 6971: Research for Master's Thesis
- EDA 7206: Organizational Leadership in Education
- EDA 7945: Practicum in Supervision and Administration
- EDA 7979: Advanced Research
- EDA 7980: Research for Doctoral Dissertation
- EDA 7985: Research Design in Educational Administration
- EDF 6416: Quantitative Methods for Evaluation in Educational Environments
- EDF 6463: Culturally Responsive Evaluation in Educational Environments
- EDF 6464: Reading and Designing Qualitative Research
- EDF 6468: Evaluation Management for Grants in Educational Environments
- EDF 6492: Evaluation Communication and Ethics in the Educational Environment
- EDF 6973: Project in Lieu of Thesis
- EDF 7413: Advanced Topics in Structural Equation Modeling
- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EDG 6285: Evaluation in the School Program
- EDH 6006: The College Student
- EDH 6040: Theory of College Student Development
- EDH 6046: Diversity Issues in Higher Education
- EDH 6051: Educational Outcomes of American Colleges and Universities
- EDH 6053: The Community Junior College in America
- EDH 6065: History of American Higher Education
- EDH 6066: American Higher Education
- EDH 6305: College and University Teaching
- EDH 6360: Foundations and Functions of College Student Personnel
- EDH 6361: Theories and Assessment of Higher Educational Environments

- EDH 6503: Resource Development in Higher Education
- EDH 6632: Current Issues in Community College Leadership
- EDH 6637: Crisis Management in Higher Education
- EDH 6931: Special Topics in Higher Education
- EDH 6935: Seminar in College Student Personnel Administration
- EDH 6947: Practicum in Student Personnel
- EDH 7225: Seminar: Curriculum in Higher Education
- EDH 7405: The Law and Higher Education
- EDH 7505: The Financing of Higher Education
- EDH 7631: Administration of Instruction in Higher Education
- EDH 7634: Student Affairs Administration in Higher Education
- EDH 7635: Higher Education Administration
- EDH 7916: Contemporary Research on Higher Education
- EDH 7942: Group Supervision in Student Personnel
- EDH 7948: Internship in Student Personnel
- MHS 5005: Introduction to Counseling
- MHS 6000: Assessment and Treatment of Family Violence
- MHS 6020: Counseling in Community Settings
- MHS 6061: Spiritual Issues in Multicultural Counseling
- MHS 6071: Diagnosis and Treatment of Mental Disorders
- MHS 6200: Assessment in Counseling
- MHS 6340: Career Development
- MHS 6401: Counseling Theories and Applications
- MHS 6421: Play Counseling and Play Process with Children
- MHS 6428: Multicultural Counseling
- MHS 6430: Introduction to Family Counseling
- MHS 6440: Marriage and Couples Counseling
- MHS 6450: Substance Abuse Counseling
- MHS 6464: Introduction to Disaster Mental Health Counseling
- MHS 6466: Trauma and Crisis Intervention: Theory and Practice
- MHS 6467: Disaster Mental Health Counseling and Vulnerable Populations
- MHS 6469: Traumatic Stress and Disaster Mental Health Counseling
- MHS 6471: Sexuality and Mental Health
- MHS 6480: Developmental Counseling Over the Life Span
- MHS 6495: Counseling Lesbian, Gay, Bisexual, and Transgender Clients
- MHS 6500: Group Counseling: Theories and Procedures
- MHS 6705: Professional, Ethical, and Legal Issues in Marriage and Family Counseling
- MHS 6720: Professional Identity and Ethics in Counseling
- MHS 6831: Supervision for a Split Internship
- MHS 6910: Supervised Research
- MHS 6940: Supervised Teaching
- MHS 6971: Research for Master's Thesis
- MHS 7407: Advanced Counseling Theories
- MHS 7431: Advanced Family Counseling
- MHS 7600: Consultation Procedures
- MHS 7610: Practicum in Counseling Supervision

- MHS 7730: Seminar in Counseling Research
- MHS 7740: Research in Counseling
- MHS 7804: Group Supervision in Agency Counseling
- MHS 7805: Practicum in Agency Counseling
- MHS 7806: Practicum in Marriage and Family Counseling
- MHS 7807: Group Supervision in Marriage and Family Counseling
- MHS 7830: Internship in Counseling and Development-600 Hours
- MHS 7840: Internship in Counselor Education
- MHS 7946: Internship in Agency Program Management
- MHS 7979: Advanced Research
- MHS 7980: Research for Doctoral Dissertation
- SDS 6401: Counseling Skills for Non-Counselors
- SDS 6411: Counseling with Children
- SDS 6436: Family-School Intervention
- SDS 6620: Organization and Administration of School Counseling Programs
- SDS 6831: Supervision for a Split Internship
- SDS 6905: Individual Work
- SDS 6936: Seminar in Counselor Education
- SDS 6938: Special Topics
- SDS 7800: Practicum in School Counseling
- SDS 7820: Group Supervision in School Counseling
- SDS 7830: Internship in Counseling and Development-600 Hours

Mental Health Counseling

College of Education
Human Development and Organizational Studies in Education

Mental Health Counseling Program Information

The M.Ed./Ed.S. and M.AE./Ed.S. program in Mental Health Counseling is designed to equip students with the pre-professional competencies required for Registered Intern status and, after a minimum number of years of post-degree supervised clinical experience, (a) licensure in the State of Florida as Mental Health Counselors and (b) clinical membership in NBCC's Academy of Certified Clinical Mental Health Counselors. Additionally, some students elect the thesis option (M.A.E.) to complete their studies.

Degrees Offered with a Major in Mental Health Counseling

Master of Arts in Education
Master of Education
Specialist in Education

Human Development and Organizational Studies in Education Departmental Courses

- EDA 6061: Educational Organization and Administration
- EDA 6107: Leading Change in Educational Organizations
- EDA 6192: Educational Leadership: The Individual
- EDA 6193: Educational Leadership: Instruction
- EDA 6195: Educational Policy Development
- EDA 6215: Communications in Educational Leadership

- EDA 6222: Administration of School Personnel
- EDA 6232: Public School Law
- EDA 6242: Public School Finance
- EDA 6271: Technology Leadership for Educational Administrators
- EDA 6423: Data-Driven Decision Making in Educational Organizations
- EDA 6503: The Principalship
- EDA 6905: Individual Work
- EDA 6931: Special Topics
- EDA 6948: Supervised Practice in School Administration
- EDA 6971: Research for Master's Thesis
- EDA 7206: Organizational Leadership in Education
- EDA 7945: Practicum in Supervision and Administration
- EDA 7979: Advanced Research
- EDA 7980: Research for Doctoral Dissertation
- EDA 7985: Research Design in Educational Administration
- EDF 6416: Quantitative Methods for Evaluation in Educational Environments
- EDF 6463: Culturally Responsive Evaluation in Educational Environments
- EDF 6464: Reading and Designing Qualitative Research
- EDF 6468: Evaluation Management for Grants in Educational Environments
- EDF 6492: Evaluation Communication and Ethics in the Educational Environment
- EDF 6973: Project in Lieu of Thesis
- EDF 7413: Advanced Topics in Structural Equation Modeling
- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EDG 6285: Evaluation in the School Program
- EDH 6006: The College Student
- EDH 6040: Theory of College Student Development
- EDH 6046: Diversity Issues in Higher Education
- EDH 6051: Educational Outcomes of American Colleges and Universities
- EDH 6053: The Community Junior College in America
- EDH 6065: History of American Higher Education
- EDH 6066: American Higher Education
- EDH 6305: College and University Teaching
- EDH 6360: Foundations and Functions of College Student Personnel
- EDH 6361: Theories and Assessment of Higher Educational Environments
- EDH 6503: Resource Development in Higher Education
- EDH 6632: Current Issues in Community College Leadership
- EDH 6637: Crisis Management in Higher Education
- EDH 6931: Special Topics in Higher Education
- EDH 6935: Seminar in College Student Personnel Administration
- EDH 6947: Practicum in Student Personnel
- EDH 7225: Seminar: Curriculum in Higher Education
- EDH 7405: The Law and Higher Education
- EDH 7505: The Financing of Higher Education
- EDH 7631: Administration of Instruction in Higher Education
- EDH 7634: Student Affairs Administration in Higher Education
- EDH 7635: Higher Education Administration

- EDH 7916: Contemporary Research on Higher Education
- EDH 7942: Group Supervision in Student Personnel
- EDH 7948: Internship in Student Personnel
- MHS 5005: Introduction to Counseling
- MHS 6000: Assessment and Treatment of Family Violence
- MHS 6020: Counseling in Community Settings
- MHS 6061: Spiritual Issues in Multicultural Counseling
- MHS 6071: Diagnosis and Treatment of Mental Disorders
- MHS 6200: Assessment in Counseling
- MHS 6340: Career Development
- MHS 6401: Counseling Theories and Applications
- MHS 6421: Play Counseling and Play Process with Children
- MHS 6428: Multicultural Counseling
- MHS 6430: Introduction to Family Counseling
- MHS 6440: Marriage and Couples Counseling
- MHS 6450: Substance Abuse Counseling
- MHS 6464: Introduction to Disaster Mental Health Counseling
- MHS 6466: Trauma and Crisis Intervention: Theory and Practice
- MHS 6467: Disaster Mental Health Counseling and Vulnerable Populations
- MHS 6469: Traumatic Stress and Disaster Mental Health Counseling
- MHS 6471: Sexuality and Mental Health
- MHS 6480: Developmental Counseling Over the Life Span
- MHS 6495: Counseling Lesbian, Gay, Bisexual, and Transgender Clients
- MHS 6500: Group Counseling: Theories and Procedures
- MHS 6705: Professional, Ethical, and Legal Issues in Marriage and Family Counseling
- MHS 6720: Professional Identity and Ethics in Counseling
- MHS 6831: Supervision for a Split Internship
- MHS 6910: Supervised Research
- MHS 6940: Supervised Teaching
- MHS 6971: Research for Master's Thesis
- MHS 7407: Advanced Counseling Theories
- MHS 7431: Advanced Family Counseling
- MHS 7600: Consultation Procedures
- MHS 7610: Practicum in Counseling Supervision
- MHS 7730: Seminar in Counseling Research
- MHS 7740: Research in Counseling
- MHS 7804: Group Supervision in Agency Counseling
- MHS 7805: Practicum in Agency Counseling
- MHS 7806: Practicum in Marriage and Family Counseling
- MHS 7807: Group Supervision in Marriage and Family Counseling
- MHS 7830: Internship in Counseling and Development-600 Hours
- MHS 7840: Internship in Counselor Education
- MHS 7946: Internship in Agency Program Management
- MHS 7979: Advanced Research
- MHS 7980: Research for Doctoral Dissertation
- SDS 6401: Counseling Skills for Non-Counselors

- SDS 6411: Counseling with Children
- SDS 6436: Family-School Intervention
- SDS 6620: Organization and Administration of School Counseling Programs
- SDS 6831: Supervision for a Split Internship
- SDS 6905: Individual Work
- SDS 6936: Seminar in Counselor Education
- SDS 6938: Special Topics
- SDS 7800: Practicum in School Counseling
- SDS 7820: Group Supervision in School Counseling
- SDS 7830: Internship in Counseling and Development-600 Hours

Program Evaluation in Educational Environments

College of Education
Human Development and Organizational Studies in Education

Program Evaluation in Educational Environments Program Information

The goal of the Program Evaluation in Educational Environments is to prepare exemplary educational evaluators, who are able to apply state-of-the-art evaluation theory and tools to develop, improve, and assess programs, organizations, and policies. The coursework and learning experiences offered by this major are designed to train and empower evaluators to provide evaluation support for organizations and institutions, as they seek solutions to critical problems at local, national, and global levels. Because evaluation activity crosses disciplines, the evaluator is able to provide a unique and informed perspective to guide social change and innovations. The actions and recommendations of a program evaluator often trigger and foster positive reform in policies and programs in government, schools, business, health, and social agencies both locally, nationally, and internationally.

- Learn to evaluate educational and other social science programs, interpret educational data, develop evaluation assessment instruments, and use research methodologies and evaluation theory to plan, conduct, and complete a program evaluation.

- Find jobs in federal and state agencies, institutions of higher education, school districts, and for-profit and non-profit organizations. A number of program evaluators also choose to work as private consultants for school districts, government agencies, and private organizations.

- Complete a master's degree (M.A.E.) in two years with classes focusing on program evaluation theory and tools, research methodology, and statistics and psychometrics as applied to educational program evaluation.

- Our students come from a variety of backgrounds, including psychology; education; sociology; political science; anthropology; agricultural, family, youth, and community sciences; and health education and performance.

Degrees Offered with a Major in Program Evaluation in Educational Environments

Master of Arts in Education

Human Development and Organizational Studies in Education Departmental Courses

- EDA 6061: Educational Organization and Administration
- EDA 6107: Leading Change in Educational Organizations
- EDA 6192: Educational Leadership: The Individual
- EDA 6193: Educational Leadership: Instruction
- EDA 6195: Educational Policy Development
- EDA 6215: Communications in Educational Leadership
- EDA 6222: Administration of School Personnel
- EDA 6232: Public School Law
- EDA 6242: Public School Finance
- EDA 6271: Technology Leadership for Educational Administrators
- EDA 6423: Data-Driven Decision Making in Educational Organizations
- EDA 6503: The Principalship
- EDA 6905: Individual Work
- EDA 6931: Special Topics
- EDA 6948: Supervised Practice in School Administration
- EDA 6971: Research for Master's Thesis
- EDA 7206: Organizational Leadership in Education
- EDA 7945: Practicum in Supervision and Administration
- EDA 7979: Advanced Research
- EDA 7980: Research for Doctoral Dissertation
- EDA 7985: Research Design in Educational Administration
- EDF 6416: Quantitative Methods for Evaluation in Educational Environments
- EDF 6463: Culturally Responsive Evaluation in Educational Environments
- EDF 6464: Reading and Designing Qualitative Research
- EDF 6468: Evaluation Management for Grants in Educational Environments
- EDF 6492: Evaluation Communication and Ethics in the Educational Environment
- EDF 6973: Project in Lieu of Thesis
- EDF 7413: Advanced Topics in Structural Equation Modeling
- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EDG 6285: Evaluation in the School Program
- EDH 6006: The College Student
- EDH 6040: Theory of College Student Development
- EDH 6046: Diversity Issues in Higher Education
- EDH 6051: Educational Outcomes of American Colleges and Universities
- EDH 6053: The Community Junior College in America
- EDH 6065: History of American Higher Education
- EDH 6066: American Higher Education
- EDH 6305: College and University Teaching
- EDH 6360: Foundations and Functions of College Student Personnel
- EDH 6361: Theories and Assessment of Higher Educational Environments
- EDH 6503: Resource Development in Higher Education
- EDH 6632: Current Issues in Community College Leadership

- EDH 6637: Crisis Management in Higher Education
- EDH 6931: Special Topics in Higher Education
- EDH 6935: Seminar in College Student Personnel Administration
- EDH 6947: Practicum in Student Personnel
- EDH 7225: Seminar: Curriculum in Higher Education
- EDH 7405: The Law and Higher Education
- EDH 7505: The Financing of Higher Education
- EDH 7631: Administration of Instruction in Higher Education
- EDH 7634: Student Affairs Administration in Higher Education
- EDH 7635: Higher Education Administration
- EDH 7916: Contemporary Research on Higher Education
- EDH 7942: Group Supervision in Student Personnel
- EDH 7948: Internship in Student Personnel
- MHS 5005: Introduction to Counseling
- MHS 6000: Assessment and Treatment of Family Violence
- MHS 6020: Counseling in Community Settings
- MHS 6061: Spiritual Issues in Multicultural Counseling
- MHS 6071: Diagnosis and Treatment of Mental Disorders
- MHS 6200: Assessment in Counseling
- MHS 6340: Career Development
- MHS 6401: Counseling Theories and Applications
- MHS 6421: Play Counseling and Play Process with Children
- MHS 6428: Multicultural Counseling
- MHS 6430: Introduction to Family Counseling
- MHS 6440: Marriage and Couples Counseling
- MHS 6450: Substance Abuse Counseling
- MHS 6464: Introduction to Disaster Mental Health Counseling
- MHS 6466: Trauma and Crisis Intervention: Theory and Practice
- MHS 6467: Disaster Mental Health Counseling and Vulnerable Populations
- MHS 6469: Traumatic Stress and Disaster Mental Health Counseling
- MHS 6471: Sexuality and Mental Health
- MHS 6480: Developmental Counseling Over the Life Span
- MHS 6495: Counseling Lesbian, Gay, Bisexual, and Transgender Clients
- MHS 6500: Group Counseling: Theories and Procedures
- MHS 6705: Professional, Ethical, and Legal Issues in Marriage and Family Counseling
- MHS 6720: Professional Identity and Ethics in Counseling
- MHS 6831: Supervision for a Split Internship
- MHS 6910: Supervised Research
- MHS 6940: Supervised Teaching
- MHS 6971: Research for Master's Thesis
- MHS 7407: Advanced Counseling Theories
- MHS 7431: Advanced Family Counseling
- MHS 7600: Consultation Procedures
- MHS 7610: Practicum in Counseling Supervision
- MHS 7730: Seminar in Counseling Research
- MHS 7740: Research in Counseling

- MHS 7804: Group Supervision in Agency Counseling
- MHS 7805: Practicum in Agency Counseling
- MHS 7806: Practicum in Marriage and Family Counseling
- MHS 7807: Group Supervision in Marriage and Family Counseling
- MHS 7830: Internship in Counseling and Development-600 Hours
- MHS 7840: Internship in Counselor Education
- MHS 7946: Internship in Agency Program Management
- MHS 7979: Advanced Research
- MHS 7980: Research for Doctoral Dissertation
- SDS 6401: Counseling Skills for Non-Counselors
- SDS 6411: Counseling with Children
- SDS 6436: Family-School Intervention
- SDS 6620: Organization and Administration of School Counseling Programs
- SDS 6831: Supervision for a Split Internship
- SDS 6905: Individual Work
- SDS 6936: Seminar in Counselor Education
- SDS 6938: Special Topics
- SDS 7800: Practicum in School Counseling
- SDS 7820: Group Supervision in School Counseling
- SDS 7830: Internship in Counseling and Development-600 Hours

Research and Evaluation Methodology

College of Education
Human Development and Organizational Studies in Education

Research and Evaluation Methodology Program Information

The mission of the Research and Evaluation Methodology program is to generate, evaluate, apply and disseminate knowledge about educational research methodology, to prepare exemplary educational research methodologists, and to collaborate with others to provide methodology for the advancement of educational research. This mission aligns with College of Education's and University of Florida's missions because it results in research strategies for knowledge discovery to solve critical educational and human problems in a diverse global community.

- Learn to evaluate educational programs, analyze educational data, develop assessment instruments, and conduct research about the e¬fficacy of research methodologies.

- Work as an educational researcher, an educational data analyst, or a psychometrician (an expert in testing and assessment).

- Find jobs in testing companies; research and evaluation companies; research centers; and assessment centers at universities, school districts, and state and federal agencies.

- Complete a master's degree (M.A.E. or M.Ed.) in two years or a Ph.D. in four years with classes focusing on research methodology, statistics applied to education, program evaluation, and psychometrics.

- We admit students with some undergraduate research experience. Our students come from a variety of backgrounds, including psychology, sociology, statistics, mathematics, mathematics education, political science, marketing, economics, and engineering.

Degrees Offered with a Major in Research and Evaluation Methodology

Doctor of Education
Doctor of Philosophy
Master of Arts in Education
Master of Education

Research and Evaluation Methodology

- EDF 5441: Assessment in General and Exceptional Student Education
- EDF 6113: Educational Psychology: Human Development
- EDF 6211: Educational Psychology: General
- EDF 6215: Educational Psychology: Learning Theory
- EDF 6232: Principles of Learning and Instructional Practice
- EDF 6400: Quantitative Foundations of Education Research Overview
- EDF 6401: Educational Statistics
- EDF 6402: Quantitative Foundations in Educational Research: Inferential Statistics
- EDF 6403: Quantitative Foundations of Educational Research
- EDF 6436: Theory of Measurement
- EDF 6471: Survey Design and Analysis in Educational Research
- EDF 6475: Qualitative Foundations of Educational Research
- EDF 6481: Quantitative Research Methods in Education
- EDF 6905: Individual Study
- EDF 6910: Supervised Research
- EDF 6938: Special Topics
- EDF 6940: Supervised Teaching
- EDF 6941: Practicum in Educational Research
- EDF 6971: Research for Master's Thesis
- EDF 7117: Affective Development and Education
- EDF 7405: Advanced Quantitative Foundations of Educational Research
- EDF 7412: Structural Equation Models
- EDF 7435: Rating Scale Design and Analysis in Educational Research
- EDF 7439: Item Response Theory
- EDF 7474: Multilevel Models
- EDF 7479: Qualitative Data Analysis: Approaches and Techniques
- EDF 7483: Qualitative Data Collection: Approaches and Techniques
- EDF 7486: Methods of Educational Research
- EDF 7491: Evaluation of Educational Products and Systems
- EDF 7639: Research in Educational Sociology
- EDF 7931: Seminar in Educational Research
- EDF 7932: Multivariate Analysis in Educational Research
- EDF 7979: Advanced Research
- EDF 7980: Research for Doctoral Dissertation
- EDP 6052: Cognitive Psychology Applied to Education

Human Development and Organizational Studies in Education Departmental Courses

- EDA 6061: Educational Organization and Administration
- EDA 6107: Leading Change in Educational Organizations
- EDA 6192: Educational Leadership: The Individual
- EDA 6193: Educational Leadership: Instruction
- EDA 6195: Educational Policy Development
- EDA 6215: Communications in Educational Leadership
- EDA 6222: Administration of School Personnel
- EDA 6232: Public School Law
- EDA 6242: Public School Finance
- EDA 6271: Technology Leadership for Educational Administrators
- EDA 6423: Data-Driven Decision Making in Educational Organizations
- EDA 6503: The Principalship
- EDA 6905: Individual Work
- EDA 6931: Special Topics
- EDA 6948: Supervised Practice in School Administration
- EDA 6971: Research for Master's Thesis
- EDA 7206: Organizational Leadership in Education
- EDA 7945: Practicum in Supervision and Administration
- EDA 7979: Advanced Research
- EDA 7980: Research for Doctoral Dissertation
- EDA 7985: Research Design in Educational Administration
- EDF 6416: Quantitative Methods for Evaluation in Educational Environments
- EDF 6463: Culturally Responsive Evaluation in Educational Environments
- EDF 6464: Reading and Designing Qualitative Research
- EDF 6468: Evaluation Management for Grants in Educational Environments
- EDF 6492: Evaluation Communication and Ethics in the Educational Environment
- EDF 6973: Project in Lieu of Thesis
- EDF 7413: Advanced Topics in Structural Equation Modeling
- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EDG 6285: Evaluation in the School Program
- EDH 6006: The College Student
- EDH 6040: Theory of College Student Development
- EDH 6046: Diversity Issues in Higher Education
- EDH 6051: Educational Outcomes of American Colleges and Universities
- EDH 6053: The Community Junior College in America
- EDH 6065: History of American Higher Education
- EDH 6066: American Higher Education
- EDH 6305: College and University Teaching
- EDH 6360: Foundations and Functions of College Student Personnel
- EDH 6361: Theories and Assessment of Higher Educational Environments
- EDH 6503: Resource Development in Higher Education
- EDH 6632: Current Issues in Community College Leadership
- EDH 6637: Crisis Management in Higher Education
- EDH 6931: Special Topics in Higher Education
- EDH 6935: Seminar in College Student Personnel Administration

- EDH 6947: Practicum in Student Personnel
- EDH 7225: Seminar: Curriculum in Higher Education
- EDH 7405: The Law and Higher Education
- EDH 7505: The Financing of Higher Education
- EDH 7631: Administration of Instruction in Higher Education
- EDH 7634: Student Affairs Administration in Higher Education
- EDH 7635: Higher Education Administration
- EDH 7916: Contemporary Research on Higher Education
- EDH 7942: Group Supervision in Student Personnel
- EDH 7948: Internship in Student Personnel
- MHS 5005: Introduction to Counseling
- MHS 6000: Assessment and Treatment of Family Violence
- MHS 6020: Counseling in Community Settings
- MHS 6061: Spiritual Issues in Multicultural Counseling
- MHS 6071: Diagnosis and Treatment of Mental Disorders
- MHS 6200: Assessment in Counseling
- MHS 6340: Career Development
- MHS 6401: Counseling Theories and Applications
- MHS 6421: Play Counseling and Play Process with Children
- MHS 6428: Multicultural Counseling
- MHS 6430: Introduction to Family Counseling
- MHS 6440: Marriage and Couples Counseling
- MHS 6450: Substance Abuse Counseling
- MHS 6464: Introduction to Disaster Mental Health Counseling
- MHS 6466: Trauma and Crisis Intervention: Theory and Practice
- MHS 6467: Disaster Mental Health Counseling and Vulnerable Populations
- MHS 6469: Traumatic Stress and Disaster Mental Health Counseling
- MHS 6471: Sexuality and Mental Health
- MHS 6480: Developmental Counseling Over the Life Span
- MHS 6495: Counseling Lesbian, Gay, Bisexual, and Transgender Clients
- MHS 6500: Group Counseling: Theories and Procedures
- MHS 6705: Professional, Ethical, and Legal Issues in Marriage and Family Counseling
- MHS 6720: Professional Identity and Ethics in Counseling
- MHS 6831: Supervision for a Split Internship
- MHS 6910: Supervised Research
- MHS 6940: Supervised Teaching
- MHS 6971: Research for Master's Thesis
- MHS 7407: Advanced Counseling Theories
- MHS 7431: Advanced Family Counseling
- MHS 7600: Consultation Procedures
- MHS 7610: Practicum in Counseling Supervision
- MHS 7730: Seminar in Counseling Research
- MHS 7740: Research in Counseling
- MHS 7804: Group Supervision in Agency Counseling
- MHS 7805: Practicum in Agency Counseling
- MHS 7806: Practicum in Marriage and Family Counseling

- MHS 7807: Group Supervision in Marriage and Family Counseling
- MHS 7830: Internship in Counseling and Development-600 Hours
- MHS 7840: Internship in Counselor Education
- MHS 7946: Internship in Agency Program Management
- MHS 7979: Advanced Research
- MHS 7980: Research for Doctoral Dissertation
- SDS 6401: Counseling Skills for Non-Counselors
- SDS 6411: Counseling with Children
- SDS 6436: Family-School Intervention
- SDS 6620: Organization and Administration of School Counseling Programs
- SDS 6831: Supervision for a Split Internship
- SDS 6905: Individual Work
- SDS 6936: Seminar in Counselor Education
- SDS 6938: Special Topics
- SDS 7800: Practicum in School Counseling
- SDS 7820: Group Supervision in School Counseling
- SDS 7830: Internship in Counseling and Development-600 Hours

School Counseling and Guidance

College of Education
Human Development and Organizational Studies in Education

School Counseling and Guidance Program Information

The M.Ed./Ed.S. and M.AE./Ed.S. program in School Counseling is designed to equip students with the pre-professional competencies required for Florida Department of Education Certification in School Counseling. The 72-credit hour program provides students with the specialized knowledge and skills required for placements as school counselors in public or private elementary, middle, or secondary schools.

Students enrolled in the School Counseling program, a state-approved and CAEP (Council for the Accreditation of Educator Preparation) and CACREP (Council for the Accreditation of Counseling and Related Educational Programs) accredited school counselor preparation program, must provide passing scores for all pertinent sections of the Florida Teacher Certification Examination (FTCE) including the General Knowledge test (math, English language skills, reading comprehension, and essay), the Professional Education examination, and the Subject Area Examination in Guidance and Counseling K-12 prior to graduation from the program. Questions about this requirement or any other certification related questions may be addressed to the College of Education Office of Student Services.

Degrees Offered with a Major in School Counseling and Guidance

Doctor of Philosophy
Master of Arts in Education
Master of Education
Specialist in Education

Human Development and Organizational Studies in Education Departmental Courses

- EDA 6061: Educational Organization and Administration
- EDA 6107: Leading Change in Educational Organizations
- EDA 6192: Educational Leadership: The Individual
- EDA 6193: Educational Leadership: Instruction
- EDA 6195: Educational Policy Development
- EDA 6215: Communications in Educational Leadership
- EDA 6222: Administration of School Personnel
- EDA 6232: Public School Law
- EDA 6242: Public School Finance
- EDA 6271: Technology Leadership for Educational Administrators
- EDA 6423: Data-Driven Decision Making in Educational Organizations
- EDA 6503: The Principalship
- EDA 6905: Individual Work
- EDA 6931: Special Topics
- EDA 6948: Supervised Practice in School Administration
- EDA 6971: Research for Master's Thesis
- EDA 7206: Organizational Leadership in Education
- EDA 7945: Practicum in Supervision and Administration
- EDA 7979: Advanced Research
- EDA 7980: Research for Doctoral Dissertation
- EDA 7985: Research Design in Educational Administration
- EDF 6416: Quantitative Methods for Evaluation in Educational Environments
- EDF 6463: Culturally Responsive Evaluation in Educational Environments
- EDF 6464: Reading and Designing Qualitative Research
- EDF 6468: Evaluation Management for Grants in Educational Environments
- EDF 6492: Evaluation Communication and Ethics in the Educational Environment
- EDF 6973: Project in Lieu of Thesis
- EDF 7413: Advanced Topics in Structural Equation Modeling
- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EDG 6285: Evaluation in the School Program
- EDH 6006: The College Student
- EDH 6040: Theory of College Student Development
- EDH 6046: Diversity Issues in Higher Education
- EDH 6051: Educational Outcomes of American Colleges and Universities
- EDH 6053: The Community Junior College in America
- EDH 6065: History of American Higher Education
- EDH 6066: American Higher Education
- EDH 6305: College and University Teaching
- EDH 6360: Foundations and Functions of College Student Personnel

- EDH 6361: Theories and Assessment of Higher Educational Environments
- EDH 6503: Resource Development in Higher Education
- EDH 6632: Current Issues in Community College Leadership
- EDH 6637: Crisis Management in Higher Education
- EDH 6931: Special Topics in Higher Education
- EDH 6935: Seminar in College Student Personnel Administration
- EDH 6947: Practicum in Student Personnel
- EDH 7225: Seminar: Curriculum in Higher Education
- EDH 7405: The Law and Higher Education
- EDH 7505: The Financing of Higher Education
- EDH 7631: Administration of Instruction in Higher Education
- EDH 7634: Student Affairs Administration in Higher Education
- EDH 7635: Higher Education Administration
- EDH 7916: Contemporary Research on Higher Education
- EDH 7942: Group Supervision in Student Personnel
- EDH 7948: Internship in Student Personnel
- MHS 5005: Introduction to Counseling
- MHS 6000: Assessment and Treatment of Family Violence
- MHS 6020: Counseling in Community Settings
- MHS 6061: Spiritual Issues in Multicultural Counseling
- MHS 6071: Diagnosis and Treatment of Mental Disorders
- MHS 6200: Assessment in Counseling
- MHS 6340: Career Development
- MHS 6401: Counseling Theories and Applications
- MHS 6421: Play Counseling and Play Process with Children
- MHS 6428: Multicultural Counseling
- MHS 6430: Introduction to Family Counseling
- MHS 6440: Marriage and Couples Counseling
- MHS 6450: Substance Abuse Counseling
- MHS 6464: Introduction to Disaster Mental Health Counseling
- MHS 6466: Trauma and Crisis Intervention: Theory and Practice
- MHS 6467: Disaster Mental Health Counseling and Vulnerable Populations
- MHS 6469: Traumatic Stress and Disaster Mental Health Counseling
- MHS 6471: Sexuality and Mental Health
- MHS 6480: Developmental Counseling Over the Life Span
- MHS 6495: Counseling Lesbian, Gay, Bisexual, and Transgender Clients
- MHS 6500: Group Counseling: Theories and Procedures
- MHS 6705: Professional, Ethical, and Legal Issues in Marriage and Family Counseling
- MHS 6720: Professional Identity and Ethics in Counseling
- MHS 6831: Supervision for a Split Internship
- MHS 6910: Supervised Research
- MHS 6940: Supervised Teaching
- MHS 6971: Research for Master's Thesis
- MHS 7407: Advanced Counseling Theories
- MHS 7431: Advanced Family Counseling
- MHS 7600: Consultation Procedures

- MHS 7610: Practicum in Counseling Supervision
- MHS 7730: Seminar in Counseling Research
- MHS 7740: Research in Counseling
- MHS 7804: Group Supervision in Agency Counseling
- MHS 7805: Practicum in Agency Counseling
- MHS 7806: Practicum in Marriage and Family Counseling
- MHS 7807: Group Supervision in Marriage and Family Counseling
- MHS 7830: Internship in Counseling and Development-600 Hours
- MHS 7840: Internship in Counselor Education
- MHS 7946: Internship in Agency Program Management
- MHS 7979: Advanced Research
- MHS 7980: Research for Doctoral Dissertation
- SDS 6401: Counseling Skills for Non-Counselors
- SDS 6411: Counseling with Children
- SDS 6436: Family-School Intervention
- SDS 6620: Organization and Administration of School Counseling Programs
- SDS 6831: Supervision for a Split Internship
- SDS 6905: Individual Work
- SDS 6936: Seminar in Counselor Education
- SDS 6938: Special Topics
- SDS 7800: Practicum in School Counseling
- SDS 7820: Group Supervision in School Counseling
- SDS 7830: Internship in Counseling and Development-600 Hours

Student Personnel in Higher Education

College of Education
Human Development and Organizational Studies in Education

Student Personnel in Higher Education Program Information

The University of Florida Student Personnel in Higher Education program is a master's program designed to prepare students to enter Student Affairs leadership positions in two- and four-year institutions of higher education. The program integrates academic coursework with practitioner-based experience. The SPHE master's degree consists of 36 credit hours of core classes and 10 credit hours of supervised practicum and internship experiences (total = 46 credit hours). Students enter the graduate program in the fall semester as members of a cohort group. The group provides support and builds a sense of community for the students. All students are assigned a faculty advisor at the time of admission.

The student affairs profession is increasingly diverse and is engaged in a variety of activities and programs. The emphasis in UF's master's degree program in SPHE is upon the promotion, design, and assessment of student learning in a variety of campus and community settings.

Degrees Offered with a Major in Student Personnel in Higher Education

Master of Arts in Education
Master of Education

Human Development and Organizational Studies in Education Departmental Courses

- EDA 6061: Educational Organization and Administration
- EDA 6107: Leading Change in Educational Organizations
- EDA 6192: Educational Leadership: The Individual
- EDA 6193: Educational Leadership: Instruction
- EDA 6195: Educational Policy Development
- EDA 6215: Communications in Educational Leadership
- EDA 6222: Administration of School Personnel
- EDA 6232: Public School Law
- EDA 6242: Public School Finance
- EDA 6271: Technology Leadership for Educational Administrators
- EDA 6423: Data-Driven Decision Making in Educational Organizations
- EDA 6503: The Principalship
- EDA 6905: Individual Work
- EDA 6931: Special Topics
- EDA 6948: Supervised Practice in School Administration
- EDA 6971: Research for Master's Thesis
- EDA 7206: Organizational Leadership in Education
- EDA 7945: Practicum in Supervision and Administration
- EDA 7979: Advanced Research
- EDA 7980: Research for Doctoral Dissertation
- EDA 7985: Research Design in Educational Administration
- EDF 6416: Quantitative Methods for Evaluation in Educational Environments
- EDF 6463: Culturally Responsive Evaluation in Educational Environments
- EDF 6464: Reading and Designing Qualitative Research
- EDF 6468: Evaluation Management for Grants in Educational Environments
- EDF 6492: Evaluation Communication and Ethics in the Educational Environment
- EDF 6973: Project in Lieu of Thesis
- EDF 7413: Advanced Topics in Structural Equation Modeling
- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EDG 6285: Evaluation in the School Program
- EDH 6006: The College Student
- EDH 6040: Theory of College Student Development
- EDH 6046: Diversity Issues in Higher Education
- EDH 6051: Educational Outcomes of American Colleges and Universities
- EDH 6053: The Community Junior College in America
- EDH 6065: History of American Higher Education
- EDH 6066: American Higher Education
- EDH 6305: College and University Teaching
- EDH 6360: Foundations and Functions of College Student Personnel
- EDH 6361: Theories and Assessment of Higher Educational Environments
- EDH 6503: Resource Development in Higher Education

- EDH 6632: Current Issues in Community College Leadership
- EDH 6637: Crisis Management in Higher Education
- EDH 6931: Special Topics in Higher Education
- EDH 6935: Seminar in College Student Personnel Administration
- EDH 6947: Practicum in Student Personnel
- EDH 7225: Seminar: Curriculum in Higher Education
- EDH 7405: The Law and Higher Education
- EDH 7505: The Financing of Higher Education
- EDH 7631: Administration of Instruction in Higher Education
- EDH 7634: Student Affairs Administration in Higher Education
- EDH 7635: Higher Education Administration
- EDH 7916: Contemporary Research on Higher Education
- EDH 7942: Group Supervision in Student Personnel
- EDH 7948: Internship in Student Personnel
- MHS 5005: Introduction to Counseling
- MHS 6000: Assessment and Treatment of Family Violence
- MHS 6020: Counseling in Community Settings
- MHS 6061: Spiritual Issues in Multicultural Counseling
- MHS 6071: Diagnosis and Treatment of Mental Disorders
- MHS 6200: Assessment in Counseling
- MHS 6340: Career Development
- MHS 6401: Counseling Theories and Applications
- MHS 6421: Play Counseling and Play Process with Children
- MHS 6428: Multicultural Counseling
- MHS 6430: Introduction to Family Counseling
- MHS 6440: Marriage and Couples Counseling
- MHS 6450: Substance Abuse Counseling
- MHS 6464: Introduction to Disaster Mental Health Counseling
- MHS 6466: Trauma and Crisis Intervention: Theory and Practice
- MHS 6467: Disaster Mental Health Counseling and Vulnerable Populations
- MHS 6469: Traumatic Stress and Disaster Mental Health Counseling
- MHS 6471: Sexuality and Mental Health
- MHS 6480: Developmental Counseling Over the Life Span
- MHS 6495: Counseling Lesbian, Gay, Bisexual, and Transgender Clients
- MHS 6500: Group Counseling: Theories and Procedures
- MHS 6705: Professional, Ethical, and Legal Issues in Marriage and Family Counseling
- MHS 6720: Professional Identity and Ethics in Counseling
- MHS 6831: Supervision for a Split Internship
- MHS 6910: Supervised Research
- MHS 6940: Supervised Teaching
- MHS 6971: Research for Master's Thesis
- MHS 7407: Advanced Counseling Theories
- MHS 7431: Advanced Family Counseling
- MHS 7600: Consultation Procedures
- MHS 7610: Practicum in Counseling Supervision
- MHS 7730: Seminar in Counseling Research

- MHS 7740: Research in Counseling
- MHS 7804: Group Supervision in Agency Counseling
- MHS 7805: Practicum in Agency Counseling
- MHS 7806: Practicum in Marriage and Family Counseling
- MHS 7807: Group Supervision in Marriage and Family Counseling
- MHS 7830: Internship in Counseling and Development-600 Hours
- MHS 7840: Internship in Counselor Education
- MHS 7946: Internship in Agency Program Management
- MHS 7979: Advanced Research
- MHS 7980: Research for Doctoral Dissertation
- SDS 6401: Counseling Skills for Non-Counselors
- SDS 6411: Counseling with Children
- SDS 6436: Family-School Intervention
- SDS 6620: Organization and Administration of School Counseling Programs
- SDS 6831: Supervision for a Split Internship
- SDS 6905: Individual Work
- SDS 6936: Seminar in Counselor Education
- SDS 6938: Special Topics
- SDS 7800: Practicum in School Counseling
- SDS 7820: Group Supervision in School Counseling
- SDS 7830: Internship in Counseling and Development-600 Hours

Special Education, School Psychology and Early Childhood Studies Department

Director: Holly Lane

The School of Special Education, School Psychology, and Early Childhood Studies offers online and face-to-face programs leading to the Master of Education (M.Ed., non-thesis), Master of Arts in Education (M.A.E., thesis), Specialist in Education (Ed.S.), Doctor of Education (Ed.D.), and Doctor of Philosophy (Ph.D.) degrees. Complete descriptions of the requirements for these degrees are provided in the *General Information* section of this catalog.

The School offers graduate study and research experience in 3 areas of specialization: Special Education; School Psychology; and Early Childhood Studies. Programs are accredited by the Florida Department of Education and approved by the National Council for Accreditation of Teacher Education (NCATE). The School Psychology program is approved by the NCATE and the National Association of School Psychologists (NASP). The Ph.D. program in School Psychology is accredited by the American Psychological Association (APA).

For more information, please visit https://education.ufl.edu/special-education/.

Early Childhood Education

College of Education
Special Education, School Psychology and Early Childhood Studies Department

Degrees Offered with a Major in Early Childhood Education

Master of Arts in Education
Master of Education

Early Childhood Education Courses

- EEC 6205: Early Childhood Curriculum
- EEC 6304: Creativity in the Early Childhood Curriculum
- EEC 6525: Issues in Child Care Administration
- EEC 6615: Early Childhood Education: Background and Concepts
- EEC 6905: Individual Work
- EEC 6910: Supervised Research
- EEC 6933: Special Topics
- EEC 6940: Supervised Teaching
- EEC 7056: Early Childhood Policy and Advocacy
- EEC 7617: Early Childhood Asessment & Evaluation
- EEC 7666: Theory and Research in Early Childhood Studies
- EEC 7979: Advanced Research
- EEC 7980: Research for Doctoral Dissertation

Special Education, School Psychology and Early Childhood Studies Departmental Courses

- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EEC 6205: Early Childhood Curriculum
- EEC 6304: Creativity in the Early Childhood Curriculum
- EEC 6525: Issues in Child Care Administration
- EEC 6615: Early Childhood Education: Background and Concepts
- EEC 6905: Individual Work
- EEC 6910: Supervised Research
- EEC 6933: Special Topics
- EEC 6946: Practicum in Early Childhood Education
- EEC 7617: Early Childhood Asessment & Evaluation
- EEC 7666: Theory and Research in Early Childhood Studies
- EEC 7979: Advanced Research
- EEC 7980: Research for Doctoral Dissertation
- EEX 6053: Foundations of Special Education
- EEX 6098: Students with Disabilities in Higher Education
- EEX 6099: Social Perspectives on Disability
- EEX 6117: Language and Literacy Interventions in Early Childhood
- EEX 6135: Foundations of Literacy Development and Dyslexia
- EEX 6136: Dyslexia: Language and the Brain
- EEX 6137: Dyslexia: Assessment for Intervention

- EEX 6138: Dyslexia: Methods for Intervention
- EEX 6233: Designing Instruction for Inclusive Classrooms
- EEX 6269: Academic Strategies for Postsecondary Students with Disabilities
- EEX 6299: Understanding Assessment for Postsecondary Students with Disabilities
- EEX 6525: Disability Related Policy and Legislation
- EEX 6777: Organizational and Life Skills for Postsecondary Students with Disabilities
- EEX 6778: Community and Work Access for Individuals with Disabilities
- EEX 6785: Introduction to Education-Healthcare Transition
- EEX 6786: Collaborative Practice in Inclusive Schools
- EEX 6788: Methods for Integrating Education-Health Care Transition
- EEX 6789: Legal Aspects and Policy in Education-Healthcare Transition
- EEX 6817: Seminar in Education-Healthcare Transition (E-HCT)
- EEX 6841: Practicum in Special Education: Mild Disabilities
- EEX 6855: Dyslexia: Practicum in Dyslexia Assessment and Intervention
- EEX 6863: Supervised Practice in Special Education
- EEX 6930: Seminar in Disabilities
- EEX 7709: Social-Emotional Learning & Play in Early Childhood
- SPS 5000: Introduction to Psychoeducational Assessment
- SPS 7980: Research for Doctoral Dissertation

School Psychology

College of Education
Special Education, School Psychology and Early Childhood Studies Department

Degrees Offered with a Major in School Psychology

Doctor of Education
Doctor of Philosophy
concentration in Early Childhood Studies
Master of Arts in Education
Master of Education
Specialist in Education

School Psychology Courses

- SPS 6052: Issues and Problems in School Psychology
- SPS 6191: Psychoeducational Assessment I
- SPS 6192: Psychoeducational Assessment II
- SPS 6193: Academic Assessment & Intervention
- SPS 6195: Developmental Psychopathology
- SPS 6197: Psychoeducational Assessment III
- SPS 6410: Direct Interventions I: Applied Behavior Analysis for School Psychologists
- SPS 6707: Interventions in School Psychology II: Cognitive Behavioral Interventions
- SPS 6708: Interventions in School Psychology III: System Level Interventions for Children and Youths
- SPS 6815: Law and Ethics in Psychology
- SPS 6937: Special Topics in School Psychology
- SPS 6941: Practicum in School Psychology

- SPS 6942: School Psychology Practicum II
- SPS 6945: Advanced Practicum in School Psychology
- SPS 7205: School Psychology Consultation
- SPS 7931: Seminar in School Psychology
- SPS 7949: Internship in School Psychology
- SPS 7979: Advanced Research
- SPS 7980: Research for Doctoral Dissertation

Special Education, School Psychology and Early Childhood Studies Departmental Courses

- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EEC 6205: Early Childhood Curriculum
- EEC 6304: Creativity in the Early Childhood Curriculum
- EEC 6525: Issues in Child Care Administration
- EEC 6615: Early Childhood Education: Background and Concepts
- EEC 6905: Individual Work
- EEC 6910: Supervised Research
- EEC 6933: Special Topics
- EEC 6946: Practicum in Early Childhood Education
- EEC 7617: Early Childhood Asessment & Evaluation
- EEC 7666: Theory and Research in Early Childhood Studies
- EEC 7979: Advanced Research
- EEC 7980: Research for Doctoral Dissertation
- EEX 6053: Foundations of Special Education
- EEX 6098: Students with Disabilities in Higher Education
- EEX 6099: Social Perspectives on Disability
- EEX 6117: Language and Literacy Interventions in Early Childhood
- EEX 6135: Foundations of Literacy Development and Dyslexia
- EEX 6136: Dyslexia: Language and the Brain
- EEX 6137: Dyslexia: Assessment for Intervention
- EEX 6138: Dyslexia: Methods for Intervention
- EEX 6233: Designing Instruction for Inclusive Classrooms
- EEX 6269: Academic Strategies for Postsecondary Students with Disabilities
- EEX 6299: Understanding Assessment for Postsecondary Students with Disabilities
- EEX 6525: Disability Related Policy and Legislation
- EEX 6777: Organizational and Life Skills for Postsecondary Students with Disabilities
- EEX 6778: Community and Work Access for Individuals with Disabilities
- EEX 6785: Introduction to Education-Healthcare Transition
- EEX 6786: Collaborative Practice in Inclusive Schools
- EEX 6788: Methods for Integrating Education-Health Care Transition
- EEX 6789: Legal Aspects and Policy in Education-Healthcare Transition
- EEX 6817: Seminar in Education-Healthcare Transition (E-HCT)
- EEX 6841: Practicum in Special Education: Mild Disabilities
- EEX 6855: Dyslexia: Practicum in Dyslexia Assessment and Intervention
- EEX 6863: Supervised Practice in Special Education
- EEX 6930: Seminar in Disabilities
- EEX 7709: Social-Emotional Learning & Play in Early Childhood

- SPS 5000: Introduction to Psychoeducational Assessment
- SPS 7980: Research for Doctoral Dissertation

Special Education

College of Education
Special Education, School Psychology and Early Childhood Studies Department

Degrees Offered with a Major in Special Education

Doctor of Education
Doctor of Philosophy
concentration in Early Childhood Studies
Master of Arts in Education
Master of Education
Specialist in Education

Special Education Courses

- EEX 5940: Supervised Student Teaching in Special Education
- EEX 6053: Foundations of Special Education
- EEX 6072: Accessing Academic and Social Communities for Students with Disabilities
- EEX 6125: Interventions for Language and Learning Disabilities
- EEX 6219: Reading Assessment and Intervention for Students with Disabilities
- EEX 6222: Evaluation in Special Education
- EEX 6233: Designing Instruction for Inclusive Classrooms
- EEX 6249: Advanced Strategies for Teaching Students with Disabilities
- EEX 6661: Teaching and Managing Behavior for Student Learning
- EEX 6750: Families and Transition for Students with Disabilities
- EEX 6786: Collaborative Practice in Inclusive Schools
- EEX 6835: Practicum in Special Education: Severe Disabilities
- EEX 6841: Practicum in Special Education: Mild Disabilities
- EEX 6863: Supervised Practice in Special Education
- EEX 6905: Individual Work
- EEX 6910: Supervised Research
- EEX 6936: Special Topics
- EEX 6940: Supervised Teaching
- EEX 6971: Research for Master's Thesis
- EEX 6296: Differentiated Instruction
- EEX 7303: Inquiry in Special Education: Analysis of the Literature
- EEX 7304: Introduction to Field of Inquiry in Special Education
- EEX 7526: Grant Writing Seminar in Education
- EEX 7787: School Improvement for All Students
- EEX 7865: Internship: Special Education
- EEX 7428: Teacher Education in Special Education
- EEX 7934: Seminar: Trends in Special Education
- EEX 7979: Advanced Research
- EEX 7980: Research for Doctoral Dissertation

- EGI 6051: Education of the Gifted Child
- EGI 6245: Program Development for the Gifted

Special Education, School Psychology and Early Childhood Studies Departmental Courses

- EDF 7482: Quasi-experimental Design and Analysis in Educational Research
- EEC 6205: Early Childhood Curriculum
- EEC 6304: Creativity in the Early Childhood Curriculum
- EEC 6525: Issues in Child Care Administration
- EEC 6615: Early Childhood Education: Background and Concepts
- EEC 6905: Individual Work
- EEC 6910: Supervised Research
- EEC 6933: Special Topics
- EEC 6946: Practicum in Early Childhood Education
- EEC 7617: Early Childhood Asessment & Evaluation
- EEC 7666: Theory and Research in Early Childhood Studies
- EEC 7979: Advanced Research
- EEC 7980: Research for Doctoral Dissertation
- EEX 6053: Foundations of Special Education
- EEX 6098: Students with Disabilities in Higher Education
- EEX 6099: Social Perspectives on Disability
- EEX 6117: Language and Literacy Interventions in Early Childhood
- EEX 6135: Foundations of Literacy Development and Dyslexia
- EEX 6136: Dyslexia: Language and the Brain
- EEX 6137: Dyslexia: Assessment for Intervention
- EEX 6138: Dyslexia: Methods for Intervention
- EEX 6233: Designing Instruction for Inclusive Classrooms
- EEX 6269: Academic Strategies for Postsecondary Students with Disabilities
- EEX 6299: Understanding Assessment for Postsecondary Students with Disabilities
- EEX 6525: Disability Related Policy and Legislation
- EEX 6777: Organizational and Life Skills for Postsecondary Students with Disabilities
- EEX 6778: Community and Work Access for Individuals with Disabilities
- EEX 6785: Introduction to Education-Healthcare Transition
- EEX 6786: Collaborative Practice in Inclusive Schools
- EEX 6788: Methods for Integrating Education-Health Care Transition
- EEX 6789: Legal Aspects and Policy in Education-Healthcare Transition
- EEX 6817: Seminar in Education-Healthcare Transition (E-HCT)
- EEX 6841: Practicum in Special Education: Mild Disabilities
- EEX 6855: Dyslexia: Practicum in Dyslexia Assessment and Intervention
- EEX 6863: Supervised Practice in Special Education
- EEX 6930: Seminar in Disabilities
- EEX 7709: Social-Emotional Learning & Play in Early Childhood
- SPS 5000: Introduction to Psychoeducational Assessment
- SPS 7980: Research for Doctoral Dissertation

School of Teaching and Learning

Director: Ester de Jong
Graduate Coordinator: Alyson Adams

The School of Teaching and Learning (http://education.ufl.edu/school-teaching-learning) offers face-to-face and online programs leading to the Master of Education (M.Ed., non-thesis), Master of Arts in Education (M.A.E., thesis or project in lieu of thesis), Specialist in Education (Ed.S.), Doctor of Education (Ed.D.), and Doctor of Philosophy (Ph.D.) degrees. Descriptions of the programs are linked below, and official requirements for these degrees are provided in the Graduate Degrees section of this catalog.

Students pursuing the Ph.D. degree in Curriculum & Instruction gain research and teaching experience in one of 10 areas of specialization: Curriculum, Teaching, & Teacher Education (CTTE); Educational Technology; English Education; ESOL/Bilingual Education; Language Arts, Reading, & Children's Literature (LARC); Mathematics Education; Science & Environmental Education; Social Foundations of Education; Social Studies Education; and Statistics Education. The Ed.D. degree is a professional practice doctorate with two specialization areas for students to pursue online: Curriculum, Teaching, & Teacher Education (CTTE) and Educational Technology. Various forms of financial support are available to Ph.D. students through fellowships, scholarships, research assistantships, and teaching assistantships.

Students aspiring to careers in teaching will be interested the following programs. The nationally recognized ProTeach graduate program leads to the M.Ed. degree and state certification as a classroom teacher. Unified Elementary ProTeach admits undergraduates who complete the five-year program with a master's degree. Secondary Proteach (English, Science, Social Studies) prepares teachers who have completed a bachelor's degree in the discipline they will teach. Prospective elementary teachers who already hold a bachelor's degree in a non-education field may want to consider the School's SITE program (Site-based Implementation of Teacher Education).

The School of Teaching and Learning also offers graduate programs and specializations at the M.Ed., M.A.E, and Ed.S. degrees for students seeking to deepen their knowledge and to advance within their professions. These include Educational Technology, English Education, ESOL/bilingual Education, Language Arts, Reading & Children's Literature (LARC), Literacy & the Arts, Mathematics Education, Media Literacy Education, Reading Education, Science Education, Social Foundations of Education, Social Studies Education and Teacher Leadership for School Improvement (TLSI).

Curriculum and Instruction (CCD)

College of Education
School of Teaching and Learning

Curriculum and Instruction (CCD) Program Information

The School of Teaching & Learning's doctoral program in Curriculum & Instruction cultivates proficient scholars, teachers, and other educational professionals through an academically rigorous curriculum that balances theoretical and applied knowledge.

The Ed.D. is viewed as a professional practice doctorate wherein graduate students acquire and produce expert knowledge of how theoretical and empirical academic research can be applied in ways that foster school improvement in various contexts. The Ed.D. degree prepares students to advance within their professions and is not designed to prepare for faculty careers in higher education. Ed.D. students pursue specializations in one of two areas: Curriculum, Teaching, & Teacher Education (CTTE) and Educational Technology. Both specializations are offered to students online.

All doctoral students are required to complete successfully a minimum of 90 credits. Coursework includes research methodology and methods, educational curriculum and foundations, independent research, specialization seminars,

and at least 12 credit hours of dissertation work. To earn their doctoral degree, all students must complete their coursework satisfactorily, pass written and oral qualifying examinations, and successfully complete and defend a dissertation.

For more information, please see our website: http://education.ufl.edu/school-teaching-learning.

Degrees Offered with a Major in Curriculum and Instruction

Doctor of Education

School of Teaching and Learning Departmental Courses

- EDG 5666: Knowing and Learning in Secondary Schools
- EDG 6017: Writing for Academic Purposes
- EDG 6225: Global Studies Methods in K-12 Education
- EDG 6305: Multiple Perspectives on Teaching and Learning
- EDG 6348: Instructional Coaching for Enhanced Student Learning
- EDG 6356: Teaching, Learning and Assessment
- EDG 6378: Learning Science with Technology
- EDG 6445: Meeting the Educational Needs of Students Living in Poverty
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6953: TLSI Online Portfolio Preparation
- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7359: Professional Development and Teacher Learning
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EEC 6946: Practicum in Early Childhood Education
- EME 6059: Blended Learning Environments
- EME 6065: Human-Computer Interaction and the Learner
- EME 7345: Implementing Educational Technology Innovations (ETIs)
- MAE 6349: Classroom Contexts that Support Self-Regulated Learning and Mathematical Understanding
- MAE 6916: Inquiry in Mathematics Teaching

General Courses

- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6226: Foundations of Research in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6971: Research for Master's Thesis

- EDG 6973: Project in Lieu of Thesis
- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EME 6076: Virtual School Philosophy and Pedagogy
- EME 6156: Games and Simulations for Teaching and Learning
- EME 6235: Managing Educational Projects
- EME 6236: Distance Education Leadership and Management

Curriculum, Teaching, and Teacher Education

- EDE 5940: Integrated Teaching and Learning
- EDE 6225: Practices in Childhood Education
- EDE 6266: Teaching and Learning in Elementary Classrooms
- EDE 6325: Teacher Inquiry/Action Research
- EDE 6905: Individual Work
- EDE 6948: Internship in Elementary Schools
- EDE 7047: Issues in Teacher Education
- EDE 7935: Seminar in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7982: Practitioner Research: Theory & Practice

Educational Technology

- EME 5054: Foundations of Educational Technology
- EME 5207: Designing Technology-Rich Curricula
- EME 5315: Communicating with Technology
- EME 5316: Educational Technology Management Issues
- EME 5403: Instructional Computing I
- EME 5404: Instructional Computing II
- EME 5405: Internet in K-12 Instruction
- EME 5431: Integrating Technology in the Mathematics Classroom
- EME 5432: Integrating Technology into Social Science Classroom
- EME 5433: Integrating Technology into Science Classroom
- EME 6066: Issues and Trends in Educational Technology Research
- EME 6208: Designing Integrated Media Environments I
- EME 6209: Designing Integrated Media Environments II
- EME 6405: Educational Technology and Teaching
- EME 6458: Distance Teaching and Learning
- EME 6505: Educational Television Design and Production
- EME 6602: Human-Computer Interactivity and the Learner

- EME 6606: Advanced Instructional Design
- EME 6609: Instructional Design
- EME 6716: Organization and Administration of Educational Media Centers
- EME 6935: Seminar: Distance Education Issues and Applications
- EME 6945: Practicum in Educational Media and Instructional Design
- EME 7938: Seminar in Educational Media and Instructional Design

ESOL/Bilingual Education

- FLE 6165: Bilingual-Bicultural Education
- FLE 6167: Cross-Cultural Communication for Teachers
- FLE 6336: Teaching Foreign Languages in Elementary Schools
- FLE 6337: Methods of Teaching and Assessing Foreign Language in Secondary School
- FLE 6946: Practicum in Teaching and Assessing Foreign Languages at Secondary Level
- TSL 5142: ESOL Curriculum, Methods, and Assessment
- TSL 5325: Secondary ESOL Teaching Strategies
- TSL 6145: Curriculum and Materials Development for ESOL K-12
- TSL 6171: TESL I: Materials and Techniques
- TSL 6172: TESL II: Materials for Special Purposes
- TSL 6245: Language Principles for ESOL Teachers
- TSL 6373: Methods of Teaching ESOL K-12
- TSL 6440: Testing and Evaluation of ESOL
- TSL 6700: Issues in ESOL for School Counselors and Psychologists

Language and Literacy Education

- LAE 6298: Literacy & Language Instruction
- LAE 6339: Curriculum, Methods, and Assessment in Secondary English Language Arts
- LAE 6348: Teaching Multiliteracies
- LAE 6365: Language Arts: Language and Composition
- LAE 6366: Language Arts: Literature
- LAE 6407: Early Childhood Children's Literature
- LAE 6446: Multicultural Literature for Children and Adolescents
- LAE 6455: International Children's Literature
- LAE 6616: Seminar in Children's Literature
- LAE 6635: Teaching Adolescent Literature in the Secondary School
- LAE 6714: Children's Literature in the Childhood Curriculum
- LAE 6861: Technology and Media Literacy
- LAE 6865: Teaching Media Literacy with the Internet
- LAE 6869: Teaching Digital Storytelling
- LAE 6939: Literacy, Family, and Culture
- LAE 6945: Practicum and Assessment for Teachers of Secondary School English
- LAE 6946: Children's Literature in Educational Settings
- LAE 7006: Language Acquisition and Education
- LAE 7519: Language and Inquiry
- LAE 7934: Seminar in Composition Theory and Practice
- LAE 7936: Seminar in English Language Arts

Mathematics Education

- MAE 5327: Middle School Mathematics Methods
- MAE 5332: Secondary School Mathematics Methods and Assessment
- MAE 5395: Multicultural Mathematics Methods
- MAE 5396: Using Formative Assessment to Improve Mathematical Learning
- MAE 5347: Teaching K-8 Mathematics for Understanding
- MAE 5945: Secondary School Mathematics Practicum
- MAE 6313: Problem Solving in School Mathematics
- MAE 6615: Individualizing Instruction in Mathematics
- MAE 6641: Readings and Research in Mathematics Education
- MAE 7899: Mathematics Education Seminar

Reading Education

- RED 5046: Foundations of Reading in Grades PreK-12
- RED 5316: Reading in the Primary Grades
- RED 5337: Reading in the Secondary School
- RED 5355: Reading Instruction in the Intermediate Grades
- RED 5399: Practices in Beginning Reading Instruction
- RED 6346: Seminar in Reading
- RED 6520: Classroom Literacy Assessment and Instruction
- RED 6546C: Diagnosis of Reading Difficulties
- RED 6548C: Remediation of Reading Difficulties
- RED 6647: Trends in Reading
- RED 6941: Practicum in Diagnosis and Remediation of Reading Difficulties
- RED 7019: Foundations of Literacy
- RED 7817: Understanding Reading Difficulties

Science Education

- SCE 5140: Science Curriculum Development
- SCE 5316: Inquiry-Based Science Teaching
- SCE 5825: Foundations of Science Teaching
- SCE 5695: Diversity and Equity in Science Teaching
- SCE 5765: Data-Driven Science Instruction
- SCE 6045: Environmental Education Methods and Materials
- SCE 6117: Science Education in the Elementary School
- SCE 6246: Science Instruction in Informal Settings
- SCE 6337: Secondary Science Methods and Assessment
- SCE 6647: Global Studies Methods in Science Education
- SCE 6947: Practicum in Secondary Science Teaching and Assessment

Secondary Education

- EDM 6005: The Emergent Middle School
- EDM 6235: Interdisciplinary Planning, Teaching, and Assessment
- ESE 6215: The Secondary School Curriculum
- ESE 6344: Classroom Practices and Assessment in Secondary Education
- ESE 6345: Effective Teaching and Classroom Management
- ESE 6905: Individual Work

- ESE 6939: Special Topics
- ESE 6945: Student Teaching in Secondary School

Social Foundations of Education

- EDF 5552: Role of School in Democratic Society
- EDF 6520: History of Education
- EDF 6544: Philosophical Foundations of Education
- EDF 6606: Socioeconomic Foundations of Education
- EDF 6616: Education and American Culture
- EDF 6630: Educational Sociology
- EDF 6812: Comparative Education
- EDF 6820: Education in Latin America
- EDF 7555: Values and Ethics in Education
- EDF 7934: Seminar in Educational Foundations

Social Studies Education

- SSE 5320: Middle School Social Studies Methods
- SSE 5945C: Practicum in Secondary Social Studies Teaching and Assessment
- SSE 6046: Perspectives in Social Studies Education
- SSE 6117: Social Studies Education—Elementary School
- SSE 6133: Secondary School Social Studies Methods and Assessment
- SSE 6478: Global Studies Methods in Social Studies

Teacher Leadership for School Improvement

- EDE 6325: Teacher Inquiry/Action Research
- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6415: Culturally Responsive Classroom Management
- EDG 6953: TLSI Online Portfolio Preparation

Curriculum and Instruction (ISC)

College of Education
School of Teaching and Learning

Curriculum and Instruction (ISC) Program Information

The School of Teaching & Learning's graduate programs in Curriculum & Instruction cultivate proficient scholars, teachers, and other educational professionals through an academically rigorous curriculum that balances theoretical and applied knowledge.

The Ph.D. prepares graduate students to assume roles as faculty and other leaders in higher education. It is carefully designed to balance coursework, research projects, and teaching experiences for students to acquire the knowledge, dispositions, skills and abilities to become highly effective faculty and leaders in higher education. Program area faculty adhere to a comprehensive framework reflecting broad and multi-faceted conceptions of scholarship: Application, Discovery, Integration and Teaching. Students engage in research, teaching, professional service, and professional practice projects that further their familiarity with these domains. An array of subject area specializations for all Ph.D. students in Curriculum & Instruction fosters their intellectual and professional growth in greater depth. These include: Curriculum Teaching & Teacher Education (CTTE); Educational Technology; English Education; ESOL/Bilingual Education; Reading and Literacy Education; Mathematics Education; Science Education; Schools, Society and Culture; Social Studies Education; and Statistics Education. All doctoral students are required to complete successfully a minimum of 90 credits. Coursework includes research methodology and methods, educational curriculum and foundations, independent research, specialization seminars, and at least 12 credit hours of dissertation work. To earn their doctoral degree, all students must complete their coursework satisfactorily, pass written and oral qualifying examinations, and successfully complete and defend a dissertation.

The Master of Arts in Education (M.A.E.) in Curriculum & Instruction is designed to provide exposure to research and increase the practical knowledge of those interested in various aspects of Curriculum & Instruction. Specialization areas include: Educational Technology; ESOL/Bilingual Education; Reading and Literacy Education; Literacy & the Arts; Media Literacy Education; and Schools, Society and Culture. A thesis or final project in lieu of a thesis is required of all students. The LARC specialization is available both on-campus and online.

The Master of Education (M.Ed.) in Curriculum & Instruction is a professional degree designed to meet the needs of practicing and aspiring professionals to serve various functions in established and emerging educational activities. Specialization areas include: Educational Technology; ESOL/Bilingual Education; Schools, Society and Culture; and Teacher Leadership for School Improvement (TLSI). The Educational Technology and TLSI specializations are both available online.

The Specialist in Education (Ed.S.) in Curriculum & Instruction is a degree designed to meet the needs of practicing and aspiring professionals, who already hold a master's degree in an appropriate field, to serve various functions in established and emerging educational activities. Specialization areas include: Educational Technology; ESOL/Bilingual Education; Reading and Literacy Education; Literacy & the Arts; Media Literacy Education; Schools, Society and Culture; and Teacher Leadership for School Improvement (TLSI). The Educational Technology and TLSI specializations are both available online.

For more information, please see our website: http://education.ufl.edu/school-teaching-learning.

Degrees Offered with a Major in Curriculum and Instruction

Doctor of Philosophy
Master of Arts in Education
Master of Education
Specialist in Education

School of Teaching and Learning Departmental Courses

- EDG 5666: Knowing and Learning in Secondary Schools
- EDG 6017: Writing for Academic Purposes
- EDG 6225: Global Studies Methods in K-12 Education
- EDG 6305: Multiple Perspectives on Teaching and Learning
- EDG 6348: Instructional Coaching for Enhanced Student Learning
- EDG 6356: Teaching, Learning and Assessment
- EDG 6378: Learning Science with Technology
- EDG 6445: Meeting the Educational Needs of Students Living in Poverty
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6953: TLSI Online Portfolio Preparation
- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7359: Professional Development and Teacher Learning
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EEC 6946: Practicum in Early Childhood Education
- EME 6059: Blended Learning Environments
- EME 6065: Human-Computer Interaction and the Learner
- EME 7345: Implementing Educational Technology Innovations (ETIs)
- MAE 6349: Classroom Contexts that Support Self-Regulated Learning and Mathematical Understanding
- MAE 6916: Inquiry in Mathematics Teaching

General Courses

- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6226: Foundations of Research in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
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- EME 6156: Games and Simulations for Teaching and Learning
- EME 6235: Managing Educational Projects
- EME 6236: Distance Education Leadership and Management

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- EME 6405: Educational Technology and Teaching
- EME 6458: Distance Teaching and Learning
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- EME 6602: Human-Computer Interactivity and the Learner
- EME 6606: Advanced Instructional Design
- EME 6609: Instructional Design

- EME 6716: Organization and Administration of Educational Media Centers
- EME 6935: Seminar: Distance Education Issues and Applications
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- EME 7938: Seminar in Educational Media and Instructional Design

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- FLE 6165: Bilingual-Bicultural Education
- FLE 6167: Cross-Cultural Communication for Teachers
- FLE 6336: Teaching Foreign Languages in Elementary Schools
- FLE 6337: Methods of Teaching and Assessing Foreign Language in Secondary School
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- TSL 5142: ESOL Curriculum, Methods, and Assessment
- TSL 5325: Secondary ESOL Teaching Strategies
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- TSL 6172: TESL II: Materials for Special Purposes
- TSL 6245: Language Principles for ESOL Teachers
- TSL 6373: Methods of Teaching ESOL K-12
- TSL 6440: Testing and Evaluation of ESOL
- TSL 6700: Issues in ESOL for School Counselors and Psychologists

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- LAE 6446: Multicultural Literature for Children and Adolescents
- LAE 6455: International Children's Literature
- LAE 6616: Seminar in Children's Literature
- LAE 6635: Teaching Adolescent Literature in the Secondary School
- LAE 6714: Children's Literature in the Childhood Curriculum
- LAE 6861: Technology and Media Literacy
- LAE 6865: Teaching Media Literacy with the Internet
- LAE 6869: Teaching Digital Storytelling
- LAE 6939: Literacy, Family, and Culture
- LAE 6945: Practicum and Assessment for Teachers of Secondary School English
- LAE 6946: Children's Literature in Educational Settings
- LAE 7006: Language Acquisition and Education
- LAE 7519: Language and Inquiry
- LAE 7934: Seminar in Composition Theory and Practice
- LAE 7936: Seminar in English Language Arts

Mathematics Education

- MAE 5327: Middle School Mathematics Methods
- MAE 5332: Secondary School Mathematics Methods and Assessment

- MAE 5395: Multicultural Mathematics Methods
- MAE 5396: Using Formative Assessment to Improve Mathematical Learning
- MAE 5347: Teaching K-8 Mathematics for Understanding
- MAE 5945: Secondary School Mathematics Practicum
- MAE 6313: Problem Solving in School Mathematics
- MAE 6615: Individualizing Instruction in Mathematics
- MAE 6641: Readings and Research in Mathematics Education
- MAE 7899: Mathematics Education Seminar

Reading Education

- RED 5046: Foundations of Reading in Grades PreK-12
- RED 5316: Reading in the Primary Grades
- RED 5337: Reading in the Secondary School
- RED 5355: Reading Instruction in the Intermediate Grades
- RED 5399: Practices in Beginning Reading Instruction
- RED 6346: Seminar in Reading
- RED 6520: Classroom Literacy Assessment and Instruction
- RED 6546C: Diagnosis of Reading Difficulties
- RED 6548C: Remediation of Reading Difficulties
- RED 6647: Trends in Reading
- RED 6941: Practicum in Diagnosis and Remediation of Reading Difficulties
- RED 7019: Foundations of Literacy
- RED 7817: Understanding Reading Difficulties

Science Education

- SCE 5140: Science Curriculum Development
- SCE 5316: Inquiry-Based Science Teaching
- SCE 5825: Foundations of Science Teaching
- SCE 5695: Diversity and Equity in Science Teaching
- SCE 5765: Data-Driven Science Instruction
- SCE 6045: Environmental Education Methods and Materials
- SCE 6117: Science Education in the Elementary School
- SCE 6246: Science Instruction in Informal Settings
- SCE 6337: Secondary Science Methods and Assessment
- SCE 6647: Global Studies Methods in Science Education
- SCE 6947: Practicum in Secondary Science Teaching and Assessment

Secondary Education

- EDM 6005: The Emergent Middle School
- EDM 6235: Interdisciplinary Planning, Teaching, and Assessment
- ESE 6215: The Secondary School Curriculum
- ESE 6344: Classroom Practices and Assessment in Secondary Education
- ESE 6345: Effective Teaching and Classroom Management
- ESE 6905: Individual Work
- ESE 6939: Special Topics
- ESE 6945: Student Teaching in Secondary School

Social Foundations of Education

- EDF 5552: Role of School in Democratic Society
- EDF 6520: History of Education
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- EDF 6616: Education and American Culture
- EDF 6630: Educational Sociology
- EDF 6812: Comparative Education
- EDF 6820: Education in Latin America
- EDF 7555: Values and Ethics in Education
- EDF 7934: Seminar in Educational Foundations

Social Studies Education

- SSE 5320: Middle School Social Studies Methods
- SSE 5945C: Practicum in Secondary Social Studies Teaching and Assessment
- SSE 6046: Perspectives in Social Studies Education
- SSE 6117: Social Studies Education—Elementary School
- SSE 6133: Secondary School Social Studies Methods and Assessment
- SSE 6478: Global Studies Methods in Social Studies

Teacher Leadership for School Improvement

- EDE 6325: Teacher Inquiry/Action Research
- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6415: Culturally Responsive Classroom Management
- EDG 6953: TLSI Online Portfolio Preparation

Elementary Education

College of Education
School of Teaching and Learning

Elementary Education Program Information

The School of Teaching & Learning offers the Master of Education (M.Ed.) and Master of Arts in Education (M.A.E.) degrees in Elementary Education. More information about the requirements for these degrees can be found in the Graduate Degrees section of this catalog.

Master of Education (M.Ed.)

The School of Teaching & Learning offers two distinct programs for preparing and certifying elementary school teachers: the Unified Elementary Professional Teacher (UEP) Graduate Program and the Alternative Certification in Elementary Education (SITE) Program.

The Unified Elementary Professional Teacher (UEP) Graduate Program:

UEP is a 5-year elementary teacher preparation program that culminates in a Master's Degree in Education (M.Ed.). Students enter the program in the junior year of their undergraduate education. After successful completion of two years of undergraduate work in the program, students apply to graduate school and if accepted, complete a three-semester graduate year comprised of rigorous academic coursework and a yearlong internship in an elementary classroom.

The master's year is designed to deepen students' content knowledge while enhancing their pedagogical knowledge and instructional skills. It is a year for serious teacher preparation yielding highly effective graduates able to positively impact K-6 student learning from their first year of teaching, particularly elementary students who have shown patterns of underachievement including students with disabilities, students whose first language is not English, and students living in poverty. Master's students who successfully complete the program are eligible for Professional Teacher Certification in Florida (K-6) as well as the English for Speakers Of Other Languages (ESOL) Endorsement (K-12) and the Florida Reading Endorsement (K-12.)

Prerequisites: Students who expect to do graduate work in the Unified Elementary ProTeach program must first have successfully completed the undergraduate portion of the 5-year program earning a Bachelor's of Arts Degree in Education (B.A.E). A GPA of 3.0 is required for entry into the graduate portion of the program as well as an acceptable Graduate Record Examination (GRE) score, and three letters of recommendation.

For more information, please see our website: http://education.ufl.edu/elementary-education/proteach.

Alternative Certification in Elementary Education (SITE) Program:

The SITE program at the University of Florida is a state-designated Educator Preparation Institute (EPI) created to attract talented college graduates and career path changers with non-education majors to the elementary classroom. The yearlong teacher-residency program provides an alternative, accelerated pathway to teaching experience and certification for prospective teachers who possess an undergraduate degree outside of education. The clinical internship combines supervised classroom teaching and formal study, with successful completion leading to a master's (M.Ed.) degree in Elementary Education and national certification through the Council for the Accreditation of Educator Preparation (CAEP).

Many students come to the program with degrees or professional experience in fields such as accounting, business, English, family studies, history, journalism, nursing and psychology. Selection for entry into this full-time internship requires a 3.0 or higher undergraduate GPA; successful scores on the GRE; a stellar essay/statement of purpose; three

professional letters of recommendation; and a Statement of Status of Eligibility from the Florida Department of Education.

Interns complete 39 credit hours of study and classroom teaching over three semesters, all under the supervision of a school-based mentor and a university coach. The mentor teacher and intern teach side-by-side throughout the entire school year, while the UF coach makes regular classroom visits to problem-solve, observe and reflect on teaching skills, and provide individualized support. Along with their planning, teaching and coursework responsibilities, the interns become familiar with the school improvement goals and new programs initiated at their host schools. SITE coursework is taught by UF education professors and teachers in Alachua County elementary schools who all have proven expertise in K-12 teaching. Prospective teachers who complete the SITE Program are eligible to apply for a professional educator's certificate from the Florida Department of Education. Graduates wishing to teach in states other than Florida should contact the Department of Education in their state of choice for certification requirements there.

For additional information about the program please visit: http://education.ufl.edu/site.

Degrees Offered with a Major in Elementary Education

Master of Arts in Education
Master of Education

School of Teaching and Learning Departmental Courses

- EDG 5666: Knowing and Learning in Secondary Schools
- EDG 6017: Writing for Academic Purposes
- EDG 6225: Global Studies Methods in K-12 Education
- EDG 6305: Multiple Perspectives on Teaching and Learning
- EDG 6348: Instructional Coaching for Enhanced Student Learning
- EDG 6356: Teaching, Learning and Assessment
- EDG 6378: Learning Science with Technology
- EDG 6445: Meeting the Educational Needs of Students Living in Poverty
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6953: TLSI Online Portfolio Preparation
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- EDG 6973: Project in Lieu of Thesis
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7359: Professional Development and Teacher Learning
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EEC 6946: Practicum in Early Childhood Education
- EME 6059: Blended Learning Environments
- EME 6065: Human-Computer Interaction and the Learner
- EME 7345: Implementing Educational Technology Innovations (ETIs)
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- MAE 6916: Inquiry in Mathematics Teaching

General Courses

- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6226: Foundations of Research in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 6905: Individual Work
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- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
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- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EME 6076: Virtual School Philosophy and Pedagogy
- EME 6156: Games and Simulations for Teaching and Learning
- EME 6235: Managing Educational Projects
- EME 6236: Distance Education Leadership and Management

Curriculum, Teaching, and Teacher Education

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- EDE 7935: Seminar in Curriculum & Instruction
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- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7982: Practitioner Research: Theory & Practice

Educational Technology

- EME 5054: Foundations of Educational Technology
- EME 5207: Designing Technology-Rich Curricula
- EME 5315: Communicating with Technology
- EME 5316: Educational Technology Management Issues
- EME 5403: Instructional Computing I
- EME 5404: Instructional Computing II
- EME 5405: Internet in K-12 Instruction

- EME 5431: Integrating Technology in the Mathematics Classroom
- EME 5432: Integrating Technology into Social Science Classroom
- EME 5433: Integrating Technology into Science Classroom
- EME 6066: Issues and Trends in Educational Technology Research
- EME 6208: Designing Integrated Media Environments I
- EME 6209: Designing Integrated Media Environments II
- EME 6405: Educational Technology and Teaching
- EME 6458: Distance Teaching and Learning
- EME 6505: Educational Television Design and Production
- EME 6602: Human-Computer Interactivity and the Learner
- EME 6606: Advanced Instructional Design
- EME 6609: Instructional Design
- EME 6716: Organization and Administration of Educational Media Centers
- EME 6935: Seminar: Distance Education Issues and Applications
- EME 6945: Practicum in Educational Media and Instructional Design
- EME 7938: Seminar in Educational Media and Instructional Design

ESOL/Bilingual Education

- FLE 6165: Bilingual-Bicultural Education
- FLE 6167: Cross-Cultural Communication for Teachers
- FLE 6336: Teaching Foreign Languages in Elementary Schools
- FLE 6337: Methods of Teaching and Assessing Foreign Language in Secondary School
- FLE 6946: Practicum in Teaching and Assessing Foreign Languages at Secondary Level
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- TSL 5325: Secondary ESOL Teaching Strategies
- TSL 6145: Curriculum and Materials Development for ESOL K-12
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- LAE 6366: Language Arts: Literature
- LAE 6407: Early Childhood Children's Literature
- LAE 6446: Multicultural Literature for Children and Adolescents
- LAE 6455: International Children's Literature
- LAE 6616: Seminar in Children's Literature
- LAE 6635: Teaching Adolescent Literature in the Secondary School
- LAE 6714: Children's Literature in the Childhood Curriculum
- LAE 6861: Technology and Media Literacy
- LAE 6865: Teaching Media Literacy with the Internet

- LAE 6869: Teaching Digital Storytelling
- LAE 6939: Literacy, Family, and Culture
- LAE 6945: Practicum and Assessment for Teachers of Secondary School English
- LAE 6946: Children's Literature in Educational Settings
- LAE 7006: Language Acquisition and Education
- LAE 7519: Language and Inquiry
- LAE 7934: Seminar in Composition Theory and Practice
- LAE 7936: Seminar in English Language Arts

Mathematics Education

- MAE 5327: Middle School Mathematics Methods
- MAE 5332: Secondary School Mathematics Methods and Assessment
- MAE 5395: Multicultural Mathematics Methods
- MAE 5396: Using Formative Assessment to Improve Mathematical Learning
- MAE 5347: Teaching K-8 Mathematics for Understanding
- MAE 5945: Secondary School Mathematics Practicum
- MAE 6313: Problem Solving in School Mathematics
- MAE 6615: Individualizing Instruction in Mathematics
- MAE 6641: Readings and Research in Mathematics Education
- MAE 7899: Mathematics Education Seminar

Reading Education

- RED 5046: Foundations of Reading in Grades PreK-12
- RED 5316: Reading in the Primary Grades
- RED 5337: Reading in the Secondary School
- RED 5355: Reading Instruction in the Intermediate Grades
- RED 5399: Practices in Beginning Reading Instruction
- RED 6346: Seminar in Reading
- RED 6520: Classroom Literacy Assessment and Instruction
- RED 6546C: Diagnosis of Reading Difficulties
- RED 6548C: Remediation of Reading Difficulties
- RED 6647: Trends in Reading
- RED 6941: Practicum in Diagnosis and Remediation of Reading Difficulties
- RED 7019: Foundations of Literacy
- RED 7817: Understanding Reading Difficulties

Science Education

- SCE 5140: Science Curriculum Development
- SCE 5316: Inquiry-Based Science Teaching
- SCE 5825: Foundations of Science Teaching
- SCE 5695: Diversity and Equity in Science Teaching
- SCE 5765: Data-Driven Science Instruction
- SCE 6045: Environmental Education Methods and Materials
- SCE 6117: Science Education in the Elementary School
- SCE 6246: Science Instruction in Informal Settings
- SCE 6337: Secondary Science Methods and Assessment
- SCE 6647: Global Studies Methods in Science Education

- SCE 6947: Practicum in Secondary Science Teaching and Assessment

Secondary Education

- EDM 6005: The Emergent Middle School
- EDM 6235: Interdisciplinary Planning, Teaching, and Assessment
- ESE 6215: The Secondary School Curriculum
- ESE 6344: Classroom Practices and Assessment in Secondary Education
- ESE 6345: Effective Teaching and Classroom Management
- ESE 6905: Individual Work
- ESE 6939: Special Topics
- ESE 6945: Student Teaching in Secondary School

Social Foundations of Education

- EDF 5552: Role of School in Democratic Society
- EDF 6520: History of Education
- EDF 6544: Philosophical Foundations of Education
- EDF 6606: Socioeconomic Foundations of Education
- EDF 6616: Education and American Culture
- EDF 6630: Educational Sociology
- EDF 6812: Comparative Education
- EDF 6820: Education in Latin America
- EDF 7555: Values and Ethics in Education
- EDF 7934: Seminar in Educational Foundations

Social Studies Education

- SSE 5320: Middle School Social Studies Methods
- SSE 5945C: Practicum in Secondary Social Studies Teaching and Assessment
- SSE 6046: Perspectives in Social Studies Education
- SSE 6117: Social Studies Education—Elementary School
- SSE 6133: Secondary School Social Studies Methods and Assessment
- SSE 6478: Global Studies Methods in Social Studies

Teacher Leadership for School Improvement

- EDE 6325: Teacher Inquiry/Action Research
- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6415: Culturally Responsive Classroom Management
- EDG 6953: TLSI Online Portfolio Preparation

English Education

College of Education
School of Teaching and Learning

English Education Program Information

English Language Arts K-12

The School of Teaching & Learning offers the Master of Education (M.Ed.) and Master of Arts in Education (M.A.E.) degrees in English Education. More information about the requirements for these degrees can be found in the Graduate Degrees section of this catalog.

The English Language Arts K-12 program is focused on teaching the skills of literacy and the subject of English (literature, writing, and the study of texts). Two masters degrees are offered in English Education: a Masters of Education (M.Ed.) and a Masters of Art in Education (M.A.E.). Students may also earn a Ed.S. or Ph.D. in English Language Arts K-12. Students interested in second language learning and teaching, bilingualism, and multiculturalism might consider applying to the Advanced Studies in in ESOL Education/ Bilingual Education program.

Teacher Certification and the M.Ed. (ProTeach) Students seeking certification as English Language Arts teachers in Florida should enroll in English ProTeach. Students in this program have an undergraduate degree or coursework in English. During the program they examine processes for teaching texts and composition in secondary schools. Program graduates are eligible for a Florida Professional Teaching Certificate and for ESOL Endorsement. Students who successfully complete the ProTeach program are eligible for Professional Certification and are certified as "highly-qualified" teachers and seek employment as English Language Arts teachers in grades 6-12 classrooms. English ProTeach is a CAEP-approved program. Graduates may be eligible for certification in other states and are advised to investigate that possibility if they are not planning to teach in Florida. Please visit this website for additional information about the teacher certification and the M.Ed. (ProTeach): http://education.ufl.edu/english-education/degrees/ProTeach

Masters of Education (M.Ed.). Masters of Education students specializing in English language arts focus on teaching. They learn research-based classroom practices and develop understandings of how to support and enhance students' literacy. The M.Ed. is a non-thesis degree, and students complete a minimum of 36 hours. Students may elect a specialization area, such as Literacy and the Arts or Media Literacy Education.

Masters of Art in Education (M.A.E). Students earning the M.A.E with a focus on English language arts learn research-based classroom practices and theories of learning that support language and literacy development. They acquire an understanding of the literacy practices that define English language arts and develop facility in promoting those practices. They also consider how current issues in education intersect with literacy. Students may elect a specialization area such as Literacy and the Arts or Media Literacy Education (MLE courses are available online) as well as other areas of special interest. The M.A.E degree requires a thesis or project. Students confer with a faculty advisor to design a course of study focused on literacy development that supports their professional goals. The Master of Arts in Education with a focus on English Language Arts/literacy studies includes 30 hours of coursework and the completion of a 6-hour research or teaching project in collaboration with a faculty committee.

Educational Specialist Degree (Ed.S.). Students earning an Ed.S. in Curriculum and Instruction with a focus on English Language Arts/ literacy studies become familiar with theories of learning, the history of literacy studies, and current research in the discipline. They become familiar with Boyer's dimensions of scholarship and focus particularly on the scholarship of teaching and on the scholarship of integration by examining the role that those stances can play in promoting literacy development in praxis. Students work with a faculty member to design a course of study that meets their needs and professional goals and that fulfills the requirements of the UF Graduate School, the College of Education, and the School of Teaching and Learning. Students may elect to focus on teacher education and

professional development, critical literacy, multicultural literature, critical pedagogy, adolescent literacy, media literacy education, language acquisition and inquiry, literacy and the arts, or other areas of personal and professional interest.

The Doctor of Philosophy Degree (Ph.D.). The Ph.D. is the highest degree any university confers. Students who enter the doctoral program in Curriculum & Instruction with a specialization in English Education work with a faculty advisor to develop scholarship in language and literacy and to engage in professional research. Students meet with a faculty advisor and form a doctoral committee to develop a course of study that reflects their interests and professional goals. Students who earn the doctorate must meet all requirements of the UF Graduate School and the College of Education. They must also meet the requirements of the School of Teaching and Learning with a focus on four core areas of knowledge: Theoretical and Historical Foundations of Education, Learning Theories, Research Methods, and Pedagogical Principles. These areas provide doctoral students with the knowledge, skills and abilities to create and promote new knowledge and understandings about teaching and learning and to use innovative, evidence-based practice and theory to work with diverse learners across varied contexts. Additionally, English Education Ph.D. students develop deep insights into literacy events and practices and the many forms and functions embedded in the multiple sign systems humans use to make sense of their worlds and to express their understandings. Upon completion of coursework, students must take and pass a qualifying exam. As doctoral candidates, they embark upon dissertation research to complete a scholarly, theoretical, and research-based study that makes an original contribution to the literature in the field and culminates in the Ph.D. degree.

For more information, please visit the English Language Arts K-12 website.

Degrees Offered with a Major in English Education

Master of Arts in Education
Master of Education

School of Teaching and Learning Departmental Courses

- EDG 5666: Knowing and Learning in Secondary Schools
- EDG 6017: Writing for Academic Purposes
- EDG 6225: Global Studies Methods in K-12 Education
- EDG 6305: Multiple Perspectives on Teaching and Learning
- EDG 6348: Instructional Coaching for Enhanced Student Learning
- EDG 6356: Teaching, Learning and Assessment
- EDG 6378: Learning Science with Technology
- EDG 6445: Meeting the Educational Needs of Students Living in Poverty
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6953: TLSI Online Portfolio Preparation
- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7359: Professional Development and Teacher Learning
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EEC 6946: Practicum in Early Childhood Education
- EME 6059: Blended Learning Environments

- EME 6065: Human-Computer Interaction and the Learner
- EME 7345: Implementing Educational Technology Innovations (ETIs)
- MAE 6349: Classroom Contexts that Support Self-Regulated Learning and Mathematical Understanding
- MAE 6916: Inquiry in Mathematics Teaching

General Courses

- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6226: Foundations of Research in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EME 6076: Virtual School Philosophy and Pedagogy
- EME 6156: Games and Simulations for Teaching and Learning
- EME 6235: Managing Educational Projects
- EME 6236: Distance Education Leadership and Management

Curriculum, Teaching, and Teacher Education

- EDE 5940: Integrated Teaching and Learning
- EDE 6225: Practices in Childhood Education
- EDE 6266: Teaching and Learning in Elementary Classrooms
- EDE 6325: Teacher Inquiry/Action Research
- EDE 6905: Individual Work
- EDE 6948: Internship in Elementary Schools
- EDE 7047: Issues in Teacher Education
- EDE 7935: Seminar in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7982: Practitioner Research: Theory & Practice

Educational Technology

- EME 5054: Foundations of Educational Technology
- EME 5207: Designing Technology-Rich Curricula

- EME 5315: Communicating with Technology
- EME 5316: Educational Technology Management Issues
- EME 5403: Instructional Computing I
- EME 5404: Instructional Computing II
- EME 5405: Internet in K-12 Instruction
- EME 5431: Integrating Technology in the Mathematics Classroom
- EME 5432: Integrating Technology into Social Science Classroom
- EME 5433: Integrating Technology into Science Classroom
- EME 6066: Issues and Trends in Educational Technology Research
- EME 6208: Designing Integrated Media Environments I
- EME 6209: Designing Integrated Media Environments II
- EME 6405: Educational Technology and Teaching
- EME 6458: Distance Teaching and Learning
- EME 6505: Educational Television Design and Production
- EME 6602: Human-Computer Interactivity and the Learner
- EME 6606: Advanced Instructional Design
- EME 6609: Instructional Design
- EME 6716: Organization and Administration of Educational Media Centers
- EME 6935: Seminar: Distance Education Issues and Applications
- EME 6945: Practicum in Educational Media and Instructional Design
- EME 7938: Seminar in Educational Media and Instructional Design

ESOL/Bilingual Education

- FLE 6165: Bilingual-Bicultural Education
- FLE 6167: Cross-Cultural Communication for Teachers
- FLE 6336: Teaching Foreign Languages in Elementary Schools
- FLE 6337: Methods of Teaching and Assessing Foreign Language in Secondary School
- FLE 6946: Practicum in Teaching and Assessing Foreign Languages at Secondary Level
- TSL 5142: ESOL Curriculum, Methods, and Assessment
- TSL 5325: Secondary ESOL Teaching Strategies
- TSL 6145: Curriculum and Materials Development for ESOL K-12
- TSL 6171: TESL I: Materials and Techniques
- TSL 6172: TESL II: Materials for Special Purposes
- TSL 6245: Language Principles for ESOL Teachers
- TSL 6373: Methods of Teaching ESOL K-12
- TSL 6440: Testing and Evaluation of ESOL
- TSL 6700: Issues in ESOL for School Counselors and Psychologists

Language and Literacy Education

- LAE 6298: Literacy & Language Instruction
- LAE 6339: Curriculum, Methods, and Assessment in Secondary English Language Arts
- LAE 6348: Teaching Multiliteracies
- LAE 6365: Language Arts: Language and Composition
- LAE 6366: Language Arts: Literature
- LAE 6407: Early Childhood Children's Literature
- LAE 6446: Multicultural Literature for Children and Adolescents
- LAE 6455: International Children's Literature

- LAE 6616: Seminar in Children's Literature
- LAE 6635: Teaching Adolescent Literature in the Secondary School
- LAE 6714: Children's Literature in the Childhood Curriculum
- LAE 6861: Technology and Media Literacy
- LAE 6865: Teaching Media Literacy with the Internet
- LAE 6869: Teaching Digital Storytelling
- LAE 6939: Literacy, Family, and Culture
- LAE 6945: Practicum and Assessment for Teachers of Secondary School English
- LAE 6946: Children's Literature in Educational Settings
- LAE 7006: Language Acquisition and Education
- LAE 7519: Language and Inquiry
- LAE 7934: Seminar in Composition Theory and Practice
- LAE 7936: Seminar in English Language Arts

Mathematics Education

- MAE 5327: Middle School Mathematics Methods
- MAE 5332: Secondary School Mathematics Methods and Assessment
- MAE 5395: Multicultural Mathematics Methods
- MAE 5396: Using Formative Assessment to Improve Mathematical Learning
- MAE 5347: Teaching K-8 Mathematics for Understanding
- MAE 5945: Secondary School Mathematics Practicum
- MAE 6313: Problem Solving in School Mathematics
- MAE 6615: Individualizing Instruction in Mathematics
- MAE 6641: Readings and Research in Mathematics Education
- MAE 7899: Mathematics Education Seminar

Reading Education

- RED 5046: Foundations of Reading in Grades PreK-12
- RED 5316: Reading in the Primary Grades
- RED 5337: Reading in the Secondary School
- RED 5355: Reading Instruction in the Intermediate Grades
- RED 5399: Practices in Beginning Reading Instruction
- RED 6346: Seminar in Reading
- RED 6520: Classroom Literacy Assessment and Instruction
- RED 6546C: Diagnosis of Reading Difficulties
- RED 6548C: Remediation of Reading Difficulties
- RED 6647: Trends in Reading
- RED 6941: Practicum in Diagnosis and Remediation of Reading Difficulties
- RED 7019: Foundations of Literacy
- RED 7817: Understanding Reading Difficulties

Science Education

- SCE 5140: Science Curriculum Development
- SCE 5316: Inquiry-Based Science Teaching
- SCE 5825: Foundations of Science Teaching
- SCE 5695: Diversity and Equity in Science Teaching
- SCE 5765: Data-Driven Science Instruction

- SCE 6045: Environmental Education Methods and Materials
- SCE 6117: Science Education in the Elementary School
- SCE 6246: Science Instruction in Informal Settings
- SCE 6337: Secondary Science Methods and Assessment
- SCE 6647: Global Studies Methods in Science Education
- SCE 6947: Practicum in Secondary Science Teaching and Assessment

Secondary Education

- EDM 6005: The Emergent Middle School
- EDM 6235: Interdisciplinary Planning, Teaching, and Assessment
- ESE 6215: The Secondary School Curriculum
- ESE 6344: Classroom Practices and Assessment in Secondary Education
- ESE 6345: Effective Teaching and Classroom Management
- ESE 6905: Individual Work
- ESE 6939: Special Topics
- ESE 6945: Student Teaching in Secondary School

Social Foundations of Education

- EDF 5552: Role of School in Democratic Society
- EDF 6520: History of Education
- EDF 6544: Philosophical Foundations of Education
- EDF 6606: Socioeconomic Foundations of Education
- EDF 6616: Education and American Culture
- EDF 6630: Educational Sociology
- EDF 6812: Comparative Education
- EDF 6820: Education in Latin America
- EDF 7555: Values and Ethics in Education
- EDF 7934: Seminar in Educational Foundations

Social Studies Education

- SSE 5320: Middle School Social Studies Methods
- SSE 5945C: Practicum in Secondary Social Studies Teaching and Assessment
- SSE 6046: Perspectives in Social Studies Education
- SSE 6117: Social Studies Education—Elementary School
- SSE 6133: Secondary School Social Studies Methods and Assessment
- SSE 6478: Global Studies Methods in Social Studies

Teacher Leadership for School Improvement

- EDE 6325: Teacher Inquiry/Action Research
- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6415: Culturally Responsive Classroom Management
- EDG 6953: TLSI Online Portfolio Preparation

Mathematics Education

College of Education
School of Teaching and Learning

Mathematics Education Program Information

The School of Teaching & Learning offers the Master of Education (M.Ed.) and Master of Arts in Education (M.A.E.) degrees in Mathematics Education. More information about the requirements for these degrees can be found in the Graduate Degrees section of this catalog.

The **Master of Education (M.Ed.) for Mathematics Education program** is designed for individuals interested in teaching mathematics in a middle or high school. This program leads to eligibility for professional certification for teaching mathematics to students in grades 6-12. It typically attracts students who received a bachelor's degree in mathematics or another STEM-related discipline and are seeking to teach middle or high school mathematics. Our faculty will work with students to tailor their program to fit particular needs and specific career goals whether that involves becoming a professor at a research university, a faculty member that primarily teaches future teachers, a specialist for mathematics education at the district level, or last, but certainly not least, a classroom teacher.

Minimum admission requirements include:

- B.A. or B.S. degree in a STEM or related field
- 2.7 overall GPA and 3.0 upper-division undergraduate GPA
- Must have successfully completed Calculus 1 and 2 prior to admission.
- Acceptable GRE scores
- Completed all other admissions requirements

It is also recommended that applicants have passed the Florida Teacher Certification Exam (FTCE) Subject Area test (for Mathematics grades 6-12) and to have completed MAP 2302 (Elementary Differential Equations).

Please visit this website for additional information about the M.Ed. degree program in Mathematics Education: https://education.ufl.edu/math-education/masters/.

The **Master of Arts in Education (M.A.E.) in Mathematics Education program** is designed for persons interested in gaining expertise in mathematics education and strengthening their background in mathematics. Students in this program typically take a minimum of 9 credit hours in mathematics at the graduate level. This program of study requires a thesis or project-in-lieu of thesis and does not lead to initial teacher certification.

What kind of students typically are enrolled in the M.A.E. in mathematics education program?

- Practicing teachers who want to strengthen their abilities to teach mathematics in a variety of instructional settings.

- Individuals who plan to teach at the community college level. Requirements to teach at the community college level vary depending on the individual campus. Typically, individuals must have a minimum of 18 credits in graduate mathematics. Candidates are encouraged to consult the community college where they desire employment for the exact employment requirements.

- Experienced teachers who have the eventual goal of earning a doctorate in mathematics education enabling them to work in a teacher education/mathematics education program at an institution of higher education.

Admission Requirements:

B.A. or B.S. in mathematics, mathematics education, or related field; 2.7 overall GPA and 3.0 upper division GPA; GRE; and completing all other general admission requirements

Graduation Requirements:

3.0 GPA (overall and in major); completion of course requirements; thesis or project-in-lieu of thesis

What might a program of study look like in the M.A.E. in mathematics education?

The program of study form is customized to address the unique needs of each student and is developed in consultation with a mathematics education advisor. There are several categories of requirements for the completion of the M.A.E. in mathematics education including: a mathematics methods core, mathematics education seminar, curriculum & instruction, mathematics content knowledge, cognate/electives, and a thesis or project in lieu of thesis.

Please visit this website for additional information about the M.A.E. degree program in Mathematics Education: https://education.ufl.edu/math-education/masters/.

Degrees Offered with a Major in Mathematics Education

Master of Arts in Education
Master of Education

School of Teaching and Learning Departmental Courses

- EDG 5666: Knowing and Learning in Secondary Schools
- EDG 6017: Writing for Academic Purposes
- EDG 6225: Global Studies Methods in K-12 Education
- EDG 6305: Multiple Perspectives on Teaching and Learning
- EDG 6348: Instructional Coaching for Enhanced Student Learning
- EDG 6356: Teaching, Learning and Assessment
- EDG 6378: Learning Science with Technology
- EDG 6445: Meeting the Educational Needs of Students Living in Poverty
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6953: TLSI Online Portfolio Preparation

- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7359: Professional Development and Teacher Learning
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EEC 6946: Practicum in Early Childhood Education
- EME 6059: Blended Learning Environments
- EME 6065: Human-Computer Interaction and the Learner
- EME 7345: Implementing Educational Technology Innovations (ETIs)
- MAE 6349: Classroom Contexts that Support Self-Regulated Learning and Mathematical Understanding
- MAE 6916: Inquiry in Mathematics Teaching

General Courses

- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6226: Foundations of Research in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EME 6076: Virtual School Philosophy and Pedagogy
- EME 6156: Games and Simulations for Teaching and Learning
- EME 6235: Managing Educational Projects
- EME 6236: Distance Education Leadership and Management

Curriculum, Teaching, and Teacher Education

- EDE 5940: Integrated Teaching and Learning
- EDE 6225: Practices in Childhood Education
- EDE 6266: Teaching and Learning in Elementary Classrooms
- EDE 6325: Teacher Inquiry/Action Research
- EDE 6905: Individual Work
- EDE 6948: Internship in Elementary Schools
- EDE 7047: Issues in Teacher Education
- EDE 7935: Seminar in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment

- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7982: Practitioner Research: Theory & Practice

Educational Technology

- EME 5054: Foundations of Educational Technology
- EME 5207: Designing Technology-Rich Curricula
- EME 5315: Communicating with Technology
- EME 5316: Educational Technology Management Issues
- EME 5403: Instructional Computing I
- EME 5404: Instructional Computing II
- EME 5405: Internet in K-12 Instruction
- EME 5431: Integrating Technology in the Mathematics Classroom
- EME 5432: Integrating Technology into Social Science Classroom
- EME 5433: Integrating Technology into Science Classroom
- EME 6066: Issues and Trends in Educational Technology Research
- EME 6208: Designing Integrated Media Environments I
- EME 6209: Designing Integrated Media Environments II
- EME 6405: Educational Technology and Teaching
- EME 6458: Distance Teaching and Learning
- EME 6505: Educational Television Design and Production
- EME 6602: Human-Computer Interactivity and the Learner
- EME 6606: Advanced Instructional Design
- EME 6609: Instructional Design
- EME 6716: Organization and Administration of Educational Media Centers
- EME 6935: Seminar: Distance Education Issues and Applications
- EME 6945: Practicum in Educational Media and Instructional Design
- EME 7938: Seminar in Educational Media and Instructional Design

ESOL/Bilingual Education

- FLE 6165: Bilingual-Bicultural Education
- FLE 6167: Cross-Cultural Communication for Teachers
- FLE 6336: Teaching Foreign Languages in Elementary Schools
- FLE 6337: Methods of Teaching and Assessing Foreign Language in Secondary School
- FLE 6946: Practicum in Teaching and Assessing Foreign Languages at Secondary Level
- TSL 5142: ESOL Curriculum, Methods, and Assessment
- TSL 5325: Secondary ESOL Teaching Strategies
- TSL 6145: Curriculum and Materials Development for ESOL K-12
- TSL 6171: TESL I: Materials and Techniques
- TSL 6172: TESL II: Materials for Special Purposes
- TSL 6245: Language Principles for ESOL Teachers
- TSL 6373: Methods of Teaching ESOL K-12
- TSL 6440: Testing and Evaluation of ESOL
- TSL 6700: Issues in ESOL for School Counselors and Psychologists

Language and Literacy Education

- LAE 6298: Literacy & Language Instruction
- LAE 6339: Curriculum, Methods, and Assessment in Secondary English Language Arts
- LAE 6348: Teaching Multiliteracies
- LAE 6365: Language Arts: Language and Composition
- LAE 6366: Language Arts: Literature
- LAE 6407: Early Childhood Children's Literature
- LAE 6446: Multicultural Literature for Children and Adolescents
- LAE 6455: International Children's Literature
- LAE 6616: Seminar in Children's Literature
- LAE 6635: Teaching Adolescent Literature in the Secondary School
- LAE 6714: Children's Literature in the Childhood Curriculum
- LAE 6861: Technology and Media Literacy
- LAE 6865: Teaching Media Literacy with the Internet
- LAE 6869: Teaching Digital Storytelling
- LAE 6939: Literacy, Family, and Culture
- LAE 6945: Practicum and Assessment for Teachers of Secondary School English
- LAE 6946: Children's Literature in Educational Settings
- LAE 7006: Language Acquisition and Education
- LAE 7519: Language and Inquiry
- LAE 7934: Seminar in Composition Theory and Practice
- LAE 7936: Seminar in English Language Arts

Mathematics Education

- MAE 5327: Middle School Mathematics Methods
- MAE 5332: Secondary School Mathematics Methods and Assessment
- MAE 5395: Multicultural Mathematics Methods
- MAE 5396: Using Formative Assessment to Improve Mathematical Learning
- MAE 5347: Teaching K-8 Mathematics for Understanding
- MAE 5945: Secondary School Mathematics Practicum
- MAE 6313: Problem Solving in School Mathematics
- MAE 6615: Individualizing Instruction in Mathematics
- MAE 6641: Readings and Research in Mathematics Education
- MAE 7899: Mathematics Education Seminar

Reading Education

- RED 5046: Foundations of Reading in Grades PreK-12
- RED 5316: Reading in the Primary Grades
- RED 5337: Reading in the Secondary School
- RED 5355: Reading Instruction in the Intermediate Grades
- RED 5399: Practices in Beginning Reading Instruction
- RED 6346: Seminar in Reading
- RED 6520: Classroom Literacy Assessment and Instruction
- RED 6546C: Diagnosis of Reading Difficulties
- RED 6548C: Remediation of Reading Difficulties
- RED 6647: Trends in Reading
- RED 6941: Practicum in Diagnosis and Remediation of Reading Difficulties

- RED 7019: Foundations of Literacy
- RED 7817: Understanding Reading Difficulties

Science Education

- SCE 5140: Science Curriculum Development
- SCE 5316: Inquiry-Based Science Teaching
- SCE 5825: Foundations of Science Teaching
- SCE 5695: Diversity and Equity in Science Teaching
- SCE 5765: Data-Driven Science Instruction
- SCE 6045: Environmental Education Methods and Materials
- SCE 6117: Science Education in the Elementary School
- SCE 6246: Science Instruction in Informal Settings
- SCE 6337: Secondary Science Methods and Assessment
- SCE 6647: Global Studies Methods in Science Education
- SCE 6947: Practicum in Secondary Science Teaching and Assessment

Secondary Education

- EDM 6005: The Emergent Middle School
- EDM 6235: Interdisciplinary Planning, Teaching, and Assessment
- ESE 6215: The Secondary School Curriculum
- ESE 6344: Classroom Practices and Assessment in Secondary Education
- ESE 6345: Effective Teaching and Classroom Management
- ESE 6905: Individual Work
- ESE 6939: Special Topics
- ESE 6945: Student Teaching in Secondary School

Social Foundations of Education

- EDF 5552: Role of School in Democratic Society
- EDF 6520: History of Education
- EDF 6544: Philosophical Foundations of Education
- EDF 6606: Socioeconomic Foundations of Education
- EDF 6616: Education and American Culture
- EDF 6630: Educational Sociology
- EDF 6812: Comparative Education
- EDF 6820: Education in Latin America
- EDF 7555: Values and Ethics in Education
- EDF 7934: Seminar in Educational Foundations

Social Studies Education

- SSE 5320: Middle School Social Studies Methods
- SSE 5945C: Practicum in Secondary Social Studies Teaching and Assessment
- SSE 6046: Perspectives in Social Studies Education
- SSE 6117: Social Studies Education—Elementary School
- SSE 6133: Secondary School Social Studies Methods and Assessment
- SSE 6478: Global Studies Methods in Social Studies

Teacher Leadership for School Improvement

- EDE 6325: Teacher Inquiry/Action Research
- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6415: Culturally Responsive Classroom Management
- EDG 6953: TLSI Online Portfolio Preparation

Reading Education

College of Education
School of Teaching and Learning

Reading Education Program Information

The School of Teaching & Learning offers the Master of Education (M.Ed.) and Master of Arts in Education (M.A.E.) degrees in Reading Education. More information about the requirements for these degrees can be found in the Graduate Degrees section of this catalog.

The Master of Education (M.Ed.) in Reading Education is for prospective teachers eligible for teacher certification and practicing teachers who desire to update themselves on the latest research and practice in reading/literacy instruction and to obtain K-12 reading certification. This is a non-thesis degree requiring completion of a minimum of 36 credit hours of coursework. Students learn evidence-based classroom practices and develop knowledge, skills, and strategies for supporting the literacy growth of PreK-12 students. The program is accredited by the Council for the Accreditation of Educator Preparation (CAEP). The curriculum is focused on the knowledge and methods teachers need to effectively promote literacy learning and academic achievement for all PreK-12 students. Teachers will not only gain expertise in addressing reading/writing difficulties but also learn how to support students' growth as learners who can decode, use, and create many different kinds of texts, such as textbooks, primary source documents, literature and media.

Students can pursue the reading MEd degree **fully online**, **fully on campus**, or **partly online and partly on campus**.

Students interested in obtaining a Florida K-12 reading certification should:

- Submit transcripts to the Florida Department of Education for course count content analysis.

- Take and receive passing scores on the Florida Teacher Certification Exam (FTCE) for Reading K-12. You can find information about the exam from the Florida Department of Education at http://www.fldoe.org.

Graduates of the program may be eligible for reading certification in other states and are advised to investigate that possibility if they do not plan to teach in the state of Florida. Please visit this program area website to learn more about the M.Ed. degree in Reading Education: https://education.ufl.edu/reading-education/masters/.

Degrees Offered with a Major in Reading Education

Master of Arts in Education
Master of Education

School of Teaching and Learning Departmental Courses

- EDG 5666: Knowing and Learning in Secondary Schools
- EDG 6017: Writing for Academic Purposes
- EDG 6225: Global Studies Methods in K-12 Education
- EDG 6305: Multiple Perspectives on Teaching and Learning
- EDG 6348: Instructional Coaching for Enhanced Student Learning
- EDG 6356: Teaching, Learning and Assessment
- EDG 6378: Learning Science with Technology
- EDG 6445: Meeting the Educational Needs of Students Living in Poverty
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6953: TLSI Online Portfolio Preparation
- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7359: Professional Development and Teacher Learning
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EEC 6946: Practicum in Early Childhood Education
- EME 6059: Blended Learning Environments
- EME 6065: Human-Computer Interaction and the Learner
- EME 7345: Implementing Educational Technology Innovations (ETIs)
- MAE 6349: Classroom Contexts that Support Self-Regulated Learning and Mathematical Understanding
- MAE 6916: Inquiry in Mathematics Teaching

General Courses

- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6226: Foundations of Research in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development

- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EME 6076: Virtual School Philosophy and Pedagogy
- EME 6156: Games and Simulations for Teaching and Learning
- EME 6235: Managing Educational Projects
- EME 6236: Distance Education Leadership and Management

Curriculum, Teaching, and Teacher Education

- EDE 5940: Integrated Teaching and Learning
- EDE 6225: Practices in Childhood Education
- EDE 6266: Teaching and Learning in Elementary Classrooms
- EDE 6325: Teacher Inquiry/Action Research
- EDE 6905: Individual Work
- EDE 6948: Internship in Elementary Schools
- EDE 7047: Issues in Teacher Education
- EDE 7935: Seminar in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7982: Practitioner Research: Theory & Practice

Educational Technology

- EME 5054: Foundations of Educational Technology
- EME 5207: Designing Technology-Rich Curricula
- EME 5315: Communicating with Technology
- EME 5316: Educational Technology Management Issues
- EME 5403: Instructional Computing I
- EME 5404: Instructional Computing II
- EME 5405: Internet in K-12 Instruction
- EME 5431: Integrating Technology in the Mathematics Classroom
- EME 5432: Integrating Technology into Social Science Classroom
- EME 5433: Integrating Technology into Science Classroom
- EME 6066: Issues and Trends in Educational Technology Research
- EME 6208: Designing Integrated Media Environments I
- EME 6209: Designing Integrated Media Environments II
- EME 6405: Educational Technology and Teaching
- EME 6458: Distance Teaching and Learning
- EME 6505: Educational Television Design and Production
- EME 6602: Human-Computer Interactivity and the Learner
- EME 6606: Advanced Instructional Design
- EME 6609: Instructional Design
- EME 6716: Organization and Administration of Educational Media Centers
- EME 6935: Seminar: Distance Education Issues and Applications
- EME 6945: Practicum in Educational Media and Instructional Design

- EME 7938: Seminar in Educational Media and Instructional Design

ESOL/Bilingual Education

- FLE 6165: Bilingual-Bicultural Education
- FLE 6167: Cross-Cultural Communication for Teachers
- FLE 6336: Teaching Foreign Languages in Elementary Schools
- FLE 6337: Methods of Teaching and Assessing Foreign Language in Secondary School
- FLE 6946: Practicum in Teaching and Assessing Foreign Languages at Secondary Level
- TSL 5142: ESOL Curriculum, Methods, and Assessment
- TSL 5325: Secondary ESOL Teaching Strategies
- TSL 6145: Curriculum and Materials Development for ESOL K-12
- TSL 6171: TESL I: Materials and Techniques
- TSL 6172: TESL II: Materials for Special Purposes
- TSL 6245: Language Principles for ESOL Teachers
- TSL 6373: Methods of Teaching ESOL K-12
- TSL 6440: Testing and Evaluation of ESOL
- TSL 6700: Issues in ESOL for School Counselors and Psychologists

Language and Literacy Education

- LAE 6298: Literacy & Language Instruction
- LAE 6339: Curriculum, Methods, and Assessment in Secondary English Language Arts
- LAE 6348: Teaching Multiliteracies
- LAE 6365: Language Arts: Language and Composition
- LAE 6366: Language Arts: Literature
- LAE 6407: Early Childhood Children's Literature
- LAE 6446: Multicultural Literature for Children and Adolescents
- LAE 6455: International Children's Literature
- LAE 6616: Seminar in Children's Literature
- LAE 6635: Teaching Adolescent Literature in the Secondary School
- LAE 6714: Children's Literature in the Childhood Curriculum
- LAE 6861: Technology and Media Literacy
- LAE 6865: Teaching Media Literacy with the Internet
- LAE 6869: Teaching Digital Storytelling
- LAE 6939: Literacy, Family, and Culture
- LAE 6945: Practicum and Assessment for Teachers of Secondary School English
- LAE 6946: Children's Literature in Educational Settings
- LAE 7006: Language Acquisition and Education
- LAE 7519: Language and Inquiry
- LAE 7934: Seminar in Composition Theory and Practice
- LAE 7936: Seminar in English Language Arts

Mathematics Education

- MAE 5327: Middle School Mathematics Methods
- MAE 5332: Secondary School Mathematics Methods and Assessment
- MAE 5395: Multicultural Mathematics Methods
- MAE 5396: Using Formative Assessment to Improve Mathematical Learning
- MAE 5347: Teaching K-8 Mathematics for Understanding

- MAE 5945: Secondary School Mathematics Practicum
- MAE 6313: Problem Solving in School Mathematics
- MAE 6615: Individualizing Instruction in Mathematics
- MAE 6641: Readings and Research in Mathematics Education
- MAE 7899: Mathematics Education Seminar

Reading Education

- RED 5046: Foundations of Reading in Grades PreK-12
- RED 5316: Reading in the Primary Grades
- RED 5337: Reading in the Secondary School
- RED 5355: Reading Instruction in the Intermediate Grades
- RED 5399: Practices in Beginning Reading Instruction
- RED 6346: Seminar in Reading
- RED 6520: Classroom Literacy Assessment and Instruction
- RED 6546C: Diagnosis of Reading Difficulties
- RED 6548C: Remediation of Reading Difficulties
- RED 6647: Trends in Reading
- RED 6941: Practicum in Diagnosis and Remediation of Reading Difficulties
- RED 7019: Foundations of Literacy
- RED 7817: Understanding Reading Difficulties

Science Education

- SCE 5140: Science Curriculum Development
- SCE 5316: Inquiry-Based Science Teaching
- SCE 5825: Foundations of Science Teaching
- SCE 5695: Diversity and Equity in Science Teaching
- SCE 5765: Data-Driven Science Instruction
- SCE 6045: Environmental Education Methods and Materials
- SCE 6117: Science Education in the Elementary School
- SCE 6246: Science Instruction in Informal Settings
- SCE 6337: Secondary Science Methods and Assessment
- SCE 6647: Global Studies Methods in Science Education
- SCE 6947: Practicum in Secondary Science Teaching and Assessment

Secondary Education

- EDM 6005: The Emergent Middle School
- EDM 6235: Interdisciplinary Planning, Teaching, and Assessment
- ESE 6215: The Secondary School Curriculum
- ESE 6344: Classroom Practices and Assessment in Secondary Education
- ESE 6345: Effective Teaching and Classroom Management
- ESE 6905: Individual Work
- ESE 6939: Special Topics
- ESE 6945: Student Teaching in Secondary School

Social Foundations of Education

- EDF 5552: Role of School in Democratic Society
- EDF 6520: History of Education

- EDF 6544: Philosophical Foundations of Education
- EDF 6606: Socioeconomic Foundations of Education
- EDF 6616: Education and American Culture
- EDF 6630: Educational Sociology
- EDF 6812: Comparative Education
- EDF 6820: Education in Latin America
- EDF 7555: Values and Ethics in Education
- EDF 7934: Seminar in Educational Foundations

Social Studies Education

- SSE 5320: Middle School Social Studies Methods
- SSE 5945C: Practicum in Secondary Social Studies Teaching and Assessment
- SSE 6046: Perspectives in Social Studies Education
- SSE 6117: Social Studies Education—Elementary School
- SSE 6133: Secondary School Social Studies Methods and Assessment
- SSE 6478: Global Studies Methods in Social Studies

Teacher Leadership for School Improvement

- EDE 6325: Teacher Inquiry/Action Research
- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6415: Culturally Responsive Classroom Management
- EDG 6953: TLSI Online Portfolio Preparation

Science Education

College of Education
School of Teaching and Learning

Science Education Program Information

The Science Education master's degrees programs focus on theory and research-based best practices in formal and informal science teaching and learning at all age levels (preK-adult). Two types of master's degrees in Science Education are offered: a Master of Arts in Education (M.A.E. degree) and a Master of Education (M.Ed.) degree. More information about the requirements for these degrees can be found in the Graduate Degrees section of this catalog.

Certificate Program

Beginning in Summer 2018 we will be offering an online program that leads to Florida Teacher Professional Certification (middle and high school) at the post-baccalaureate level. This certificate program is an approved Florida Department of Education Educator Preparation Institute (EPI). Our program is:

- Interdisciplinary
- Completed in 2 semesters
- Strong subject-area preparation with 1 semester of supervised student teaching

- Is completed entirely online, allowing you to complete your student teaching in your local area

- May possibly transfer directly and become the first half of an online master's degree, an M.A.E. in Science Education

This 18-credit certification program is fully approved by the Florida Department of Education and leads to eligibility for Professional Educator certification in Florida. Students from out of state are welcome to apply. Be sure you understand the implications for your own state's teaching certification requirements.

Master of Arts in Education

The M.A.E. in science education offers two options: thesis or project-in-lieu of thesis. Upon admission, M.A.E. students work closely with a faculty advisor to design a program of study tailored to their professional needs and goals. Students who have completed the Certificate Program may use all 18 of those credits towards the M. A. E. Students can complete science education M.A.E. programs as either part-time or full-time students. This program is also appropriate for individuals who are interested in adding to their science content background with graduate level coursework while preparing to teach at the community college level. https://education.ufl.edu/science-education/master-of-arts/.

Thesis Option:
The thesis option is designed for experienced preK-adult formal or informal science educators interested in pursuing advanced degrees with a strong research focus. Most students completing the M.A.E. thesis option continue on to pursue doctoral degrees in science education. Thirty credits of graduate level coursework and six credits of supervised research culminating in a thesis are required.

Non-Thesis Option:
The non-thesis option is primarily designed for experienced preK-adult formal or informal science educators interested in improving their own professional practice while also earning a graduate degree. A minimum of 36 total graduate credits is required for the non-thesis M.A.E. degree along with an action research project that is usually job-embedded.

For more detailed information about the Science programs and faculty, as well as various certificate programs please visit our website: http://education.ufl.edu/science-education.

Master of Education

The science education M.Ed. degree (known as "ProTeach") is a state-approved and nationally-accredited middle and high school initial teacher preparation program. Three tracks are offered (biology, chemistry, and physics), all of which fulfill the course and field experience requirements for professional teacher certification to teach grades 6-12 science in the State of Florida. No thesis or project is required for the M.Ed. degree.

The ProTeach M.Ed. program uses a professional cohort model in which students complete 39 credits of graduate level education coursework in a full-time Fall, Spring, Summer sequence. A bachelor's degree (or equivalent of a bachelor's degree) in one of the three areas of science certification is a pre-requisite/co-requisite for completion of the program. Additional information outlining the program of study for the science ProTeach block is available at this link: https://education.ufl.edu/science-education/certificate/ and lists of content core pre-requisites for the biology, chemistry, and physics Proteach programs are available at this link:https://education.ufl.edu/science-education/certificate/.

Degrees Offered with a Major in Science Education

Master of Arts in Education
Master of Education

School of Teaching and Learning Departmental Courses

- EDG 5666: Knowing and Learning in Secondary Schools
- EDG 6017: Writing for Academic Purposes
- EDG 6225: Global Studies Methods in K-12 Education
- EDG 6305: Multiple Perspectives on Teaching and Learning
- EDG 6348: Instructional Coaching for Enhanced Student Learning
- EDG 6356: Teaching, Learning and Assessment
- EDG 6378: Learning Science with Technology
- EDG 6445: Meeting the Educational Needs of Students Living in Poverty
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6953: TLSI Online Portfolio Preparation
- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7359: Professional Development and Teacher Learning
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EEC 6946: Practicum in Early Childhood Education
- EME 6059: Blended Learning Environments
- EME 6065: Human-Computer Interaction and the Learner
- EME 7345: Implementing Educational Technology Innovations (ETIs)
- MAE 6349: Classroom Contexts that Support Self-Regulated Learning and Mathematical Understanding
- MAE 6916: Inquiry in Mathematics Teaching

General Courses

- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6226: Foundations of Research in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation

- EME 6076: Virtual School Philosophy and Pedagogy
- EME 6156: Games and Simulations for Teaching and Learning
- EME 6235: Managing Educational Projects
- EME 6236: Distance Education Leadership and Management

Curriculum, Teaching, and Teacher Education

- EDE 5940: Integrated Teaching and Learning
- EDE 6225: Practices in Childhood Education
- EDE 6266: Teaching and Learning in Elementary Classrooms
- EDE 6325: Teacher Inquiry/Action Research
- EDE 6905: Individual Work
- EDE 6948: Internship in Elementary Schools
- EDE 7047: Issues in Teacher Education
- EDE 7935: Seminar in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7982: Practitioner Research: Theory & Practice

Educational Technology

- EME 5054: Foundations of Educational Technology
- EME 5207: Designing Technology-Rich Curricula
- EME 5315: Communicating with Technology
- EME 5316: Educational Technology Management Issues
- EME 5403: Instructional Computing I
- EME 5404: Instructional Computing II
- EME 5405: Internet in K-12 Instruction
- EME 5431: Integrating Technology in the Mathematics Classroom
- EME 5432: Integrating Technology into Social Science Classroom
- EME 5433: Integrating Technology into Science Classroom
- EME 6066: Issues and Trends in Educational Technology Research
- EME 6208: Designing Integrated Media Environments I
- EME 6209: Designing Integrated Media Environments II
- EME 6405: Educational Technology and Teaching
- EME 6458: Distance Teaching and Learning
- EME 6505: Educational Television Design and Production
- EME 6602: Human-Computer Interactivity and the Learner
- EME 6606: Advanced Instructional Design
- EME 6609: Instructional Design
- EME 6716: Organization and Administration of Educational Media Centers
- EME 6935: Seminar: Distance Education Issues and Applications
- EME 6945: Practicum in Educational Media and Instructional Design
- EME 7938: Seminar in Educational Media and Instructional Design

ESOL/Bilingual Education

- FLE 6165: Bilingual-Bicultural Education
- FLE 6167: Cross-Cultural Communication for Teachers
- FLE 6336: Teaching Foreign Languages in Elementary Schools
- FLE 6337: Methods of Teaching and Assessing Foreign Language in Secondary School
- FLE 6946: Practicum in Teaching and Assessing Foreign Languages at Secondary Level
- TSL 5142: ESOL Curriculum, Methods, and Assessment
- TSL 5325: Secondary ESOL Teaching Strategies
- TSL 6145: Curriculum and Materials Development for ESOL K-12
- TSL 6171: TESL I: Materials and Techniques
- TSL 6172: TESL II: Materials for Special Purposes
- TSL 6245: Language Principles for ESOL Teachers
- TSL 6373: Methods of Teaching ESOL K-12
- TSL 6440: Testing and Evaluation of ESOL
- TSL 6700: Issues in ESOL for School Counselors and Psychologists

Language and Literacy Education

- LAE 6298: Literacy & Language Instruction
- LAE 6339: Curriculum, Methods, and Assessment in Secondary English Language Arts
- LAE 6348: Teaching Multiliteracies
- LAE 6365: Language Arts: Language and Composition
- LAE 6366: Language Arts: Literature
- LAE 6407: Early Childhood Children's Literature
- LAE 6446: Multicultural Literature for Children and Adolescents
- LAE 6455: International Children's Literature
- LAE 6616: Seminar in Children's Literature
- LAE 6635: Teaching Adolescent Literature in the Secondary School
- LAE 6714: Children's Literature in the Childhood Curriculum
- LAE 6861: Technology and Media Literacy
- LAE 6865: Teaching Media Literacy with the Internet
- LAE 6869: Teaching Digital Storytelling
- LAE 6939: Literacy, Family, and Culture
- LAE 6945: Practicum and Assessment for Teachers of Secondary School English
- LAE 6946: Children's Literature in Educational Settings
- LAE 7006: Language Acquisition and Education
- LAE 7519: Language and Inquiry
- LAE 7934: Seminar in Composition Theory and Practice
- LAE 7936: Seminar in English Language Arts

Mathematics Education

- MAE 5327: Middle School Mathematics Methods
- MAE 5332: Secondary School Mathematics Methods and Assessment
- MAE 5395: Multicultural Mathematics Methods
- MAE 5396: Using Formative Assessment to Improve Mathematical Learning
- MAE 5347: Teaching K-8 Mathematics for Understanding
- MAE 5945: Secondary School Mathematics Practicum
- MAE 6313: Problem Solving in School Mathematics

- MAE 6615: Individualizing Instruction in Mathematics
- MAE 6641: Readings and Research in Mathematics Education
- MAE 7899: Mathematics Education Seminar

Reading Education

- RED 5046: Foundations of Reading in Grades PreK-12
- RED 5316: Reading in the Primary Grades
- RED 5337: Reading in the Secondary School
- RED 5355: Reading Instruction in the Intermediate Grades
- RED 5399: Practices in Beginning Reading Instruction
- RED 6346: Seminar in Reading
- RED 6520: Classroom Literacy Assessment and Instruction
- RED 6546C: Diagnosis of Reading Difficulties
- RED 6548C: Remediation of Reading Difficulties
- RED 6647: Trends in Reading
- RED 6941: Practicum in Diagnosis and Remediation of Reading Difficulties
- RED 7019: Foundations of Literacy
- RED 7817: Understanding Reading Difficulties

Science Education

- SCE 5140: Science Curriculum Development
- SCE 5316: Inquiry-Based Science Teaching
- SCE 5825: Foundations of Science Teaching
- SCE 5695: Diversity and Equity in Science Teaching
- SCE 5765: Data-Driven Science Instruction
- SCE 6045: Environmental Education Methods and Materials
- SCE 6117: Science Education in the Elementary School
- SCE 6246: Science Instruction in Informal Settings
- SCE 6337: Secondary Science Methods and Assessment
- SCE 6647: Global Studies Methods in Science Education
- SCE 6947: Practicum in Secondary Science Teaching and Assessment

Secondary Education

- EDM 6005: The Emergent Middle School
- EDM 6235: Interdisciplinary Planning, Teaching, and Assessment
- ESE 6215: The Secondary School Curriculum
- ESE 6344: Classroom Practices and Assessment in Secondary Education
- ESE 6345: Effective Teaching and Classroom Management
- ESE 6905: Individual Work
- ESE 6939: Special Topics
- ESE 6945: Student Teaching in Secondary School

Social Foundations of Education

- EDF 5552: Role of School in Democratic Society
- EDF 6520: History of Education
- EDF 6544: Philosophical Foundations of Education
- EDF 6606: Socioeconomic Foundations of Education

- EDF 6616: Education and American Culture
- EDF 6630: Educational Sociology
- EDF 6812: Comparative Education
- EDF 6820: Education in Latin America
- EDF 7555: Values and Ethics in Education
- EDF 7934: Seminar in Educational Foundations

Social Studies Education

- SSE 5320: Middle School Social Studies Methods
- SSE 5945C: Practicum in Secondary Social Studies Teaching and Assessment
- SSE 6046: Perspectives in Social Studies Education
- SSE 6117: Social Studies Education—Elementary School
- SSE 6133: Secondary School Social Studies Methods and Assessment
- SSE 6478: Global Studies Methods in Social Studies

Teacher Leadership for School Improvement

- EDE 6325: Teacher Inquiry/Action Research
- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6415: Culturally Responsive Classroom Management
- EDG 6953: TLSI Online Portfolio Preparation

Social Studies Education

College of Education
School of Teaching and Learning

Social Studies Education Program Information

The School of Teaching & Learning offers Master of Education (M.Ed.) and Master of Arts in Education (M.A.E.) degrees in Social Studies Education. More information about the requirements for these degrees can be found in the Graduate Degrees section of this catalog.

The Social Studies Education ProTeach program culminates in the M.Ed. degree. It is an initial certification program for students with no prior teaching experience, and it confers Professional Certification in Broad Fields Social Science, grades 6-12. This is a state-approved and nationally accredited program that enrolls students in a cohort structure that begins each fall. Students typically complete the program within 12 months and may only begin in the fall term. Please visit this website for more information about this M.Ed. program: https://education.ufl.edu/social-studies-education/degrees/master-of-education/.

The M.A.E. degree in Social Studies Education does not confer certification and is geared for practicing teachers who want to advance their Social Studies expertise. In addition to their coursework, students are required to complete a thesis or culminating project in lieu of a thesis. Please visit this website for more information about this M.A.E. program: https://education.ufl.edu/social-studies-education/degrees/mae-online/.

For more information, please see our website: http://education.ufl.edu/social-studies-education.

Degrees Offered with a Major in Social Studies Education

Master of Arts in Education
Master of Education

School of Teaching and Learning Departmental Courses

- EDG 5666: Knowing and Learning in Secondary Schools
- EDG 6017: Writing for Academic Purposes
- EDG 6225: Global Studies Methods in K-12 Education
- EDG 6305: Multiple Perspectives on Teaching and Learning
- EDG 6348: Instructional Coaching for Enhanced Student Learning
- EDG 6356: Teaching, Learning and Assessment
- EDG 6378: Learning Science with Technology
- EDG 6445: Meeting the Educational Needs of Students Living in Poverty
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6953: TLSI Online Portfolio Preparation
- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7359: Professional Development and Teacher Learning
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research

- EDG 7980: Research for Doctoral Dissertation
- EEC 6946: Practicum in Early Childhood Education
- EME 6059: Blended Learning Environments
- EME 6065: Human-Computer Interaction and the Learner
- EME 7345: Implementing Educational Technology Innovations (ETIs)
- MAE 6349: Classroom Contexts that Support Self-Regulated Learning and Mathematical Understanding
- MAE 6916: Inquiry in Mathematics Teaching

General Courses

- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6226: Foundations of Research in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 6905: Individual Work
- EDG 6910: Supervised Research
- EDG 6931: Special Topics
- EDG 6940: Supervised Teaching
- EDG 6971: Research for Master's Thesis
- EDG 6973: Project in Lieu of Thesis
- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7941: Field Experience in Curriculum and Instruction
- EDG 7979: Advanced Research
- EDG 7980: Research for Doctoral Dissertation
- EME 6076: Virtual School Philosophy and Pedagogy
- EME 6156: Games and Simulations for Teaching and Learning
- EME 6235: Managing Educational Projects
- EME 6236: Distance Education Leadership and Management

Curriculum, Teaching, and Teacher Education

- EDE 5940: Integrated Teaching and Learning
- EDE 6225: Practices in Childhood Education
- EDE 6266: Teaching and Learning in Elementary Classrooms
- EDE 6325: Teacher Inquiry/Action Research
- EDE 6905: Individual Work
- EDE 6948: Internship in Elementary Schools
- EDE 7047: Issues in Teacher Education
- EDE 7935: Seminar in Curriculum & Instruction
- EDG 6356: Teaching, Learning and Assessment
- EDG 7224: Critical Pedagogy
- EDG 7252: Perspectives in Curriculum, Teaching, and Teacher Education
- EDG 7303: Teacher Learning and Socialization in High Poverty Schools
- EDG 7326: Differentiated Supervision and Teacher Professional Development
- EDG 7982: Practitioner Research: Theory & Practice

Educational Technology

- EME 5054: Foundations of Educational Technology
- EME 5207: Designing Technology-Rich Curricula
- EME 5315: Communicating with Technology
- EME 5316: Educational Technology Management Issues
- EME 5403: Instructional Computing I
- EME 5404: Instructional Computing II
- EME 5405: Internet in K-12 Instruction
- EME 5431: Integrating Technology in the Mathematics Classroom
- EME 5432: Integrating Technology into Social Science Classroom
- EME 5433: Integrating Technology into Science Classroom
- EME 6066: Issues and Trends in Educational Technology Research
- EME 6208: Designing Integrated Media Environments I
- EME 6209: Designing Integrated Media Environments II
- EME 6405: Educational Technology and Teaching
- EME 6458: Distance Teaching and Learning
- EME 6505: Educational Television Design and Production
- EME 6602: Human-Computer Interactivity and the Learner
- EME 6606: Advanced Instructional Design
- EME 6609: Instructional Design
- EME 6716: Organization and Administration of Educational Media Centers
- EME 6935: Seminar: Distance Education Issues and Applications
- EME 6945: Practicum in Educational Media and Instructional Design
- EME 7938: Seminar in Educational Media and Instructional Design

ESOL/Bilingual Education

- FLE 6165: Bilingual-Bicultural Education
- FLE 6167: Cross-Cultural Communication for Teachers
- FLE 6336: Teaching Foreign Languages in Elementary Schools
- FLE 6337: Methods of Teaching and Assessing Foreign Language in Secondary School
- FLE 6946: Practicum in Teaching and Assessing Foreign Languages at Secondary Level
- TSL 5142: ESOL Curriculum, Methods, and Assessment
- TSL 5325: Secondary ESOL Teaching Strategies
- TSL 6145: Curriculum and Materials Development for ESOL K-12
- TSL 6171: TESL I: Materials and Techniques
- TSL 6172: TESL II: Materials for Special Purposes
- TSL 6245: Language Principles for ESOL Teachers
- TSL 6373: Methods of Teaching ESOL K-12
- TSL 6440: Testing and Evaluation of ESOL
- TSL 6700: Issues in ESOL for School Counselors and Psychologists

Language and Literacy Education

- LAE 6298: Literacy & Language Instruction
- LAE 6339: Curriculum, Methods, and Assessment in Secondary English Language Arts
- LAE 6348: Teaching Multiliteracies
- LAE 6365: Language Arts: Language and Composition
- LAE 6366: Language Arts: Literature
- LAE 6407: Early Childhood Children's Literature
- LAE 6446: Multicultural Literature for Children and Adolescents
- LAE 6455: International Children's Literature
- LAE 6616: Seminar in Children's Literature
- LAE 6635: Teaching Adolescent Literature in the Secondary School
- LAE 6714: Children's Literature in the Childhood Curriculum
- LAE 6861: Technology and Media Literacy
- LAE 6865: Teaching Media Literacy with the Internet
- LAE 6869: Teaching Digital Storytelling
- LAE 6939: Literacy, Family, and Culture
- LAE 6945: Practicum and Assessment for Teachers of Secondary School English
- LAE 6946: Children's Literature in Educational Settings
- LAE 7006: Language Acquisition and Education
- LAE 7519: Language and Inquiry
- LAE 7934: Seminar in Composition Theory and Practice
- LAE 7936: Seminar in English Language Arts

Mathematics Education

- MAE 5327: Middle School Mathematics Methods
- MAE 5332: Secondary School Mathematics Methods and Assessment
- MAE 5395: Multicultural Mathematics Methods
- MAE 5396: Using Formative Assessment to Improve Mathematical Learning
- MAE 5347: Teaching K-8 Mathematics for Understanding
- MAE 5945: Secondary School Mathematics Practicum
- MAE 6313: Problem Solving in School Mathematics
- MAE 6615: Individualizing Instruction in Mathematics
- MAE 6641: Readings and Research in Mathematics Education
- MAE 7899: Mathematics Education Seminar

Reading Education

- RED 5046: Foundations of Reading in Grades PreK-12
- RED 5316: Reading in the Primary Grades
- RED 5337: Reading in the Secondary School
- RED 5355: Reading Instruction in the Intermediate Grades
- RED 5399: Practices in Beginning Reading Instruction
- RED 6346: Seminar in Reading
- RED 6520: Classroom Literacy Assessment and Instruction
- RED 6546C: Diagnosis of Reading Difficulties
- RED 6548C: Remediation of Reading Difficulties
- RED 6647: Trends in Reading
- RED 6941: Practicum in Diagnosis and Remediation of Reading Difficulties

- RED 7019: Foundations of Literacy
- RED 7817: Understanding Reading Difficulties

Science Education

- SCE 5140: Science Curriculum Development
- SCE 5316: Inquiry-Based Science Teaching
- SCE 5825: Foundations of Science Teaching
- SCE 5695: Diversity and Equity in Science Teaching
- SCE 5765: Data-Driven Science Instruction
- SCE 6045: Environmental Education Methods and Materials
- SCE 6117: Science Education in the Elementary School
- SCE 6246: Science Instruction in Informal Settings
- SCE 6337: Secondary Science Methods and Assessment
- SCE 6647: Global Studies Methods in Science Education
- SCE 6947: Practicum in Secondary Science Teaching and Assessment

Secondary Education

- EDM 6005: The Emergent Middle School
- EDM 6235: Interdisciplinary Planning, Teaching, and Assessment
- ESE 6215: The Secondary School Curriculum
- ESE 6344: Classroom Practices and Assessment in Secondary Education
- ESE 6345: Effective Teaching and Classroom Management
- ESE 6905: Individual Work
- ESE 6939: Special Topics
- ESE 6945: Student Teaching in Secondary School

Social Foundations of Education

- EDF 5552: Role of School in Democratic Society
- EDF 6520: History of Education
- EDF 6544: Philosophical Foundations of Education
- EDF 6606: Socioeconomic Foundations of Education
- EDF 6616: Education and American Culture
- EDF 6630: Educational Sociology
- EDF 6812: Comparative Education
- EDF 6820: Education in Latin America
- EDF 7555: Values and Ethics in Education
- EDF 7934: Seminar in Educational Foundations

Social Studies Education

- SSE 5320: Middle School Social Studies Methods
- SSE 5945C: Practicum in Secondary Social Studies Teaching and Assessment
- SSE 6046: Perspectives in Social Studies Education
- SSE 6117: Social Studies Education—Elementary School
- SSE 6133: Secondary School Social Studies Methods and Assessment
- SSE 6478: Global Studies Methods in Social Studies

Teacher Leadership for School Improvement

- EDE 6325: Teacher Inquiry/Action Research

- EDG 6047: Teacher Leadership for Educational Change
- EDG 6207: Transforming the Curriculum
- EDG 6415: Culturally Responsive Classroom Management
- EDG 6953: TLSI Online Portfolio Preparation

Herbert Wertheim College of Engineering

Dean: C. Abernathy

The Herbert Wertheim College of Engineering is organized into a number of departments focusing on today's most pressing engineering questions. There is an interdisciplinary culture at the core of Gator Engineering, though, and researchers regularly collaborate with colleagues in departments and colleges beyond their own.

For more information, please see our website: http://www.eng.ufl.edu

Agricultural and Biological Engineering Department

Herbert Wertheim College of Engineering

Chair: Dorota Z. Haman
Graduate Coordinator: Greg Kiker

The degrees of Master of Science, Master of Engineering and Doctor of Philosophy are offered with graduate programs in agricultural and biological engineering through the College of Engineering. Requirements for these degrees are given in the Graduate Degrees section of this catalog.

A combined B.S./M.S. program allows up to 12 graduate credits to be double-counted toward fulfillment of both degrees. Contact the graduate coordinator for qualifications and details.

The Master of Science, Master of Engineering, and Doctor of Philosophy degrees are offered in the following areas of research:

Agricultural production engineering includes development and application of precision agriculture concepts and tools, weather and climate risk in agriculture, decision support systems, food security, pesticide application, post-harvest operations, robotics and other machine systems and environmental control systems. Applications to space biology are included in cooperation with NASA at Kennedy Space Center.

Biological engineering includes biocomplexity analysis, ecological modeling, risk and decision analysis, bioprocess design, plant biotechnology, process microbiology, food process engineering, environmental biotechnology, bioreactors, and packaging science.

Information systems includes development and application of GIS and remote sensing, communications, mathematical modeling, data solutions and expert systems techniques to biological and agricultural systems.

Land and water resources includes soil-water-plant relations, irrigation, water quality, watershed hydrology, BMP and TMDL studies, hydrologic modeling, ecological restoration, environmental fate and transport of nanoparticles, waste management, and water reuse.

Students also may choose to participate in interdisciplinary concentrations in hydrologic sciences, geographic information sciences, particle science and technology, and interdisciplinary ecology.

For more information about the program, please visit the program link below and the graduate studies pages on the departmental website at http://www.abe.ufl.edu.

Agricultural and Biological Engineering (Engineering)

Herbert Wertheim College of Engineering
Agricultural and Biological Engineering Department

Agricultural and Biological Engineering Program

The degrees of Master of Science, Master of Engineering, and Doctor of Philosophy are offered with graduate programs in agricultural and biological engineering through the College of Engineering. Students must have an undergraduate or graduate degree in Engineering or meet specific articulation requirements in order to pursue an advanced degree in engineering.

For students without an engineering degree, The Master of Science and Doctor of Philosophy degrees in agricultural and biological engineering are offered in the areas of agricultural operations management and applied science through the College of Agricultural and Life Sciences. Students must have a degree in a related field or meet specific articulation requirements.

Requirements for these degrees are given in the Graduate Degrees section of this catalog.

A combined B.S./M.S. or B.S./M.E. for Engineering students program allows up to 12 graduate credits to be double-counted toward fulfillment of both degrees. Contact the graduate coordinator for qualifications and details. A 30-credit, nonthesis master's degree program is also available to students interested in completing the requirements in 1 year.

The **Master of Science, Master of Engineering, and Doctor of Philosophy** (Engineering) degrees are offered in the following areas of research:

Agricultural production engineering includes development and application of precision agriculture concepts and tools, weather and climate risk in agriculture, decision support systems, food security, pesticide application, post-harvest operations robotics and other machine systems and environmental control systems. Applications to space biology are included in cooperation with NASA at Kennedy Space Center.

Biological engineering includes includes biocomplexity analysis, ecological modeling, risk and decision analysis, bioprocess design, plant biotechnology, process microbiology, food process engineering, environmental biotechnology, bioreactors, and packaging science.

Information systems includes development and application of GIS and remote sensing, communications, mathematical modeling, data solutions, and expert systems techniques to biological and agricultural systems.

Land and water resources includes soil-water-plant relations, irrigation, water quality, watershed hydrology, BMP and TMDL studies, hydrologic modeling, ecological restoration, environmental fate and transport of nanoparticles, waste management, and water reuse.

Students also may choose to participate in interdisciplinary concentrations in hydrologic sciences, geographic information sciences, particle science and technology, and interdisciplinary ecology.

The **Master of Science and Doctor of Philosophy** (CALS) in the **agricultural operations management** area of specialization provide for scientific training and research in technical agricultural management. Typical plans of study focus on advanced training in environmental systems management, production systems management, construction and process management and technical sales management.

In addition, for students with basic science degrees, the Master of Science and Doctor of Philosophy programs with a specialization in **applied sciences** through the College of Agricultural and Life Sciences provides advanced training in problem-solving capabilities, interdisciplinary research, and methods for applying science to real-world problems and

issues. Typical emphasis is on (1) the use of engineering methods and approaches, such as mathematical modeling, optimization, and information technologies, in application of science to problems of various spatial and temporal scales; and (2) an interdisciplinary experience in research at the doctoral level.

The requirements for a master's degree normally take 2 years to complete. The length of time required for the Doctor of Philosophy degree depends partly on the research topic, but normally takes 3 to 4 years.

Additional information can also be found on the graduate studies pages on the department website at www.abe.ufl.edu.

Degrees Offered with a Major in Agricultural and Biological Engineering

Doctor of Philosophy

without a concentration
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Wetland Sciences

Master of Engineering

without a concentration
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Wetland Sciences

Master of Science

without a concentration
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Wetland Sciences

Agricultural and Biological Engineering Courses

- ABE 5015: Empirical Models of Crop Growth and Yield Response
- ABE 5038: Recent Developments and Applications in Biosensors
- ABE 5152: Electro-Hydraulic Circuits and Controls
- ABE 5332: Advanced Agricultural Structures
- ABE 5442: Advanced Agricultural Process Engineering
- ABE 5643C: Biological Systems Modeling
- ABE 5646: Biological and Agricultural Systems Simulation
- ABE 5653: Rheology and Mechanics of Agricultural and Biological Materials
- ABE 5663: Advanced Applied Microbial Biotechnology
- ABE 5707C: Agricultural Waste Management
- ABE 5815C: Food and Bioprocess Engineering Design
- ABE 5936: Writing Grant Proposals for Scholarships and Fellowships
- ABE 6005: Applied Control for Automation and Robots
- ABE 6031: Instrumentation in Agricultural Engineering Research
- ABE 6035: Advanced Remote Sensing: Science and Sensors
- ABE 6037C: Remote Sensing in Hydrology
- ABE 6252: Advanced Soil and Water Management Engineering
- ABE 6254: Simulation of Agricultural Watershed Systems
- ABE 6265: Vadose Zone Modeling
- ABE 6266: Nanotechnology in Water Research
- ABE 6615: Advanced Heat and Mass Transfer in Biological Systems

- ABE 6644: Agricultural Decision Systems
- ABE 6645C: Computer Simulation of Crop Growth and Management Responses
- ABE 6654C: Advanced Bio-Based Products from Renewable Resources
- ABE 6816: Food and Bioprocess Sterilization
- ABE 6905: Individual Work in Agricultural and Biological Engineering
- ABE 6910: Supervised Research
- ABE 6931: Seminar
- ABE 6933: Special Topics in Agricultural and Biological Engineering
- ABE 6940: Supervised Teaching
- ABE 6971: Research for Master's Thesis
- ABE 6972: Research for Engineer's Thesis
- ABE 6974: Nonthesis Project
- ABE 6986: Applied Mathematics in Engineering and Agriculture
- ABE 7979: Advanced Research
- ABE 7980: Research for Doctoral Dissertation
- AGG 5607: Communicating in Academia
- AOM 5334C: Agricultural Chemical Application Technology
- AOM 5431: GIS and Remote Sensing in Agriculture and Natural Resources
- AOM 5435: Advanced Precision Agriculture
- AOM 6735: Irrigation Principles and Management
- AOM 6736: Principles and Issues in Environmental Hydrology
- AOM 6905: Individual Work in Agricultural Operations Management
- AOM 6932: Special Topics in Agricultural Operations Management
- CWR 6536: Stochastic Subsurface Hydrology
- PKG 5003: Advanced Distribution and Transport Packaging
- PKG 5006: Advanced Packaging Principles
- PKG 5105: Advanced Consumer Products Packaging
- PKG 5206C: Advanced Package Decoration
- PKG 5256C: Advanced Analytical Packaging Methods
- PKG 6100: Advanced Computer Tools for Packaging
- PKG 6905: Individual Work in Packaging
- PKG 6932: Special Topics in Packaging Sciences

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management

- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

J. Crayton Pruitt Family Department of Biomedical Engineering

Chair: C. Schmidt
Graduate Coordinator: Cherie Stabler

The mission of the J. Crayton Pruitt Family Department of Biomedical Engineering (BME) is to educate students with strong engineering and science backgrounds for Master's and/or Ph.D. degrees in biomedical engineering. Graduates in BME typically apply their skills and training directly to engineering solutions to clinical problems in medicine. The BME mission is accomplished through a core program of study that has strong collaborations with faculty in the Colleges of Engineering and Medicine.

Degrees offered include: Doctor of Philosophy, Master of Science (thesis and non-thesis options), and Master of Engineering (thesis and non-thesis options). More details regarding these degrees and the minimum entry requirements are provided at http://www.bme.ufl.edu/academics/graduate.

The Biomedical Engineering Department faculty members work collaboratively with joint, affiliate, and adjunct faculty from many other departments in the College of Engineering, the College of Medicine, and local industry. This diversity ensures students the highest-quality education and varied opportunities for cutting-edge research.

Areas of Research within these graduate programs include:

- Neural Engineering
- Imagining Diagnostics & Therapeutics
- Biomaterials and Regenerative Medicine
- Biomedical Data Science

More information about our dynamic and collaborative department is available at: http://www.bme.ufl.edu.

Biomedical Engineering

Herbert Wertheim College of Engineering
J. Crayton Pruitt Family Department of Biomedical Engineering

Biomedical Engineering Program Information

The Master's degree (thesis or nonthesis) requires at least 30 semester hours. The Doctoral degree requires at least 90 semester credit hours beyond the bachelor's degree. No more than 30 hours of a master's degree from another institution will be transferred to the Ph.D. degree. If a student holds a master's degree in a discipline different from the doctoral program, the master's work will not be counted toward the doctoral degree unless the BME Department successfully petitions the Dean of the Graduate School. Requirements for these degrees are given in the Graduate Degrees section of this catalog.

Complete BME program details and courses available are listed in the Biomedical Engineering Graduate Guidelines, on the BME website (which also offers information on available research areas).

Combined program: Biomedical Engineering also offers a combined bachelor's/master's degree program in collaboration with the other departments in the College of Engineering. This program allows qualified students to earn

both a bachelor's degree and a master's degree within 5 years for a net savings of 1 year. Contact the BME academic services office for more information or see http://www.bme.ufl.edu/academics/combined.

Degrees Offered with a Major in Biomedical Engineering

Doctor of Philosophy

without a concentration

concentration in Clinical and Translational Science

Master of Engineering

Master of Science

without a concentration

Courses

- BME 5052L: Biomedical Engineering Laboratory
- BME 5085: Patents, Product Development, and Technology Transfer
- BME 5401: Biomedical Engineering and Physiology I
- BME 5407: Molecular Biomedical Engineering
- BME 5500: Biomedical Instrumentation
- BME 5703: Statistical Methods for Biomedical Engineering
- BME 5704: Advanced Computational Methods for Biomedical Engineering
- BME 5743: Applied Data Mathematics
- BME 5937: Special Topics
- BME 6010: Clinical Immersion
- BME 6018: Clinical Correlations in BME
- BME 6164: Magnetic Biomaterials
- BME 6324: Stem Cell Engineering
- BME 6330: Cell and Tissue Engineering
- BME 6360: Neural Engineering
- BME 6502: Introduction to Medical Imaging
- BME 6505: Advanced Diagnostic Radiological Physics
- BME 6522: Biomedical Multivariate Signal Processing
- BME 6534: Advanced Therapeutic Radiological Physics
- BME 6535: Radiological Physics, Measurements and Dosimetry
- BME 6592: Therapeutic Radiological Physics II
- BME 6593: Therapeutic Radiological Physics III
- BME 6705: Mathematical Modeling of Biological and Physiological Systems
- BME 6905: Individual Work in Biomedical Engineering
- BME 6907: BME Project
- BME 6910: Supervised Research
- BME 6936: Biomedical Engineering Seminar
- BME 6938: Special Topics in Biomedical Engineering
- BME 6940: Supervised Teaching
- BME 6971: Research for Master's Thesis
- BME 7979: Advanced Research
- BME 7980: Research for Doctoral Dissertation
- ENU 5615C: Nuclear Radiation Detection and Instrumentation
- ENU 5615L: Nuclear Radiation Detection and Instrumentation Lab
- ENU 6051: Radiation Interaction Basics and Applications I

- ENU 6052: Radiation Transport Basics and Applications
- ENU 6627: Therapeutic Radiological Physics
- ENU 6657: Diagnostic Radiological Physics

College of Engineering and College of Medicine Courses

- Click here for information about additional available College of Engineering courses.

Chemical Engineering Department

Chair: Carlos Rinaldi
Graduate Coordinator: Kirk Ziegler
Master Students Coordinator: Yilder Tseng

The Chemical Engineering Department offers the degrees of Doctor of Philosophy, Master of Science (thesis and non-thesis options), and Master of Engineering in Chemical Engineering. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

The Ph.D., M.E., and M.S. degrees in chemical engineering require course work in three core areas:

- *The chemical engineering basis* area, consisting of three core courses in the mathematical, the molecular, and the continuum bases of chemical engineering

- *The chemical engineering science and systems* area, consisting of a selection of courses in such areas as transport phenomena, electrochemical engineering, thermodynamics, kinetics, reaction engineering, process control, separation processes, and heat and mass transfer

- *The research specialty* area, consisting of courses designed to build depth in a field of specialization. Courses may be from other academic units, or may be chemical engineering courses such as colloid science, corrosion, polymer science, advanced materials, and biochemical engineering.

For more information, please see the program page below and our website: http://che.ufl.edu.

Chemical Engineering

Herbert Wertheim College of Engineering
Chemical Engineering Department

Chemical Engineering Program Information

The Chemical Engineering Department offers the degrees of Doctor of Philosophy, Master of Science (thesis and non-thesis options), and Master of Engineering in Chemical Engineering. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

Master of Science Degree – Thesis Option

Completion of the program is possible in 16 months, and its usual duration ranges from 16 to 24 months. The principal requirements for the M.S. degree are 30 semester hours and a research thesis approved by the student's supervisory committee. These credits include

- Twelve graduate semester hours in the basis of chemical engineering courses (Mathematical Basis, Continuum Basis, Molecular Basis, and Chemical and Bio Lab). Molecular Basis can be replaced with an Elective for students on Applied Track.

- Six credits of Chemical Engineering Science courses, including at least one course in reaction engineering, bioengineering, or kinetics.

- Up to six semester hours of supervised research.

Students must submit a final thesis and pass an oral thesis-defense examination.

Master of Science Degree – Non-Thesis Option

This program is designed for completion in 12 months, although some students prefer longer durations. The M.S.-Non-Thesis provides an opportunity to develop an in-depth knowledge of chemical engineering fundamentals, to emphasize a specific specialization area, and to acquire basic experience in research or industrial practice through a short internship. The principal requirements are 30 credits of courses including an option for 7 credits of research work in a laboratory or of work in an industrial internship. The core course requirements for this program are identical to that for the M.S.-Thesis. A final thesis document is not required but a written report on a project, internship or a contemporary Chemical Engineering topic is required for graduation.

All new students for the M.S. program are admitted to the non-thesis option at the time of admission, and some are converted to the thesis option upon approval by the Research Advisor and the Director of Graduate Programs.

Master of Engineering Degree

A student with a B.S. degree in biology, chemistry, physics, mathematics, or another branch of engineering may obtain a graduate degree in Chemical Engineering by meeting the necessary academic requirements and taking selected undergraduate courses. Students intending to obtain a professionally oriented M.E. degree would normally complete their undergraduate requirements in 1-2 semesters. The graduate course requirements of 30 credits of coursework require another 3-4 semesters. The M.E. students can apply for conversion to the M.S.-NT or M.S.-Thesis program after satisfactory completion of the undergraduate courses.

Ph.D. Degree

The Ph.D. degree plan is primarily a research program. The granting of the degree is based essentially on general proficiency and distinctive attainments in Chemical Engineering and particularly on the demonstrated ability to conduct an independent investigation as exhibited in the doctoral dissertation. Briefly, the formal requirements for the Ph.D. degree are:

- Maintaining a GPA of 3.0 or higher with B- or higher in all Basis courses.
- Successful completion of written and oral examinations for advancement to candidacy. The written examination is comprised of the candidate's objectives and achievements towards his/her doctoral dissertation. The oral examination is based on the written part and related areas. The oral section also includes the Qualifying Examination to test the student's breadth of knowledge in Chemical Engineering fundamentals.
- Preparing a dissertation based on original research.
- Passing the final examination based on the dissertation.
- The graduation requirements include 90 credits including at least 30 credits in coursework. Details and minor changes in any of these requirements will be given upon the student's arrival.

The department offers a combined bachelor's/master's degree program. Contact graduate coordinator for information.

For more information, please see our website: https://www.che.ufl.edu/apply-to-che/#1518393029582-95412685-f4f2.

Degrees Offered with a Major in Chemical Engineering

Doctor of Philosophy
Master of Engineering
Master of Science

Courses

- BME 6221: Biomolecular Cell Mechanics
- BME 6322: Dynamics of Cellular Processes
- BME 6644: Pharmacokinetics
- ECH 5708: Disinfection, Sterilization, and Preservation
- ECH 5938: Topics in Colloid Science
- ECH 6126: Thermodynamics of Reaction and Phase Equilibria
- ECH 6270: Continuum Basis of Chemical Engineering
- ECH 6272: Molecular Basis of Chemical Engineering
- ECH 6285: Transport Phenomena
- ECH 6326: Computer Control of Processes
- ECH 6506: Chemical Engineering Kinetics
- ECH 6526: Reactor Design and Optimization
- ECH 6709: Electrochemical Engineering Fundamentals and Design
- ECH 6726: Interfacial Phenomena I
- ECH 6727: Interfacial Phenomena II
- ECH 6843: Experimental Basis of Chemical Engineering
- ECH 6847: Mathematical Basis of Chemical Engineering
- ECH 6851: Impedance Spectroscopy
- ECH 6905: Individual Work
- ECH 6910: Supervised Research

- ECH 6926: Graduate Seminar
- ECH 6937: Topics in Chemical Engineering I
- ECH 6939: Topics in Chemical Engineering III
- ECH 6940: Supervised Teaching
- ECH 6971: Research for Master's Thesis
- ECH 7938: Advanced Special Chemical Engineering Topics for Doctoral Candidates
- ECH 7979: Advanced Research
- ECH 7980: Research for Doctoral Dissertation

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Civil and Coastal Engineering Department

Chair: K. Hatfield
Graduate Coordinator: Dennis Hiltunen
Complete faculty listing by department: Follow this link.

The Department of Civil and Coastal Engineering offers two distinct graduate programs: civil engineering and coastal and oceanographic engineering. All degrees except the Ph.D. are available in a thesis or nonthesis option.

Civil and Coastal Engineering degree programs include areas of specialization in; Coastal & Oceanographic Engineering, Coastal Ecosystem Dynamics, Geosystems Engineering, Materials & Pavements, Public Works, Structural Engineering, Sustainable Construction Engineering, Transportation Engineering and Water Systems

Minor or supporting work is encouraged from a variety of related or allied fields of study. Ph.D. students are required to take a preliminary examination. Requirements for the M.S., M.E., and Ph.D. degrees are given in the Graduate Degrees section of this catalog.

For information about our Graduate Admissions process and deadlines, please go to https://www.essie.ufl.edu/student_resources/admissions/graduate/.

Civil Engineering

Herbert Wertheim College of Engineering
Civil and Coastal Engineering Department

Civil Engineering Program

The civil engineering program is offered through the Department of Civil and Coastal Engineering with the following degrees: Master of Engineering, Master of Science, and Doctor of Philosophy. The master's degree in civil engineering is also offered through the Electronic Delivery of Graduate Engineering (EDGE) program, which is a distance learning program delivered either via streaming video or DVD directly to the students. Subject to approval by the supervisory committee, graduate-level courses taken through the College of Engineering (EGN), Departments of Environmental Engineering Sciences, Geological Sciences, and Mechanical and Aerospace Engineering are considered as major credit.

For courses taken through the Department of Civil and Coastal Engineering, credit hours graded S/U will not count toward graduation except for

--6 hours of CGN 6971 or EOC 6971 for thesis students
--3 hours of CGN 6974 for students working on the M.E. report
--CGN 7979 or EOC 7979
--CGN 7980 or EOC 7980

The department offers a combined bachelor's/master's degree program for current UF undergraduate students who intend to complete a graduate degree at UF. Please contact the undergraduate coordinator for information.

Degrees Offered with a Major in Civil Engineering

Doctor of Philosophy

without a concentration
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Wetland Sciences

Master of Engineering

without a concentration
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Structural Engineering
concentration in Wetland Sciences

Master of Science

without a concentration
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
with a concentration in Structural Engineering
concentration in Wetland Sciences

Civil and Coastal Engineering Departmental Courses

- CCE 5035: Construction Planning and Scheduling
- CCE 5405: Construction Equipment and Procedures
- CCE 6016: Advanced Engineering Cost Estimating
- CCE 6037: Civil Engineering Operations I
- CCE 6038: Innovative Construction Techniques
- CCE 6505: Computer Applications in Construction Engineering

- CCE 6507: Computer Applications in Construction Engineering II
- CEG 5105: Geotechnical Engineering
- CEG 5114: Advanced Geotechnical Aspects of Landfill Design
- CEG 5115: Foundation Design
- CEG 5205C: Insitu Measurement of Soil Properties
- CEG 5206: Geosensing I
- CEG 5805: Ground Modification Design
- CEG 6015: Advanced Soil Mechanics
- CEG 6116: Advanced Shallow Foundation Design
- CEG 6117: Advanced Deep Foundation Design
- CEG 6201: Experimental Determination of Soil Properties
- CEG 6207: Geosensing II
- CEG 6405: Seepage in Soils
- CEG 6505: Numerical Methods of Geomechanics
- CEG 6515: Earth Retaining Systems and Slope Stability
- CES 5010: Probabilistic and Stochastic Methods in Civil Engineering
- CES 5116: Finite Elements in Civil Engineering
- CES 5325: Design of Highway Bridges
- CES 5606: Topics in Steel Design
- CES 5607: Behavior of Steel Structures
- CES 5715: Prestressed Concrete
- CES 5801: Design and Construction in Timber
- CES 5835: Design of Reinforced Masonry Structures
- CES 6106: Advanced Structural Analysis
- CES 6108: Structural Dynamics
- CES 6165: Computer Methods in Structural Engineering
- CES 6551: Design of Folded Plates and Shells
- CES 6571: Design of Temporary Structures
- CES 6585: Wind Engineering
- CES 6588: Protective Structures
- CES 6590: Impact Engineering
- CES 6591: Applied Protective Structures
- CES 6592: Retrofit Protective Structures
- CES 6593: Advanced Protective Structures
- CES 6706: Advanced Reinforced Concrete
- CES 6855: Condition Assessment of Structures
- CGN 5125: Legal Aspects of Civil Engineering
- CGN 5315: Civil Engineering Systems
- CGN 5605: Public Works Planning
- CGN 5606: Public Works Management
- CGN 5715: Experimentation and Instrumentation in Civil Engineering Materials Research
- CGN 6150: Engineering Project Management
- CGN 6155: Civil Engineering Practice I
- CGN 6156: Construction Engineering II
- CGN 6505: Properties, Design and Control of Concrete
- CGN 6506: Bituminous Materials

- CGN 6525: Sustainable Materials
- CGN 6905: Special Problems in Civil Engineering
- CGN 6910: Supervised Research
- CGN 6936: Civil Engineering Graduate Seminar
- CGN 6940: Supervised Teaching
- CGN 6971: Research for Master's Thesis
- CGN 6974: Master of Engineering or Engineer Degree Report
- CGN 7979: Advanced Research
- CGN 7980: Research for Doctoral Dissertation
- CWR 5125: Groundwater Flow I
- CWR 5127: Evaluation of Groundwater Quality
- CWR 5235: Open Channel Hydraulics
- CWR 6115: Surface Hydrology
- CWR 6126: Variable-Density Groundwater Flow
- CWR 6236: Sediment Transport I
- CWR 6240: Mixing and Transport in Turbulent Flow
- CWR 6525: Groundwater Flow II
- CWR 6537: Contaminant Subsurface Hydrology
- TTE 5006: Advanced Urban Transportation Planning
- TTE 5256: Traffic Engineering
- TTE 5305: Advanced Transportation Systems Analysis
- TTE 5805: Geometric Design of Transportation Facilities
- TTE 5835: Pavement Design
- TTE 5837: Pavement Management Systems
- TTE 6205: Freeway Operations and Simulation
- TTE 6207: Advanced Highway Capacity Analysis
- TTE 6259: Urban Streets Simulation and Control
- TTE 6267: Traffic Flow Theory
- TTE 6306: Computational Methods in Transportation Engineering
- TTE 6315: Highway Safety Analysis
- TTE 6505: Discrete Choice Analysis
- TTE 6606: Urban Transportation Models

Hydrology / Water Resources Shared Courses

- CGN 6905: Special Problems in Civil Engineering
- CWR 5125: Groundwater Flow I
- CWR 5127: Evaluation of Groundwater Quality
- CWR 5235: Open Channel Hydraulics
- CWR 6115: Surface Hydrology
- CWR 6126: Variable-Density Groundwater Flow
- CWR 6525: Groundwater Flow II
- CWR 6537: Contaminant Subsurface Hydrology
- EGM 5816: Intermediate Fluid Dynamics
- ENV 5518: Field Methods in Environmental Hydrology
- ENV 5565: Hydraulic Systems Design
- ENV 6052: Immiscible Fluids in Porous Media

- ENV 6441: Water Resources Planning and Management
- ENV 6508: Wetland Hydrology
- ENV 6932: Special Problems in Environmental Engineering

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Coastal and Oceanographic Engineering

Herbert Wertheim College of Engineering
Civil and Coastal Engineering Department

Coastal and Oceanographic Engineering Program

The coastal and oceanographic engineering program is offered through the Department of Civil and Coastal Engineering with the following degrees: Master of Engineering, Master of Science, and Doctor of Philosophy degree. Subject to approval by the supervisory committee, graduate-level courses taken through the College of Engineering (EGN), the Departments of Environmental Engineering Sciences, Geological Sciences, and Mechanical and Aerospace Engineering are considered as major credit.

For courses taken through the Department of Civil and Coastal Engineering, credit hours graded S/U will not count toward graduation except for

--6 hours of CGN 6971 or EOC 6971 for thesis students|
--3 hours of CGN 6974 for students working on the M.E. report
--CGN 7979 or EOC 7979
--CGN 7980 or EOC 7980

The department offers a combined bachelor's/master's degree program for current UF undergraduate students who intend to complete a graduate degree at UF. Please contact the undergraduate coordinator for information.

Degrees Offered with a Major in Coastal and Oceanographic Engineering

Doctor of Philosophy

Master of Engineering

Master of Science

Coastal and Oceanographic Engineering Courses

- EGM 5816: Intermediate Fluid Dynamics
- EOC 5860: Port and Harbor Engineering
- EOC 6196: Littoral Processes
- EOC 6430: Coastal Structures
- EOC 6850: Numerical Simulation Techniques in Coastal and Ocean Engineering
- EOC 6905: Individual Study in Coastal and Oceanographic Engineering
- EOC 6932: Selected Field and Laboratory Problems
- EOC 6934: Advanced Topics in Coastal and Oceanographic Engineering
- EOC 6939: Graduate Seminar
- EOC 6971: Research for Master's Thesis
- EOC 7979: Advanced Research
- EOC 7980: Research for Doctoral Dissertation
- OCP 6050: Physical Oceanography
- OCP 6165: Ocean Waves I: Linear Theory
- OCP 6165L: Ocean Waves Laboratory
- OCP 6167: Ocean Waves II: Nonlinear Theory
- OCP 6168: Data Analysis Techniques for Coastal and Ocean Engineers
- OCP 6169: Random Sea Analysis
- OCP 6295: Estuarine and Shelf Hydrodynamics I
- OCP 6297: Coastal and Estuarine Sediment Transport
- OCP 6298: Coastal Sediment Transport Processes

Civil and Coastal Engineering Departmental Courses

- CCE 5035: Construction Planning and Scheduling
- CCE 5405: Construction Equipment and Procedures
- CCE 6016: Advanced Engineering Cost Estimating
- CCE 6037: Civil Engineering Operations I
- CCE 6038: Innovative Construction Techniques
- CCE 6505: Computer Applications in Construction Engineering
- CCE 6507: Computer Applications in Construction Engineering II
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- CEG 5114: Advanced Geotechnical Aspects of Landfill Design
- CEG 5115: Foundation Design
- CEG 5205C: Insitu Measurement of Soil Properties
- CEG 5206: Geosensing I
- CEG 5805: Ground Modification Design
- CEG 6015: Advanced Soil Mechanics
- CEG 6116: Advanced Shallow Foundation Design
- CEG 6117: Advanced Deep Foundation Design
- CEG 6201: Experimental Determination of Soil Properties
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- CEG 6405: Seepage in Soils
- CEG 6505: Numerical Methods of Geomechanics
- CEG 6515: Earth Retaining Systems and Slope Stability
- CES 5010: Probabilistic and Stochastic Methods in Civil Engineering
- CES 5116: Finite Elements in Civil Engineering
- CES 5325: Design of Highway Bridges
- CES 5606: Topics in Steel Design
- CES 5607: Behavior of Steel Structures
- CES 5715: Prestressed Concrete
- CES 5801: Design and Construction in Timber
- CES 5835: Design of Reinforced Masonry Structures
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- CES 6108: Structural Dynamics
- CES 6165: Computer Methods in Structural Engineering
- CES 6551: Design of Folded Plates and Shells
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- CES 6590: Impact Engineering
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- CES 6592: Retrofit Protective Structures
- CES 6593: Advanced Protective Structures
- CES 6706: Advanced Reinforced Concrete
- CES 6855: Condition Assessment of Structures
- CGN 5125: Legal Aspects of Civil Engineering
- CGN 5315: Civil Engineering Systems
- CGN 5605: Public Works Planning
- CGN 5606: Public Works Management
- CGN 5715: Experimentation and Instrumentation in Civil Engineering Materials Research
- CGN 6150: Engineering Project Management
- CGN 6155: Civil Engineering Practice I
- CGN 6156: Construction Engineering II
- CGN 6505: Properties, Design and Control of Concrete
- CGN 6506: Bituminous Materials
- CGN 6525: Sustainable Materials
- CGN 6905: Special Problems in Civil Engineering
- CGN 6910: Supervised Research
- CGN 6936: Civil Engineering Graduate Seminar
- CGN 6940: Supervised Teaching
- CGN 6971: Research for Master's Thesis
- CGN 6974: Master of Engineering or Engineer Degree Report
- CGN 7979: Advanced Research
- CGN 7980: Research for Doctoral Dissertation
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- CWR 5127: Evaluation of Groundwater Quality
- CWR 5235: Open Channel Hydraulics

- CWR 6115: Surface Hydrology
- CWR 6126: Variable-Density Groundwater Flow
- CWR 6236: Sediment Transport I
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- CWR 6525: Groundwater Flow II
- CWR 6537: Contaminant Subsurface Hydrology
- TTE 5006: Advanced Urban Transportation Planning
- TTE 5256: Traffic Engineering
- TTE 5305: Advanced Transportation Systems Analysis
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- TTE 5835: Pavement Design
- TTE 5837: Pavement Management Systems
- TTE 6205: Freeway Operations and Simulation
- TTE 6207: Advanced Highway Capacity Analysis
- TTE 6259: Urban Streets Simulation and Control
- TTE 6267: Traffic Flow Theory
- TTE 6306: Computational Methods in Transportation Engineering
- TTE 6315: Highway Safety Analysis
- TTE 6505: Discrete Choice Analysis
- TTE 6606: Urban Transportation Models

Hydrology / Water Resources Shared Courses

- CGN 6905: Special Problems in Civil Engineering
- CWR 5125: Groundwater Flow I
- CWR 5127: Evaluation of Groundwater Quality
- CWR 5235: Open Channel Hydraulics
- CWR 6115: Surface Hydrology
- CWR 6126: Variable-Density Groundwater Flow
- CWR 6525: Groundwater Flow II
- CWR 6537: Contaminant Subsurface Hydrology
- EGM 5816: Intermediate Fluid Dynamics
- ENV 5518: Field Methods in Environmental Hydrology
- ENV 5565: Hydraulic Systems Design
- ENV 6052: Immiscible Fluids in Porous Media
- ENV 6441: Water Resources Planning and Management
- ENV 6508: Wetland Hydrology
- ENV 6932: Special Problems in Environmental Engineering

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation

- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Computer and Information Science and Engineering Department

Herbert Wertheim College of Engineering

Chair: Juan Gilbert, The Banks Preeminence Chair in Engineering
Graduate Coordinator: Ahmed Helmy

The Department of Computer and Information Science and Engineering is concerned with the theory, design, development, and application of computer systems and information processing techniques. The mission of the CISE Department is to educate undergraduate and graduate majors as well as the broader campus community in the fundamental concepts of the computing discipline, to create and disseminate computing knowledge and technology, and to use our expertise in computing to help society solve problems.

The Department of Computer and Information Science and Engineering (CISE) offers

- Ph.D. degree in computer engineering through the College of Engineering
- Master of Engineering degree in computer engineering through the College of Engineering
- Master of Science degree in computer engineering through the College of Engineering
- Ph.D. degree in computer science through the College of Engineering
- Ph.D. degree in human-centered computing through the College of Engineering
- Master of Science degree in computer science through the College of Engineering
- Master of Science degree in digital arts and sciences through the College of Engineering
- Master of Science degree in computer science through the College of Liberal Arts and Sciences

The department also offers a combined bachelor's/master's degree program. Contact the Department's Student Services Center for information.

The CISE Department has six broad areas of specialization:

- Computer systems: computer architecture, distributed systems, networks and communication, operating systems, performance evaluation, security, mobile computing, software engineering, programming languages, multimedia systems, and web technologies

- Database and information systems: database management systems, database design, database theory and implementation, data mining, database machines, parallel and distributed databases, digital libraries, E-services and commerce, medical, and bio-informatics

- High-performance computing/applied algorithms: design and analysis of algorithms, data structures, parallel and distributed computing, medical algorithms, numerical methods, computational complexity, and applied computational geometry

- **Computer graphics, modeling, and art**: modeling methodology, simulation, virtual reality, aesthetic computing, computer arts, animation, real-time rendering, medical modeling, digital media, and musical acoustics

- **Intelligent systems and computer vision**: artificial intelligence, machine learning, visualization, image analysis and processing, pattern recognition, signal processing, biomedical imaging, and image databases

- **Computer networks and security**: wired and wireless networks, network routing and protocols, and QoS.

Applications for admission must be approved by both the Department and the college in which the student wishes to enroll. Applicants should have a strong computer science background.

All master's students must satisfy a core requirement by completing the appropriate number of core courses as specified by their degree program or their approved equivalents with no more than one of the core courses receiving a letter grade below "B." Students can select a thesis or nonthesis option for the master's degree. Digital Arts and Sciences students must choose either thesis or project in lieu of thesis. All options require a minimum of 30 credit hours. The thesis degree requires:

- A minimum of 6 credit hours must be taken in CIS 6971 Master's Research.
- Specific degree requirements can be found at: https://www.cise.ufl.edu/academics/grad

The non-thesis option requires:

- Each nonthesis master's student is required to pass a comprehensive examination.
- Specific degree requirements can be found at: https://www.cise.ufl.edu/academics/grad

The Digital Arts and Sciences project in lieu of thesis option requires 6 credit hours of project/performance credits.

To demonstrate breadth and proficiency, Ph.D. students who major in Computer Engineering or Computer Science must take 4 required core courses obtaining a 3.4 GPA in 3 of the 4 required core courses, with no more than one of the core courses receiving a letter grade below B, to be eligible to take the Ph.D. qualifying examinations.

To demonstrate breadth and proficiency, Ph.D. students who major in Human-Centered Computing must take 3 required core courses obtaining a 3.4 GPA in 2 of the 3 required core courses, with no more than one of the core courses receiving a letter grade below B, to be eligible to take the Ph.D. qualifying examinations.

Ph.D. students are required to take a minimum of 90 credit hours. Of these, at least 36 hours must be graduate-level CISE course work excluding individual study and research credits. A minimum of 3 hours must be taken in CIS 7980. A maximum of 30 credits may be awarded toward the Ph.D. degree from an appropriate master's degree.

The Database Systems Research and Development Center, the Software Engineering Research Center, the Center for Computer Vision and Visualization Center, and a number of other campus research centers provide opportunities for students enrolled in the program.

Human Centered Computing (HCC) Ph.D.

The degree is focused on the design, construction, and evaluation of computational technologies as they relate to the human condition and impacts on society in general. The purpose of the HCC PhD degree is to train a new generation of computing researchers/developers that design, implement, and evaluate computing systems and technologies in real world, or applied, contexts.

HCC PhD degrees exist because the expertise required for this degree does not fit in traditional Computer Science (CS) or Computer Engineering (CE) PhD programs. CS & CE PhD programs have requirements for computer systems and theory.

For more information, please see the program pages below, or visit our website: http://www.cise.ufl.edu

Computer Engineering

Herbert Wertheim College of Engineering

Computer and Information Science and Engineering Department

Computer Engineering Program Information

The Department of Computer and Information Science and Engineering offers the Master of Science and the Doctor of Philosophy degrees in Computer Engineering through the College of Engineering. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

The department offers graduate study and research in Algorithms, Computer Vision, Databases, Graphics and Modeling, Machine Learning, Networks, and Systems, with active labs in Bioinformatics; Computational Science and Intelligence; Vision, Graphics and Medical Imaging; Database Systems Research and Development; Data Science Research; Mobile and Pervasive Computing; Human-Centered Computing; and Cybersecurity.

Specific degree requirements and options may be found here: http://cise.ufl.edu/academics/grad.

Instructions for application for admission may be found here: http://cise.ufl.edu/admissions/graduate.

Degrees Offered with a Major in Computer Engineering

Doctor of Philosophy
Master of Engineering
Master of Science
without a concentration
concentration in Digital Arts and Sciences

Computer and Information Science and Engineering Departmental Courses

- CAP 5100: Human-Computer Interaction
- CAP 5108: Research Methods for Human-Centered Computing
- CAP 5416: Computer Vision
- CAP 5510: Bioinformatics
- CAP 5515: Computational Molecular Biology
- CAP 5635: Artificial Intelligence Concepts
- CAP 5705: Computer Graphics
- CAP 5771: Introduction to Data Science
- CAP 5805: Computer Simulation Concepts
- CAP 6137: Malware Reverse Engineering
- CAP 6402: Aesthetic Computing
- CAP 6516: Medical Image Analysis
- CAP 6610: Machine Learning
- CAP 6615: Neural Networks for Computing
- CAP 6617: Advanced Machine Learning

- CAP 6685: Expert Systems
- CAP 6701: Advanced Computer Graphics
- CAP 6769: Advanced Topics in Data Science
- CAP 6779: Projects in Data Science
- CDA 5155: Computer Architecture Principles
- CDA 5636: Embedded Systems
- CDA 6156: High Performance Computer Architecture
- CEN 5035: Software Engineering
- CEN 5726: Natural User Interaction
- CEN 5728: User Experience Design
- CEN 6070: Software Testing and Verification
- CEN 6075: Software Specification
- CIS 5370: Computer and Information Security
- CIS 5371: Introduction to Cryptology
- CIS 6905: Individual Study
- CIS 6910: Supervised Research
- CIS 6930: Special Topics in CIS
- CIS 6935: Graduate Seminar
- CIS 6940: Supervised Teaching
- CIS 6971: Research for Master's Thesis
- CIS 7979: Advanced Research
- CIS 7980: Research for Doctoral Dissertation
- CNT 5106C: Computer Networks
- CNT 5410: Computer and Network Security
- CNT 5412: Network and System Security
- CNT 5517: Mobile Computing
- CNT 6107: Advanced Computer Networks
- CNT 6885: Distributed Multimedia Systems
- COP 5536: Advanced Data Structures
- COP 5556: Programming Language Principles
- COP 5615: Distributed Operating System Principles
- COP 5618: Concurrent Programming
- COP 5625: Programming Language Translators
- COP 5725: Database Management Systems
- COP 6726: Database System Implementation
- COP 6755: Distributed Database Systems
- COT 5405: Analysis of Algorithms
- COT 5442: Approximation Algorithms
- COT 5519: Sparse Matrix Algorithms
- COT 5520: Computational Geometry
- COT 5615: Mathematics for Intelligent Systems
- COT 6315: Formal Languages and Computation Theory

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab

- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Computer Science (Engineering)

Herbert Wertheim College of Engineering
Computer and Information Science and Engineering Department

Computer Science (Engineering) Program Information

The Department of Computer and Information Science and Engineering offers the Master of Science degree in Computer Science through the College of Engineering. Minimum requirements for this degree are given in the Graduate Degrees section of this catalog.

Degrees Offered with a Major in Computer Science

Doctor of Philosophy
Master of Science

Computer and Information Science and Engineering Departmental Courses

- CAP 5100: Human-Computer Interaction
- CAP 5108: Research Methods for Human-Centered Computing
- CAP 5416: Computer Vision
- CAP 5510: Bioinformatics
- CAP 5515: Computational Molecular Biology
- CAP 5635: Artificial Intelligence Concepts
- CAP 5705: Computer Graphics
- CAP 5771: Introduction to Data Science
- CAP 5805: Computer Simulation Concepts
- CAP 6137: Malware Reverse Engineering
- CAP 6402: Aesthetic Computing
- CAP 6516: Medical Image Analysis
- CAP 6610: Machine Learning
- CAP 6615: Neural Networks for Computing
- CAP 6617: Advanced Machine Learning
- CAP 6685: Expert Systems

- CAP 6701: Advanced Computer Graphics
- CAP 6769: Advanced Topics in Data Science
- CAP 6779: Projects in Data Science
- CDA 5155: Computer Architecture Principles
- CDA 5636: Embedded Systems
- CDA 6156: High Performance Computer Architecture
- CEN 5035: Software Engineering
- CEN 5726: Natural User Interaction
- CEN 5728: User Experience Design
- CEN 6070: Software Testing and Verification
- CEN 6075: Software Specification
- CIS 5370: Computer and Information Security
- CIS 5371: Introduction to Cryptology
- CIS 6905: Individual Study
- CIS 6910: Supervised Research
- CIS 6930: Special Topics in CIS
- CIS 6935: Graduate Seminar
- CIS 6940: Supervised Teaching
- CIS 6971: Research for Master's Thesis
- CIS 7979: Advanced Research
- CIS 7980: Research for Doctoral Dissertation
- CNT 5106C: Computer Networks
- CNT 5410: Computer and Network Security
- CNT 5412: Network and System Security
- CNT 5517: Mobile Computing
- CNT 6107: Advanced Computer Networks
- CNT 6885: Distributed Multimedia Systems
- COP 5536: Advanced Data Structures
- COP 5556: Programming Language Principles
- COP 5615: Distributed Operating System Principles
- COP 5618: Concurrent Programming
- COP 5625: Programming Language Translators
- COP 5725: Database Management Systems
- COP 6726: Database System Implementation
- COP 6755: Distributed Database Systems
- COT 5405: Analysis of Algorithms
- COT 5442: Approximation Algorithms
- COT 5519: Sparse Matrix Algorithms
- COT 5520: Computational Geometry
- COT 5615: Mathematics for Intelligent Systems
- COT 6315: Formal Languages and Computation Theory

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience

- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Digital Arts and Sciences (Engineering)

Herbert Wertheim College of Engineering
Computer and Information Science and Engineering Department

Digital Arts and Sciences (Engineering) Program Information

The Department of Computer and Information Science and Engineering offers the Master of Science degree in Digital Arts and Sciences through the College of Engineering. Minimum requirements for this degree are given in the Graduate Degrees section of this catalog.

This specialized program integrates engineering and design and was created for students with an interest in video games, human-computer interaction, 3D modeling and animation, virtual reality, and computer graphics. The curriculum includes core computer science with a special emphasis on human-centered computing and provides students the flexibility to focus on both computer science and design, and to create software that is computationally complex, user friendly and aesthetically pleasing.

Specific degree requirements and options may be found here: http://cise.ufl.edu/academics/grad

Instructions for application for admission may be found here:
http://cise.ufl.edu/admissions/grad

Degrees

Master of Science

Computer and Information Science and Engineering Departmental Courses

- CAP 5100: Human-Computer Interaction
- CAP 5108: Research Methods for Human-Centered Computing
- CAP 5416: Computer Vision
- CAP 5510: Bioinformatics
- CAP 5515: Computational Molecular Biology
- CAP 5635: Artificial Intelligence Concepts
- CAP 5705: Computer Graphics
- CAP 5771: Introduction to Data Science
- CAP 5805: Computer Simulation Concepts

- CAP 6137: Malware Reverse Engineering
- CAP 6402: Aesthetic Computing
- CAP 6516: Medical Image Analysis
- CAP 6610: Machine Learning
- CAP 6615: Neural Networks for Computing
- CAP 6617: Advanced Machine Learning
- CAP 6685: Expert Systems
- CAP 6701: Advanced Computer Graphics
- CAP 6769: Advanced Topics in Data Science
- CAP 6779: Projects in Data Science
- CDA 5155: Computer Architecture Principles
- CDA 5636: Embedded Systems
- CDA 6156: High Performance Computer Architecture
- CEN 5035: Software Engineering
- CEN 5726: Natural User Interaction
- CEN 5728: User Experience Design
- CEN 6070: Software Testing and Verification
- CEN 6075: Software Specification
- CIS 5370: Computer and Information Security
- CIS 5371: Introduction to Cryptology
- CIS 6905: Individual Study
- CIS 6910: Supervised Research
- CIS 6930: Special Topics in CIS
- CIS 6935: Graduate Seminar
- CIS 6940: Supervised Teaching
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- COT 5519: Sparse Matrix Algorithms
- COT 5520: Computational Geometry

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- COT 6315: Formal Languages and Computation Theory

College of Engineering Courses

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- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Human-Centered Computing

Herbert Wertheim College of Engineering
Computer and Information Science and Engineering Department

Human-Centered Computing Program Information

The Department of Computer and Information Science and Engineering offers doctorate in Human-Centered Computing through the College of Engineering. Minimum requirements for this degree are given in the Graduate Degrees section of this catalog.

Human-Centered Computing (HCC) draws on the disciplines of digital media, engineering psychology, assistive technologies, architecture, industrial and systems engineering, industrial design, music, and public policy to name a few. HCC research meets industrial and societal needs for education and research in humanizing computer technology through understanding how computers affect human quality of life, relationships, and culture, while also designing cutting edge technologies, and exploring the underlying issues of science, engineering, art, and design.

Degrees Offered with a Major in Human-Centered Computing

Doctor of Philosophy

Computer and Information Science and Engineering Departmental Courses

- CAP 5100: Human-Computer Interaction
- CAP 5108: Research Methods for Human-Centered Computing
- CAP 5416: Computer Vision
- CAP 5510: Bioinformatics
- CAP 5515: Computational Molecular Biology
- CAP 5635: Artificial Intelligence Concepts
- CAP 5705: Computer Graphics
- CAP 5771: Introduction to Data Science

- CAP 5805: Computer Simulation Concepts
- CAP 6137: Malware Reverse Engineering
- CAP 6402: Aesthetic Computing
- CAP 6516: Medical Image Analysis
- CAP 6610: Machine Learning
- CAP 6615: Neural Networks for Computing
- CAP 6617: Advanced Machine Learning
- CAP 6685: Expert Systems
- CAP 6701: Advanced Computer Graphics
- CAP 6769: Advanced Topics in Data Science
- CAP 6779: Projects in Data Science
- CDA 5155: Computer Architecture Principles
- CDA 5636: Embedded Systems
- CDA 6156: High Performance Computer Architecture
- CEN 5035: Software Engineering
- CEN 5726: Natural User Interaction
- CEN 5728: User Experience Design
- CEN 6070: Software Testing and Verification
- CEN 6075: Software Specification
- CIS 5370: Computer and Information Security
- CIS 5371: Introduction to Cryptology
- CIS 6905: Individual Study
- CIS 6910: Supervised Research
- CIS 6930: Special Topics in CIS
- CIS 6935: Graduate Seminar
- CIS 6940: Supervised Teaching
- CIS 6971: Research for Master's Thesis
- CIS 7979: Advanced Research
- CIS 7980: Research for Doctoral Dissertation
- CNT 5106C: Computer Networks
- CNT 5410: Computer and Network Security
- CNT 5412: Network and System Security
- CNT 5517: Mobile Computing
- CNT 6107: Advanced Computer Networks
- CNT 6885: Distributed Multimedia Systems
- COP 5536: Advanced Data Structures
- COP 5556: Programming Language Principles
- COP 5615: Distributed Operating System Principles
- COP 5618: Concurrent Programming
- COP 5625: Programming Language Translators
- COP 5725: Database Management Systems
- COP 6726: Database System Implementation
- COP 6755: Distributed Database Systems
- COT 5405: Analysis of Algorithms
- COT 5442: Approximation Algorithms
- COT 5519: Sparse Matrix Algorithms

- COT 5520: Computational Geometry
- COT 5615: Mathematics for Intelligent Systems
- COT 6315: Formal Languages and Computation Theory

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Electrical and Computer Engineering Department

Chair: J. Harris
Graduate Coordinator: John Shea

The Department of Electrical and Computer Engineering offers the Master of Science and Doctor of Philosophy degrees. Minimum requirements for these degrees are given in the Graduate Degrees Section of this catalog. For more information about our program, please visit the link below.

Electrical and Computer Engineering

Herbert Wertheim College of Engineering
Electrical and Computer Engineering Department

Electrical and Computer Engineering Program Information

The Department of Electrical and Computer Engineering offers the Master of Science and Doctor of Philosophy degrees. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

The department offers graduate study and research in computer engineering, devices, electromagnetics and energy systems, electronics, and signals and systems.

Graduate students in the Department of Electrical and Computer Engineering have bachelor's degrees from many areas: electrical engineering, other engineering disciplines, chemistry, mathematics, physics, and other technical fields. The Department of Electrical and Computer Engineering offers both thesis and nonthesis options for the master's degrees.

In the *thesis option* a student shall complete a minimum of 30 semester credit hours with a maximum of 6 semester credit hours of EEL 6971 (Research for Master's Thesis). While the Graduate School sets the minimum requirements,

the supervisory committee determines the appropriate number of thesis hours a student shall be required to take for the thesis. Other course requirements include a minimum of 18 hours at the 5000 or 6000 level in electrical and computer engineering. Excluded from satisfying these course requirements are EEL 5905 and EEL 6905 (Individual Work), EEL 6910 (Supervised Research), 6932 (Graduate Seminar), EEL 6940 (Supervised Teaching), and EEL 6971 (Research for Master's Thesis). No more than 6 hours of Individual Work (EEL 5905 or EEL 6905) may be counted toward the degree.

In the nonthesis option a student shall complete a minimum of 30 semester credit hours with a maximum of 6 semester credit hours of Individual Work (EEL 5905 or EEL 6905). The course requirements include a minimum of 21 semester credit hours at the 5000 or 6000 level in electrical and computer engineering. Excluded from satisfying these course requirements are EEL 5905 and EEL 6905 (Individual Work), EEL 6910 (Supervised Research), 6932 (Graduate Seminar), EEL 6940 (Supervised Teaching), and EEL 6971 (Research for Master's Thesis).

The Department also offers a combined bachelor's/master's degree program. This program allows qualified students to earn both a bachelor's degree and master's degree with a saving of one semester. Qualified students may begin their master's programs while seniors, counting up to 12 hours of specified electrical and computer engineering graduate courses for both bachelor's and master's degree requirements. Bachelor's/master's program admission requirements are (1) satisfaction of Graduate School admission requirements for the master's degree, (2) an upper-division (undergraduate) GPA of at least 3.3, and (3) completion of at least 7 EEL core courses and 2 EEL laboratories. Students with a GPA between 3.3 and 3.59 can double count up to 6 hours, while students with a GPA of 3.6 or higher can double count up to 12 hours.

All prospective doctoral students must take the written part of the Ph.D. qualifying examination within the first year of enrollment. Other requirements for the doctoral degree, as well as requirements for master's and engineer degrees, are given in the Electrical and Computer Engineering Department's Graduate Guidelines (see http://www.ece.ufl.edu/content/graduate-academics) and in the front section of this catalog.

The following course listing indicates the major areas of faculty interest. Special topics courses EEL 5934 and EEL 6935 cover a wide variety of subjects for which there are no present courses.

Degrees Offered with a Major in Electrical and Computer Engineering

Doctor of Philosophy

concentration in Clinical and Translational Science

Master of Engineering

Master of Science

Electrical and Computer Engineering Courses

- CNT 6805: Network Science and Applications
- EEE 5216: Introduction to Biophotonics
- EEE 5225: Resonant MEMS
- EEE 5283: Neural Signals, Systems and Technology
- EEE 5317C: Introduction to Power Electronics
- EEE 5320: Analog IC Design I
- EEE 5322: VLSI Circuits and Technology
- EEE 5364: Fundamentals of Data Converters
- EEE 5374: Radio Frequency Electronics
- EEE 5400: Future of Microelectronics Technology
- EEE 5405: Microelectronic Fabrication Technologies
- EEE 5408: Mixed Signal IC Testing I
- EEE 5426: Introduction to Nanodevices

- EEE 5467: Micro/Nano Machined Metamaterials
- EEE 5502: Foundations of Digital Signal Processing
- EEE 5544: Noise in Linear Systems
- EEE 5556: Electronic Countermeasures
- EEE 5702: Automated Hardware/Software Verification
- EEE 5716: Introduction to Hardware Security and Trust
- EEE 5725: Acoustics
- EEE 6287: Brain Machine Interface Engineering
- EEE 6321: Analog IC Design II
- EEE 6323: Advanced VLSI Design
- EEE 6328C: Microwave IC Design
- EEE 6374: Radio Frequency (RF) Integrated Circuits and Technologies
- EEE 6382: Semiconductor Physical Electronics
- EEE 6390: VLSI Device Design
- EEE 6397: Semiconductor Device Theory I
- EEE 6428: Nanoscale Devices for VLSI Technology
- EEE 6431: Carbon Nanotubes
- EEE 6460: Advanced Microsystem Technology
- EEE 6465: Design of MEMS Transducers
- EEE 6503: Digital Filtering
- EEE 6504: Machine Learning for Time Series
- EEE 6512: Image Processing and Computer Vision
- EEE 6561: Fundamentals of Biometric Identification
- EEE 6586: Automatic Speech Processing
- EEE 6715: Computational Aspects of Cyber-Physical Systems
- EEE 6742: Advanced Hardware Security and Trust
- EEL 5182: State Variable Methods in Linear Systems
- EEL 5225: Principles of Micro-Electro-Mechanical Transducers
- EEL 5250: Power System Analysis
- EEL 6275: Power System Protection
- EEL 5285: Smart Grid for Sustainable Energy
- EEL 5400: Airborne Sensors and Instrumentation
- EEL 5401: Airborne Laser Scanning: Data Processing and Analysis
- EEL 5406: Computational Photography
- EEL 5417: Applied Magnetism & Magnetic Materials
- EEL 5426: RF/Microwave Passive Circuits
- EEL 5441: Fundamentals of Photonics
- EEL 5447: Laser Theory and Design
- EEL 5462: Advanced Antenna Systems
- EEL 5490: Lightning
- EEL 5547: Introduction to Radar
- EEL 5666C: Intelligent Machines Design Laboratory
- EEL 5718: Computer Communications
- EEL 5721: Reconfigurable Computing
- EEL 5733: Advanced Systems Programming
- EEL 5737: Principles of Computer System Design

- EEL 5764: Computer Architecture
- EEL 5840: Fundamentals of Machine Learning
- EEL 5855: Cross Layered Systems Security
- EEL 5905: Individual Work
- EEL 5934: Special Topics in Electrical Engineering
- EEL 6065: Electrical & Computer Engineering Technical Writing
- EEL 6246: Power Electronics II
- EEL 6264: Advanced Electric Energy Systems I
- EEL 6265: Advanced Electric Energy Systems II
- EEL 6443: Integrated and Fiber Optics
- EEL 5486: Electromagnetic Fields and Applications
- EEL 6487: Electromagnetic Field Theory and Applications II
- EEL 6507: Queuing Theory and Data Communications
- EEL 6509: Wireless Communication
- EEL 6528: Digital Communications with Software-defined Radios
- EEL 6532: Information Theory
- EEL 6533: Data Analytics and Decision Sciences
- EEL 6535: Digital Communications
- EEL 6537: Spectral Sensing and Sparse Signal Recovery
- EEL 6550: Error Correction Coding
- EEL 6555: Signal Processing for Active Sensing
- EEL 6588: Wireless Ad Hoc Networks
- EEL 6591: Wireless Networks
- EEL 6614: Modern Control Theory
- EEL 6617: Linear Multivariable Control
- EEL 6619: Robust Control Systems
- EEL 6686: Embedded Systems Seminar
- EEL 6706: Fault-Tolerant Computer Architecture
- EEE 6744: Hands-On Hardware Security
- EEL 6761: Cloud Computing and Storage
- EEL 6763: Parallel Computer Architecture
- EEL 6769: Hardware-Software Interactions: Nonnumeric Processing
- EEL 6814: Neural Networks and Deep Learning
- EEL 6825: Pattern Recognition and Intelligent Systems
- EEL 6841: Machine Intelligence and Synthesis
- EEL 6871: Software Defined Systems
- EEL 6892: Virtual Computers
- EEL 6905: Individual Work
- EEL 6910: Supervised Research
- EEL 6933: Electrical and Computer Engineering Graduate Seminar
- EEL 6935: Special Topics in Electrical Engineering
- EEL 6940: Supervised Teaching
- EEL 6971: Research for Master's Thesis
- EEL 7979: Advanced Research
- EEL 7980: Research for Doctoral Dissertation

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Environmental Engineering Sciences Department

Director: Kirk Hatfield
Graduate Coordinator: Chang-Yu Wu

The Department of Environmental Engineering Sciences offers graduate study in the following areas: Air Resources; Biogeochemical Systems; Environmental Nanotechnology; Solid and Hazardous Waste Management; Storm Water, Water Supply and Waste Water; Sustainability Science & Engineering; Systems Ecology and Ecological Engineering; and Water Resources. Students graduated from the program will demonstrate depth in individual focus areas as well as breadth of core knowledge concepts in all areas.

Please visit the program page below and our website: http://www.essie.ufl.edu for more information about our program in Environmental Engineering Sciences.

Environmental Engineering Sciences

Herbert Wertheim College of Engineering
Environmental Engineering Sciences Department

Environmental Engineering Sciences Program Information

Graduate study is offered leading to the degrees Master of Engineering, Master of Science, and Doctor of Philosophy in the field of environmental engineering sciences. Our graduate research and education areas are

Air Resources

• Monitoring of air pollutants: indoor, ambient, industrial, and occupational
• Monitoring methodology and instrumentation development

• Formation and fate of air pollutants
• Air quality modeling
• Air pollution control: system, process and materials
• Sustainability of air quality
• Health effects and environmental impact of air pollutant

Environmental Nanotechnology

• Manufacturing and tailoring of nanomaterials and nanodevices for application in environmental and human health research

• Environmental fate and transport of nanomaterials

• Environmental implications of nanomaterials

Engineering Education Collaborative

• Student-centered learning and design based apprenticeship
• Problem solving and critical thinking
• Diversity and cultures of inclusion
• Role of informal learning environments
• Universal design for STEM students with (learning) disabilities

GeoSystem Engineering/Waste Management

• Bioreactor Landfills
• Combustion and Thermal Treatment Residuals
• Contaminated Soil Characterization and Treatment
• Construction and Demolition Debris
• Electronic Waste
• Hazardous Waste
• Landfill Design and Operations
• Landfill Gas and Leachate
• Recycling and Beneficial Use of Wastes
• Treated Wood
• Waste Characterization and Leaching
• Solid Waste Management in Developing Countries

Stormwater, Water Supply and Wastewater

• Fundamental characterization of aqueous and particulate-phase contaminants including emerging contaminants: representative ambient monitoring, methodology and load quantification.

• Sourcing and generation of aqueous and particulate phase contaminants, physics and chemistry of contaminant transport and fate.

• Water contaminant control: systems, unit operation and processes, and materials development, in particular innovative mass transfer materials and low impact development materials.

• Water reuse as part of the urban water cycle: volumetric and contaminant load impacts

• Unit operation and process modeling: scalable physical models and computational fluid dynamics (CFD).

• Integrated physical, chemical, biological and thermal treatment phenomena for water cycle components.

• Coupling fundamental monitoring and material balance testing with urban water modeling.

• Fundamental and applied studies of physical-chemical water treatment processes, such as adsorption, coagulation, ion exchange, and oxidation, for a wide range of water qualities including surface water, groundwater, membrane concentrate, landfill leachate, and human urine.

• Innovative applications of ion exchange for water treatment.

• Fundamental studies in aquatic chemistry with a focus on the role of natural organic matter.

• Fundamental and applied studies of adsorption and photocatalysis, including surface optimization

• Bottom up integrated urban water system simulation and optimization

Sustainability Science & Engineering

• Rational design of nanomaterial through acute and full-life-cycle toxicity assessment
• Life cycle assessment calculations and comparisons of alternative energy and materials options
• Industrial ecology
• Corporate water resources sustainability
• Campus green building codes
• Green laboratory techniques
• Operation of buildings to meet green energy requirements

Systems Ecology and Ecological Engineering

• Ecological Engineering
• Emergy Analysis and Environmental Economics
• Wetlands and Watershed Ecology
• Ecological Modeling
• Community and Conservation Ecology
• Environmental Policy
• Microbiology of Natural and Engineered Systems
• Biological and Chemical Remediation of Contaminated Systems
• Effects of Climate and Land Use Changes on Biogeochemical Cycles

Water Systems

• Contaminant transport and fate

• Decision support systems

• Ecohydrology and hydrologic restoration

• Hydrology

• Stormwater control

• Water resources planning and management

• Water conservation

• Fundamental characterization of aqueous and particulate-phase contaminants including emerging contaminants: representative ambient monitoring, methodology and load quantification.

• Sourcing and generation of aqueous and particulate phase contaminants, physics and chemistry of contaminant transport and fate.

• Water contaminant control: systems, unit operation and processes, and materials development, in particular innovative mass transfer materials and low impact development materials.

• Water reuse as part of the urban water cycle: volumetric and contaminant load impacts

• Unit operation and process modeling: scalable physical models and computational fluid dynamics (CFD).

• Integrated physical, chemical, biological and thermal treatment phenomena for water cycle components.

• Coupling fundamental monitoring and material balance testing with urban water modeling.

• Fundamental and applied studies of physical-chemical water treatment processes, such as adsorption, coagulation, ion exchange, and oxidation, for a wide range of water qualities including surface water, groundwater, membrane concentrate, landfill leachate, and human urine.

• Innovative applications of ion exchange for water treatment.

• Fundamental studies in aquatic chemistry with a focus on the role of natural organic matter.

• Fundamental and applied studies of adsorption and photo catalysis, including surface optimization

• Bottom up integrated urban water system simulation and optimization

• Aqueous Geochemistry and Water Treatment

Graduate students can also combine one or more of the above areas with specialties in other departments at the University of Florida.

The department participates in the hydrologic sciences interdisciplinary concentration that is offered through 9 departments in 3 colleges. This concentration is described under Interdisciplinary Graduate Studies.

Direct admission into the Master of Science and Doctor of Philosophy programs requires a bachelor's degree in engineering or in a basic science such as chemistry, geology, physics, biology, or mathematics. Persons with a degree in a nontechnical field may also be admitted into this program after completing appropriate technical courses. Direct admission into the Master of Engineering program requires a bachelor's degree in engineering from an ABET-accredited institution.

Requirements for a master's degree normally take 12 to 24 months to complete. The length of time required for the Doctor of Philosophy degree depends partly on the research topic, and may be completed in 3 years, but often takes longer, depending on prior academic experience.

Combined degree program: The department offers a combined bachelor's/master's degree program. This program allows qualified students to earn both a bachelor's degree and a master's degree, with a savings of 12 credits.

Joint program: The Environmental Engineering Sciences Department, in partnership with the Levin College of Law, offers a joint program leading to the M.S. or M.E. degree in environmental engineering sciences and the Juris Doctor degree. Twelve credits of appropriate course work are counted toward both degrees.

For more information, please see our website: http://www.essie.ufl.edu.

Degrees Offered with a Major in Environmental Engineering Sciences

Doctor of Philosophy

without a concentration
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Wetland Sciences

Master of Engineering

without a concentration
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Wetland Sciences

Master of Science

without a concentration
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Wetland Sciences

Courses

- CWR 6115: Surface Hydrology
- CWR 6116: Advanced Surface Hydrology
- CWR 6252: Environmental Biochemistry of Trace Metals
- CWR 6536: Stochastic Subsurface Hydrology
- CWR 6537: Contaminant Subsurface Hydrology
- EES 5105: Advanced Wastewater Microbiology
- EES 5107: Ecological and Biological Systems
- EES 5207: Environmental Chemistry
- EES 5245: Water Quality Analysis
- EES 5305C: Ecological and General Systems
- EES 5306: Energy Analysis
- EES 6307: Advanced Ecological Engineering
- EES 5415: Environmental Health
- EES 6007: Advanced Energy and Environment
- EES 6051: Advanced Environmental Planning and Design
- EES 6107C: Advanced Ecological Engineering
- EES 6135: Aquatic Microbiology
- EES 6136: Aquatic Autotrophs
- EES 6137: Aquatic Heterotrophs
- EES 6140: Biology of Exotic Species
- EES 6208: Principles of Water Chemistry I
- EES 6225: Atmospheric Chemistry
- EES 6246: Advanced Water Analysis

- EES 6308C: Wetland Ecology
- EES 6309: Wetland Design and Restoration
- EES 6318: Principles of Industrial Ecology
- EES 6335: Springs Ecosystems
- EES 6405: Environmental Toxicology
- EES 6425: Environmental Nanotechnology
- EES 6932: Modeling the Fate of Air Pollutants
- ENV 6439: Activated Carbon: Environmental Design and Application
- ENV 5072: Pollution Control and Prevention
- ENV 5075: Environmental Policy
- ENV 5105: Foundations of Air Pollution
- ENV 5306: Municipal Refuse Disposal
- ENV 5518: Field Methods in Environmental Hydrology
- ENV 5520: Fluid Flow in Environmental Systems
- ENV 5565: Hydraulic Systems Design
- ENV 6052: Immiscible Fluids in Porous Media
- ENV 6126: Air Pollution Control Design
- ENV 6130: Aerosol Mechanics
- ENV 6215: Health Physics
- ENV 6216: Radioactive Wastes
- ENV 6301: Advanced Solid Waste Containment Design
- ENV 6435: Advanced Water Treatment Process Design
- ENV 6435L: Water Treatment Process Design Laboratory
- ENV 6437: Advanced Wastewater System Design
- ENV 6438: Advanced Potable Water Systems Design
- ENV 6441: Water Resources Planning and Management
- ENV 6416: Advanced Stormwater Control Systems
- ENV 6508: Wetland Hydrology
- ENV 6510: Groundwater Restoration
- ENV 6511: Biological Wastewater Treatment
- ENV 6556: Advanced Waste Treatment Operations
- ENV 6617: Principles of Green Engineering Design and Sustainability
- ENV 6905: Individual Work
- ENV 6910: Supervised Research
- ENV 6916: Nonthesis Project
- ENV 6932: Special Problems in Environmental Engineering
- ENV 6935: Graduate Environmental Engineering Seminar
- ENV 6971: Research for Master's Thesis
- ENV 7979: Advanced Research
- ENV 7980: Research for Doctoral Dissertation

Hydrology / Water Resources Shared Courses

- CGN 6905: Special Problems in Civil Engineering
- CWR 5125: Groundwater Flow I
- CWR 5127: Evaluation of Groundwater Quality
- CWR 5235: Open Channel Hydraulics

- CWR 6115: Surface Hydrology
- CWR 6126: Variable-Density Groundwater Flow
- CWR 6525: Groundwater Flow II
- CWR 6537: Contaminant Subsurface Hydrology
- EGM 5816: Intermediate Fluid Dynamics
- ENV 5518: Field Methods in Environmental Hydrology
- ENV 5565: Hydraulic Systems Design
- ENV 6052: Immiscible Fluids in Porous Media
- ENV 6441: Water Resources Planning and Management
- ENV 6508: Wetland Hydrology
- ENV 6932: Special Problems in Environmental Engineering

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Industrial and Systems Engineering Department

Interim Chair: L. Elefteriadou
Graduate Coordinators: Y. Guan and J.P. Richard

The Department of Industrial and Systems Engineering offers the Master of Engineering and the Master of Science degrees, each with a thesis or nonthesis option, with specialization in engineering management, manufacturing and logistics systems engineering, operations research, quality engineering, and special interest options such as health systems. In addition, the Department offers the Doctor of Philosophy degree with specialization in linear, combinatorial, nonlinear, and global optimization; supply chain management and e-commerce; financial engineering; manufacturing management; facilities location and layout; quality engineering; and stochastic processes.

Complete descriptions of the requirements for the M.E., M.S., and Ph.D. degrees are provided in the *General Information* section of this catalog.

A degree in one of the engineering disciplines or in mathematics, statistics, physics, computer sciences, quantitative management, or similar fields is prerequisite. Where the student's background is deficient, an articulation program of foundation courses will be required.

The Department offers a combined bachelor's/master's degree program of B.S.I.S.E./Master of Science (Management), B.S.I.S.E./Master of Engineering or Master of Science, and a B.S. from disciplines within the College of Engineering/Master of Science or Master of Engineering. Contact the graduate coordinator for information.

Industrial and Systems Engineering

Herbert Wertheim College of Engineering
Industrial and Systems Engineering Department

Industrial and Systems Engineering Program Information

The Department of Industrial and Systems Engineering offers the Master of Engineering degree, the Master of Science degree, the Engineer degree, and the Doctor of Philosophy degree. Complete descriptions of the minimum requirements for the M.E., M.S., Engineer, and Ph.D. degrees are provided in the Graduate Degrees section of this catalog.

Master of Science (M.S.) Program

Admission to the Master of Science program is open to students with an undergraduate degree in engineering, mathematics, statistics, computer science, physics, quantitative management, or similar field. The M.S. degree does not require a thesis, although a student interested in pursuing research or possibly continuing their education beyond a master's degree is encouraged to write one.

Master of Engineering (M.E.) Program

Students seeking admission to the Master of Engineering program must have a bachelor's degree from an ABET-accredited curriculum or have taken sufficient articulation course work to meet the minimum requirements specified by ABET. The M.E. degree does not require a thesis and is generally considered a terminal degree.

Ph.D. Program

The doctoral program in Industrial and Systems Engineering focuses on operations research (linear, integer, nonlinear, and stochastic programming, combinatorial and global optimization, and stochastic processes) with applications in areas such as health care, supply chain management, data mining, transportation, financial engineering, security, and manufacturing management.

For more information, please see our website: http://www.ise.ufl.edu.

Degrees Offered with a Major in Industrial and Systems Engineering

Doctor of Philosophy
without a concentration
concentration in Quantitative Finance
Master of Engineering
Master of Science

Industrial and Systems Engineering Courses

- EIN 6176: Advanced Quality Management and Engineering for Business Processes
- EIN 6336: Advanced Production and Inventory Control
- EIN 6357: Advanced Engineering Economy
- EIN 6367: Facilities Layout and Location
- EIN 6422: Manufacturing Management
- EIN 6510: Principles of Manufacturing Systems Engineering
- EIN 6905: Special Problems
- EIN 6910: Supervised Research
- EIN 6918: Graduate Seminar
- EIN 6940: Supervised Teaching
- EIN 6971: Research for Master's Thesis
- EIN 7933: Special Problems
- EIN 7979: Advanced Research
- EIN 7980: Research for Doctoral Dissertation
- ESI 5236: Reliability Engineering
- ESI 6162C: Advanced Industrial Applications of Microprocessors
- ESI 6314: Deterministic Methods in Operations Research
- ESI 6323: Models for Supply Chain Management
- ESI 6325: Applied Probability Methods in Engineering
- ESI 6341: Intro to Stochastic Optimization
- ESI 6346: Decision Making under Uncertainty
- ESI 6355: Decision Support Systems for Industrial and Systems Engineers
- ESI 6417: Linear Programming and Network Optimization
- ESI 6418: Linear Programming Extensions and Applications
- ESI 6420: Fundamentals of Mathematical Programming
- ESI 6429: Introduction to Nonlinear Optimization
- ESI 6448: Discrete Optimization Theory
- ESI 6449: Integer Programming
- ESI 6492: Global Optimization
- ESI 6529: Digital Simulation Techniques
- ESI 6533: Advanced Simulation Design and Analysis
- ESI 6546: Stochastic Modeling and Analysis
- ESI 6552: Systems Architecture
- ESI 6553: Systems Design
- ESI 6555: Systems Management
- ESI 6900: Principles of Engineering Practice

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics

- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Materials Science and Engineering Department

Chair: M.V. Manuel
MSE Graduate Coordinator: W.M. Sigmund
NE Graduate Coordinator: D. Schubring

The Department of Materials Science and Engineering offers the Master of Science, Master of Engineering, and Doctor of Philosophy degrees in Materials Science & Engineering (MSE) and Nuclear Engineering (NE). Requirements for these degrees are described in the General Information section of this catalog.

Degrees in MSE include specific areas of research and study in biomaterials, ceramics, composites, computational materials science, electronic materials, metals, polymers, nanomaterials, and nuclear materials. Degrees in NE include specific areas of research and study in advanced nuclear power concepts and systems, digital control of nuclear reactor power plant technology and operations, reactor dynamics and control, advanced radiation detectors and analysis in support of nuclear forensics and homeland security.

Nontraditional Degree Programs: The Department offers combined bachelor/master's degree programs: MSE BS/MS, NE BS/MS, and students may also combine the MSE BS with the MS awarded through the Dept. of Biomedical Engineering (BME). The combined bachelor/master's program allows qualified students to earn both degrees in materials science and engineering with savings of a tangible number of credit hours. Qualified students are allowed to begin master's course work in their junior years and double count specific graduate courses for both degrees. The master's degree may be completed within 2 to 3 semesters after completing the bachelor's degree. Program admission requirements are (1) satisfaction of Graduate School admission requirements prior to the beginning of the senior year, (2) an upper division GPA of at least 3.5 in MSE and 3.4 in NE, (3) for MSE, completion of a minimum of 18 credit hours of courses, (4) admission by the Department's Graduate Admission Committee and approval by the College of Engineering and the Graduate School. For more information, contact the Department.

The J.D./M.S. in MSE (thesis/nonthesis) is a joint degree program culminating in both the Juris Doctor degree, awarded by the College of Law, and the Master of Science (thesis/nonthesis), awarded by the College of Engineering. Under this program, a student can earn both degrees in approximately 1 year less than it would take to attain both degrees if pursued consecutively.

Concurrent M.D./Ph.D. degrees are offered through a collaborative program between the College of Medicine and Materials Science and Engineering. For more information, please contact the Department.

To be eligible for regular admission to the graduate program within the Department, the student must hold a B.S. in an appropriate major. Because of the breadth of MSE graduate programs, students with degrees in materials, ceramics, metallurgy, other engineering, mathematics, or science areas (such as biology, chemistry, or physics) have found ample opportunities to pursue their research and training areas of interest.

Materials Science and Engineering

Herbert Wertheim College of Engineering
Materials Science and Engineering Department

Degrees Offered with a Major in Materials Science and Engineering

Doctor of Philosophy
without a concentration
concentration in Clinical and Translational Science
Master of Engineering
Master of Science

Materials Science and Engineering Courses

- EMA 5008: Particle Science and Technology: Theory and Practice
- EMA 5095: Critical Analysis of Research in Materials Science & Engineering
- EMA 5108: Vacuum Science and Technology
- EMA 5365: Biomimetic Synthesis
- EMA 6001: Properties of Materials - A Survey
- EMA 6005: Thin and Thick Films
- EMA 6105: Fundamentals and Applications of Surface Science
- EMA 6106: Advanced Phase Diagrams
- EMA 6107: High Temperature Materials
- EMA 6110: Electron Theory of Solids for Materials Scientists I
- EMA 6111: Electron Theory of Solids for Materials Scientists II
- EMA 6114: Advanced Materials Principles 2
- EMA 6128: Materials Microstructures
- EMA 6136: Diffusion, Kinetics, and Transport Phenomena
- EMA 6165: Polymer Physical Science
- EMA 6166: Polymer Composites
- EMA 6226: Synthesis and Properties of Metallic Nanostructures
- EMA 6227: Advanced Mechanical Metallurgy II
- EMA 6265: Mechanical Properties of Polymers
- EMA 6313: Advanced Materials Principles I
- EMA 6316: Materials Thermodynamics
- EMA 6319: Applied Colloid and Interfacial Chemistry for Engineers
- EMA 6412: Synthesis and Characterization of Electronic Materials
- EMA 6416: Organic Electronics
- EMA 6445: Electroceramics
- EMA 6446: Solid State Ionics
- EMA 6448: Ceramic Processing
- EMA 6461: Polymer Characterization
- EMA 6507: Scanning Electron Microscopy and Microanalysis
- EMA 6507L: Scanning Electron Microscopy and Microanalysis Lab
- EMA 6510: Survey of Materials Analysis Techniques
- EMA 6512C: X-ray Scattering for Thin Film Analysis
- EMA 6516: X-Ray Methods for Materials Characterization

- EMA 6516L: X-Ray Methods Laboratory for Materials Characterization
- EMA 6518: Transmission Electron Microscopy
- EMA 6518L: Transmission Electron Microscopy Laboratory
- EMA 6519L: Specialized Research Techniques in Materials Science
- EMA 6540: Fundamentals of Crystallography
- EMA 6541: Applied Crystallography and Powder Diffraction
- EMA 6580: Science of Biomaterials I
- EMA 6581: Polymeric Biomaterials
- EMA 6583: The Science of Cell Material Interactions
- EMA 6589: Mechanical Behavior of Biomaterials
- EMA 6590: Advances in Biomaterials and Tissue Engineering for Healthcare
- EMA 6591: Clinical Applications of Biomaterials and Tissue Engineering
- EMA 6616: Advanced Electronic Materials Processing
- EMA 6625: Advanced Metals Processing
- EMA 6667: Polymer Processing
- EMA 6715: Fracture of Brittle Materials
- EMA 6803: Classical Methods in Computational Materials Science
- EMA 6804: Quantum Methods in Computational Materials Science
- EMA 6808: Error Analysis and Optimization Methodologies in Materials Research
- EMA 6905: Individual Work in Materials Science and Engineering
- EMA 6910: Supervised Research
- EMA 6920: Professional Development for Materials Science and Engineering
- EMA 6936: Seminar in Materials Science and Engineering
- EMA 6938: Special Topics in Materials Science and Engineering
- EMA 6971: Research for Master's Thesis
- EMA 7979: Advanced Research
- EMA 7980: Research for Doctoral Dissertation
- ENU 6805: Introduction to Nuclear Reactor Materials

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Mechanical and Aerospace Engineering Department

Chair: David W. Hahn
Graduate Coordinator: David W. Mikolaitis

The Department of Mechanical and Aerospace Engineering offers the degrees of Master of Science (thesis or nonthesis), Master of Engineering (thesis or nonthesis), and Doctor of Philosophy in Aerospace Engineering and Mechanical Engineering. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

Prospective students are expected to have strong backgrounds in engineering. For the first year of study, each student is generally required to take a minimum of three regular courses each semester. There are three areas of specialization available for graduate studies: dynamics, systems, and control; solid mechanics, design, and manufacturing; thermal science and fluid dynamics. Within a specialization there are unique opportunities to conduct analytical, experimental, and/or numerical study in a wide variety of challenging problems.

The Department offers a combined bachelor's/master's degree program. Contact the graduate coordinator for information.

For more information, please see the program pages below and our website: http://www.mae.ufl.edu/current/graduate.

Aerospace Engineering

Herbert Wertheim College of Engineering
Mechanical and Aerospace Engineering Department

Aerospace Engineering Program Information

The Department of Mechanical and Aerospace Engineering offers the degrees of Master of Science (thesis or non-thesis), Master of Engineering (thesis or non thesis), and Doctor of Philosophy in Aerospace Engineering. Official minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

Master of Science & Master of Engineering

Any master's degree candidate may elect to pursue the Master of Science degree (M.S.), however only those holding ABET-accredited baccalaureate degrees in engineering may choose the Master of Engineering degree (M.E.). All other degree requirements remain the same.

A total of 30 credit hours is required for the Master's degree. The Master's degree, with thesis option, includes a minimum of 24 graded credit hours of coursework (excluding S/U courses) and up to 6 credits of thesis research. For students pursuing the non-thesis degree option, a total of 30 graded credit hours (excluding S/U courses) is required. For both the thesis and non-thesis degree, up to 6 credits of out of department coursework at the 3000 or 4000 level (excluding EGN courses and S/U courses) may be completed to satisfy degree requirements, as long as the coursework completed is included in an approved Plan of Study.

A comprehensive final examination is required by the Graduate School for the M.E. or M.S. non-thesis degree option. Passing the written qualifying Ph.D. exam may substitute for the M.S. non-thesis examination for those continuing towards for Ph.D. NOTE: The exam must be completed in either the semester of graduation or the proceeding semester in which the degree is to be conferred.

Doctor of Philosophy

The Doctor of Philosophy (Ph.D.) is a research intensive degree requiring independent mastery of a field of knowledge. As such, considerable flexibility is allowed by the Graduate School and by MAE in the tailoring of individual programs.

All Ph.D. students must take a minimum of 39 graded credit hours (excludes S/U graded courses) beyond the B.S. degree. Students are expected to complete a Plan of Study by the second term of enrollment, which should include a tentative title for the student's dissertation. As the student progresses toward the degree, any significant deviations in their program from the approved Plan of Study should be discussed and approved by the student's advisor, and recorded in the submission of a revised Plan of Study.

Guidelines for Plan of Study

During the first year of graduate study, each student should complete a minimum of three didactic courses in the Fall and Spring semesters. Generally, core courses are selected, as well as an appropriate mix of elective courses for the chosen specialization. (Ph.D. Students should include coursework to prepare for the qualifying exam.) Except for a minority of students doing interdisciplinary specializations whose Plans of Study will be reviewed by the Graduate Committee, a student will follow the requirements of one of the three MAE graduate study groups:

- Dynamics, Systems, and Control (DSC)
- Solid Mechanics, Design, and Manufacturing (SMDM)
- Thermal Science and Fluid Dynamics (TSFD)

The Plan of Study (and qualifying exam if a Ph.D. student) will be based upon the chosen group. Please see the MAE graduate policy handbook (http://www.mae.ufl.edu/current/graduate/mae-graduate-policies) for complete details.

Additional information about the department and graduate programs can be found at http://www.mae.ufl.edu.

Degrees Offered with a Major in Aerospace Engineering

Doctor of Philosophy
Master of Engineering
Master of Science

Mechanical and Aerospace Engineering Departmental Courses

- BME 5580: Introduction to Microfluidics and BioMEMS
- EAS 5938: Special Topics in Aerospace Engineering
- EAS 6135: Molecular Theory of Fluid Flows
- EAS 6138: Gasdynamics
- EAS 6242: Advanced Structural Composites
- EAS 6415: Guidance and Control of Aerospace Vehicles
- EAS 6905: Aerospace Research
- EAS 6939: Special Topics in Aerospace Engineering
- EAS 6971: Research for Master's Thesis
- EAS 7979: Advanced Research
- EAS 7980: Research for Doctoral Dissertation
- EGM 5423: High Strain Rate Behavior of Materials
- EGM 5005: Laser Principles and Applications
- EGM 5111L: Experimental Stress Analysis
- EGM 5121C: Data Measurement and Analysis

- EGM 5533: Applied Elasticity and Advanced Mechanics of Solids
- EGM 5584: Biomechanics of Soft Tissue
- EGM 5816: Intermediate Fluid Dynamics
- EGM 6321: Principles of Engineering Analysis I
- EGM 6322: Principles of Engineering Analysis II
- EGM 6341: Numerical Methods of Engineering Analysis I
- EGM 6342: Fundamentals of Computational Fluid Dynamics
- EGM 6352: Advanced Finite Element Methods
- EGM 6365: Structural Optimization
- EGM 6570: Principles of Fracture Mechanics
- EGM 6611: Continuum Mechanics
- EGM 6671: Inelastic Materials
- EGM 6812: Fluid Mechanics I
- EGM 6813: Fluid Mechanics II
- EGM 6855: Bio-Fluid Mechanics and Bio-Heat Transfer
- EGM 6905: Individual Study
- EGM 6934: Special Topics in Engineering Mechanics
- EGM 6936: Graduate Seminar
- EGM 6971: Research for Master's Thesis
- EGM 7819: Computational Fluid Dynamics
- EGM 7845: Turbulent Fluid Flow
- EGM 7979: Advanced Research
- EGM 7980: Research for Doctoral Dissertation
- EML 5045: Computational Methods for Design and Manufacturing
- EML 5104: Classical and Statistical Thermodynamics
- EML 5124: Two-Phase Flow and Boiling Heat Transfer
- EML 5131: Combustion
- EML 5215: Analytical Dynamics I
- EML 5223: Structural Dynamics
- EML 5224: Acoustics
- EML 5233: Failure of Materials in Mechanical Design
- EML 5311: Control System Theory
- EML 5318: Computer Control of Machines and Processes
- EML 5455: Clean Combustion Technology
- EML 5465: Energy Management for Mechanical Engineers
- EML 5515: Gas Turbines and Jet Engines
- EML 5516: Design of Thermal Systems
- EML 5526: Finite Element Analysis and Application
- EML 5595: Mechanics of the Human Locomotor System
- EML 5598: Orthopedic Biomechanics
- EML 5605: Advanced Refrigeration
- EML 5714: Introduction to Compressible Flow
- EML 6154: Conduction Heat Transfer
- EML 6155: Convective Heat Transfer I
- EML 6156: Multiphase Convection Heat Transfer
- EML 6157: Radiation Heat Transfer

- EML 6229: Introduction to Random Dynamical Systems
- EML 6267: Advanced Manufacturing Processed and Analysis
- EML 6278: Advanced Rotor Dynamics
- EML 6281: Geometry of Mechanisms and Robots I
- EML 6282: Geometry of Mechanisms and Robots II
- EML 6323: Nontraditional Manufacturing
- EML 6324: Fundamentals of Production Engineering
- EML 6350: Introduction to Nonlinear Control
- EML 6351: Nonlinear Control II: Adaptive Control
- EML 6352: Optimal Estimation and Kalman Filtering
- EML 6365: Robust Control Synthesis
- EML 6417: Solar Energy Utilization
- EML 6451: Energy Conversion
- EML 6606: Advanced Air Conditioning
- EML 6905: Individual Projects in Mechanical Engineering
- EML 6934: Special Topics in Mechanical Engineering
- EML 6971: Research for Master's Thesis
- EML 7979: Advanced Research
- EML 7980: Research for Doctoral Dissertation

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Mechanical Engineering

Herbert Wertheim College of Engineering
Mechanical and Aerospace Engineering Department

Mechanical Engineering Program Information

The Department of Mechanical and Aerospace Engineering offers the degrees of Master of Science (thesis or non-thesis), Master of Engineering (thesis or non thesis), and Doctor of Philosophy in Mechanical Engineering. Official minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

Master of Science & Master of Engineering

Any master's degree candidate may elect to pursue the Master of Science degree (M.S.), however only those holding ABET-accredited baccalaureate degrees in engineering may choose the Master of Engineering degree (M.E.). All other degree requirements remain the same.

A total of 30 credit hours is required for the Master's degree. The Master's degree, with thesis option, includes a minimum of 24 graded credit hours of coursework (excluding S/U courses) and up to 6 credits of thesis research. For students pursuing the non-thesis degree option, a total of 30 graded credit hours (excluding S/U courses) is required. For both the thesis and non-thesis degree, up to 6 credits of out of department coursework at the 3000 or 4000 level (excluding EGN courses and S/U courses) may be completed to satisfy degree requirements, as long as the coursework completed is included in an approved Plan of Study.

A comprehensive final examination is required by the Graduate School for the M.E. or M.S. non-thesis degree option. Passing the written qualifying Ph.D. exam may substitute for the M.S. non-thesis examination for those continuing towards for Ph.D. NOTE:The exam must be completed in either the semester of graduation or the proceeding semester in which the degree is to be conferred.

Doctor of Philosophy

The Doctor of Philosophy (Ph.D.) is a research intensive degree requiring independent mastery of a field of knowledge. As such, considerable flexibility is allowed by the Graduate School and by MAE in the tailoring of individual programs.

All Ph.D. students must take a minimum of 39 graded credit hours (excludes S/U graded courses) beyond the B.S. degree. Students are expected to complete a Plan of Study by the second term of enrollment, which should include a tentative title for the student's dissertation.As the student progresses toward the degree, any significant deviations in their program from the approved Plan of Study should be discussed and approved by the student's advisor, and recorded in the submission of a revised Plan of Study.

Guidelines for Plan of Study

During the first year of graduate study, each student should complete a minimum of three didactic courses in the Fall and Spring semesters. Generally, core courses are selected, as well as an appropriate mix of elective courses for the chosen specialization. (Ph.D. Students should include coursework to prepare for the qualifying exam.) Except for a minority of students doing interdisciplinary specializations whose Plans of Study will be reviewed by the Graduate Committee, a student will follow the requirements of one of the three MAE graduate study groups:

- Dynamics, Systems, and Control (DSC)
- Solid Mechanics, Design, and Manufacturing (SMDM)
- Thermal Science and Fluid Dynamics (TSFD)

The Plan of Study (and qualifying exam if a Ph.D. student) will be based upon the chosen group. Please see the MAE graduate policy handbook (http://www.mae.ufl.edu/current/graduate/mae-graduate-policies) for complete details.

Additional information about the department can be found at http://www.mae.ufl.edu.

Degrees Offered with a Major in Mechanical Engineering

Doctor of Philosophy
Master of Engineering
Master of Science

Mechanical and Aerospace Engineering Departmental Courses

- BME 5580: Introduction to Microfluidics and BioMEMS
- EAS 5938: Special Topics in Aerospace Engineering
- EAS 6135: Molecular Theory of Fluid Flows
- EAS 6138: Gasdynamics
- EAS 6242: Advanced Structural Composites
- EAS 6415: Guidance and Control of Aerospace Vehicles
- EAS 6905: Aerospace Research
- EAS 6939: Special Topics in Aerospace Engineering
- EAS 6971: Research for Master's Thesis
- EAS 7979: Advanced Research
- EAS 7980: Research for Doctoral Dissertation
- EGM 5423: High Strain Rate Behavior of Materials
- EGM 5005: Laser Principles and Applications
- EGM 5111L: Experimental Stress Analysis
- EGM 5121C: Data Measurement and Analysis
- EGM 5533: Applied Elasticity and Advanced Mechanics of Solids
- EGM 5584: Biomechanics of Soft Tissue
- EGM 5816: Intermediate Fluid Dynamics
- EGM 6321: Principles of Engineering Analysis I
- EGM 6322: Principles of Engineering Analysis II
- EGM 6341: Numerical Methods of Engineering Analysis I
- EGM 6342: Fundamentals of Computational Fluid Dynamics
- EGM 6352: Advanced Finite Element Methods
- EGM 6365: Structural Optimization
- EGM 6570: Principles of Fracture Mechanics
- EGM 6611: Continuum Mechanics
- EGM 6671: Inelastic Materials
- EGM 6812: Fluid Mechanics I
- EGM 6813: Fluid Mechanics II
- EGM 6855: Bio-Fluid Mechanics and Bio-Heat Transfer
- EGM 6905: Individual Study
- EGM 6934: Special Topics in Engineering Mechanics
- EGM 6936: Graduate Seminar
- EGM 6971: Research for Master's Thesis
- EGM 7819: Computational Fluid Dynamics
- EGM 7845: Turbulent Fluid Flow
- EGM 7979: Advanced Research
- EGM 7980: Research for Doctoral Dissertation

- EML 5045: Computational Methods for Design and Manufacturing
- EML 5104: Classical and Statistical Thermodynamics
- EML 5124: Two-Phase Flow and Boiling Heat Transfer
- EML 5131: Combustion
- EML 5215: Analytical Dynamics I
- EML 5223: Structural Dynamics
- EML 5224: Acoustics
- EML 5233: Failure of Materials in Mechanical Design
- EML 5311: Control System Theory
- EML 5318: Computer Control of Machines and Processes
- EML 5455: Clean Combustion Technology
- EML 5465: Energy Management for Mechanical Engineers
- EML 5515: Gas Turbines and Jet Engines
- EML 5516: Design of Thermal Systems
- EML 5526: Finite Element Analysis and Application
- EML 5595: Mechanics of the Human Locomotor System
- EML 5598: Orthopedic Biomechanics
- EML 5605: Advanced Refrigeration
- EML 5714: Introduction to Compressible Flow
- EML 6154: Conduction Heat Transfer
- EML 6155: Convective Heat Transfer I
- EML 6156: Multiphase Convection Heat Transfer
- EML 6157: Radiation Heat Transfer
- EML 6229: Introduction to Random Dynamical Systems
- EML 6267: Advanced Manufacturing Processed and Analysis
- EML 6278: Advanced Rotor Dynamics
- EML 6281: Geometry of Mechanisms and Robots I
- EML 6282: Geometry of Mechanisms and Robots II
- EML 6323: Nontraditional Manufacturing
- EML 6324: Fundamentals of Production Engineering
- EML 6350: Introduction to Nonlinear Control
- EML 6351: Nonlinear Control II: Adaptive Control
- EML 6352: Optimal Estimation and Kalman Filtering
- EML 6365: Robust Control Synthesis
- EML 6417: Solar Energy Utilization
- EML 6451: Energy Conversion
- EML 6606: Advanced Air Conditioning
- EML 6905: Individual Projects in Mechanical Engineering
- EML 6934: Special Topics in Mechanical Engineering
- EML 6971: Research for Master's Thesis
- EML 7979: Advanced Research
- EML 7980: Research for Doctoral Dissertation

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

Nuclear and Radiological Engineering Department

The graduate degrees offered with a major in Nuclear Engineering Sciences are now administered through the Materials Science and Engineering Department.

Nuclear Engineering Sciences

Herbert Wertheim College of Engineering
Materials Science and Engineering Department

Degrees Offered with a Major in Nuclear Engineering Sciences

Doctor of Philosophy
without a concentration
concentration in Imaging Science and Technology
Master of Engineering
Master of Science

Courses

- ENU 5142: Reliability and Risk Analysis for Nuclear Facilities
- ENU 5176L: Principles of Nuclear Reactor Operations Laboratory
- ENU 5186: Nuclear Fuel Cycles
- ENU 5196: Nuclear Reactor Power Plant System Dynamics and Control
- ENU 5516L: Nuclear Engineering Laboratory II
- ENU 5615C: Nuclear Radiation Detection and Instrumentation
- ENU 5615L: Nuclear Radiation Detection and Instrumentation Lab
- ENU 5626: Radiation Biology
- ENU 5658: Imaging System Analysis with Medical Physics Applications

- ENU 5705: Advanced Concepts for Nuclear Energy
- ENU 6051: Radiation Interaction Basics and Applications I
- ENU 6052: Radiation Transport Basics and Applications
- ENU 6053: Radiation Interaction Basics and Applications II
- ENU 6061: Survey of Medical Radiological Physics
- ENU 6106: Nuclear Reactor Analysis I
- ENU 6107: Nuclear Reactor Analysis II
- ENU 6126: Fundamentals of Reactor Kinetics
- ENU 6135: Nuclear Thermal Hydraulics
- ENU 6136: Advanced Nuclear Thermal Hydraulics
- ENU 6623: Radiation Dosimetry
- ENU 6627: Therapeutic Radiological Physics
- ENU 6636: Medical Radiation Shielding & Protection
- ENU 6651: Clinical Rotation in Radiation Therapy
- ENU 6652: Clinical Rotation in Diagnostic Radiology
- ENU 6655: Advanced Diagnostic Radiological Physics
- ENU 6657: Diagnostic Radiological Physics
- ENU 6659: Nuclear Medicine Instrumentation and Procedure
- ENU 6835: Nuclear Fuels
- ENU 6905: Individual Work
- ENU 6910: Supervised Research
- ENU 6935: Nuclear and Radiological Engineering Seminar
- ENU 6936: Special Projects in Nuclear and Radiological Engineering Sciences
- ENU 6937: Special Topics in Nuclear and Radiological Engineering Sciences
- ENU 6971: Research for Master's Thesis
- ENU 6972: Research for Engineer's Thesis
- ENU 7979: Advanced Research
- ENU 7980: Research for Doctoral Dissertation

College of Engineering Courses

- EEE 5354L: Semiconductor Device Fabrication Laboratory
- EGN 5010L: NRF Training Lab
- EGN 5949: Practicum/Internship/Cooperative Work Experience
- EGN 6640: Entrepreneurship for Engineers
- EGN 6642: Engineering Innovation
- EGN 6913: Engineering Graduate Research
- EGN 6933: Special Topics
- EGN 6937: Engineering Fellowship Preparation
- EGS 6039: Engineering Leadership
- EGS 6101: Divergent Thinking
- EGS 6626: Fundamentals of Engineering Project Management
- EGS 6628: Applied Engineering Project Management
- EGS 6681: Advanced Engineering Leadership
- EMA 6581: Polymeric Biomaterials
- ESI 6900: Principles of Engineering Practice

College of Health and Human Performance

Dean: M. Reid

Research and teaching in HHP has an impact on almost every aspect of the human condition. The college's four centers – the Florida Center for Health Promotion, Center for Exercise Science, and the Eric Friedheim Tourism Institute – as well as its three primary departments – Applied Physiology and Kinesiology, Health Education and Behavior , and Tourism, Recreation, and Sport Management Department – place the college firmly in a position to influence and improve an array of societal problems and challenges.

For more information about the College of Health and Human Performance, please see our website: http://hhp.ufl.edu

Health and Human Performance

College of Health and Human Performance

Health and Human Performance Program Information

The Ph.D. in Health and Human Performace is a single college-wide Ph.D. program with 6 concentrations that are housed and administered by the three departments, according to the following organizational structure:

- **Applied Physiology and Kinesiology (APK)**: Ph.D. students in APK study the immediate and lasting effects of exercise and its use in disease prevention and rehabilitation. APK Ph.D. concentrations include Exercise Physiology and Biobehavioral Science, with further specializations in biomechanics, motor control and learning, exercise and performance psychology, and sports medicine / athletic training.

- **Health Education & Behavior (HEB)**: Ph.D. students in HEB systematically investigate health promotion strategies aimed at modifying behaviors which will improve individual, family, workplace, and community health and well-being. The HEB Ph.D. concentration is in Health Behavior.

- **Tourism, Recreation, and Sport Management (TRSM)**: TRSM Ph.D. students study the impact of tourism, recreation activities, professional and amateur sports, ecotourism, parks and beaches on the personal, social, economic, environmental and resource infrastructures of society. Ph.D. concentrations in TRSM include Natural Resource Recreation, Sport Management, and Tourism.

Students are expected to be involved in research throughout their Ph.D. program, which requires approximately three to five years of full-time study for completion. Graduates of the program are trained to assume positions as post-doctoral research scientists, or entry level professorships at colleges and universities throughout the country. The program of study is developed by the student and the supervisory committee based on the student's background, interests, and career goals, as well as faculty expertise. By design, the program is multidisciplinary and flexible, permitting students to tailor their scholarly experience to the development of research skills in their areas of concentration.

For more information, please see our website: http://gradprograms.hhp.ufl.edu/index.php/doctoral-program.

Degrees Offered with a Major in Health and Human Performance

Doctor of Philosophy

without a concentration

concentration in Applied Physiology and Kinesiology

optional second concentration in Clinical and Translational Science

concentration in Biobehavioral Science

concentration in Clinical and Translational Science

concentration in Exercise Physiology

concentration in Health Behavior

optional second concentration in Clinical and Translational Science

concentration in Historic Preservation

concentration in Recreation, Parks, and Tourism

concentration in Sport Management

Applied Physiology and Kinesiology Departmental Courses

- APK 5102: Kinetic Anatomy
- APK 5127: Assessment in Exercise Science
- APK 5404: Sport Psychology
- APK 6111L: Practicum in Exercise Physiology
- APK 6116C: Physiological Bases of Exercise and Sport Sciences
- APK 6118: Neuromuscular Adaptation to Exercise
- APK 6126: Cardiopulmonary Pathologies
- APK 6128: EKG Interpretation
- APK 6145: Movement Disorders
- APK 6167: Nutrition Aspects of Human Performance
- APK 6170: Advanced Exercise Physiology
- APK 6176: Strength and Conditioning
- APK 6205C: Nature and Bases of Motor Performance
- APK 6206: Planning Motor Actions
- APK 6225: Biomechanical Instrumentation
- APK 6226C: Biomechanics of Human Motion
- APK 6406: Exercise Psychology
- APK 6408: Performance Enhancement
- APK 6410: Seminar in Exercise Psychology
- APK 6415: Seminar in Sport Psychology: Current Topics
- APK 6900: Directed Independent Study
- APK 6940: Advanced Practicum in Exercise and Sport Science
- APK 7107: Cardiovascular Exercise Physiology
- APK 7108: Environmental Stress Exercise Physiology
- APK 7117: Exercise Metabolism
- APK 7124: Free Radicals in Aging, Exercise and Disease
- APK 7129: Pulmonary Function during Exercise
- ATR 6124: Clinical Anatomy for the Exercise Sciences
- ATR 6145: Human Pathophysiology for the Exercise Sciences
- ATR 6215: Evidence-Based Orthopedic Exam I: Upper-Extremity
- ATR 6216: Evidence-Based Orthopedic Exam II: Lower-Extremity

- ATR 6304: Rehabilitation and Modalities of Athletic Injuries
- ATR 6624: Athletic Training Research and Technology I
- ATR 6625: Athletic Training Research and Technology II
- ATR 6934: Seminar in Athletic Training
- HLP 6515: Evaluation Procedures in Health and Human Performance
- HLP 6535: Research Methods in Health and Human Performance
- HLP 6935: Variable International Topics
- HLP 7939: HHP PhD Professional Development Seminar
- HLP 7979: Advanced Research in Health and Human Performance
- HLP 7980: Research for Doctoral Dissertation
- PET 5936: Special Topics/Seminars
- PET 6910: Supervised Research
- PET 6947: Graduate Internship in Exercise and Sport Sciences
- PET 6971: Research for Master's Thesis

Health Education and Behavior Departmental Courses

- HLP 6515: Evaluation Procedures in Health and Human Performance
- HLP 6535: Research Methods in Health and Human Performance
- HLP 6935: Variable International Topics
- HLP 7979: Advanced Research in Health and Human Performance
- HLP 7980: Research for Doctoral Dissertation
- HSC 5135: Emotional Health Education
- HSC 5138: Human Sexuality
- HSC 5142: Drug Education
- HSC 5315C: Teaching Health in Elementary Schools
- HSC 5536C: Medical Terminology for the Health Professions
- HSC 5576: Nutrition Education for Special Populations
- HSC 5606: Spirituality and Health
- HSC 5618: Advanced Exercise Therapy, Adapted Physical Activity, & Health
- HSC 5626: Minority Health Issues
- HSC 5657: Health and End-of-Life Issues
- HSC 5925: Seminar in Health Education
- HSC 5956: Writing for Professional Publications
- HSC 6037: Philosophy and Principles of Health Education
- HSC 6235: Patient Health Education
- HSC 6318: Planning Health Education Programs
- HSC 6506: Epidemiology
- HSC 6567: Health Promotion and Programming in Gerontology
- HSC 6571: Contemporary Issues in Health Promotion
- HSC 6575: Women's Health Issues
- HSC 6595: HIV/AIDS Education
- HSC 6603: Theories of Health Behavior and Practice in Health Education
- HSC 6605: Scientific Foundations of Holistic Health
- HSC 6625: Trends in International Health
- HSC 6629: Health Promotion for Priority Populations

- HSC 6637: Social Marketing and Health
- HSC 6646: Community Health Methods in Injury Prevention & Control
- HSC 6665: Health Communication
- HSC 6695: Worksite Health Promotion
- HSC 6712: Evaluating Health Education Programs
- HSC 6735: Research Methods in Health Education
- HSC 6850: Internship in Health Education
- HSC 6904: Readings in Health Education
- HSC 6905: Independent Study
- HSC 6910: Supervised Research
- HSC 6935: Current Topics in Health Education
- HSC 6940: Supervised Teaching
- HSC 6971: Research for Master's Thesis
- HSC 6973: Project in Lieu of Thesis
- HSC 7904: Advanced Readings in Health Education
- HSC 7905: Advanced Independent Study in Health Education
- HSC 7937: Advanced Seminar in Health Education
- PEQ 5127: Advanced Instructors of Adapted Aquatics
- PET 5936: Special Topics/Seminars
- PET 6910: Supervised Research
- PET 6947: Graduate Internship in Exercise and Sport Sciences
- PET 6971: Research for Master's Thesis

Tourism, Recreation, and Sport Management Departmental Courses

- APK 6900: Directed Independent Study
- HMG 6076: Introduction to Hospitality and Tourism
- HMG 6583C: Data Mining with Social Data
- HMG 6589C: Applied Multivariate Analysis for Tourism and Hospitality
- HMG 6608: Hospitality Law and Risk Management
- HMG 6740: Smart Tourism Design
- HMG 6747: Marketing in Hospitality/Tourism
- HLP 6515: Evaluation Procedures in Health and Human Performance
- HLP 6535: Research Methods in Health and Human Performance
- HLP 7979: Advanced Research in Health and Human Performance
- HLP 7980: Research for Doctoral Dissertation
- LEI 5188: Trends and Issues in Tourism and Recreation Management
- LEI 5121: Outdoor Recreation and Park Management
- LEI 6108: Contemporary Theories of Recreation and Leisure
- LEI 6325: Ecotourism
- LEI 6326: Sport Tourism
- LEI 6336: Tourism Planning and Development
- LEI 6351: Heritage Tourism
- LEI 6439: Campus Recreation Administration and Programming
- LEI 6513: Administrative Procedures in Leisure Services
- LEI 6514: Administrative Issues in Recreation, Parks, and Tourism

- LEI 6557: Recreation Management/Development in the Coastal Zone
- LEI 6562: Advanced Marketing for Recreation, Parks, and Tourism
- LEI 6895: Tourism Theory and Concepts
- LEI 6903: Readings in Recreation, Parks, and Tourism
- LEI 6905: Directed Independent Study
- LEI 6910: Supervised Research
- LEI 6931: Special Topics in Recreation, Parks, and Tourism
- LEI 6935: Seminar in Recreation, Parks, and Tourism
- LEI 6940: Supervised Teaching
- LEI 6944: Practicum in Tourism & Recreation Management
- LEI 6971: Research for Master's Thesis
- LEI 7170: Foundations of Leisure Behavior
- LEI 7901: Recreation, Parks, and Tourism in Higher Education
- LEI 7904: Advanced Readings in Recreation, Parks, and Tourism
- LEI 7905: Advanced Independent Study in Recreation, Parks and Tourism
- LEI 7910: Advanced Supervised Research
- LEI 7933: Advanced Special Topics in Recreation, Parks, and Tourism
- LEI 7936: Advanced Seminar in Recreation, Parks, and Tourism
- PET 6910: Supervised Research
- SPM 5016: Sport Sociology
- SPM 5181: Athlete Development
- SPM 5206: Sport Ethics
- SPM 5309: Sport Marketing
- SPM 5506: Sport Finance
- SPM 5936: Current Topics in Sport Management
- SPM 6036: Research Seminar in Sport Management
- SPM 6106: Management and Planning of Sport and Physical Activity Facilities
- SPM 6158: Management and Leadership in Sport
- SPM 6308: Study of Sport Consumer Behaviors
- SPM 6610: Sport Events and Community Development
- SPM 6726: Issues in Sport Law
- SPM 6905: Directed Independent Study
- SPM 6910: Supervised Research
- SPM 6947: Graduate Internship in Sport Management
- SPM 6948: Advanced Practicum in Sport Management
- SPM 6971: Research for Master's Thesis

Applied Physiology and Kinesiology Department

Chair: T. Clanton
Graduate Coordinator: R. Seidler

The **Ph.D. program** is offered with concentrations in biobehavioral science and exercise physiology. Students in the biobehavioral science concentration specialize in one of four areas: biomechanics, performance psychology, motor control / learning, or sports medicine. These interdisciplinary concentrations focus on preparing students as researchers with a blend of course work and research training.

Programs leading to the **Master of Science** degree in applied physiology and kinesiology (thesis and non-thesis options) are also offered. Areas of concentration for the master's program include athletic training/sports medicine, biobehavioral science, clinical exercise physiology, exercise physiology, and human performance. The thesis option gives the student an opportunity to study, conduct research, and prepare a thesis in an area of special interest. The non-thesis option offers the student a specialization in a selected area of study, with additional work in other complimentary areas to meet the student's interests and the specialty skills needed to be leaders in the field. A comprehensive written examination is required for this option, as is a capstone internship experience. Requirements for these degrees are given in the *General Information* section of this catalog.

Athletic training/sports medicine: This concentration provides comprehensive academic preparation, research, and clinical experience in the areas of injury prevention, assessment, treatment, rehabilitation, and therapeutic modalities.

Biobehavioral Science: This thesis mandatory concentration is multidisciplinary and flexible, permitting students to tailor their scholarly experience to the development of research skills in one of several related disciplines: biomechanics, motor control and learning, and performance psychology. Each area of specialization is briefly described below.

- *Biomechanics:* The specialization in biomechanics draws from the fields of neuroscience, engineering, and medicine. The course work and training include kinematics and kinetics of movement. Course work also includes anatomy/kinesiology, biomechanics, engineering, neuroscience, medicine, psychology, physical therapy, and statistics.

- *Motor learning / control:* This interdisciplinary specialization draws on experiences and a knowledge base in the movement and sport sciences, cognitive sciences, and physical therapy. Students are prepared to conduct research and provide expertise in traditional motor performance and learning settings.

- *Performance psychology*: This area of specialization provides the basis for understanding and influencing the underlying thought processes and attitudes that will ultimately determine the performance of individuals involved in sport, exercise, and other achievement oriented activities. The primary emphasis is to develop the scientific background and skills necessary for doctoral training and research.

Clinical exercise physiology: The purpose of this non-thesis program is to give students the opportunity to develop advanced knowledge and competencies in Exercise Physiology. Clinical Exercise Physiologists typically practice in hospitals, clinics and wellness centers as part of a health care team that administers tests and develops programs of exercise, counseling, and education for patients with cardiopulmonary, metabolic, and musculoskeletal diseases.

Exercise physiology: This thesis mandatory area of concentration is concerned with the scientific study of how the various physiological systems of the human body respond to physical activity. It is a multidisciplinary field with strong ties to the basic life sciences and medicine, and application to clinical, normal, and athletic populations.

Human performance: This non-thesis master's concentration merges a range of specializations within the Department into a curriculum that provides educational experiences to graduate students interested in studying the factors that

determine human performance in both athletic and nonathletic domains. This flexible approach allows students to focus on specific applications that best meet their individual interests. Human performance incorporates components such as nutrition, psychology, motor behavior, and physiology that are applicable to athletic and clinical populations.

Applied Physiology and Kinesiology

College of Health and Human Performance
Applied Physiology and Kinesiology Department

Applied Physiology and Kinesiology Program Information

Graduate study in Applied Physiology and Kinesiology (APK) is focused on research in concentration areas including: athletic training; biomechanics; motor control and learning; exercise physiology; and performance psychology. Graduate students are exposed to and directly involved in research covering the full multidisciplinary spectrum of human potential from young to old, fit to unfit, healthy to diseased, able-bodied to disabled, and from the casual recreational participant to the high-level athlete. In addition to human performance issues, APK faculty and students study the immediate and lasting effects of exercise and its use in disease prevention and rehabilitation.

For more information, please see our website: http://apk.hhp.ufl.edu/index.php/current-students/prospective-students.

Degrees Offered with a Major in Applied Physiology and Kinesiology

Master of Science
without a concentration
concentration in Athletic Training/Sports Medicine
concentration in Biobehavioral Science
concentration in Clinical Exercise Physiology
concentration in Exercise Physiology
concentration in Human Performance

Applied Physiology and Kinesiology Departmental Courses

- APK 5102: Kinetic Anatomy
- APK 5127: Assessment in Exercise Science
- APK 5404: Sport Psychology
- APK 6111L: Practicum in Exercise Physiology
- APK 6116C: Physiological Bases of Exercise and Sport Sciences
- APK 6118: Neuromuscular Adaptation to Exercise
- APK 6126: Cardiopulmonary Pathologies
- APK 6128: EKG Interpretation
- APK 6145: Movement Disorders
- APK 6167: Nutrition Aspects of Human Performance
- APK 6170: Advanced Exercise Physiology
- APK 6176: Strength and Conditioning
- APK 6205C: Nature and Bases of Motor Performance
- APK 6206: Planning Motor Actions
- APK 6225: Biomechanical Instrumentation
- APK 6226C: Biomechanics of Human Motion
- APK 6406: Exercise Psychology

- APK 6408: Performance Enhancement
- APK 6410: Seminar in Exercise Psychology
- APK 6415: Seminar in Sport Psychology: Current Topics
- APK 6900: Directed Independent Study
- APK 6940: Advanced Practicum in Exercise and Sport Science
- APK 7107: Cardiovascular Exercise Physiology
- APK 7108: Environmental Stress Exercise Physiology
- APK 7117: Exercise Metabolism
- APK 7124: Free Radicals in Aging, Exercise and Disease
- APK 7129: Pulmonary Function during Exercise
- ATR 6124: Clinical Anatomy for the Exercise Sciences
- ATR 6145: Human Pathophysiology for the Exercise Sciences
- ATR 6215: Evidence-Based Orthopedic Exam I: Upper-Extremity
- ATR 6216: Evidence-Based Orthopedic Exam II: Lower-Extremity
- ATR 6304: Rehabilitation and Modalities of Athletic Injuries
- ATR 6624: Athletic Training Research and Technology I
- ATR 6625: Athletic Training Research and Technology II
- ATR 6934: Seminar in Athletic Training
- HLP 6515: Evaluation Procedures in Health and Human Performance
- HLP 6535: Research Methods in Health and Human Performance
- HLP 6935: Variable International Topics
- HLP 7939: HHP PhD Professional Development Seminar
- HLP 7979: Advanced Research in Health and Human Performance
- HLP 7980: Research for Doctoral Dissertation
- PET 5936: Special Topics/Seminars
- PET 6910: Supervised Research
- PET 6947: Graduate Internship in Exercise and Sport Sciences
- PET 6971: Research for Master's Thesis

Department of Health Education & Behavior

Chair: Jalie A. Tucker
Graduate Coordinator: Virginia Dodd

The Department of Health Education and Behavior offers a Doctor of Philosophy (Ph.D.) in Health and Human Performance with a concentration in Health Behavior, a non-thesis 30-credit hour Master of Science and a 36-credit Master of Science (M.S.) in Health Education and Behavior. Requirements for the Ph.D. and M.S. degrees are given in the Graduate Degrees section of this catalog.

The Ph.D. degree program trains health behavior researchers for academic positions in federal health agencies such as the Centers for Disease Control and Prevention and the National Institutes of Health, for postdoctoral research fellowships, and for the private sector.

The 30-credit hour, non-thesis M.S. degree program is designed for students seeking an advanced practitioner's degree. A distinctive feature of this option allows students to choose a minimum of 15 credit hours of major elective

coursework that matches their interests with faculty expertise to plan a program that achieves their professional goals. The degree prepares health promotion specialists to work in local, state, and federal health agencies, nongovernmental health organizations, patient care settings, and the private sector. Full-time students can complete this M.S. option in one year. This degree may also give students unique and distinguishing training experiences when applying to professional schools such as law, medicine, physician assistant, dentistry, chiropractic, osteopathy, nursing, occupational therapy, and physical therapy.

The 36-credit hour project in lieu of thesis, and the 36-credit hour thesis options are designed for students interested in developing research skills through conducting evaluation projects and empirical studies, as well as pursuing advanced graduate study, particularly the doctoral degree. Students typically can complete these options in about 4 semesters.

The Department also offers an accelerated B.S./M.S. program in Health Education and Behavior to enable students to receive both B.S. and M.S. degrees with a reduction of 12 credits (about one semester of course work).

Students who complete a graduate degree program in the Department of Health Education and Behavior acquire a range of skills required to research, plan, implement, and evaluate health promotion policies and programs aimed at improving the health and well-being of individuals, families, and communities. Specific skills include:

- Conducting needs and capacity assessments to identify health priorities
- Planning, implementing, and evaluating health promotion policies and programs
- Conducting research on questions associated with determinants of health, as well as health promotion policies and programs
- Administering and managing health promotion programs
- Advocating for health promotion policies and programs in schools, communities, health care facilities, and worksites
- Developing social marketing and health communication messages and campaigns
- Researching and developing social media and new media-based health promotion applications
- Serving as a resource person for health information and referrals
- Using a variety of teaching-learning strategies appropriate to the target audience and setting
- Writing scholarly and professional articles
- Working collaboratively with public and private agencies, nongovernmental organizations (NGOs), and the private sector to achieve the goal of a healthier population.

This degree prepares the health promotion specialists and health behavior scientists to work in

- Local, state, and federal health, education and social agencies
- Nongovernmental health organizations
- Schools and universities
- Healthcare settings
- Private sector

Sample position titles for individuals with this degree include

- Health education specialist
- Health promotion specialist
- Public health adviser or public health analyst
- Health promotion coordinator or health promotion consultant
- Campus health educator or patient health educator,
- Health communication specialist
- Wellness specialist
- Wellness promotion coordinator
- Prevention specialist

For additional information, visit http://www.heb.hhp.ufl.edu.

Health Education and Behavior

College of Health and Human Performance
Department of Health Education & Behavior

Health Education and Behavior Program Information

The 30-credit hour, non-thesis Master of Science in Health Education and Behavior degree program is designed for students seeking an advanced practitioner's degree. A distinctive feature of this option allows students to choose a minimum of 15 credit hours of major elective coursework that matches their interests with faculty expertise to plan a program that achieves their professional goals. The degree prepares health promotion specialists to work in local, state, and federal health agencies, nongovernmental health organizations, patient care settings, and the private sector.

The 30-credit, non-thesis Pre-Professional Health Science Track is designed for students seeking a career in health care. This option allows you to choose a minimum of 12 credits of basic science elective coursework which are prerequisites for dental, medical, nursing, occupational therapy, physician assistant, physical therapy, and other health professional programs including 6 credits of undergraduate science courses (3000-4999). This degree track prepares students who are interested in graduate studies in the health sciences and/or pursing health professional training. Full-time students can complete the 30-credit hour M.S. options in one year.

The 36-credit Thesis and the 36-credit Project In Lieu Of Thesis Master of Science in Health Education and Behavior degree options are designed for students interested in improving their research skills through conducting evaluation projects and empirical studies, as well as pursuing advanced graduate study, particularly the doctoral degree. Students typically complete these options in about 4 semesters.

For more information, please see our website: http://hhp.ufl.edu/about/departments/heb/.

Degrees Offered with a Major in Health Education and Behavior

Master of Science

Health Education and Behavior Departmental Courses

- HLP 6515: Evaluation Procedures in Health and Human Performance
- HLP 6535: Research Methods in Health and Human Performance
- HLP 6935: Variable International Topics
- HLP 7979: Advanced Research in Health and Human Performance
- HLP 7980: Research for Doctoral Dissertation
- HSC 5135: Emotional Health Education
- HSC 5138: Human Sexuality
- HSC 5142: Drug Education
- HSC 5315C: Teaching Health in Elementary Schools
- HSC 5536C: Medical Terminology for the Health Professions
- HSC 5576: Nutrition Education for Special Populations
- HSC 5606: Spirituality and Health
- HSC 5618: Advanced Exercise Therapy, Adapted Physical Activity, & Health
- HSC 5626: Minority Health Issues
- HSC 5657: Health and End-of-Life Issues
- HSC 5925: Seminar in Health Education
- HSC 5956: Writing for Professional Publications
- HSC 6037: Philosophy and Principles of Health Education
- HSC 6235: Patient Health Education
- HSC 6318: Planning Health Education Programs
- HSC 6506: Epidemiology
- HSC 6567: Health Promotion and Programming in Gerontology
- HSC 6571: Contemporary Issues in Health Promotion
- HSC 6575: Women's Health Issues
- HSC 6595: HIV/AIDS Education
- HSC 6603: Theories of Health Behavior and Practice in Health Education
- HSC 6605: Scientific Foundations of Holistic Health
- HSC 6625: Trends in International Health
- HSC 6629: Health Promotion for Priority Populations
- HSC 6637: Social Marketing and Health
- HSC 6646: Community Health Methods in Injury Prevention & Control
- HSC 6665: Health Communication
- HSC 6695: Worksite Health Promotion
- HSC 6712: Evaluating Health Education Programs
- HSC 6735: Research Methods in Health Education
- HSC 6850: Internship in Health Education
- HSC 6904: Readings in Health Education
- HSC 6905: Independent Study
- HSC 6910: Supervised Research
- HSC 6935: Current Topics in Health Education
- HSC 6940: Supervised Teaching
- HSC 6971: Research for Master's Thesis
- HSC 6973: Project in Lieu of Thesis

- HSC 7904: Advanced Readings in Health Education
- HSC 7905: Advanced Independent Study in Health Education
- HSC 7937: Advanced Seminar in Health Education
- PEQ 5127: Advanced Instructors of Adapted Aquatics
- PET 5936: Special Topics/Seminars
- PET 6910: Supervised Research
- PET 6947: Graduate Internship in Exercise and Sport Sciences
- PET 6971: Research for Master's Thesis

Tourism, Recreation, and Sport Management Department

College of Health and Human Performance

Interim Chair: Stephen Dodd
Graduate Coordinator: Kyriaki Kaplanidou

The degree Master of Science is offered by the Department of Tourism, Recreation, and Sport Management with programs in Sport Management and in Tourism and Recreation Management. Both programs offer thesis and non-thesis formats. The Department participates in the Ph.D. program in Health and Human Performance. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog.

The Master's program provides advanced preparation of tourism, recreation, and sport management professionals for positions of leadership in planning, developing, administering, and marketing of programs in a variety of employment settings both public and private. Major coursework may be taken in a number of areas, such as

- Tourism and Recreation Management
- Sport Management

The Doctoral program is offered through the College of Health and Human Performance with concentrations in recreation, parks and tourism and sport management. These interdisciplinary specializations blend course work and research. The curriculum is individualized, and applicants with degrees from unrelated fields can be accepted into the program. However, their previous work will be evaluated and their programs planned according to their individual needs, interests, and career objectives.

Combined program: The Department offers a combined bachelor's/master's degree program. This program allows qualified students to earn both a bachelor's degree and a master's degree with a savings of approximately one semester. Up to 12 approved graduate credit hours can be utilized toward both degrees.

MS/MSM Concurrent Degree Program: This joint degree program is offered through the College of Business Administration (Master of Science in Business Management [MSM]) and the College of Health and Human Performance's, Department of Tourism, Recreation and Sport Management (Master of Science in Sport Management [MS]). Applicants must apply to both programs and be admitted to both to participate. The MS/MSM is a non-thesis degree. The MS/MSM is designed for students who seek a graduate business degree and who lack the work experience necessary for admission to the MBA program. The MS/MSM curriculum is similar to the first year of the MBA program, giving students a good foundation in business principles. Concurrent degree students can share up to 9 credit hours of the same coursework towards both degree programs. They do not have to graduate during the same semester. Students admitted into the concurrent program must work closely with both departments to verify all requirements are being met during their course of study.

M.S./J.D. joint program: This 98-credit-hour joint degree program culminates in the Master of Science and the Juris Doctor degrees. Applicants must meet the entrance requirements for the Department of Tourism, Recreation, and

Sport Management and the College of Law. Admission to the second degree program is required no later than the end of the fourth consecutive semester after beginning one of the degree programs. The student's supervisory committee comprises faculty members from both the Department of Tourism, Recreation, and Sport Management and the College of Law. Students admitted into the joint program are permitted to share up to 12 credit hours of the same coursework towards both degree programs. Students must graduate during the same semester from both programs.

Sport Management

College of Health and Human Performance
Tourism, Recreation, and Sport Management Department

Sport Management Program Information

Sport Management integrates concepts of management, marketing, finance and law to apply to sport organizations at various levels and prepares students for a variety of volunteer and employment opportunities at the professional, collegiate, community and amateur level sport entities.

For more information, please see our website: http://hhp.ufl.edu/about/academics/ms-sport-mgnt/.

Degrees Offered with a Major in Sport Management

Master of Science
without a concentration
concentration in Historic Preservation
concentration in Tropical Conservation and Development

Tourism, Recreation, and Sport Management Departmental Courses

- APK 6900: Directed Independent Study
- HMG 6076: Introduction to Hospitality and Tourism
- HMG 6583C: Data Mining with Social Data
- HMG 6589C: Applied Multivariate Analysis for Tourism and Hospitality
- HMG 6608: Hospitality Law and Risk Management
- HMG 6740: Smart Tourism Design
- HMG 6747: Marketing in Hospitality/Tourism
- HLP 6515: Evaluation Procedures in Health and Human Performance
- HLP 6535: Research Methods in Health and Human Performance
- HLP 7979: Advanced Research in Health and Human Performance
- HLP 7980: Research for Doctoral Dissertation
- LEI 5188: Trends and Issues in Tourism and Recreation Management
- LEI 5121: Outdoor Recreation and Park Management
- LEI 6108: Contemporary Theories of Recreation and Leisure
- LEI 6325: Ecotourism
- LEI 6326: Sport Tourism
- LEI 6336: Tourism Planning and Development
- LEI 6351: Heritage Tourism
- LEI 6439: Campus Recreation Administration and Programming

- LEI 6513: Administrative Procedures in Leisure Services
- LEI 6514: Administrative Issues in Recreation, Parks, and Tourism
- LEI 6557: Recreation Management/Development in the Coastal Zone
- LEI 6562: Advanced Marketing for Recreation, Parks, and Tourism
- LEI 6895: Tourism Theory and Concepts
- LEI 6903: Readings in Recreation, Parks, and Tourism
- LEI 6905: Directed Independent Study
- LEI 6910: Supervised Research
- LEI 6931: Special Topics in Recreation, Parks, and Tourism
- LEI 6935: Seminar in Recreation, Parks, and Tourism
- LEI 6940: Supervised Teaching
- LEI 6944: Practicum in Tourism & Recreation Management
- LEI 6971: Research for Master's Thesis
- LEI 7170: Foundations of Leisure Behavior
- LEI 7901: Recreation, Parks, and Tourism in Higher Education
- LEI 7904: Advanced Readings in Recreation, Parks, and Tourism
- LEI 7905: Advanced Independent Study in Recreation, Parks and Tourism
- LEI 7910: Advanced Supervised Research
- LEI 7933: Advanced Special Topics in Recreation, Parks, and Tourism
- LEI 7936: Advanced Seminar in Recreation, Parks, and Tourism
- PET 6910: Supervised Research
- SPM 5016: Sport Sociology
- SPM 5181: Athlete Development
- SPM 5206: Sport Ethics
- SPM 5309: Sport Marketing
- SPM 5506: Sport Finance
- SPM 5936: Current Topics in Sport Management
- SPM 6036: Research Seminar in Sport Management
- SPM 6106: Management and Planning of Sport and Physical Activity Facilities
- SPM 6158: Management and Leadership in Sport
- SPM 6308: Study of Sport Consumer Behaviors
- SPM 6610: Sport Events and Community Development
- SPM 6726: Issues in Sport Law
- SPM 6905: Directed Independent Study
- SPM 6910: Supervised Research
- SPM 6947: Graduate Internship in Sport Management
- SPM 6948: Advanced Practicum in Sport Management
- SPM 6971: Research for Master's Thesis

Tourism and Recreation Management

College of Health and Human Performance
Tourism, Recreation, and Sport Management Department

Tourism and Recreation Management Program Information

The Master of Science in Tourism and Recreation Management offers the following two areas of concentration:

1. Tourism

2. Natural Resource Recreation

Graduates of the Master of Science in Tourism and Recreation Management will be trained for middle and/or upper level management positions, in their respective fields. Students can choose between three options: 1.) Thesis, or 2.) Non-Thesis with Practicum, or 3.) Non-Thesis with Professional Paper.

For more information, please see our website: http://hhp.ufl.edu/about/academics/ms-tourism/.

Degrees Offered with a Major in Tourism and Recreation Management

Master of Science

without a concentration
concentration in Historic Preservation
concentration in Natural Resource Recreation
concentration in Therapeutic Recreation
concentration in Tourism
concentration in Tropical Conservation and Development

Tourism, Recreation, and Sport Management Departmental Courses

- APK 6900: Directed Independent Study
- HMG 6076: Introduction to Hospitality and Tourism
- HMG 6583C: Data Mining with Social Data
- HMG 6589C: Applied Multivariate Analysis for Tourism and Hospitality
- HMG 6608: Hospitality Law and Risk Management
- HMG 6740: Smart Tourism Design
- HMG 6747: Marketing in Hospitality/Tourism
- HLP 6515: Evaluation Procedures in Health and Human Performance
- HLP 6535: Research Methods in Health and Human Performance
- HLP 7979: Advanced Research in Health and Human Performance
- HLP 7980: Research for Doctoral Dissertation
- LEI 5188: Trends and Issues in Tourism and Recreation Management
- LEI 5121: Outdoor Recreation and Park Management
- LEI 6108: Contemporary Theories of Recreation and Leisure
- LEI 6325: Ecotourism
- LEI 6326: Sport Tourism
- LEI 6336: Tourism Planning and Development
- LEI 6351: Heritage Tourism
- LEI 6439: Campus Recreation Administration and Programming
- LEI 6513: Administrative Procedures in Leisure Services
- LEI 6514: Administrative Issues in Recreation, Parks, and Tourism

- LEI 6557: Recreation Management/Development in the Coastal Zone
- LEI 6562: Advanced Marketing for Recreation, Parks, and Tourism
- LEI 6895: Tourism Theory and Concepts
- LEI 6903: Readings in Recreation, Parks, and Tourism
- LEI 6905: Directed Independent Study
- LEI 6910: Supervised Research
- LEI 6931: Special Topics in Recreation, Parks, and Tourism
- LEI 6935: Seminar in Recreation, Parks, and Tourism
- LEI 6940: Supervised Teaching
- LEI 6944: Practicum in Tourism & Recreation Management
- LEI 6971: Research for Master's Thesis
- LEI 7170: Foundations of Leisure Behavior
- LEI 7901: Recreation, Parks, and Tourism in Higher Education
- LEI 7904: Advanced Readings in Recreation, Parks, and Tourism
- LEI 7905: Advanced Independent Study in Recreation, Parks and Tourism
- LEI 7910: Advanced Supervised Research
- LEI 7933: Advanced Special Topics in Recreation, Parks, and Tourism
- LEI 7936: Advanced Seminar in Recreation, Parks, and Tourism
- PET 6910: Supervised Research
- SPM 5016: Sport Sociology
- SPM 5181: Athlete Development
- SPM 5206: Sport Ethics
- SPM 5309: Sport Marketing
- SPM 5506: Sport Finance
- SPM 5936: Current Topics in Sport Management
- SPM 6036: Research Seminar in Sport Management
- SPM 6106: Management and Planning of Sport and Physical Activity Facilities
- SPM 6158: Management and Leadership in Sport
- SPM 6308: Study of Sport Consumer Behaviors
- SPM 6610: Sport Events and Community Development
- SPM 6726: Issues in Sport Law
- SPM 6905: Directed Independent Study
- SPM 6910: Supervised Research
- SPM 6947: Graduate Internship in Sport Management
- SPM 6948: Advanced Practicum in Sport Management
- SPM 6971: Research for Master's Thesis

College of Journalism and Communications

Dean: D. McFarlin
Senior Associate Dean for Graduate Studies and Research: D. Treise

Graduate Coordinators:
(Advertising) J. R. Goodman
(International Communication) K. Walsh-Childers
(Journalism) R. Rodgers
(Public Relations) M.A. Ferguson
(Pro Master's) B. Grogan
(Science/Health Communication) D. Treise
(Telecommunication) J. Babanikos

Through the Division of Graduate Studies and Research, the College of Journalism and Communications offers the Doctor of Philosophy degree, the Master of Arts in Mass Communication (thesis or project option) degree which is divided into two areas-PhD preparation and professional development, and the Master of Advertising (thesis) degree. Requirements for these degrees are given in the Graduate Degrees section of this catalog.

Doctoral students work closely with faculty members in research leading to a dissertation embodying a humanities, law/policy, or social sciences approach. Emphases within these approaches for which faculty members have expertise include advertising, journalism, public relations, telecommunication, international communication, and political communication. Details of doctoral faculty research interests and other aspects of the program are given in the College's Ph.D. Handbook.

The master's program is a two-track system, one focused on PhD preparation and one on professional development. In the PhD-preparation program, you learn the ideas and skills you need for satisfying life-long careers in mass communication. You can choose to obtain a Master of Arts in Mass Communication degree by selecting one of the specializations below or by enrolling in the Master of Advertising program.

Master's students in the PhD-preparation track may complete a thesis in advertising, journalism, public relations, telecommunication, international communication, or science/health communication. A project in lieu of thesis option is available for some specializations.

The Pro Master's track allows students to "mix and match" coursework from three key career areas-Data/Research, Creative or Management - to develop a customizable curriculum. Students can use the suggested curriculum or create their own path to reach personal career goals.

Mass Communication/Law joint degree programs: Programs leading to the Master of Arts in Mass Communication or the Doctor of Philosophy and the Juris Doctor are offered under the joint auspices of the College of Journalism and Communications and the College of Law. For students interested in scholarship or practice of communication law or in reporting on the law, the programs offer the opportunity to blend relevant work from the two colleges. Students must meet the entrance requirements of both colleges. A thesis or dissertation is required. Interested students should apply for admission to both the Graduate School and the College of Law, noting on the applications the joint nature of the admission requests. Further information on the programs and on application procedures is available from the Holland Law Center and from the Division of Graduate Studies and Research of the College of Journalism and Communications.

General admission: Admission is granted to applicants with and without background in mass communication. Students without academic preparation in mass communication or appropriate experience may be required to take articulation work. These courses are taken concurrently with general graduate courses, starting in the first term of registration. Some degree plans require a background course in statistics. Students who have satisfied that requirement must provide written verification. Including articulation courses, the master's degree normally can be earned in one or two

years of full-time study. Doctoral studies require three or more years of full-time study and research. Students who may require articulation courses should contact the Sr. Associate Dean of Graduate Studies and Research.

Grading policy: Any student whose cumulative GPA falls below 3.0 will be placed on probation. Any doctoral student who receives one grade below B- or a Master's student who receives one grade below C+ will be placed on probation, with the exception of courses taken from the Levin College of Law. For these courses, any student receiving one grade below C in any course from the Levin College of Law will be placed on probation. A requirement of the probation is that the student must achieve or maintain a cumulative grade point average of 3.0 or higher at the end of the next academic term in residence. A student who fails to satisfy the requirement will be suspended. A Doctoral student who accumulates two grades below "B-"-- or a Master's student who accumulates two grades below C+ during graduate studies will be suspended, as will a student who receives one grade of "D+" or lower at any time. Students will be allowed only one suspension.

Combined degree program: The College offers a combined bachelor's/master's program. For information, contact the Associate Dean for Undergraduate Affairs.

For additional information, please see our website: http://www.jou.ufl.edu/grad.

Advertising

College of Journalism and Communications

Advertising Program Information

The Master of Advertising (M.Adv.) program is designed to develop leaders in the profession by providing students with

1. the theoretical, research and decision-making skills essential for strategic advertising and integrated communications planning, as well as
2. the opportunity to develop expertise in a specialized area such as account management, research, creative strategy, media planning, new technology and advertising sales management.

Students without basic course background or substantial professional experience in marketing or advertising are required to complete articulation courses before entering the program. These prerequisite courses include Introduction to Advertising and Introduction to Marketing.

A minimum of 33 graduate level credit hours, including a thesis, is required. In some areas of specialization, with permission from the departmental graduate faculty, a terminal project may be elected in lieu of a thesis.

Students select a supervisory committee to guide their course selection as well as thesis topic or project in lieu of thesis and completion of the thesis or project. Students will complete and orally defend their theses or projects. The student's supervisory committee is responsible for the evaluation of the document and the final defense.

The deadline for Fall applications is January 30 for international applicants and April 1 for domestic students. Applications may be considered after the April 1 deadline, if space is available. The Master of Advertising program does not accept any applications for Spring.

For admissions information and application materials, contact Sarah G. Lee.

For information about the advertising curriculum and program requirements, contact Dr. Robyn Goodman.

For more information, please see our website: https://www.jou.ufl.edu/prospective-students/phd-research/masters-advertising/.

Degrees Offered with a Major in Advertising

Master of Advertising

College of Journalism and Communications Courses

- ADV 5005: Advertising Planning
- ADV 6006: Theories of Advertising
- ADV 6305: Advanced Media Planning
- ADV 6325: Advertising and Social Media
- ADV 6405: International Advertising
- ADV 6503: Advertising Creative Strategy and Research
- ADV 6505: Advertising Research Methods
- ADV 6602: Advertising Management
- COM 6315: Advanced Research Methods
- COM 6338: Advanced Web Topics I: Advanced Design
- COM 6940: Supervised Teaching
- FIL 6061: History of Documentary Film I
- FIL 6062: History of Documentary Film II
- FIL 6101: Advanced Radio, Television, and Film Writing
- FIL 6315: Writing for Documentary I
- FIL 6317: Producing and Writing the Documentary
- FIL 6335: Business of Documentary
- FIL 6340: Issues and Problems in Documentary
- FIL 6365: Documentary Pre-Production Planning
- FIL 6366: Documentary Procedures II
- FIL 6377: Documentary Field Production
- FIL 6378: Documentary Research Methods
- FIL 6380: Advanced Post-Production Techniques
- JOU 5007: History of Journalism
- JOU 5705: Issues and the Press
- JOU 6102: Reporting Workshop
- JOU 6114: Journalist Bootcamp
- JOU 6391: Seminar in Journalism as Literature
- JOU 6344: Journalist Toolkit 1
- JOU 6349: Journalist Toolkit 2
- JOU 6502: Newsroom Management
- MMC 5005: Mass Communication History
- MMC 5006: Introduction to Multimedia Communication
- MMC 5165: Influence and Selling
- MMC 5015: Electronic Publishing
- MMC 5206: Advanced Law of Mass Communication
- MMC 5215: Technology Policy
- MMC 5259: Customer Management and the Nurturing of Enduring Relationships
- MMC 5277: Web Design Principles
- MMC 5279: UX Design Theory
- MMC 5306: International Communication
- MMC 5308: Communicating for Success
- MMC 5315: Survey of Foreign Correspondence

- MMC 5406: Selling Today
- MMC 5422: Customer Research and the Fundamentals of Online Testing
- MMC 5427: Research Methods in Digital Communication
- MMC 5435: Messaging Strategy and the Centrality of the Value Proposition
- MMC 5436: Messaging Methodologies and the Practice of Conversion Optimization
- MMC 5449: Consumer and Audience Analytics
- MMC 5465: Communication Leadership
- MMC 5636: Introduction to Social Media
- MMC 5708: Foundations of Intercultural Communication
- MMC 5717: Cross Platform Media Selling
- MMC 5737: Lead Generation and Management
- MMC 6135: Data Visualization
- MMC 6145: Web Interactivity and Engagement
- MMC 6202: Legal Problems of Mass Communication
- MMC 6205: Social Media Ethics
- MMC 6213: Strategic Communication Ethics and Concepts
- MMC 6278: Advanced Web Topics II
- MMC 6307: Seminar in International Communication
- MMC 6400: Mass Communication Theory
- MMC 6402: Seminar in Mass Communication Theory
- MMC 6405: Seminar in Mass Communication and Public Opinion
- MMC 6406: Innovation and Entrepreneurship in Mass Communication
- MMC 6409: Science/Health Communication
- MMC 6417: New Media, Health Behavior and the Health Environment
- MMC 6421: Research Methods in Mass Communication
- MMC 6423: Content-Analysis Methods
- MMC 6426: Qualitative Research
- MMC 6428: Collaborative Communication Research
- MMC 6429: News and Numbers
- MMC 6455: Mass Communication Statistics
- MMC 6456: Data Storytelling and Visualization
- MMC 6466: Digital Persuasive Communication
- MMC 6475: Audience Research Methods
- MMC 6476: Understanding Audiences
- MMC 6560: Seminar in History of Mass Communication
- MMC 6566: Communicating Privacy
- MMC 6612: New Media and a Democratic Society
- MMC 6615: Race, Class, Gender, and Media
- MMC 6618: Survey of Political Communication
- MMC 6619: Seminar in Political Advertising
- MMC 6638: Global Activism and Social Change Communication
- MMC 6647: Financial Business Essentials for Communication Professionals
- MMC 6660: Mass Communication and Society
- MMC 6665: Seminar in First Amendment Theory
- MMC 6666: Seminar in Research in Mass Communication Law
- MMC 6667: Seminar in Advanced Topics in Mass Communication Law

- MMC 6668: Seminar in Public Policy Toward Mass Media
- MMC 6706: Covering the Arts
- MMC 6725: Social Media and News
- MMC 6726: Social Media and Emerging Technology
- MMC 6727: Social Media Metrics
- MMC 6728: Branding Using Social and Mobile Media
- MMC 6730: Social Media Management
- MMC 6746: Developing Intercultural Competence
- MMC 6905: Individual Work
- MMC 6910: Supervised Research
- MMC 6920: Communication Proseminar
- MMC 6929: Communication Colloquium
- MMC 6930: Seminar in Mass Communication Teaching
- MMC 6936: Special Topics in Mass Communication
- MMC 6949: Professional Internship
- MMC 6951: Masters Project Seminar
- MMC 6971: Research for Master's Thesis
- MMC 6973: Project in Lieu of Thesis
- MMC 7979: Advanced Research
- MMC 7980: Research for Doctoral Dissertation
- PUR 5507: Persuasion Theory and Research
- PUR 6005: Theories of Public Relations
- PUR 6006: Public Relations Foundations
- PUR 6206: Public Relations Ethics and Professional Responsibility
- PUR 6403: Crisis and Risk Management
- PUR 6409: International Issues and Crisis Communication
- PUR 6416: Public Relations and Fund Raising
- PUR 6446: Public Relations and Philanthropy
- PUR 6475: Digital Social Advocacy
- PUR 6506: Public Relations Research
- PUR 6607: Public Relations Management
- PUR 6608: International Public Relations
- PUR 6616: Corporate Reputation and Communication
- PUR 6934: Problems in Public Relations
- RTV 6105: Writing for Electronic Media
- RTV 6309: Advanced TV Reporting
- RTV 6508: Audience Analysis
- RTV 6801: Telecommunication Management
- RTV 6807: Telecommunication Outlet Systems and Practices
- RTV 6973: Project in Lieu of Thesis
- VIC 5315: Corporate and Brand Identity on the Web
- VIC 5325: Digital Imagery in Web Design
- VIC 5326: Digital Media Layout and Design
- VIC 6316: Brand Management

Mass Communication

College of Journalism and Communications

Mass Communication Program Information

Ph.D. in Mass Communication

The Ph.D. degree is a research degree. The Ph.D. program is designed to help develop knowledge, attitudes, and skills so graduates can make important contributions to understanding mass communication. Faculty members help students lay the foundation for a lifetime of significant, creative work.

The doctoral program prepares students for a variety of opportunities in mass communication. Graduates are expected to teach at colleges and universities; conduct research for organizations in advertising, journalism, public relations, telecommunication, and other mass communication fields; do consulting; and conduct research and contribute to policy in government and private organizations. Doctoral students in the College of Journalism and Communications gain valuable experience in both teaching and research. Assistantships help prepare students for academic and other research positions. Students in the program have consistently been among the nation's leaders in winning top-paper awards at national and regional scholarly meetings.

Master of Arts in Mass Communication (M.A.M.C.)

There are several specializations available for the Master of Arts in Mass Communication:

The **Journalism specialization** program in the UF College of Journalism and Communications combines study of the academic literature on the societal role and effects of mass communication in general and journalism in particular with courses designed to improve students' practice of the journalism craft. The Journalism specialization at the master's level is designed for students interested in all areas of non-broadcast journalism (i.e. newspapers, magazines and online publishing). Those who have an educational and /or professional background in journalism can enhance their understanding of the role of journalism in society, as well as improving reporting and writing skills. However, the program is also well-suited for students with a long-term interest in college-level journalism education, who can pursue the master's degree as preparation for entry into a doctoral program. For more information, please see our website: http://www.jou.ufl.edu/academics/masters/mamc-journalism.

The **Pro Master's specialization:** The Professional Master's track is an on-campus program focused in four core/cross disciplines: applied theory; communication, technology and society; multimedia storytelling; and data creation/analysis/data visualization.

The track is designed specifically for those who want to develop additional skills to become more competitive in the job market. The program allows you to develop your own customizable curriculum from three key career areas: Data/Research, Creative or Management. Students can use our suggested curriculum or create your own path to reach your personal career goals.

The Professional Masters' can be completed in one year, for those who want an accelerated program, or two years. Admission is for the fall semester only. For more information, please see our website: https://www.jou.ufl.edu/current-students/masters/promasters/.

The **Public Relations specialization** at the master's level is a research-based program designed to prepare students for careers and advancement in the industry or for entering doctoral studies. Students learn the conceptual foundations of public relations and develop professional and research competency within the duration of the program. Courses in the public relations specialization focus on conceptual foundations of public relations, including mass communication and society; professional and managerial skills mastery; and research expertise. For more information, please see our website: http://www.jou.ufl.edu/academics/masters/master-of-public-relations.

The **Telecommunication specialization** program in the UF College of Journalism and Communications combines courses in Mass Communication, Telecommunication, and other areas relevant to the student's goals. There is a thesis track, appropriate for students who will later seek the Ph.D. or who wish to learn the skills and knowledge associated with thesis research or project in lieu of thesis. The Telecommunication track is designed for students with the following interests:

- Operation or management of telecommunication outlets (broadcast stations, cable systems, program distributors, etc.) and emerging media
- Telecommunication regulation and policy
- Audience research
- Preparation for an advanced degree

For more information, please see our website: http://www.jou.ufl.edu/academics/masters/mamc-telecommunication.

The **International/Intercultural Communication specialization**: The field of international communication encompasses the study of international journalism (both print and broadcast) and international business and marketing communication. The field of intercultural communication focuses on the interactions between people of different cultures, values and histories. Through their study, students learn to appreciate and engage diverse cultures and media, gaining the knowledge and skills you need to thrive in today's challenging global community. The international/intercultural track in mass communication culminates with the student writing a thesis on an international/intercultural topic in communication, applying one or more of the methods used in communication research. For more information, please see our website: http://www.jou.ufl.edu/academics/masters/mamc-internationalintercultural-communication-specialization.

The **Science and Health Communications specialization** program is designed to teach scientists and health specialists to communicate effectively via media, and to teach mass media specialists the background science to translate the language of science and health into meaningful and understandable stories for their audiences. These goals are achieved through theoretical writing and applied courses. At least two aspects of the program make it unique among science communication programs nationwide. First, other existing science communication programs in the U.S. focus on training journalists. UF's program is open to journalists who want to specialize in covering science and health, offers training for people planning to work as public affairs or public information officers for science and health organizations, for other communication specialists, and for scientists who need to be able to communicate with the public about their work. Second, the program focuses on training students to understand and communicate effectively about science and health policy. For more information, please see our website: http://www.jou.ufl.edu/academics/masters/mamc-sciencehealth-communication.

For more help with any of our graduate degree programs, please refer to our website: http://www.jou.ufl.edu/academics.

Degrees Offered with a Major in Mass Communication

Doctor of Philosophy

without a concentration

concentration in Clinical and Translational Science

Master of Arts in Mass Communication

College of Journalism and Communications Courses

- ADV 5005: Advertising Planning
- ADV 6006: Theories of Advertising
- ADV 6305: Advanced Media Planning
- ADV 6325: Advertising and Social Media
- ADV 6405: International Advertising
- ADV 6503: Advertising Creative Strategy and Research
- ADV 6505: Advertising Research Methods
- ADV 6602: Advertising Management
- COM 6315: Advanced Research Methods
- COM 6338: Advanced Web Topics I: Advanced Design
- COM 6940: Supervised Teaching
- FIL 6061: History of Documentary Film I
- FIL 6062: History of Documentary Film II
- FIL 6101: Advanced Radio, Television, and Film Writing
- FIL 6315: Writing for Documentary I
- FIL 6317: Producing and Writing the Documentary
- FIL 6335: Business of Documentary
- FIL 6340: Issues and Problems in Documentary
- FIL 6365: Documentary Pre-Production Planning
- FIL 6366: Documentary Procedures II
- FIL 6377: Documentary Field Production
- FIL 6378: Documentary Research Methods
- FIL 6380: Advanced Post-Production Techniques
- JOU 5007: History of Journalism
- JOU 5705: Issues and the Press
- JOU 6102: Reporting Workshop
- JOU 6114: Journalist Bootcamp
- JOU 6391: Seminar in Journalism as Literature
- JOU 6344: Journalist Toolkit 1
- JOU 6349: Journalist Toolkit 2
- JOU 6502: Newsroom Management
- MMC 5005: Mass Communication History
- MMC 5006: Introduction to Multimedia Communication
- MMC 5165: Influence and Selling
- MMC 5015: Electronic Publishing
- MMC 5206: Advanced Law of Mass Communication
- MMC 5215: Technology Policy
- MMC 5259: Customer Management and the Nurturing of Enduring Relationships
- MMC 5277: Web Design Principles
- MMC 5279: UX Design Theory
- MMC 5306: International Communication
- MMC 5308: Communicating for Success
- MMC 5315: Survey of Foreign Correspondence
- MMC 5406: Selling Today
- MMC 5422: Customer Research and the Fundamentals of Online Testing

- MMC 5427: Research Methods in Digital Communication
- MMC 5435: Messaging Strategy and the Centrality of the Value Proposition
- MMC 5436: Messaging Methodologies and the Practice of Conversion Optimization
- MMC 5449: Consumer and Audience Analytics
- MMC 5465: Communication Leadership
- MMC 5636: Introduction to Social Media
- MMC 5708: Foundations of Intercultural Communication
- MMC 5717: Cross Platform Media Selling
- MMC 5737: Lead Generation and Management
- MMC 6135: Data Visualization
- MMC 6145: Web Interactivity and Engagement
- MMC 6202: Legal Problems of Mass Communication
- MMC 6205: Social Media Ethics
- MMC 6213: Strategic Communication Ethics and Concepts
- MMC 6278: Advanced Web Topics II
- MMC 6307: Seminar in International Communication
- MMC 6400: Mass Communication Theory
- MMC 6402: Seminar in Mass Communication Theory
- MMC 6405: Seminar in Mass Communication and Public Opinion
- MMC 6406: Innovation and Entrepreneurship in Mass Communication
- MMC 6409: Science/Health Communication
- MMC 6417: New Media, Health Behavior and the Health Environment
- MMC 6421: Research Methods in Mass Communication
- MMC 6423: Content-Analysis Methods
- MMC 6426: Qualitative Research
- MMC 6428: Collaborative Communication Research
- MMC 6429: News and Numbers
- MMC 6455: Mass Communication Statistics
- MMC 6456: Data Storytelling and Visualization
- MMC 6466: Digital Persuasive Communication
- MMC 6475: Audience Research Methods
- MMC 6476: Understanding Audiences
- MMC 6560: Seminar in History of Mass Communication
- MMC 6566: Communicating Privacy
- MMC 6612: New Media and a Democratic Society
- MMC 6615: Race, Class, Gender, and Media
- MMC 6618: Survey of Political Communication
- MMC 6619: Seminar in Political Advertising
- MMC 6638: Global Activism and Social Change Communication
- MMC 6647: Financial Business Essentials for Communication Professionals
- MMC 6660: Mass Communication and Society
- MMC 6665: Seminar in First Amendment Theory
- MMC 6666: Seminar in Research in Mass Communication Law
- MMC 6667: Seminar in Advanced Topics in Mass Communication Law
- MMC 6668: Seminar in Public Policy Toward Mass Media
- MMC 6706: Covering the Arts

- MMC 6725: Social Media and News
- MMC 6726: Social Media and Emerging Technology
- MMC 6727: Social Media Metrics
- MMC 6728: Branding Using Social and Mobile Media
- MMC 6730: Social Media Management
- MMC 6746: Developing Intercultural Competence
- MMC 6905: Individual Work
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- MMC 6929: Communication Colloquium
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- MMC 6936: Special Topics in Mass Communication
- MMC 6949: Professional Internship
- MMC 6951: Masters Project Seminar
- MMC 6971: Research for Master's Thesis
- MMC 6973: Project in Lieu of Thesis
- MMC 7979: Advanced Research
- MMC 7980: Research for Doctoral Dissertation
- PUR 5507: Persuasion Theory and Research
- PUR 6005: Theories of Public Relations
- PUR 6006: Public Relations Foundations
- PUR 6206: Public Relations Ethics and Professional Responsibility
- PUR 6403: Crisis and Risk Management
- PUR 6409: International Issues and Crisis Communication
- PUR 6416: Public Relations and Fund Raising
- PUR 6446: Public Relations and Philanthropy
- PUR 6475: Digital Social Advocacy
- PUR 6506: Public Relations Research
- PUR 6607: Public Relations Management
- PUR 6608: International Public Relations
- PUR 6616: Corporate Reputation and Communication
- PUR 6934: Problems in Public Relations
- RTV 6105: Writing for Electronic Media
- RTV 6309: Advanced TV Reporting
- RTV 6508: Audience Analysis
- RTV 6801: Telecommunication Management
- RTV 6807: Telecommunication Outlet Systems and Practices
- RTV 6973: Project in Lieu of Thesis
- VIC 5315: Corporate and Brand Identity on the Web
- VIC 5325: Digital Imagery in Web Design
- VIC 5326: Digital Media Layout and Design
- VIC 6316: Brand Management

Fredric G. Levin College of Law

Dean: Laura Rosenbury

The University of Florida Levin College of Law has a longstanding tradition of producing national leaders, including current American Bar Association President Stephen Zack, and is one of the nation's best values in legal education.

For more information, please see our website: http://www.law.ufl.edu

Comparative Law Department

Director and Graduate Coordinator: Lyrissa Lidsky

The LL.M. in Comparative Law degree is designed for graduates of foreign law schools who want to enhance their understanding of the American legal system and the English common law system from which it evolved. Requirements for this degree are given in the Graduate Degrees section of this catalog.

The program begins with Introduction to the Legal System of the United States for LLM in Comparative Law Part I, a 2-credit summer course that gives students a foundation in the American legal process. It also helps students acclimate to the College of Law and the University community before to the start of the academic year. During the fall and spring terms, the students complete an additional 2 credits of comparative studies plus 2 credits for legal research and writing. With the director's approval, students choose their remaining 20 credits from more than 100 Juris Doctor courses and seminars.

For admission information please see our website: https://www.law.ufl.edu/areas-of-study/degree-programs/ll-m-in-comparative-law-program or write to the Comparative Law Office P.O. Box 117643, University of Florida, Gainesville, FL 32611-7643 USA.

Comparative Law

Fredric G. Levin College of Law
Comparative Law Department

Comparative Law Program Information

The Comparative Law Department offers the LL.M. in Comparative Law. Requirements for this degree are given in the Graduate Degrees section of this catalog.

The LL.M. in Comparative Law Program is for students who have completed law degrees at schools outside of the U.S. and want to enhance their understanding of the United States' legal system and the English common law system from which it evolved. UF Law has maintained a strong international presence including establishing programs and relationships in five continents. Since 1994, the LL.M. in Comparative Law Program at UF Law has enrolled more than 200 students from 43 countries ranging from China to Zimbabwe.

For more information, please see our website: http://www.law.ufl.edu/academics/degree-programs/ll-m-in-comparative-law-program.

In addition to the Comparative Law Courses below, the remaining 20 credits are chosen by the student. You may view the entire list of courses we offer here: http://www.law.ufl.edu/academics/degree-programs/juris-doctor/course-descriptions. The following link will provide a roadmap for courses you can take depending on your interests: https://www.law.ufl.edu/areas-of-study/curriculum-roadmaps. .

Degrees Offered with a Major in Comparative Law

Master of Laws in Comparative Law

without a concentration

concentration in Tropical Conservation and Development

Comparative Law Courses

- LAW 7200: Introduction to the Legal System of the United States for LL.M. in Comparative Law, Part II
- LAW 7805: Legal Writing and Research for LL.M. in Comparative Law
- LAW 7906: Directed Research for LL.M. in Comparative Law
- LAW 7932: Introduction to the Legal System of the United States for LLM in Comparative Law, Part I

Taxation Departmental Courses

- LAW 7602: Taxation of Property Transactions
- LAW 7604: Timing Issues in Taxation
- LAW 7611: Corporate Taxation I
- LAW 7613: Corporate Taxation II
- LAW 7614: U.S. International Tax I
- LAW 7615: U.S. International Tax II
- LAW 7617: Partnership Taxation
- LAW 7623: Taxation of Gratuitous Transfers
- LAW 7625: Income Taxation of Trusts and Estates
- LAW 7626: Estate Planning
- LAW 7632: Deferred Compensation
- LAW 7633: Tax Exempt Organizations
- LAW 7640: Civil Tax Procedure
- LAW 7641: Procedures in Tax Fraud Cases
- LAW 7650: State and Local Taxation
- LAW 7660: Tax Policy
- LAW 7680: Comparative Taxation
- LAW 7682: Income Tax Treaties
- LAW 7683: Transfer Pricing
- LAW 7905: Independent Study
- LAW 7910: Supervised Research
- LAW 7911: Federal Tax Research
- LAW 7931: Current Federal Tax Problems

Environmental and Land Use Law Department

Director and Graduate Coordinator: Christine A. Klein

Florida's sensitive, varied and beautiful natural environment makes the University of Florida a natural choice for students who want to focus on the national and global issues of land use and environmental law. Florida provides a perfect setting to study first-hand the efforts to reconcile growth and conservation.

The University of Florida Levin College of Law offers a Masters (LL.M.) in Environmental and Land Use Law. This 26 credit post-J.D. degree provides an opportunity for experienced attorneys as well as recent law school graduates to develop in-depth expertise in environmental and land use law.

For more information, please see the program page below and our website: https://www.law.ufl.edu/areas-of-study/degree-programs/ll-m-environmental-land-use-law.

Environmental and Land Use Law

Fredric G. Levin College of Law
Environmental and Land Use Law Department

Environmental and Land Use Law Program Information

The University of Florida Levin College of Law offers a Masters (LL.M.) in Environmental and Land Use Law. This 26 credit post-J.D. degree provides an opportunity for experienced attorneys as well as recent law school graduates to develop in-depth expertise in environmental and land use law.

Students admitted to the program work with the LL.M. Program Director to design an individual course of study tailored to their particular interests. In addition to selecting from a broad range of academic courses and the Conservation Clinic, LL.M. students may also apply for a seat in the spring break field course (previous offerings have included Sustainable Development in Belize, Central America, and Ocean and Coastal Law in Marineland, Florida) and the Summer Environmental Law Study Abroad Program in Costa Rica.

The program also capitalizes on the many outstanding programs at the University of Florida in disciplines related to environmental and land use law practice, including wildlife ecology, environmental engineering, urban and regional planning, and interdisciplinary ecology. The UF LL.M. program is unique in requiring that 6 of the 26 required credit hours must be from relevant graduate level courses that have substantial non-law content and are offered outside the law school or jointly by the law school and another department. In addition to completing required coursework, LL.M. candidates must complete a written project in connection with a seminar or the Conservation Clinic.

For more information about the Environmental and Land Use Law Program, please see our website: https://www.law.ufl.edu/areas-of-study/degree-programs/ll-m-environmental-land-use-law.

University of Florida
Levin College of Law
P.O. Box 117625
Gainesville, FL 32611-7625
Phone: 352-273-0777
Email: llmenviro@law.ufl.edu

Degrees Offered with a Major in Environmental and Land Use Law

Master of Laws in Environmental and Land Use Law

Environmental and Land Use Law Courses

- LAW 7493: LL.M. Research: Selected Topics in Environmental & Land Use Law
- LAW 7916: Research Methods and Environmental Land Use Law

Taxation Department

Director of Graduate Tax Program: Fred Murray
Director of International Tax Program: Mindy Herzfeld

Graduate study in the field of taxation leading to the Master of Laws in Taxation degree or to the Master of Laws in International Tax degree is available in the College of Law.

Applicants for admission to the Graduate School for these degrees must hold a law degree from an accredited law school or in the case of international students, from a recognized foreign university but need not submit scores on the Graduate Record Examination. For further information concerning admission consult the *Graduate Tax Program Catalog*, or write the Tax Office, 320 Holland Law Center.

International Taxation

Fredric G. Levin College of Law
Taxation Department

Degrees Offered with a Major in International Taxation

Master of Laws in International Taxation

Taxation Departmental Courses

- LAW 7602: Taxation of Property Transactions
- LAW 7604: Timing Issues in Taxation
- LAW 7611: Corporate Taxation I
- LAW 7613: Corporate Taxation II
- LAW 7614: U.S. International Tax I
- LAW 7615: U.S. International Tax II
- LAW 7617: Partnership Taxation
- LAW 7623: Taxation of Gratuitous Transfers
- LAW 7625: Income Taxation of Trusts and Estates
- LAW 7626: Estate Planning
- LAW 7632: Deferred Compensation
- LAW 7633: Tax Exempt Organizations
- LAW 7640: Civil Tax Procedure
- LAW 7641: Procedures in Tax Fraud Cases
- LAW 7650: State and Local Taxation
- LAW 7660: Tax Policy

- LAW 7680: Comparative Taxation
- LAW 7682: Income Tax Treaties
- LAW 7683: Transfer Pricing
- LAW 7905: Independent Study
- LAW 7910: Supervised Research
- LAW 7911: Federal Tax Research
- LAW 7931: Current Federal Tax Problems

Taxation

Fredric G. Levin College of Law
Taxation Department

Degrees Offered with a Major in Taxation

Master of Laws in Taxation

Taxation Departmental Courses

- LAW 7602: Taxation of Property Transactions
- LAW 7604: Timing Issues in Taxation
- LAW 7611: Corporate Taxation I
- LAW 7613: Corporate Taxation II
- LAW 7614: U.S. International Tax I
- LAW 7615: U.S. International Tax II
- LAW 7617: Partnership Taxation
- LAW 7623: Taxation of Gratuitous Transfers
- LAW 7625: Income Taxation of Trusts and Estates
- LAW 7626: Estate Planning
- LAW 7632: Deferred Compensation
- LAW 7633: Tax Exempt Organizations
- LAW 7640: Civil Tax Procedure
- LAW 7641: Procedures in Tax Fraud Cases
- LAW 7650: State and Local Taxation
- LAW 7660: Tax Policy
- LAW 7680: Comparative Taxation
- LAW 7682: Income Tax Treaties
- LAW 7683: Transfer Pricing
- LAW 7905: Independent Study
- LAW 7910: Supervised Research
- LAW 7911: Federal Tax Research
- LAW 7931: Current Federal Tax Problems

College of Liberal Arts and Sciences

Interim Dean*:* David Richardson

The College of Liberal Arts and Sciences constitutes the intellectual core of the university. Its principal mission is to lead the academic quest to understand our place in the universe, and to help shape our society and environment.

For more information, please see our website: http://www.clas.ufl.edu

Animal Molecular and Cellular Biology Department

Director: P.J. Hansen
For more information about the program, contact P.J. Hansen at pjhansen@ufl.edu, follow the link below to our catalog page, or visit the program's website at http://www.animal.ufl.edu/amcb/.

Animal Molecular and Cellular Biology

- College of Agricultural and Life Sciences
- College of Liberal Arts and Sciences
- College of Veterinary Medicine
- Animal Molecular and Cellular Biology Department

Animal Molecular and Cellular Biology Program

The animal molecular and cell biology (AMCB) graduate program offers Master of Science and Doctor of Philosophy degrees. Faculty are drawn from these disciplines:

- Animal Sciences
- Biochemistry and Molecular Biology
- Large Animal Clinical Sciences
- Obstetrics and Gynecology
- Zoology

Early in the program, students choose a faculty supervisor who will ensure the quality of their research experience. Students may also do optional rotations through the laboratories of one or more other faculty. The Annual Research Symposium features guest speakers and student research presentations. A weekly journal club and monthly seminars draw on the knowledge and diversity the campus offers in molecular and cell biology.

Core course requirements for the M.S. degree are BCH 5045, registration in a 1-credit graduate seminar course and successful completion of a course on responsible and ethical conduct of research. Core course requirements for the Ph.D. include BCH 5413 and GMS 6421, registration in two graduate seminar courses and successful completion of a course on responsible and ethical conduct of research.

Contact P.J. Hansen at pjhansen@ufl.edu or visit the program's website at http://www.animal.ufl.edu/amcb/.

Degrees Offered with a Major in Animal Molecular and Cellular Biology

Doctor of Philosophy
Master of Science

Animal Molecular and Cellular Biology Courses

- ABE 6933: Special Topics in Agricultural and Biological Engineering
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ANS 5446: Animal Nutrition
- ANS 5935: Reproductive Biology Seminar and Research Studies
- ANS 6288: Experimental Techniques and Analytical Procedures in Meat Research
- ANS 6313: Current Concepts in Reproductive Biology
- ANS 6387: Genetic Analysis of Complex Traits in Livestock
- ANS 6447: Ruminant Nutrition
- ANS 6449: Vitamins
- ANS 6458: Advanced Methods in Nutrition Technology
- ANS 6636: Meat Technology
- ANS 6666L: Molecular and Cellular Research Methods
- ANS 6702: Physiology of the Mammary Gland and Lactation
- ANS 6704: Mammalian Endocrinology
- ANS 6705: Muscle Physiology
- ANS 6707: Growth Physiology in Farm Animals
- ANS 6711: Current Topics in Equine Nutrition and Exercise Physiology
- ANS 6715: Gastrointestinal and Feed Microbiology
- ANS 6716: Physiology in Farm Animals
- ANS 6718: Nutritional Physiology of Domestic Animals
- ANS 6723: Mineral Nutrition and Metabolism
- ANS 6745: Introduction to Statistical Genetics
- ANS 6750: Reproductive Physiology in Farm Animals
- ANS 6751: Physiology of Reproduction
- ANS 6767: Advanced Endocrinology
- ANS 6905: Problems in Animal Science
- ANS 6910: Supervised Research
- ANS 6932: Special Topics in Animal Science
- ANS 6936: Graduate Seminar in Animal Molecular and Cell Biology
- ANS 6939: Animal Molecular and Cellular Biology Journal Colloquy
- ANS 6940: Supervised Teaching
- ANS 6942: Supervised Extension in the Animal Sciences
- ANS 6971: Research for Master's Thesis
- ANS 7979: Advanced Research
- ANS 7980: Research for Doctoral Dissertation
- BCH 5045: Graduate Survey of Biochemistry
- BCH 5413: Mammalian Molecular Biology and Genetics
- BCH 6206: Advanced Metabolism
- BCH 6415: Advanced Molecular and Cell Biology
- BCH 6740: Physical Biochemistry/Structural Biology
- BCH 6876: Recent Advances in Membrane Biology
- BCH 6877: Recent Advances in Structural Biology
- BCH 6878: Recent Advances in Cytoskeletal Processes

- BME 5401: Biomedical Engineering and Physiology I
- GMS 6012: Human Genetics
- GMS 6013: Developmental Genetics
- GMS 6014: Applications of Bioinformatics to Genetics
- GMS 6017C: In-Vitro Fertilization Laboratory Practicum A
- GMS 6018L: Advanced in-Vitro Fertilization Laboratory Practicum
- GMS 6051: Signal Transduction
- GMS 6061: Nuclear Structure and Dynamics
- GMS 6062: Protein Trafficking
- GMS 6065: Fundamentals of Cancer Biology
- GMS 6072: Neuroendocrinology and Neuroimmunology
- GMS 6079: Computers in Biology
- GMS 6140: Principles of Immunology
- GMS 6143: Cells of the Innate Immune System
- GMS 6155: DNA Microarray Data Analysis
- GMS 6221: Ethics in Genetics
- GMS 6231: Genomics and Bioinformatics
- GMS 6233: Quantitative Models of Protein Evolution and Phylogenetics
- GMS 6331: Stem Cell Biology
- GMS 6400C: Principles of Physiology
- GMS 6421: Cell Biology
- GMS 6647: Transcriptional and Translational Control of Cell Growth and Proliferation
- GMS 6861: Applied Biostatistics I
- GMS 6862: Applied Biostatistics II
- MCB 5305L: Microbial Genetics and Biotechnology Laboratory
- MCB 6485: Advanced Techniques in Microbiology and Cell Science
- PCB 5065: Advanced Genetics
- PCB 5235: Immunology
- PCB 5615: Molecular Evolution and Systematics
- PCB 6816: Thermal Physiology
- PHA 6449: Pharmacogenomics
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- VME 5244: Physiology: Organ Systems
- VME 6464: Molecular Pathogenesis
- VME 6602: General Toxicology
- VME 6650: Principles of Mammalian Pharmacology
- VME 6767: Issues in the Responsible Conduct of Research

Anthropology Department

Chair: C. McCarty
Graduate Coordinator: J. Davidson

The Department of Anthropology offers the Master of Arts and Doctor of Philosophy Degrees. Complete descriptions of the minimum requirements for these degrees are provided in the General Information section of this catalog.

The Department provides training in the four main areas of specialization, or subfields: Anthropological Linguistics, Archaeology, Biological Anthropology, and Cultural Anthropology. Department strengths include training in Social Research Methods, Medical Anthropology, and the Archaeology of the Americas. The C.A. Pound Human Identification Lab provides opportunities for specialized training in Forensic Anthropology.

Given the holistic nature of Anthropology, the Department maintains close ties with other units in Liberal Arts and Sciences, including the Center for African Studies (CAS), the Center for Latin American Studies (LAS), the School of Natural Resources and Environment (SNRE), the African American Studies program, the Center for European Studies (CES), and the Department of Linguistics. Many department faculty hold joint appointments or affiliations with these programs. We also maintain close ties with the Bureau of Economic and Business Research (BEBR), the Florida Museum of Natural History (FLMNH), the Emerging Pathogens Institute (EPI), the Land Use and Environmental Change Institute (LUECI), the Water Institute, and the Genetics Institute.

Prospective students are encouraged to examine the research interests of individual faculty for a more detailed perspective on the Department's strengths and specialties. Applicants to the graduate program should preferably have an undergraduate major in anthropology, but the Department accepts applicants with degrees in the humanities, arts, social sciences, and physical sciences into the graduate program. All students are required to take the two Proseminar courses, which provide students with baseline knowledge of the discipline's four subfields.

Anthropology

College of Liberal Arts and Sciences
Anthropology Department

Anthropology Program

The department of Anthropology offers graduate work leading to the Master of Arts (thesis or nonthesis option) and Doctor of Philosophy degrees. Requirements for these degrees are given in the General Information section of this catalog. For more information, visit the departmental website: http://anthro.ufl.edu. Graduate training is offered in cultural anthropology, archaeology, biological anthropology, and linguistic anthropology.

Each graduate student should specify a major field of study among the four fields of anthropology. In addition, each must choose one of three tracks: the specialized track in which a student focuses on one field of anthropology, the multifield track in which a student combines two fields, or the interdisciplinary track in which a student adds study in a second discipline to anthropology. Knowledge of a foreign language or of statistics may be required by the student's supervisory committee.

The department generally requires applicants to have acceptable scores on the GRE (verbal and quantitative portions) and a 3.5 overall grade point average based on a 4.0 system. Previous work in anthropology is an asset but not a strict requirement for admission. Potential applicants are urged to visit the website to familiarize themselves with the specializations of our faculty and to indicate in their application those faculty with whom they might work. Barring special circumstances, the Department restricts admission to applicants interested in earning a Ph.D. Entering students who have earned a master's degree in anthropology may apply for direct admission to the doctoral program. Students who enter without an M.A. in anthropology will generally work for their M.A. on the way to the Ph.D. This requires

either a formally-defended thesis or written comprehensive exams combined with a publishable paper or research report. With their adviser's permission, they may opt to bypass the M.A, although this is not recommended.

Students enrolled in the M.A. program who wish to continue their studies for a Ph.D. must apply to the Department for certification. New students are admitted into the graduate program only in the fall of each academic year. The deadline for receiving completed applications for admission into the graduate program is December 15 of the previous year.

Degrees Offered with a Major in Anthropology

Doctor of Philosophy

without a concentration
concentration in Clinical and Translational Science
concentration in Historic Preservation
concentration in Tropical Conservation and Development
concentration in Women's/Gender Studies

Master of Arts

without a concentration
concentration in Historic Preservation
concentration in Tropical Conservation and Development

Master of Arts in Teaching

without a concentration
concentration in Tropical Conservation and Development

Courses

- ANG 5012: Fantastic Anthropology and Fringe Science
- ANG 5085: Collection and Analysis of Visual Data in Anthropology
- ANG 5126: Zooarcheology
- ANG 5158: Florida Archeology
- ANG 5162: Maya Archeoastronomy and Ethnoastronomy
- ANG 5164: The Inca and Their Ancestors
- ANG 5172: Historical Archeology
- ANG 5184: Principles of Archaeology
- ANG 5194: Principles of Archeology
- ANG 5265: Methods in Ethnoecology
- ANG 5266: Economic Anthropology
- ANG 5303: Women and Development
- ANG 5336: The Peoples of Brazil
- ANG 5354: Anthropology of Modern Africa
- ANG 5393: Media Anthropology
- ANG 5395: Visual Anthropology
- ANG 5420: Social Network Analysis in Cultural Anthropology
- ANG 5464: Culture and Aging
- ANG 5485: Research Design in Anthropology
- ANG 5488: Geospatial Analysis in Cultural Anthropology
- ANG 5494: Text Analysis
- ANG 5525: Human Osteology and Osteometry
- ANG 5531: Culture and Nutrition
- ANG 5546: Seminar: Human Biology and Behavior

- ANG 5620: Language and Culture
- ANG 5621: Proseminar in Cultural and Linguistic Anthropology
- ANG 5702: Anthropology and Development
- ANG 5802: Methods for the Observation of Behavior
- ANG 5824L: Field Sessions in Archeology
- ANG 6034: Seminar in Anthropological History and Theory
- ANG 6086: Historical Ecology
- ANG 6091: Research Strategies in Anthropology
- ANG 6110: Archaeological Theory
- ANG 6113: Ideology and Symbolic Approaches in Archaeology
- ANG 6120C: Environmental Archaeology
- ANG 6122C: Archaeological Ceramics
- ANG 6128: Lithic Technology
- ANG 6146: Archaeology of Maritime Adaptations
- ANG 6155: Southeastern U.S. Prehistory
- ANG 6161: Problems in Caribbean Prehistory
- ANG 6165: Problems in South American Archaeology
- ANG 6183: Laboratory Training in Archeology
- ANG 6185: Ethnoarchaeology
- ANG 6186: Seminar in Archeology
- ANG 6187: Experimental Archaeology
- ANG 6190: Seminar in Contemporary Methods
- ANG 6191: Archaeology of Death
- ANG 6224: Painted Books of Ancient Mexico: Codices of Aztecs, Mixtecs, and Mayas
- ANG 6241: Special Topics in Ecology of Religion
- ANG 6267: Anthropology, Geographic Information System, and Human Ecosystems
- ANG 6274: Principles of Political Anthropology
- ANG 6286: Seminar in Contemporary Theory
- ANG 6304: Seminar in Gender and International Development
- ANG 6314: Peoples of the Arctic
- ANG 6360: Ethnicity in China
- ANG 6366: Family, Gender, and Population in China
- ANG 6407: Sickness and Power
- ANG 6421: Landscape, Place, Dwelling
- ANG 6452: Race and Racism in Anthropological Theory
- ANG 6453: Human Rights in Cross-Cultural Perspective
- ANG 6478: Evolution of Culture
- ANG 6481: Research Methods in Cognitive Anthropology
- ANG 6514: Human Origins
- ANG 6524: Skeletal Mechanics in Biological Anthropology
- ANG 6532: Molecular Genetics of Disease
- ANG 6555: Issues in Evolutionary Anthropology
- ANG 6583: Primate Functional Morphology
- ANG 6591L: Advanced Molecular Anthropology Laboratory
- ANG 6592: Seminar in Molecular Anthropology
- ANG 6593L: Biological Anthropology Laboratory

- ANG 6701: Seminar on Applied Anthropology
- ANG 6737: Medical Anthropology
- ANG 6740: Advanced Techniques in Forensic Anthropology
- ANG 6801: Ethnographic Field Methods
- ANG 6905: Individual Work
- ANG 6910: Supervised Research
- ANG 6915: Research Projects in Social, Cultural, and Applied Anthropology
- ANG 6930: Special Topics in Anthropology
- ANG 6940: Supervised Teaching
- ANG 6945: Internship in Anthropology
- ANG 6971: Research for Master's Thesis
- ANG 7979: Advanced Research
- ANG 7980: Research for Doctoral Dissertation

Astronomy Department

Chair: C. Telesco
Graduate Coordinator: V. Sarajedini

The University of Florida's Astronomy Department is one of the largest in the country. Research is an integral part of the graduate program. Students have opportunities to work with faculty and staff on a broad range of astronomical problems using in-house, national and international, and ground- and space-based facilities. Support for graduate studies is available through fellowships, research assistantships, and teaching assistantships. For more information on the program, please follow the link below or visit our website.

Astronomy

College of Liberal Arts and Sciences
Astronomy Department

Astronomy Program Information

The Astronomy Department offers graduate programs leading to the M.S., M.S.T. or Ph.D. degrees in astronomy. Requirements for these degrees are given in the Graduate Degrees section of this catalog.

Planetary Systems: Observational and theoretical studies concentrate in the areas of planet formation, the dynamical evolution of planetary systems and the detection and characterization of extrasolar planets. Members of the department are active in Kepler Mission and ground-based Dopple surveys to identify extrasolar planets. Researchers are also active in studying the origins and orbital evolution of interplanetary dust and small bodies in the solar system and around nearby stars.

Stellar populations: Observational studies concentrate on resolved stars in the Milky Way and nearby galaxies. Studies of particular classes of stars include various types of binary stars and blue stragglers. The goal of these studies is to apply our theoretical understanding of stellar structure and evolution to the properties of stars in a variety of environments.

Origins of stars and planets: Observational studies focus on the properties of giant molecular clouds, the collapse of

molecular cloud cores, the formation of stars in clusters and in isolation, and the formation and evolution of circumstellar and protoplanetary disks. The department is active in several star formation surveys, involving many international ground- and space-based facilities. Theoretical studies emphasize the development of analytic models and numerical simulations, as well as their testing against observational constraints.

Structure and evolution of galaxies: Observational programs use multi-wavelength photometry of stars and star clusters in galaxies throughout the Local Group and in nearby groups, including the Milky Way, to study galaxy evolution. Other observations focus on the structure and dynamics of galaxies and their interstellar medium using neutral hydrogen (HI) and molecules such as carbon monoxide.

Extragalactic astronomy and cosmology: Observational programs investigate the nature of ultra-luminous galaxies, active galactic nuclei (AGNs), and the formation and chemical evolution of distant galaxies and clusters of galaxies. Theoretical investigations focus on the emission/absorption features in AGN spectra, the star-formation and chemical-evolution properties of galaxies, and applications of general relativity and particle physics to conditions in the very early universe.

Instrumentation programs: The UF Infrared Astrophysics Laboratory is a world leader in designing and constructing advanced near-infrared and mid-infrared instrumentation for major telescopes around the world, including the 8m Gemini North and South Telescopes and the 10m Gran Telescopio Canarias. Instrumentation is also developed in the area of high precision Doppler techniques for planet searches and the development of high contrast imaging techniques for direct imaging of extrasolar planets.

Computing facilities: The Astronomy Department maintains a network of high-performance computers running Linux and OS-X. The local network is maintained by a full-time systems manager. Astronomy students have access to supercomputing facilities maintained by the UF High Performance Computing Center, including thousands of CPU cores with high-performance networking.

Degrees Offered with a Major in Astronomy

Doctor of Philosophy
Master of Science
Master of Science in Teaching

Astronomy Courses

- AST 5113: Solar System Astrophysics I
- AST 5114: Solar System Astrophysics II
- AST 6112: Solar System Astrophysics
- AST 6215: Stars and the Galaxy
- AST 6245: Stellar Atmospheres and Radiative Processes
- AST 6309: Galaxies and Cosmology
- AST 6336: Astrophysics of the Interstellar Medium
- AST 6415: Observational Cosmology
- AST 6416: Physical Cosmology
- AST 6506: Celestial Mechanics
- AST 6725C: Fundamentals of Observational Astronomy
- AST 6905: Individual Work
- AST 6925: Departmental Colloquium
- AST 6935: Frontiers in Astronomy
- AST 6936: Astronomy Journal Club
- AST 6971: Research for Master's Thesis

- AST 7939: Special Topics
- AST 7979: Advanced Research
- AST 7980: Research for Doctoral Dissertation

Biology Department

College of Liberal Arts and Sciences

Chair: Marta L. Wayne
Graduate Coordinator: John (Gordon) Burleigh

The Department of Biology offers two graduate programs: Botany and Zoology. Both programs offer graduate work leading to the degrees of Master of Science, Master of Science in Teaching, and Doctor of Philosophy. Requirements for these degrees are available in the Graduate Degrees section of this catalog. More information regarding these programs is available by following the links below and by visiting our departmental website: http://www.biology.ufl.edu.

Combined Bachelor's/master's program: the Department of Biology in collaboration with the College of Medicine offer a combined Bachelor of Science with a major in Biology and Master of Science with a major in Biochemistry & Molecular Biology degree program. Eligible students may substitute up to 12 semester hours of graduate courses for undergraduate electives. These letter-graded, graduate level courses earned with a grade of B or better are double-counted toward the 30 credits required for the Master of Science (with thesis) in Biochemistry & Molecular Biology.

The combined degree program allows students to complete the M.S. degree with a research thesis in as little as one year after receiving the B.S. degree. The program is intended for students who want to complete a mentored research project while taking additional graduate coursework to gain more experience and be more competitive for applications to Ph.D. programs or professional programs (for example, Medical, Dental, or Veterinary school).

Eligibility Requirements for the admission to the undergraduate portion of the combined degree program:

1. Minimum cumulative GPA of 3.2 and minimum upper division GPA of 3.3
2. Completion of all critical-tracking requirements in the Biology B.S.
3. Completion of at least three semester hours of mentored research (e.g., through BSC 4910 and BSC 4912) or equivalent research experience

Eligibility Requirements for the graduate portion of the combined degree program:

1. Satisfactory completion of the undergraduate portion of the combined degree program
2. Meet the requirements for admission, including minimum GRE score, as established by the Graduate School and the Biochemistry & Molecular Biology graduate program in the College of Medicine.
3. A member of the Biochemistry & Molecular Biology graduate faculty has agreed to serve as the student's advisor.

Interested students must apply to the combined degree program by the end of the junior year. Upon acceptance, the Biology Major Undergraduate Coordinator and the Biochemistry & Molecular Biology Graduate Coordinator will identify up to 12 credits of 5000+ level courses that the student may take in the senior year. The GRE should be taken by the summer before the senior year. In the fall of the senior year, the student will apply to the M.S. Program. Upon acceptance to the M.S. program, the eligible combined degree graduate coursework will be transferred to count toward the M.S. degree during the first semester following award of the B.S. degree.

Students should note the following regarding tuition and fees in this program: 1) the tuition for graduate courses is higher than for undergraduate courses, regardless of whether the courses are taken as an undergraduate or graduate student, and 2) there is no guarantee of a stipend or tuition waiver for graduate students in the MS program.

Botany

College of Liberal Arts and Sciences
Biology Department

Botany Program Information

Chair: Marta L. Wayne
Graduate Coordinator: John (Gordon) Burleigh

The Department of Biology offers graduate work in Botany leading to the degrees of Master of Science, Master of Science in Teaching, and Doctor of Philosophy. Requirements for these degrees are given in the Graduate Degrees section of this catalog.

The Department offers studies in the areas of biochemistry, molecular biology, cell biology, physiology, ecology, systematics, and evolution. Specific areas of specialization include anatomy/morphology with emphasis on extant and fossil vascular plants; ecology and environmental studies including ecosystem ecology, conservation biology and genetics, fire ecology, exotic invasive species, and tropical botany and ecology; cell biology with emphasis on the cytoskeleton and cell morphogenesis; physiology, biochemistry, and molecular biology with emphasis on photosynthesis, growth and development of angiosperms, protein phosphorylation and signal transduction, global analysis of spatial patterns of gene expression; plant secondary metabolism and proteomics; systematics with emphasis on DNA- and morphology-based phylogenetic analyses, phylogeographic studies, molecular evolution/development, and monographic and floristic studies. To be considered for admission to graduate studies, students should have:

- The equivalent of an undergraduate degree in botany or biology with basic course work in their area of interest
- Acceptable GRE scores (verbal, quantitative, and analytical writing)
- Letters of recommendation
- International students must submit an acceptable score on one of the following: TOEFL (Test of English as a Foreign Language: computer=213, paper=550, web=80), IELTS (International English Language Testing System: 6), MELAB (Michigan English Language Assessment Battery: 77), or successful completion of the UF English Language Institute program. The program of graduate study for each student will be determined by a supervisory committee, and deficiencies in background coursework will be made up early in the graduate program. No more than 9 credits of BOT 6905 may be used to satisfy the credit requirements for a master's degree.

Degrees Offered with a Major in Botany

Doctor of Philosophy

without a concentration
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Master of Science

without a concentration
concentration in Tropical Conservation and Development

concentration in Wetland Sciences

Master of Science in Teaching

without a concentration

concentration in Tropical Conservation and Development

concentration in Wetland Sciences

Botany Courses

- BOT 5225C: Plant Anatomy
- BOT 5305: Paleobotany
- BOT 5505C: Intermediate Plant Physiology
- BOT 5625: Plant Geography
- BOT 5655C: Physiological Plant Ecology
- BOT 5685C: Tropical Botany
- BOT 5695C: Ecosystems of Florida
- BOT 5725C: Taxonomy of Vascular Plants
- BOT 6508C: Proteomics Theory and Practice
- BOT 6516: Plant Metabolism
- BOT 6566: Plant Growth and Development
- BOT 6656: Plant Symbiosis
- BOT 6716C: Advanced Taxonomy
- BOT 6726C: Principles of Systematic Biology
- BOT 6905: Individual Studies in Botany
- BOT 6910: Supervised Research
- BOT 6927: Advances in Botany
- BOT 6935: Special Topics
- BOT 6936: Graduate Student Seminar
- BOT 6940: Supervised Teaching
- BOT 6943: Internship in College Teaching
- BOT 6971: Research for Master's Thesis
- BOT 7979: Advanced Research
- BOT 7980: Research for Doctoral Dissertation
- PCB 5046C: Advanced Ecology
- PCB 5338: Principles of Ecosystem Ecology
- PCB 5356: Tropical Ecology
- PCB 6675C: Evolutionary Biogeography
- PLP 6656C: Fungal Biology

Zoology

College of Liberal Arts and Sciences
Biology Department

Zoology Program Info

Chair: Marta L. Wayne
Graduate Coordinator: John (Gordon) Burleigh

The Department of Biology offers graduate programs in Zoology leading to the Master of Science in Teaching, Master of Science, and Doctor of Philosophy degrees. The requirements for these degrees can be found in the Graduate Degrees section of this catalog.

Our program emphasizes Integrative Biology, with integration accomplished through a focus on the theoretical foundations provided by evolutionary biology and ecology. Our faculty has expertise in ecology, evolution, behavior, comparative and environmental physiology, genetics, development, and phylogenetics. We work in a variety of terrestrial and aquatic environments and geographic regions (tropics through subpolar), and on a range of organisms (including plants). Our faculty value integrative research (e.g., by crossing levels of organization from gene expressions to species interactions), linking theory with data (through use of statistical and mathematical tools), and using natural history to guide the development and testing of rigorous conceptual frameworks. Many of our faculty also are interested in applying and testing basic science in applied contexts (e.g., conservation biology and ecotoxicology).

Our approach is highlighted through our first-year, required, graduate course, Integrative Principles. Each student's supervisory committee will recommend additional courses according to the academic background and research plans of the student.

Degrees Offered with a Major in Zoology

Doctor of Philosophy

without a concentration
concentration in Animal Molecular and Cellular Biology
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Master of Science

without a concentration
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Master of Science in Teaching

without a concentration
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Zoology Courses

- BOT 6726C: Principles of Systematic Biology
- BSC 6038: Broader Impacts of Science on Society
- PCB 5307C: Limnology
- PCB 5415C: Behavioral Ecology
- PCB 5615: Molecular Evolution and Systematics
- PCB 6049: Seminar in Ecology
- PCB 6377C: Physiological Ecology of Vertebrates
- PCB 6447C: Community Ecology

- PCB 6675C: Evolutionary Biogeography
- PCB 6685: Population Genetics
- PCB 6695: Seminar in Evolutionary Biology
- ZOO 5115C: Vertebrate Paleontology
- ZOO 5486C: Mammalogy
- ZOO 6005: Integrative Principles of Zoology I
- ZOO 6308: Dynamic Optimization Modeling in Behavioral and Evolutionary Ecology
- ZOO 6406: Biology of Sea Turtles
- ZOO 6456C: Ichthyology
- ZOO 6542: Nutritional Ecology
- ZOO 6905: Individual Studies
- ZOO 6910: Supervised Research
- ZOO 6920: Zoology Colloquium
- ZOO 6927: Special Topics in Zoology
- ZOO 6930: Seminar in Molecular Evolution
- ZOO 6931: Seminar in Marine Turtle Biology
- ZOO 6939: Seminar in Animal Behavior
- ZOO 6971: Research for Master's Thesis
- ZOO 7979: Advanced Research
- ZOO 7980: Research for Doctoral Dissertation

Chemistry Department

Chair: Lisa McElwee-White
Graduate Coordinator: Aaron Aponick

The Department of Chemistry granted its first master's degree in 1909 and the first Ph.D. in 1930. Specializations in biochemistry, organic, physical, inorganic and analytical are offered with extensive interdisciplinary research opportunities (e.g., bio/nano-science, particle science, green chemistry, polymer chemistry, chemical physics, health related biochemistry, chemistry-engineering, and genomics).

The Department presently offers the Master of Science and Doctor of Philosophy degrees with a major in chemistry. The non-thesis Master of Science in Teaching degree is also offered with a major in chemistry.

For more information, please visit https://www.chem.ufl.edu/.

Chemistry

College of Liberal Arts and Sciences
Chemistry Department

Chemistry Program

The department offers the Master of Science (thesis or nonthesis) and Doctor of Philosophy degrees with a major in chemistry and specialization in biochemistry, analytical, organic, inorganic, or physical chemistry. The nonthesis degree Master of Science in Teaching is also offered with a major in chemistry. New graduate students should have adequate undergraduate training in inorganic, analytical, organic, and physical chemistry. Normally this will include as a minimum a year of general chemistry, one semester of quantitative analysis, one year of organic chemistry, one year of physical chemistry, and one semester of advanced inorganic chemistry. Additional courses in instrumental analysis,

biochemistry, and advanced physical and organic chemistry are desirable. Deficiencies in any of these areas may be corrected during the first year of graduate study. Such deficiencies are determined by a series of placement tests given prior to registration, and the results of these tests are used in planning the student's program. Doctoral candidates are required to complete at least 9 semester credits of courses specified by the division of the Chemistry Department in which they choose to specialize, as well as at least 9 semester credits of out-of-major-division courses. There are some minor restrictions on courses that may be used to meet this requirement. Additional courses may be required by the student's supervisory committee or major professor.

Ph.D. candidates must serve not less than one year as teaching assistants. This requirement will be waived only when, in the opinion of the department, unusual circumstances justify such action. A chemical physics option is offered for students who will be doing research in areas of physical chemistry which require a strong background in physics. For this option, a student meets the departmental requirements for concentration in physical chemistry, except that only one out-of-major division course is required. In addition, a minimum of 14 credits in 4000 level or higher physics courses or a minimum of 7 such credits in physics and 7 in 4000 level or higher mathematics courses is required. Candidates for the master's degree are required to complete any two core courses. The Master of Science degree in chemistry has both thesis and nonthesis options. The nonthesis degree Master of Science in Teaching is offered with a major in chemistry and requires a written paper of substantial length (30 to 50 pages) on an approved topic pertaining to some phase of chemistry, under the course CHM 6905.

Degrees Offered with a Major in Chemistry

Doctor of Philosophy

without a concentration

concentration in Clinical and Translational Science

concentration in Imaging Science and Technology

Master of Science

Master of Science in Teaching

Courses

- CHM 5224: Basic Principles for Organic Chemistry
- CHM 5235: Organic Spectroscopy
- CHM 5275: The Organic Chemistry of Polymers
- CHM 5305: Chemistry of Biological Molecules
- CHM 5416L: Advanced Physical Chemistry Laboratory
- CHM 5511: Physical Chemistry of Polymers
- CHM 6036: Chemical Biology
- CHM 6037: Chemical Biology and Biochemistry Seminar
- CHM 6153: Electrochemical Processes
- CHM 6154: Chemical Separations
- CHM 6155: Spectrochemical Methods
- CHM 6158C: Electronics and Instrumentation
- CHM 6159: Mass Spectrometric Methods
- CHM 6165: Chemometrics
- CHM 6180: Special Topics in Analytical Chemistry
- CHM 6190: Analytical Chemistry Seminar
- CHM 6225: Advanced Principles of Organic Chemistry
- CHM 6226: Advanced Synthetic Organic Chemistry
- CHM 6227: Topics in Synthetic Organic Chemistry
- CHM 6251: Organometallic Compounds
- CHM 6271: The Chemistry of High Polymers

- CHM 6301: Enzyme Mechanisms
- CHM 6302: Chemistry and Biology of Nucleic Acids
- CHM 6303: Methods in Computational Biochemistry and Structural Biology
- CHM 6306: Special Topics in Biological Chemistry Mechanisms
- CHM 6381: Special Topics in Organic Chemistry
- CHM 6390: Organic Chemistry Seminar Presentation
- CHM 6391: Organic Chemistry Seminar Discussion
- CHM 6430: Chemical Thermodynamics
- CHM 6461: Statistical Thermodynamics
- CHM 6470: Chemical Bonding and Spectra I
- CHM 6471: Chemical Bonding and Spectra II
- CHM 6480: Elements of Quantum Chemistry
- CHM 6490: Theory of Molecular Spectroscopy
- CHM 6520: Chemical Physics
- CHM 6580: Special Topics in Physical Chemistry
- CHM 6586: Computational Chemistry
- CHM 6590: Physical Chemistry Seminar
- CHM 6620: Advanced Inorganic Chemistry I
- CHM 6621: Advanced Inorganic Chemistry II
- CHM 6626: Applications of Physical Methods in Inorganic Chemistry
- CHM 6628: Chemistry of Solid Materials
- CHM 6670: Inorganic Biochemistry
- CHM 6680: Special Topics in Inorganic Chemistry
- CHM 6690: Inorganic Chemistry Seminar
- CHM 6720: Chemical Dynamics
- CHM 6905: Individual Problems, Advanced
- CHM 6910: Supervised Research
- CHM 6934: Advanced Topics in Chemistry
- CHM 6935: Chemistry Colloquium
- CHM 6943: Internship in College Teaching
- CHM 6971: Research for Master's Thesis
- CHM 7485: Special Topics in Theory of Atomic and Molecular Structure
- CHM 7979: Advanced Research
- CHM 7980: Research for Doctoral Dissertation
- CHS 5110L: Radiochemistry Laboratory
- PHA 6435: Biosynthetic Logic of Medicinal Natural Products

Classics Department

Chair: Mary Ann Eaverly
Graduate Coordinators: Jennifer Rea, Velvet Yates

The department offers the following degrees and programs: the Doctor of Philosophy in classical studies; the Master of Arts degree in classical studies or Latin; the Master of Latin degree, and the Master of Arts in Teaching degree in Latin. Requirements for these degrees are given in the *Graduate Degrees* section of this catalog.

Within the Ph.D. program are three tracks:

- Philology (prepares students for careers in colleges and universities)
- Classical civilization (available via distance course work)
- Latin and Roman studies (available via distance course work).

Requirements for the philology track of the doctoral degree include

- 60 credit hours after the M.A. (or a total of 90 credit hours)
- Five additional seminars after the M.A. in classics at the 500 level or higher
- Three of the following seminars: GRE 6425, GRW 6105, LAT 6425, LNW 6105, and CLA 6805
- A reading knowledge of two modern languages, one of which must be German
- Reading lists in Greek and Roman authors
- Supervised experience in teaching Latin, Greek, or civilization courses is advised
- Successful completion of a series of qualifying examinations appropriate to the chosen specialization (Greek reading; Latin reading; classical Greek literature in its historical context; classical Latin literature in its historical context; special author/topic)
- An oral preliminary examination, dissertation, and final examination

The M.A. degree in classical studies is recommended for students who plan to continue on to the doctoral level. The M.A. degree in Latin is recommended for students who plan to pursue a career in secondary teaching. Both M.A. programs require 30 credit hours, including 6 credits of GRW 6971 or LNW 6971, a thesis, and final examination.

The Master of Latin degree is a non-thesis degree, designed for currently employed and/or certified teaching professionals who wish to widen their knowledge of Latin, broaden their education in the field of classics, and enhance their professional qualifications through a program of summer course work and directed independent study and/or distance learning courses during the regular academic year. The Master of Arts in Teaching, a non-thesis degree, is offered with a program in Latin and is intended for students preparing to teach in community colleges or high schools.

Classical Studies

College of Liberal Arts and Sciences
Classics Department

Classical Studies Program Information

(The following information refers only to our on-campus programs. Please visit the Distance Learning Homepage for further details on our Distance Learning programs, especially aimed at elementary, secondary, or community college teachers.)

Ph.D. in Classical Studies

The Ph.D. program in classical studies is a traditional course of study in Greek and Latin language and literature that prepares students for careers in research and teaching at colleges and universities. Students awarded a TA position receive a stipend plus a full tuition waiver. The University also offers competitive fellowships. The department routinely provides research fellowships for its Ph.D. candidates. Department awards are also available for study abroad opportunities. Students are expected to become Florida residents after one year.

M.A. in Classical Studies

The Department of Classics at the University of Florida offers an M.A. degree in Classical Studies. Students are expected to become Florida residents after one year.

The **Master of Arts in Classical Studies** is recommended for students who plan to continue their studies at the doctoral level

For minimum degree requirements, see the Graduate Degrees section of the catalog. For additional requirements, please see the department website: http://classics.ufl.edu.

Admissions Requirements to the Classical Studies Programs:

Admission into the university and the program for Classics is ultimately determined and granted according to the rules established by the Graduate School of the University of Florida (see the Graduate Catalog).

All students seeking admission to the department must submit satisfactory scores on the GRE General Test (with at least 320 [old scoring scale] or 140 [new scoring scale] on the verbal portion.

Ph.D. program (Level II) requirements include

1. M.A. in Classics or the equivalent.

2. A GPA of at least 3.25 in previous graduate work, and an undergraduate average of at least 3.0.

3. Demonstrated reading knowledge of German, French, Italian or Modern Greek (competency in the second language to be demonstrated before the completion of the second year at Level II).

4. Deficiencies that can be corrected within one year will not necessarily prevent admission, if the applicant's record gives evidence of the capacity to undertake and complete guided independent reading and research at the doctoral level.

Master's program (Level I) requirements include:

1. Extensive study of Greek and Latin, with at least three years of coursework in one language and at least two years in the other language.

2. At least six hours in one or more of the following: ancient history, ancient art, archaeology, philosophy, literary criticism, linguistics.

3. A GPA of at least a 3.0.

4. Deficiencies that can be corrected within one year will not necessarily prevent admission, if the record shows promise on other grounds.

Degrees Offered with a Major in Classical Studies

Doctor of Philosophy
Master of Arts

Classics Departmental Courses

- CLA 6125: Augustan Age
- CLA 6515: Roman Dynasty: Nero and the Julio-Claudians
- CLA 6795: Greek and Roman Archeology
- CLA 6805: The Classical Research Tradition
- CLA 6885: Roman Law and Society
- CLA 6895: Athenian Law and Society
- CLA 6905: Individual Work
- CLA 6930: Greece and the Near East
- CLT 6295: Greek Drama in Translation
- GRE 6425: Greek Prose Composition
- GRE 6755: Epigraphy
- GRK 6905: Individual Work in Modern Greek
- GRW 6105: The Greek Tradition
- GRW 6216: Greek Novel
- GRW 6316: Greek Tragedy
- GRW 6317: Ancient Greek Comedy
- GRW 6345: Greek Lyric Poetry
- GRW 6346: Pindar
- GRW 6347: Homer
- GRW 6386: Greek Historians
- GRW 6506: Plato
- GRW 6705: Attic Orators
- GRW 6905: Individual Work
- GRW 6930: Special Topics in Greek Literature
- GRW 6931: Comparative Study of Greek and Latin Literature
- GRW 6971: Research for Master's Thesis
- GRW 7979: Advanced Research
- GRW 7980: Research for Doctoral Dissertation
- LAT 6425: Latin Prose Composition
- LNW 5325: Roman Elegiac Poetry

- LNW 5655: Roman Poets: Horace
- LNW 5665: Roman Poets: Vergil
- LNW 5675: Roman Poets: Ovid
- LNW 5931: Comparative Study of Latin and Greek Literature
- LNW 6105: The Roman Tradition
- LNW 6225: The Ancient Roman Novel
- LNW 6315: Plautus and Terence
- LNW 6335: Roman Oratory and Rhetoric
- LNW 6365: Studies in Roman Satire
- LNW 6385: Roman Historians
- LNW 6495: Late Latin Literature
- LNW 6905: Individual Work
- LNW 6933: Special Topics in Latin Literature
- LNW 6935: Proseminar in Classics
- LNW 6940: Supervised Teaching
- LNW 6971: Research for Master's Thesis
- LNW 7979: Advanced Research
- LNW 7980: Research for Doctoral Dissertation

Genetics and Genomics (CLAS)

- College of Agricultural and Life Sciences
- College of Liberal Arts and Sciences
- College of Medicine

Genetics and Genomics Program Information

Program Co-Directors: Doug Soltis and Maurice Swanson

Complete faculty listing: Follow this link

The University of Florida Genetics Institute is a multi-college, multi-faceted research center which offers the a degree program leading to the Ph.D. in Genetics and Genomics. Minimum requirements for this degree are available in the Graduate Degrees section of this catalog.

What defines the Genetics & Genomics Graduate Program is the philosophy that good geneticists are integrative geneticists, who incorporate many different subfields of genetics into their work. Accordingly, faculty interests and graduate research opportunities include a wide range of areas: advances in gene therapy, understanding the maintenance of genetic variation, understanding plant immune responses, developing improved algorithms for identifying regulatory motifs in DNA sequences, and the challenges of bioethics to strategies for controlling malaria. Due to the fundamental nature of genetics in the life sciences, our training program is distributed across several colleges at UF, including but not limited to the College of Medicine, the College of Liberal Arts and Sciences, the College of Agricultural and the Life Sciences, and the Florida Museum of Natural History.

Graduate Program Overview

First Year:

- Advanced Genetics (PCB 5065)

- Genomics & Bioinformatics (GMS 6231)
- Big Data (GMS 5905)
- Advanced Molecular & Cellular Biology (BCH 6415)
- Ethics in Genetics (GMS 6221)
- Seminar in Genetics (GMS 6290) begins in the first semester and continues throughout students' graduate careers
- Laboratory Rotations (ANG 7979)

The first-year core training is the research rotation program, in which students "rotate" through three labs in a minimum of two colleges. Rotations are critical to selecting a graduate advisor: they provide a hands-on opportunity to participate in the research being conducted in a lab, and a mutual opportunity to evaluate fit between advisor and prospective student.

Second Year:

Individual program of courses and requirements is developed in consultation with major professor and dissertation committee

Admission Standards: Prospective students should have strong backgrounds in biology and other hard sciences. Exceptional students with other backgrounds will also be considered. The research statement required as part of the application has a particularly important part in the admissions decision. Each applicant must describe his/her research interests, so that Graduate Faculty can evaluate knowledge of the discipline, fit to the program, and ability to articulate and motivate an interesting research problem. The required Letters of Recommendation are also extremely important in helping identify applicants with exceptional aptitude for genetics, and with research experience and promise.

Contact the Genetics and Genomics Graduate Program by email, UFGI-Info@ad.ufl.edu or by phone, 352-273-8100.

For more information, visit our website: http://www.ufgi.ufl.edu.

Degrees Offered with a Major in Genetics and Genomics

Doctor of Philosophy
Doctor of Philosophy - Clinical and Translational Science

Courses

- AGR 6322: Advanced Plant Breeding
- ANG 6532: Molecular Genetics of Disease
- ANG 7979: Advanced Research
- ANG 7980: Research for Doctoral Dissertation
- BCH 6415: Advanced Molecular and Cell Biology
- BCH 7410: Advanced Gene Regulation
- CAP 5510: Bioinformatics
- CAP 5515: Computational Molecular Biology
- CAP 5805: Computer Simulation Concepts
- CIS 6930: Special Topics in CIS
- COT 5405: Analysis of Algorithms

- FOR 6934: Topics in Forest Resources and Conservation
- FOR 7979: Advanced Research
- FOR 7980: Research for Doctoral Dissertation
- GMS 6012: Human Genetics
- GMS 6013: Developmental Genetics
- GMS 6014: Applications of Bioinformatics to Genetics
- GMS 6015: Human Genetics II
- GMS 6920: Genetics Journal Colloquy
- GMS 7979: Advanced Research
- GMS 7980: Research for Doctoral Dissertation
- HOS 6201: Breeding Perennial Cultivars
- PCB 5065: Advanced Genetics
- PCB 5235L: Experiments in Immunology
- PCB 5615: Molecular Evolution and Systematics
- PCB 6528: Plant Cell and Developmental Biology
- PCB 7979: Advanced Research
- PCB 7980: Research for Doctoral Dissertation
- STA 5325: Fundamentals of Probability
- STA 5328: Fundamentals of Statistical Theory
- STA 6166: Statistical Methods in Research I
- STA 6167: Statistical Methods in Research II
- STA 6208: Basic Design and Analysis of Experiments
- STA 6329: Matrix Algebra and Statistical Computing
- STA 6934: Special Topics in Statistics
- STA 7979: Advanced Research
- STA 7980: Research for Doctoral Dissertation
- ZOO 6927: Special Topics in Zoology
- ZOO 7979: Advanced Research
- ZOO 7980: Research for Doctoral Dissertation

Latin

College of Liberal Arts and Sciences
Classics Department

Latin Program Information

(The following information refers only to our on-campus programs. Please visit the Distance Learning Homepage for further details on our Distance Learning MA and ML Programs, especially aimed at elementary, secondary, or community college teachers.)

The Department of Classics at the University of Florida offers an M.A. degree in Latin, an M.A.T. degree in Lation, as well as a Master of Latin degree. Students are expected to become Florida residents after one year.

The **Master of Arts in Latin** is a thesis degree designed specifically for students who are aiming toward a career in secondary teaching, but who still desire the writing experience and credential that a thesis provides.

The **Master of Arts in the Teaching of Latin (M.A.T.)** is recommended for students who wish to pursue a career in teaching and who want to include educational courses in their program. This is a non-thesis degree.

The **Master of Latin (M.L.) degree** is designed primarily for currently employed, and/or certified teaching professionals who wish to widen their knowledge of Latin, broaden their education in the field of Classics, and enhance their professional qualifications. This is a non-thesis degree.

For minimum degree requirements, see the Graduate Degrees section of the catalog. For additional requirements, please see the department website: http://classics.ufl.edu.

Admission Requirements to the Latin Programs:

Admission into the university and the program for Classics is ultimately determined and granted according to the rules established by the Graduate School of the University of Florida (see the Graduate Catalog).

All students seeking admission to the department must submit satisfactory scores on the GRE General Test (with at least 320 [old scoring scale] or 140 [new scoring scale on the verbal portion).

Master's level (Level I) requirements include

1. Extensive study of Greek and Latin, with at least three years of coursework in one language and at least two years in the other language.

2. At least six hours in one or more of the following: ancient history, ancient art, archaeology, philosophy, literary criticism, linguistics.

3. A GPA of at least a 3.0.

4. Deficiencies that can be corrected within one year will not necessarily prevent admission, if the record shows promise on other grounds.

Degrees

Master of Arts
Master of Arts in Teaching
Master of Latin

Classics Departmental Courses

- CLA 6125: Augustan Age
- CLA 6515: Roman Dynasty: Nero and the Julio-Claudians
- CLA 6795: Greek and Roman Archeology
- CLA 6805: The Classical Research Tradition
- CLA 6885: Roman Law and Society
- CLA 6895: Athenian Law and Society
- CLA 6905: Individual Work
- CLA 6930: Greece and the Near East
- CLT 6295: Greek Drama in Translation
- GRE 6425: Greek Prose Composition
- GRE 6755: Epigraphy
- GRK 6905: Individual Work in Modern Greek
- GRW 6105: The Greek Tradition
- GRW 6216: Greek Novel
- GRW 6316: Greek Tragedy

- GRW 6317: Ancient Greek Comedy
- GRW 6345: Greek Lyric Poetry
- GRW 6346: Pindar
- GRW 6347: Homer
- GRW 6386: Greek Historians
- GRW 6506: Plato
- GRW 6705: Attic Orators
- GRW 6905: Individual Work
- GRW 6930: Special Topics in Greek Literature
- GRW 6931: Comparative Study of Greek and Latin Literature
- GRW 6971: Research for Master's Thesis
- GRW 7979: Advanced Research
- GRW 7980: Research for Doctoral Dissertation
- LAT 6425: Latin Prose Composition
- LNW 5325: Roman Elegiac Poetry
- LNW 5655: Roman Poets: Horace
- LNW 5665: Roman Poets: Vergil
- LNW 5675: Roman Poets: Ovid
- LNW 5931: Comparative Study of Latin and Greek Literature
- LNW 6105: The Roman Tradition
- LNW 6225: The Ancient Roman Novel
- LNW 6315: Plautus and Terence
- LNW 6335: Roman Oratory and Rhetoric
- LNW 6365: Studies in Roman Satire
- LNW 6385: Roman Historians
- LNW 6495: Late Latin Literature
- LNW 6905: Individual Work
- LNW 6933: Special Topics in Latin Literature
- LNW 6935: Proseminar in Classics
- LNW 6940: Supervised Teaching
- LNW 6971: Research for Master's Thesis
- LNW 7979: Advanced Research
- LNW 7980: Research for Doctoral Dissertation

Computer and Information Science and Engineering Department

College of Liberal Arts and Sciences
Chair: Juan Gilbert

The Department of Computer and Information Science and Engineering is concerned with the theory, design, development, and application of computer systems and information processing techniques. The mission of the CISE Department is to educate undergraduate and graduate majors as well as the broader campus community in the fundamental concepts of the computing discipline, to create and disseminate computing knowledge and technology, and to use our expertise in computing to help society solve problems.

The Department of Computer and Information Science and Engineering (CISE) offers

- Ph.D. in Computer Engineering, Computer Science, and Human-Centered Computing.
- Master of Engineering in Computer Engineering.
- Master of Science in Computer Engineering.
- Master of Science degree in Computer Science through the College of Engineering.
- Master of Science degree in Digital Arts and Sciences through the College of Engineering.
- Master of Science degree in Computer Science through the College of Liberal Arts and Sciences.

The CISE Department has six broad areas of specialization:

- Computer systems: computer architecture, distributed systems, networks and communication, operating systems, performance evaluation, security, mobile computing, software engineering, programming languages, multimedia systems, and web technologies

- Database and information systems: database management systems, database design, database theory and implementation, data mining, database machines, parallel and distributed databases, digital libraries, E-services and commerce, medical, and bio-informatics

- High-performance computing/applied algorithms: design and analysis of algorithms, data structures, parallel and distributed computing, medical algorithms, numerical methods, computational complexity, and applied computational geometry

- Computer graphics, modeling, and art: modeling methodology, simulation, virtual reality, aesthetic computing, computer arts, animation, real-time rendering, medical modeling, digital media, and musical acoustics

- Intelligent systems and computer vision: artificial intelligence, machine learning, visualization, image analysis and processing, pattern recognition, signal processing, biomedical imaging, and image databases

- Computer networks and security: wired and wireless networks, network routing and protocols, and QoS.

Applications for admission must be approved by both the Department and the college in which the student wishes to enroll. Applicants should have a strong computer science background.

All master's students must satisfy a core requirement by completing the appropriate number of core courses as specified by the degree program or their approved equivalents with no more than one of the core courses receiving a letter grade below "B." Students can select a thesis or nonthesis option for the master's degree. Digital Arts and

Sciences students must choose either thesis or project in lieu of thesis. All options require a minimum of 30 credit hours.

The thesis degree requires

- A minimum of 6 credit hours must be taken in CIS 6971.
- Specific degree requirements can be found at: https://www.cise.ufl.edu/academics/grad

The non-thesis option requires

- Each nonthesis master's student is required to pass a comprehensive examination.
- Specific degree requirements can be found at: https://www.cise.ufl.edu/academics/grad

The Digital Arts and Sciences project in lieu of thesis option requires 6 credit hours of project/performance credits.

To demonstrate breadth and proficiency, all Ph.D. students must take required core courses. Depending upon the major, they must earn a 3.4 GPA in specific (to the major) required core courses, with no more than one of the core courses receiving a letter grade below B, to be eligible to take the Ph.D. qualifying examinations.

Ph.D. students are required to take a minimum of 90 credit hours. Of these, at least 36 hours must be graduate-level CISE course work excluding individual study and research credits. A minimum of 3 hours must be taken in CIS 7980. A maximum of 30 credits may be awarded toward the Ph.D. degree from an appropriate master's degree.

The Database Systems Research and Development Center, the Software Engineering Research Center, the Center for Computer Vision and Visualization Center, and a number of other campus research centers provide opportunities for students enrolled in the program.

The department offers a combined bachelor's/master's degree program. Contact the Department's Student Services Center for information.

For more information, please see the program pages below, or visit our website: http://www.cise.ufl.edu

Computer Science (CLAS)

College of Liberal Arts and Sciences
Computer and Information Science and Engineering Department

Computer Science (CLAS) Program Information

The Department of Computer and Information Science and Engineering offers the Master of Science degree in Computer Science through the College of Liberal Arts and Sciences. Minimum requirements for this degree are given in the Graduate Degrees section of this catalog.

The department offers graduate study and research in Algorithms, Computer Vision, Databases, Graphics and Modeling, Machine Learning, Networks, and Systems, with active labs in Bioinformatics; Computational Science and Intelligence; Vision, Graphics and Medical Imaging; Database Systems Research and Development; Data Science Research; Mobile and Pervasive Computing; Human-Centered Computing; and Cybersecurity.

Specific degree requirements and options may be found here: http://cise.ufl.edu/academics/grad
Instructions for application for admission may be found here: http://cise.ufl.edu/admissions/graduate

Degrees Offered with a Major in Computer Science

Master of Science

Computer and Information Science and Engineering Departmental Courses

- CAP 5100: Human-Computer Interaction
- CAP 5108: Research Methods for Human-Centered Computing
- CAP 5416: Computer Vision
- CAP 5510: Bioinformatics
- CAP 5515: Computational Molecular Biology
- CAP 5635: Artificial Intelligence Concepts
- CAP 5705: Computer Graphics
- CAP 5771: Introduction to Data Science
- CAP 5805: Computer Simulation Concepts
- CAP 6137: Malware Reverse Engineering
- CAP 6402: Aesthetic Computing
- CAP 6516: Medical Image Analysis
- CAP 6610: Machine Learning
- CAP 6615: Neural Networks for Computing
- CAP 6617: Advanced Machine Learning
- CAP 6685: Expert Systems
- CAP 6701: Advanced Computer Graphics
- CAP 6769: Advanced Topics in Data Science
- CAP 6779: Projects in Data Science
- CDA 5155: Computer Architecture Principles
- CDA 5636: Embedded Systems
- CDA 6156: High Performance Computer Architecture
- CEN 5035: Software Engineering
- CEN 5726: Natural User Interaction

- CEN 5728: User Experience Design
- CEN 6070: Software Testing and Verification
- CEN 6075: Software Specification
- CIS 5370: Computer and Information Security
- CIS 5371: Introduction to Cryptology
- CIS 6905: Individual Study
- CIS 6910: Supervised Research
- CIS 6930: Special Topics in CIS
- CIS 6935: Graduate Seminar
- CIS 6940: Supervised Teaching
- CIS 6971: Research for Master's Thesis
- CIS 7979: Advanced Research
- CIS 7980: Research for Doctoral Dissertation
- CNT 5106C: Computer Networks
- CNT 5410: Computer and Network Security
- CNT 5412: Network and System Security
- CNT 5517: Mobile Computing
- CNT 6107: Advanced Computer Networks
- CNT 6885: Distributed Multimedia Systems
- COP 5536: Advanced Data Structures
- COP 5556: Programming Language Principles
- COP 5615: Distributed Operating System Principles
- COP 5618: Concurrent Programming
- COP 5625: Programming Language Translators
- COP 5725: Database Management Systems
- COP 6726: Database System Implementation
- COP 6755: Distributed Database Systems
- COT 5405: Analysis of Algorithms
- COT 5442: Approximation Algorithms
- COT 5519: Sparse Matrix Algorithms
- COT 5520: Computational Geometry
- COT 5615: Mathematics for Intelligent Systems
- COT 6315: Formal Languages and Computation Theory

Economics Department

College of Liberal Arts and Sciences

Chair: R. D. Blair
Graduate Coordinator: S. M. Slutsky

The department offers the Master of Arts (thesis and nonthesis option) and Doctor of Philosophy degrees in economics with specializations in econometrics, economic theory, industrial organization, international economics, monetary economics, and public finance. Complete descriptions of the minimum requirements for the M.A. and Ph.D. degrees are provided on the Graduate Degrees Page of this catalog.

For more information, please visit https://economics.clas.ufl.edu/.

Economics

College of Liberal Arts and Sciences
Economics Department

Economics Program

The Economics Department offers the Master of Arts degree and the Doctor of Philosophy degree in economics.

> **M.A. requirements:** A minimum of 36 credits of course work is required for the M.A. with and without thesis. A maximum of six credits of the research course ECO 6971 may be included for a master's degree with thesis. The following core courses are required: ECO 7408 and ECO 7404 or equivalent, ECO 7415 or equivalent, ECO 7115 , and ECO 7206.
>
> **Ph.D. requirements:** Admission requirements for the Ph.D. include (a) a minimum grade point average of 3.0, (b) an acceptable score on the GRE, and (c) for nonnative speakers of English, an acceptable score on one of the following: TOEFL (Test of English as a Foreign Language: computer=213, paper=550, web=80), IELTS (International English Language Testing System: 6), MELAB (Michigan English Language Assessment Battery: 77), or successful completion of the UF English Language Institute program.

All core courses must be completed in the first year. In addition, students must complete courses in three fields of specializations and pass qualifying examinations in two of those fields. Additional information about degree requirements can be found by visiting the Graduate Degrees pages of this catalog.

Degrees Offered with a Major in Economics

Doctor of Philosophy
Master of Arts
without a concentration
concentration in Financial Economics

Economics Departmental Courses

- ECO 5114: Microeconomic Analysis
- ECO 5207: Macroeconomic Analysis
- ECO 5216: Monetary Economics
- ECO 5426: Econometric Analysis 1
- ECO 5427: Econometric Analysis 2
- ECO 5464: Game Theory and Industrial Organization

- ECO 5715: Open Economy Macroeconomics
- ECO 5745: Global Trade and Policy
- ECO 6075: Economics/Consumer Education
- ECO 6409: Game Theory Applied to Business Decisions
- ECO 6716: International Macroeconomics
- ECO 6906: Individual Work in Economics
- ECO 6910: Supervised Research
- ECO 6936: Special Topics
- ECO 6957: International Studies in Economics
- ECO 6971: Research for Master's Thesis
- ECO 6977: Financial Economics Capstone
- ECO 7113: Information Economics
- ECO 7115: Microeconomic Theory
- ECO 7118: Markets and Institutions
- ECO 7119: Information, Incentives, and Agency Theory
- ECO 7120: General Equilibrium and Welfare Economics
- ECO 7206: Macroeconomic Theory I
- ECO 7272: Economic Growth I
- ECO 7404: Game Theory for Economists
- ECO 7405: Mathematical Economics: Game Theory
- ECO 7406: Dynamic Economics: Theory and Applications
- ECO 7408: Mathematical Methods and Applications to Economics
- ECO 7415: Statistical Methods in Economics
- ECO 7424: Econometric Models and Methods
- ECO 7426: Econometric Methods I
- ECO 7427: Econometric Methods II
- ECO 7452: Best Empirical Practices in Economics
- ECO 7467: Financial Econometrics
- ECO 7516: Tax Theory and Public Policy
- ECO 7525: Welfare Economics and The Second Best
- ECO 7534: Empirical Public Economics I
- ECO 7535: Empirical Public Economics II
- ECO 7536: Theoretical Public Economics
- ECO 7706: Theory of International Trade
- ECO 7707: International Economic Relations
- ECO 7925: Research Skills Workshop
- ECO 7938: Advanced Economics Seminar
- ECO 7979: Advanced Research
- ECO 7980: Research for Doctoral Dissertation
- ECP 5415: Antitrust Policy and Managerial Decisions
- ECP 5702: Managerial Economics
- ECP 5705: Economics of Business Decisions
- ECP 6417: Public Policy and Social Control
- ECP 6701: Competitive Strategies in Expanding Markets
- ECP 6708: Cases in Competitive Strategy
- ECP 6407: Economics for Managing Information for Electronic Commerce

- ECP 7407: Theory of Industrial Organization:Product Differentiation and Strategy
- ECP 7408: Empirical Industrial Organization
- ECP 7418: Economics of Regulation
- ECP 7419: Current Research in Regulation
- HSA 6436: Health Economics

English Department

Chair: S. I. Dobrin
Graduate Coordinator: Jodi Schorb

The Department of English offers a MFA degree in creative writing and a PhD degree in English. The PhD program accepts both students who have completed an MA degree and those who have completed only a BA. Complete descriptions of the minimum requirements for the MFA and PhD degrees are provided in the Graduate Degrees section of this catalog. For more information about our programs, please follow the hyperlinks below or visit our website: http://www.english.ufl.edu/programs.html.

Creative Writing

College of Liberal Arts and Sciences
English Department

Creative Writing Program Information

The Department of English offers the Master of Fine Arts degree in creative writing. Complete descriptions of the minimum requirements for the M.F.A. are provided in the Graduate Degrees section of this catalog. Full information concerning courses of study is available from the graduate coordinator or by visiting http://www.english.ufl.edu/crw/.

Degrees

Master of Fine Arts

English Departmental Courses

- AML 6017: Studies in American Literature Before 1900
- AML 6027: Studies in 20th-Century American Literature
- CRW 6130: Fiction Writing
- CRW 6166: Studies in Literary Form
- CRW 6331: Verse Writing
- CRW 6906: Individual Work
- ENC 5236: Advanced Business Writing for Accounting
- ENC 5319: Scholarly Writing for Publication
- ENC 6428: Digital English
- ENG 6016: Psychological Approaches to Literature
- ENG 6075: Literary Theory: Issues
- ENG 6077: Literary Theory: Forms
- ENG 6137: The Language of Film
- ENG 6138: Studies in the Movies
- ENG 6906: Individual Work
- ENG 6910: Supervised Research

- ENG 6932: Film and Video Production
- ENG 6971: Research for Master's Thesis
- ENG 7979: Advanced Research
- ENG 7980: Research for Doctoral Dissertation
- ENL 6246: Studies in Romantic Literature
- ENL 6256: Studies in Victorian Literature
- ENL 6276: Studies in 20th-Century British Literature
- HUM 6836: Digital Humanities Studio
- LAE 6940: Supervised Teaching
- LAE 6947: Writing Theories & Practices
- LIT 5335: Approaches to Children's and Adolescent Literature
- LIT 6047: Studies in Drama
- LIT 6236: Postcolonial Studies
- LIT 6357: African-Amer. or African Diaspora Lit./Cultures
- LIT 6358: Theoretical Approaches to Black Cultural Studies
- LIT 6855: Issues in Cultural Studies
- LIT 6856: Cultural Studies: Interventions
- LIT 6934: Variable Topics

English

College of Liberal Arts and Sciences
English Department

English Program Information

The Department of English offers an MFA in Creative Writing and a PhD degree in English with the specializations listed below. Complete descriptions of the minimum requirements for the MFA and PhD degrees are provided in the Graduate Degrees section of this catalog. Specific areas of specialization for the PhD include American and British Literature; American studies; critical theory; cultural studies; film and media studies; feminisms, genders and sexualities; postcolonial studies; composition and rhetoric; comics and visual rhetoric; and children's literature.

New graduate students should have completed an undergraduate English major of at least 24 semester hours. The PhD program accepts students with BA and MA degrees. Full information concerning courses of study is available from the graduate coordinator.

Degrees

Doctor of Philosophy
Master of Arts

English Departmental Courses

- AML 6017: Studies in American Literature Before 1900
- AML 6027: Studies in 20th-Century American Literature
- CRW 6130: Fiction Writing
- CRW 6166: Studies in Literary Form
- CRW 6331: Verse Writing
- CRW 6906: Individual Work
- ENC 5236: Advanced Business Writing for Accounting

- ENC 5319: Scholarly Writing for Publication
- ENC 6428: Digital English
- ENG 6016: Psychological Approaches to Literature
- ENG 6075: Literary Theory: Issues
- ENG 6077: Literary Theory: Forms
- ENG 6137: The Language of Film
- ENG 6138: Studies in the Movies
- ENG 6906: Individual Work
- ENG 6910: Supervised Research
- ENG 6932: Film and Video Production
- ENG 6971: Research for Master's Thesis
- ENG 7979: Advanced Research
- ENG 7980: Research for Doctoral Dissertation
- ENL 6246: Studies in Romantic Literature
- ENL 6256: Studies in Victorian Literature
- ENL 6276: Studies in 20th-Century British Literature
- HUM 6836: Digital Humanities Studio
- LAE 6940: Supervised Teaching
- LAE 6947: Writing Theories & Practices
- LIT 5335: Approaches to Children's and Adolescent Literature
- LIT 6047: Studies in Drama
- LIT 6236: Postcolonial Studies
- LIT 6357: African-Amer. or African Diaspora Lit./Cultures
- LIT 6358: Theoretical Approaches to Black Cultural Studies
- LIT 6855: Issues in Cultural Studies
- LIT 6856: Cultural Studies: Interventions
- LIT 6934: Variable Topics

Geography Department

Chair: Jane Southworth
Graduate Coordinator: Cynthia Simmons

The Department of Geography offers the Master of Arts, Master of Science, and Doctor of Philosophy degrees. Complete descriptions of the minimum requirements for these degrees are provided in the General Information section of this catalog.

The focus of the Department is in human-environment interactions, with "environment" interpreted very broadly. The Department provides four main areas of specialization for graduate research: economic and cultural geography; resource management and land use and land cover change; medical geography; and physical geography. Economic and cultural geography concerns such topics as spatial economic theory and; housing and care of the elderly. Resource management and land-use and land-cover change focus on agricultural change and resource conservation and development in the tropics and subtropics, and rural and urban land use and land cover change in tropical and temperate regions. Africa and Latin America are the primary areas of regional emphasis outside of the U.S. Physical geography in the Department concentrates on climatology, fluvial geomorphology, and hydrology. Medical geography

studies the geographic aspects of human health including disease ecology and transmission and healthcare issues. The Department's extensive geographic information system, remote sensing, and computer cartography teaching and research facilities contribute to and support all of the areas of research. Faculty from the Department are also major participants in the Emerging Pathogens Institute, Florida Climate Institute, Land Use and Environmental Change Institute (L.U.E.C.I.), and the Water Institute. Prospective students should examine the research interests of the Graduate Faculty to obtain a more detailed sense of the Department's specialties (see the departmental website: www.geog.ufl.edu).

To ensure the incorporation of relevant interdisciplinary perspectives in each student's program, the Department maintains close ties with other departments in Liberal Arts and Sciences, and with programs in African studies, Latin American studies, the School of Natural Resources and Environment, the Institute on Aging, urban and regional planning, tropical agriculture, tropical ecology,, water resources, the Warrington College of Business Administration, the College of Agricultural and Life Sciences, College of Public Health and Health Professions, and the Hydrological Sciences Academic Cluster. Certificates in certain of these fields may be obtained in addition to graduate degrees in geography. Geography administers the Graduate Certificate in Applied Atmospheric Sciences.

A graduate student should preferably have an undergraduate major in geography, but applicants with degrees in one of the social or physical sciences are accepted into the Department's graduate program. Deficiencies in undergraduate work in geography must be corrected concurrently with registration in graduate level courses. All students in the graduate program are required to take courses in contemporary geographic thought and geographic research skills.

The Department offers a combined bachelor's/master's degree program. Contact the graduate coordinator for information.

For more information, please visit https://geog.ufl.edu/.

Geography

College of Liberal Arts and Sciences
Geography Department

Geography Program Information

The Department of Geography offers the Master of Arts, Master of Science, and Doctor of Philosophy degrees. Complete descriptions of the minimum requirements for these degrees are provided in the Graduate Degrees Section of this catalog.

Degrees

Doctor of Philosophy

without a concentration
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Master of Arts

without a concentration
concentration in Applications of Geographic Technologies
concentration in Geographic Information Systems
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Master of Arts in Teaching

without a concentration

concentration in Geographic Information Systems
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Master of Science

without a concentration
concentration in Applications of Geographic Technologies
concentration in Geographic Information Systems
concentration in Hydrologic Sciences
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Geography Courses

- GEA 6419: Seminar: South America
- GEA 6466: Seminar on Geography of Amazonia
- GEA 6468: Resource Utilization and Conservation in Latin America
- GEO 5305: Environmental Biogeography
- GEO 5556: Geography of Innovation and Technological Change
- GEO 5809: Geography of World Agriculture
- GEO 5905: Individual Study: Directed Reading
- GEO 5920: Geography Colloquium
- GEO 5945C: Field Course in Geography
- GEO 6118: Contemporary Geographic Thought and Research
- GEO 6119: Proposal Writing in Geography
- GEO 6160: Introduction to Quantitative Methods for Geographers
- GEO 6161: Intermediate Quantitative Methods for Geographers
- GEO 6166: Advanced Quantitative Methods for Spatial Analysis
- GEO 6255: Climatology
- GEO 6282: Fluvial Morphology
- GEO 6348: Floods Seminar
- GEO 6375: Land Change Science Seminar
- GEO 6429: Seminar: Cultural Geography
- GEO 6435: Seminar in Population
- GEO 6451: Medical Geography
- GEO 6455: Advanced Study Design in Medical Geography
- GEO 6495: Environment and Behavior
- GEO 6905: Individual Work
- GEO 6921: How to Survive and Thrive in Academia
- GEO 6931: Seminar in Cultural and Political Ecology
- GEO 6938: Selected Topics in Geography
- GEO 6971: Research for Master's Thesis
- GEO 7979: Advanced Research
- GEO 7980: Research for Doctoral Dissertation
- GEY 6341: Shelter and Care Options for U.S. Elderly
- GIS 5008C: Maps and Graphs
- GIS 5009C: Advanced Cartography
- GIS 5028C: Advanced Aerial Photo Interpretation
- GIS 5038C: Remote Sensing

- GIS 5107C: Geographic Information Systems in Research
- GIS 5540: Business Geography and New Real Estate Market Analysis
- GIS 6104: Spatial Networks
- GIS 6117: Appplied Geostats
- GIS 6425C: GIS Models for Public Health
- MET 5504: Weather and Forecasting
- MET 6530: Hurricanes
- MET 6565: Seminar in Atmospheric Teleconnections
- MET 6752: Spatial Analysis of Atmospheric Data using GIS

Geological Sciences Department

Chair: David A. Foster
Graduate Coordinator: R. M. Russo

The Department of Geological Sciences is composed of a group of internationally recognized faculty, graduate students, and dedicated support staff. Faculty and students in the Department of Geological Sciences are involved in exciting and groundbreaking research projects throughout the world and in Florida. The Department houses world-class analytical and computing facilities for research and teaching.

The Department has identified six primary areas of emphasis in its research and teaching programs: environmental geology and hydrology, paleoclimatology, tectonophysics, geochemistry and mineralogy/petrology, marine and coastal geology, and paleomagnetism. The Department has collaborative, interdisciplinary programs of study and research with the Florida Museum of Natural History, the Center for Wetlands Research, the Land Use and Environmental Change Institute (L.U.E.C.I.), the Florida Climate Institute, and the University of Florida Water Institute.

For information on our degree programs, current departmental activities, faculty, and research centers, please see the program page below and http://geology.ufl.edu.

Geology

College of Liberal Arts and Sciences
Geological Sciences Department

Geology Program

The Department of Geological Sciences offers programs leading to the Master of Science (thesis), the Master of Science in Teaching (nonthesis), and the Doctor of Philosophy degrees in geology. Minimum requirements for these degrees are described in the Graduate Degrees section of this catalog.

For admission to graduate status in the Department of Geological Sciences, a student must have a baccalaureate degree with a major in geology or a related field or its equivalent. Deficiencies in undergraduate preparation can be corrected by completing the undergraduate courses without credit while enrolled as a graduate student.

Applicants should take the GRE general test. The scores of this examination must be reported to the Department of Geological Sciences. Three letters of recommendation are also required for admission to the doctoral program and for financial aid applications at any level.

A minimum of 32 semester hours of graduate level courses are required for the Master of Science in geology. At least 24 hours must be in organized graduate-level geology courses (excluding research, teaching, special projects, etc.). Six

hours of thesis research credit are required. All master's degrees are terminal; a separate and new application for admission to the doctoral program is required.

For the Master of Science in Teaching degree, at least 36 hours are required. Six of these hours must be in GLY 6943 and at least 24 must be in organized graduate-level geology courses. The remaining 6 hours must be in approved electives. A minor in education is required. Candidates also must pass the final oral examination.

90 semester hours of graduate-level class work are required for the Ph.D., including organized course work, individual work, supervised research and teaching, advanced research, dissertation, special projects, or courses in a related field.

The Department offers a combined bachelor's/master's degree program. Contact the graduate coordinator for information.

For more information, please see the program page below and our department website: http://geology.ufl.edu.

Degrees

Doctor of Philosophy

without a concentration
concentration in Climate Science
concentration in Hydrologic Sciences
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Master of Science

without a concentration
concentration in Hydrologic Sciences
concentration in Tropical Conservation and Development
concentration in Wetland Sciences
concentration in Climate Science

Master of Science in Teaching

without a concentration
concentration in Climate Science
concentration in Tropical Conservation and Development
concentration in Wetland Sciences

Geology Program Courses

- BOT 5305: Paleobotany
- ESC 5211: Current Topics in Earth Science for Teachers
- GLY 5156: Geologic Evolution of North America
- GLY 5246: Geochemistry
- GLY 5245: Hydrogeochemistry
- GLY 5247: Surface and Ground Water Interactions
- GLY 5248: Physical Geochemistry
- GLY 5255: Organic Geochemistry and Geobiology
- GLY 5328: Advanced Igneous Petrology
- GLY 5455: Introduction to Geophysics and Tectonics
- GLY 5466: Seismology and Earth Structure
- GLY 5468: Terrestrial Gravity and Magnetism
- GLY 5558C: Sedimentology
- GLY 5576: Continental Margin Stratigraphy
- GLY 5705: Geomorphology

- GLY 5736: Marine Geology
- GLY 5786L: Topics in Field Geology
- GLY 5827: Ground Water Geology
- GLY 6075: Global Climate Change: Past, Present, and Future
- GLY 6297: Topics in Geochemistry
- GLY 6425: Tectonics
- GLY 6519: Stratigraphy and Timescales
- GLY 6826: Hydrogeologic Modeling
- GLY 6862: Quantitative Methods in Earth Sciences
- GLY 6905: Individual Work
- GLY 6931: Seminar
- GLY 6932: Special Topics in Geology
- GLY 6971: Research for Master's Thesis
- GLY 7979: Advanced Research
- GLY 7980: Research for Doctoral Dissertation

History Department

College of Liberal Arts and Sciences

Chair: Elizabeth Dale
Graduate Coordinator: Michelle Campos

The Department of History offers the following graduate degrees: Master of Arts with fields of specialization in African, European, Latin American, and United States history, and the Doctor of Philosophy with fields of specialization in African, European, Latin American, and United States history. We offer minor concentrations in the thematic fields of Atlantic, Gender, Legal, Religious, and World History. Students interested in transnational and comparative work may also create their own dual major. In addition to materials required by the Graduate School for admission, applicants must send directly to the History Department the following evidence of aptitude and interest: Three recommendations, from persons competent to evaluate your potential for graduate work; a 3- to 5-page essay identifying your career goals and particular areas of interest; a sample of your written work in history. Interested students should consult the department web page for more information.

For more information, please visit https://history.ufl.edu/.

History

College of Liberal Arts and Sciences
History Department

History Program

The Department of History offers the following graduate degrees: Master of Arts degree with fields of specialization in African, European, Latin American, and United States history and the Doctor of Philosophy degree with fields of specialization in African, European, Latin American, and United States history, or with a dual major which allows students to combine two minor fields to create their own major fields. We offer minor concentrations in the thematic fields of Atlantic, Gender, Legal, Religious, and World History.

Master of Arts: This degree serves to prepare students for admission to a Ph.D. program, for a teaching career in high school or community colleges, or for a career in government or business.

Fields of specialization:

–African (East Africa, Southern Africa, West Africa)
–European (medieval, early modern, or modern)
–Latin American (colonial Latin America, post-Colonial Latin America, Brazil, and the Caribbean or Spanish America)
–United States history (early America, 19th century, 20th century)

Thesis option requirements:

–A minimum of 30 credit hours
–At least 15 graduate-level regular course credit hours in your major field. In European, you must take at least two seminars in your area of specialization. In U.S. history, you must take the 19th-century America readings seminar, either the 20th-century or early America readings seminar, and at least one research seminar. In Latin American and African history, you must take the relevant readings seminars in your area of specialization, one other readings seminar, and at least one research seminar.
–At least 6 graduate-level regular course credit hours outside the major field (but in the Department of History). We recommend that you invest these regular course hours in readings seminars.
–Take 3 hours of historiography (HIS 6061) by the fourth semester of graduate study.
–Take 3 regular course credit hours from outside the Department. These should be graduate-level hours, but undergraduate 3000 or 4000 level hours may be taken subject to approval by your adviser.
–Complete a master's thesis of original historical research. The semester you graduate, you must be registered for a minimum of 3 thesis research hours (HIS 6971) in the fall or spring terms or 2 in a summer term. Your thesis should demonstrate your ability to handle the primary-source material of your field, and a working knowledge of the secondary literature; and should demonstrate your ability to present research results in a coherent, well-written study. The student must complete the thesis and make it available to readers 2 weeks before the oral examination, complete the application for the degree at the Office of the University Registrar before the deadline, and take the examination.
–Each student must pass a final comprehensive oral examination at the end of the program.

Non-thesis option requirements:

–A minimum of 30 credit hours.
–At least 15 graduate-level regular course credit hours inside your major field. In European, you must take at least two seminars in your area of specialization. In U.S. history, you must take the 19th-century American readings seminar, either the 20th-century or the early America readings seminar, and at least one research seminar. In Latin American or African history, you must take the relevant readings seminars in your area of specialization, one other readings seminar, and at least one research seminar.
–At least 6 graduate-level regular course credit hours outside your major field (but in the Department of History). We recommend that you invest these regular course hours in readings seminars.
–Take 3 hours of historiography (HIS 6061) by your fourth semester of graduate study.
–Take 3 regular course credit hours from outside the Department; these should be graduate-level hours, but undergraduate 3000 or 4000 level hours may be taken subject to approval by your adviser.
–Complete a research seminar and/or a nonthesis project in history. Your primary goal in either is to complete an article-length essay (approximately 35 to 40 pages) of publishable or near-publishable quality. The essay should be based largely on primary sources.
–You must pass a final comprehensive oral and written examination conducted by your supervisory committee.

Supervisory committee for the M.A.: The committee normally consists of the chair and two other members of the graduate faculty. Additional members may be added if desirable. The committee assists in planning and supervising the student's program and conducts the final examination. The chair is also the thesis director if that option is chosen. Duration: The M.A. program can be completed in 3 semesters of full-time registration but may take longer. The Department believes that normally no more than 4 semesters of full-time registration should be spent on the degree. These semesters need not be consecutive. The Board of Education has established 60 credit hours as a maximum for the master's degree. Up to 6 credits of graduate-level courses taken at another school with a grade of B or better may be transferred into the master's program if approved by the Graduate School.

Bachelor's/master's program: The Department offers a combined 4/1 degree program that enables outstanding undergraduates to obtain both the B.A. and M.A. degrees in history after successful completion of 150 credit hours. The program is designed for the students who wish to continue their education in history past the bachelor's level but do not intend to pursue a doctorate in history, or for students who wish to expand their training in a specific field before moving on to a doctoral program. The department offers a 4/1 degree program in the standard M.A. fields of study as well as oral history. Please see the Department website for more information. Students in this program are not eligible for departmentally controlled financial aid.

Doctor of Philosophy requirements:

–Professional mastery of your major field, or major fields for students pursuing a dual degree.

–Professional competence in a minor field, which may be drawn from the approved major fields of specialization for the doctorate (African, European, Latin American, or U.S. history), from approved minor fields (Atlantic history, gender, legal history), or may be self designed as a thematic research or teaching field. It must include at least 3 hours outside the historical area that defines your major field. Note: Students pursuing a dual major do not take a department minor field.

– At least 3 regular course credit hours from outside the Department; these should be graduate-level hours, but undergraduate 3000 or 4000 level hours may be taken subject to approval by your adviser.

–Pass a set of written and oral qualifying examinations testing competence in major and additional fields and your knowledge of the nature of history and the historian's task.

–A dissertation of original historical research for which credit is given in HIS 7980.

History/law joint degree program: The Department of History and the College of Law offer a program in legal history leading to either the M.A. or a Ph.D. degree in history and the J.D. in law. Because the faculties of history and law stress interdisciplinary training, students admitted to the joint degree program will be allowed to count a significant number of hours toward both degrees. Applicants must be accepted by both the Graduate School and the College of Law. Normally, students will complete the course and examination requirements of both degrees in 4 years. Students may begin their first year of work in either history or law, but they must complete the first year of law school within 1 year and they must do so within the first 2 years after admission to the joint degree program. For further information write to the Legal History Coordinator, Department of History, University of Florida, Box 117320, Gainesville, FL 32611-7320.

Degrees

Doctor of Philosophy

without a concentration

concentration in Historic Preservation

concentration in Women's/Gender Studies

Master of Arts

without a concentration

concentration in Historic Preservation
concentration in Jewish Studies

Courses

- AFH 5297: History of African Agriculture
- AFH 5348: History of West Africa
- AFH 5458: Southern Africa
- AFH 5934: Topics in African History
- AFH 6259: Seminar in Modern Africa
- AFH 6934: Africa
- AFH 6936: Readings in African History
- AMH 5405: The South to 1860
- AMH 5905: Special Studies
- AMH 5930: Topics in United States History
- AMH 6198: Early American Society
- AMH 6199: Nineteenth Century America
- AMH 6290: Modern America
- AMH 6356: Research in U.S. History
- AMH 6406: Readings in Southern History, 1607-1865
- AMH 6465: Seminar in U.S. Urban History
- AMH 6506: Seminar in American Labor History
- AMH 6516: Seminar in American Foreign Relations and Expansion
- AMH 6557: Seminar in Constitutional or Legal History of the United States
- ASH 5388: Topics in East Asian History
- EUH 5195: The Archaeology of the Middle Ages
- EUH 5546: Topics in British History
- EUH 5934: Topics in European History
- EUH 6126: Readings in Medieval History
- EUH 6174: Conversion in the Middle Ages
- EUH 6177: Economy and Society in Late Antiquity and the Early Middle Ages
- EUH 6213: Europe, 1500-1763
- EUH 6289: Readings, Modern Europe
- EUH 6469: Modern German History
- EUH 6937: Readings in Mediterranean History
- HIS 5450: Slavery in the New World: Comparative Perspectives
- HIS 5484: Science and the Enlightenment
- HIS 5485: Special Studies in the History of Science
- HIS 5939: Second-Year Research Seminar
- HIS 6060: Historical Method
- HIS 6061: Introduction to Historiography
- HIS 6416: Problems in Comparative Legal History
- HIS 6445: Postcolonial Theories
- HIS 6469: Topics in Historiography of History of Science
- HIS 6480: Pre-Newtonian Sciences
- HIS 6488: Readings in the History of Science
- HIS 6905: Individual Study

- HIS 6910: Supervised Research
- HIS 6940: Supervised Teaching
- HIS 6943: Internship in Historical Applications
- HIS 6957: Nonthesis Project in History
- HIS 6971: Research for Master's Thesis
- HIS 7979: Advanced Research
- HIS 7980: Research for Doctoral Dissertation
- HUM 6836: Digital Humanities Studio
- LAH 5438: Modern Mexico
- LAH 5475: Caribbean, Nineteenth and Twentieth Centuries
- LAH 5476: Caribbean History to 1800: Slavery, Colonization, and International Conflict
- LAH 5527: Andean Nations
- LAH 5607: History of Amazonia
- LAH 5637: Brazil Since 1750
- LAH 5933: Topics in Caribbean History
- LAH 5934: Topics in Latin American History
- LAH 6934: Seminar in Colonial Spanish America
- LAH 6936: Seminar in History of Brazil
- LAH 6938: Seminar in Modern Spanish America
- WOH 5932: Topics in World History

Department of Languages, Literatures and Cultures

Chair: Akintunde Akinyemi

The Department of Languages, Literatures, and Cultures offers the Master of Arts degree (M.A.) and the Doctor of Philosophy degree in French and Francophone Studies and the Master of Arts degree (M.A.) in German Studies. Complete descriptions of the minimum requirements for the M.A. degree are provided in the Graduate Degrees section of this catalog. For more information about our programs, please follow the hyperlinks below or visit our website: https://languages.ufl.edu/academics/graduate-studies/.

French and Francophone Studies

College of Liberal Arts and Sciences
Department of Languages, Literatures and Cultures

French and Francophone Studies Program Information

Chair: Akintunde Akinyemi
Graduate Coordinator: Rori Bloom

Bachelor's/master's program: French and Francophone Studies offers a combined 4/1 degree program that enables outstanding undergraduates to obtain both the B.A. and M.A. degrees after successful completion of 152 credit hours. The program is designed for the students who wish to continue their education in French and Francophone Studies past the bachelor's level but do not intend to pursue a doctorate or for students who wish to expand their training in a specific field before moving on to a doctoral program. Since students in the bachelor's/master's program have a graduate classification, students receiving undergraduate scholarships or Pell grants should check with the funding provider to make sure that they will not lose eligibility.

Degrees

Master of Arts
Master of Arts in Teaching

Courses

- FRE 6060: Beginning French for Graduate Students I
- FRE 6061: Beginning French for Graduate Students II
- FRE 6466: Advanced Translation and Stylistics
- FRE 6735: Special Studies in French Linguistics
- FRE 6736: The French language in the Americas
- FRE 6785: French Phonetics and Phonology
- FRE 6827: Sociolinguistics of French
- FRE 6845: History of the French Language
- FRE 6855: Structure of French
- FRE 6856: French in the 21st Century
- FRE 6945: Practicum in Advanced College Teaching
- FRE 6956: Overseas Studies in French
- FRW 6217: Seventeenth-Century French Prose
- FRW 6276: Readings in Eighteenth-Century Literature
- FRW 6288: Twentieth-Century French Novel
- FRW 6315: Seventeenth-Century French Drama
- FRW 6328: Twentieth-Century French Theater
- FRW 6346: French Poetry of the Renaissance
- FRW 6355: Modern French Poetry
- FRW 6396: French Cinema
- FRW 6416: Later French Medieval Literature
- FRW 6536: The Romantic Period
- FRW 6556: French Realism and Naturalism
- FRW 6715: The Philosophic Movement
- FRW 6780: Studies in Francophone Literature and Culture (Excluding the Caribbean and Sub-Saharan Africa
- FRW 6805: Introduction to Graduate Study and Research
- FRW 6825: French Critical Theory
- FRW 6900: Special Study in French Literature
- FRW 6905: Individual Work
- FRW 6910: Supervised Research
- FRW 6938: Seminar in French Literature
- FRW 6971: Research for Master's Thesis
- FRW 7979: Advanced Research
- FRW 7980: Research for Doctoral Dissertation

German

College of Liberal Arts and Sciences
Department of Languages, Literatures and Cultures

German Program Information

Chair: Akintunde Akinyemi
Graduate Coordinator: Eric Kligerman

The Department of Languages, Literatures and Cultures offers Master of Arts (thesis or professional non-thesis option) and Doctor of Philosophy degrees in German. The department also offers a Doctor of Philosophy degree in German with a specialization in women's/gender studies.

Degrees

Doctor of Philosophy
without a concentration
concentration in Women's/Gender Studies
Master of Arts

German Literature and Cinema

- GET 6526: Weimar Cinema
- GET 6529: New German Cinema and its Legacy
- GEW 6205: Foundations of Literary Study
- GEW 6266: History of the German Novel
- GEW 6305: Studies in German Drama and Theater
- GEW 6405: Medieval and Renaissance Literature
- GEW 6425: From Luther to Lessing: Early Modern German Literature
- GEW 6535: German Classical and Romantic Literature
- GEW 6558: Young Germany, Biedermeier, Realism, and Naturalism
- GEW 6725: Culture and Society in the Weimar Republic
- GEW 6735: Modern German Literature
- GEW 6736: Contemporary German Literature
- GEW 6745: Literature and Culture in the Third Reich
- GEW 6826: German Literary Theory
- GEW 6900: Seminar in Germanic Languages and Literatures
- GEW 6901: Special Study in Germanic Languages and Literatures
- GEW 6905: Independent Study
- GEW 6910: Supervised Research
- GEW 6971: Research for Master's Thesis
- GEW 7979: Advanced Research
- GEW 7980: Research for Doctoral Dissertation

German Language

- GER 6060: Beginning German for Graduate Students I
- GER 6061: Beginning German for Graduate Students II
- GER 6940: Supervised Teaching

Romance Languages (Language, Literature and Culture)

College of Liberal Arts and Sciences
Department of Languages, Literatures and Cultures

Romance Languages (Language, Literature and Culture) Program Information

The Language, Literature and Culture Department offers a Doctor of Philosophy degree in romance languages with a specialization in French and francophone studies.

Degrees Offered with a Major in Romance Languages

Doctor of Philosophy
concentration in French and Francophone Studies

Spanish and Portuguese Studies Departmental Courses

- FOL 6326: Technology in Foreign Language Education
- FOW 6930: Special Study in Romance Languages and Literatures
- SPN 6060: Spanish for Functional Reading and Translation
- SPN 6166: Teaching Spanish for the Professions
- SPN 6480: Spanish Phonetics and Phonology
- SPN 6940: Supervised Teaching
- SPW 6545: Spanish Romanticism
- SPN 6705: Foundations of Hispanic Linguistics
- SPN 6806: Psycholinguistics of Spanish Bilingualism
- SPN 6845: History of the Spanish Language
- SPS 6905: Individual Study
- SPS 7979: Advanced Research
- SPS 7980: Research for Doctoral Dissertation
- SPW 6535: Spanish Romanticism

Spanish

- SPN 6315: Advanced Composition and Syntax
- SPN 6715: Formal Instruction and Acquisition of Spanish
- SPN 6735: Special Study in Spanish Linguistics
- SPN 6785: Advanced Spanish Phonetics
- SPN 6827: Sociolinguistics of the Spanish-Speaking World
- SPN 6835: Spanish and Spanish-American Dialectology
- SPN 6845: History of the Spanish Language
- SPN 6848: Medieval Spanish Linguistics
- SPN 6855: Structure of Spanish
- SPN 6856: Spanish in Contact: Issues in Bilingualism
- SPN 6900: Directed Readings in Spanish
- FOL 6943: Romance Language Teaching Methods
- SPN 6945: Practicum in Advanced College Teaching
- SPW 6209: Colonial Spanish-American Literature
- SPW 6216: Spanish Prose Fiction of the Golden Age
- SPW 6269: Spanish Novel of the Nineteenth Century
- SPW 6278: Postwar Spanish Fiction

- SPW 6285: Contemporary Spanish-American Narrative I
- SPW 6286: Contemporary Spanish-American Narrative II
- SPW 6306: Spanish-American Theater
- SPW 6315: Spanish Drama of the Golden Age
- SPW 6337: Golden Age Poetry
- SPW 6345: Twentieth-Century Spanish Poetry
- SPW 6356: Spanish-American Poetry from Romanticism to Vanguardismo
- SPW 6357: Contemporary Spanish-American Poetry
- SPW 6366: Spanish-American Essay
- SPN 6425: Writing for the Profession
- SPW 6606: Cervantes
- SPW 6729: The Generation of 1898
- SPW 6806: Introduction to Graduate Study and Research
- SPW 6902: Special Study in Spanish or Spanish-American Literature
- SPW 6905: Individual Work
- SPW 6910: Supervised Research
- SPW 6934: Seminar in Spanish American Literature and Culture
- SPW 6938: Seminar in Spanish Literature and Culture
- SPW 6971: Research for Master's Thesis
- SPW 7979: Advanced Research
- SPW 7980: Research for Doctoral Dissertation

Portuguese

- POW 6276: Twentieth-Century Brazilian Novel
- POW 6385: Brazilian Lyric
- POW 6386: Brazilian Drama
- POW 6905: Individual Work
- POW 6930: Rotating Topics in Brazilian or Portuguese Literature

Center for Latin American Studies

Director: Philip J. Williams
Graduate Coordinator: Susan Paulson

The Center for Latin American Studies offers the following graduate programs:

- Latin American Studies
- Sustainable Development Practice

The department also offers a combined bachelor's/master's program. Contact the graduate coordinator for further information regarding this option. For more information about all of our programs, please see our individual major pages, following the links below, or by visiting our website: http://www.latam.ufl.edu.

Latin American Studies

College of Liberal Arts and Sciences
Center for Latin American Studies

Latin American Studies Program Information

The Center for Latin American Studies offers the following graduate programs:

- An interdisciplinary Master of Arts degree in Latin American Studies
- A graduate certificate in Latin American studies
- A graduate certificate and concentration in Tropical Conservation and Development

The graduate program in Latin American studies relies on over 250 courses with Latin American content taught in more than 35 academic units of the above colleges. The degree and certificate programs in Latin American studies are described on our website www.latam.ufl.edu/academics/graduate-programs. Complete course listings are also available on the Center's website: http://www.latam.ufl.edu/academics/las-courses.

Degrees

Master of Arts
without a concentration
concentration in Tropical Conservation and Development

Latin American Studies Courses

- FOT 6941: Translation Studies Practicum
- LAS 6008: Ecological Principles
- LAS 6220: Issues and Perspectives in Latin American Studies
- LAS 6290: Tropical Conservation and Development
- LAS 6291: Conservation and Development Skills
- LAS 6292: Tropical Conservation and Development Research Methods
- LAS 6293: Design and Methods of Research in Latin American Studies
- LAS 6295: Latin American Business Environment
- LAS 6296: Latin American Business Topics
- LAS 6905: Individual Work

- LAS 6938: Seminar in Modern Latin American Studies
- LAS 6941: Tropical Conservation and Development Practicum
- LAS 6943: Development Theory and Practice in Latin America
- LAS 6949: Internship In Latin American Studies
- LAS 6971: Research for Master's Thesis

Sustainable Development Practice

College of Liberal Arts and Sciences
Center for Latin American Studies

Sustainable Development Practice Program

Director: G. Galloway
Program Coordinator: A. Noss

The Master of Sustainable Development Practice (MDP) Program offers the following academic programs:

- An interdisciplinary Master's degree in Sustainable Development Practice (MDP)
- A graduate certificate in Sustainable Development Practice (SDP)

The MDP Program is jointly administered by the Center for Latin American Studies and the Center for African Studies. The Master's degree is described in the Other Master's Degrees section of the Graduate Catalog.

The MDP prepares development practitioners to address development challenges in creative and dynamic ways, integrating the academic and development pillars of natural sciences, social sciences, health sciences and management through a vigorous and innovative program curriculum. The MDP Degree requires 45 credits of course work: 24 major or core credits across the four pillars, and 21 elective credits through which a student focuses on a specialization (for example entrepreneurship, agriculture, ecotourism, gender, community forest management, nonprofits, or M&E). The MDP is a non-thesis degree. Each student must successfully complete a set of requirements including a summer field practicum with a host organization, the development of a poster presented in a public poster session, a final practicum report approved by their committee, and a public presentation and private defense with committee members of the final report. All students will be expected to meet learning outcome objectives defined for knowledge, skills and professional behavior. Students are required to develop a study plan approved by the MDP Program Graduate Coordinator and by their supervisory committee.

The SDP certificate provides training in interdisciplinary knowledge and skills related to sustainable development practice. The 12 credits for Master's students and 15 credits for Ph.D. students include one required cross-cutting overview course plus 3-4 additional courses in the fields of social sciences, health sciences, natural sciences, and management skills.

MDP major or core courses are listed below under the listing for Sustainable Development Courses. Other courses listed, for example, under the College Agricultural and Life Sciences and the College of Public Health and Health Related Professions may also count toward the major, but only those with relevance to the MDP program will be candidates for inclusion by the department in a student's program of study. Please visit the MDP Program website for additional information on the SDP certificate, MDP degree and curriculum, including detailed course descriptions and syllabi: http://mdp.africa.ufl.edu.

Degrees

Master of Sustainable Development Practice

without a concentration

concentration in Climate Science

Sustainable Development Courses

- AEB 6933: Special Topics
- AFS 6905: Individual Work in African Studies
- AGR 5277C: Tropical Crop Production
- EVR 5705: Natural Resources and Innovation Systems
- LAS 6291: Conservation and Development Skills
- LAS 6938: Seminar in Modern Latin American Studies
- LAS 6943: Development Theory and Practice in Latin America
- PHC 6445: Global Public Health and Development II
- PHC 6764: Global Public Health and Development I

African Studies Courses

- AFS 5061: Africana Bibliography
- AFS 6060: Research Problems in African Studies
- AFS 6305: Development Theory and Practice Intro
- AFS 6307: Foundations of Economics for Sustainable Development
- AFS 6357: Anthropology of Humanitarian Intervention
- AFS 6905: Individual Work in African Studies

Latin American Studies Courses

- FOT 6941: Translation Studies Practicum
- LAS 6008: Ecological Principles
- LAS 6220: Issues and Perspectives in Latin American Studies
- LAS 6290: Tropical Conservation and Development
- LAS 6291: Conservation and Development Skills
- LAS 6292: Tropical Conservation and Development Research Methods
- LAS 6293: Design and Methods of Research in Latin American Studies
- LAS 6295: Latin American Business Environment
- LAS 6296: Latin American Business Topics
- LAS 6905: Individual Work
- LAS 6938: Seminar in Modern Latin American Studies
- LAS 6941: Tropical Conservation and Development Practicum
- LAS 6943: Development Theory and Practice in Latin America
- LAS 6949: Internship In Latin American Studies
- LAS 6971: Research for Master's Thesis

Additional Course Offerings

College of Agricultural and Life Sciences Courses

- ALS 5156: Agricultural Ecology Principles and Applications
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5905: Individual Study
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ALS 6166: Exotic Species and Biosecurity Issues
- ALS 6921: Colloquium on Plant Pests of Regulatory Significance
- ALS 6925: Integrated Plant Medicine
- ALS 6931: Plant Medicine Program Seminar
- ALS 6935: Topics in Biological Invasions
- ALS 6942: Principles of Plant Pest Risk Assessment and Management
- ALS 6943: Internship in Plant Pest Risk Assessment and Management
- BCH 5045: Graduate Survey of Biochemistry
- FYC 6422: Policy Issues and Case Studies in Nonprofit Organizations
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- STA 6329: Matrix Algebra and Statistical Computing

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging

- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
- PHC 6312: Water Quality and Human Health
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6316: Health, Risk, and Crisis Communication
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6370: Public Health Biology
- PHC 6403: Adolescence, Risk Taking and Health
- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology
- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6515: Introduction to Entomology Zoonotic Diseases and Food Safety
- PHC 6519: Zoonotic Diseases in Humans and Animals
- PHC 6520: Foodborne Diseases
- PHC 6530: Public Health Issues of Mothers and Children
- PHC 6543: Community Practice of Behavioral Health Risk Prevention
- PHC 6544: Health Behavior Interventions in Practice
- PHC 6561: Public Health Laboratory Techniques
- PHC 6585: Health Promotion and Disease Prevention
- PHC 6586: Interventions for Public Health
- PHC 6601: Seminar in Public Health Teaching
- PHC 6607: Critical Issues in Public Health
- PHC 6700: Social and Behavioral Research Methods
- PHC 6702: Exposure Measurement and Assessment
- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 6762: International Public Health
- PHC 6905: Independent Study
- PHC 6917: Supervised Research Project
- PHC 6931: Seminar in Global Public Health
- PHC 6937: Special Topics in Public Health

- PHC 6945: Public Health Practicum
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7038: Psychiatric Epidemiology
- PHC 7056: Analysis of Longitudinal Data
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling

- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Linguistics Department

Chair: Eric Potsdam
Graduate Coordinator: Brent Henderson

The Linguistics Department offers graduate programs leading to the M.A. and Ph.D. degrees with specializations in

- The core areas of linguistics (phonetics, phonology, morphology, syntax, semantics, pragmatics)
- Language documentation
- Sociolinguistics and language change
- Discourse analysis
- TESL
- Second language acquisition
- Psycholinguistics
- Neurolinguistics

Requirements for these degrees are given in the Graduate Degrees section of this catalog. For detailed information on the program, please visit the link below. For further information on the program, including financial aid, please visit http://lin.ufl.edu.

Linguistics

College of Liberal Arts and Sciences
Linguistics Department

Linguistics Program Information

The Linguistics Department offers graduate programs leading to the M.A. and Ph.D. degrees with specializations in

- The core areas of linguistics (phonetics, phonology, morphology, syntax, semantics, pragmatics)
- Language documentation
- Sociolinguistics and language change
- Discourse analysis
- TESL
- Second language acquisition
- Psycholinguistics
- Neurolinguistics

For detailed information on the program, including financial aid, please visit the website http://lin.ufl.edu.

The Certificate in Second Language Acquisition and Teaching is offered to University of Florida graduate degree-seeking students in linguistics and related disciplines.

As part of its service to the University community, Linguistics also offers English as a Second Language training for international applicants and admitted students. These programs, the English Language Institute (ELI), Academic Written English (AWE), and Academic Spoken English (ASE), are described in the Student Services section of this catalog. This information, along with links to the application form, are available at http://lin.ufl.edu.

Applicants who lack a background in linguistics should develop basic competency in the core areas before commencing graduate work. These deficiencies can be met by taking LIN 3010, LIN 3201, and LIN 3460 or the equivalent.

Degrees

Doctor of Philosophy
Master of Arts

Linguistics Departmental Courses

- EAP 5835: Academic Spoken English I
- EAP 5836: Academic Spoken English II
- LIN 5741: Applied English Grammar
- LIN 6084: Introduction to Graduate Research
- LIN 6165: Field Methods
- LIN 6208: Phonetics for Linguists
- LIN 6226: Advanced Phonetics
- LIN 6323: Phonology 1
- LIN 6341: Phonology 2
- LIN 6402: Morphology 1
- LIN 6410: Morphology 2
- LIN 6501: Syntax 1
- LIN 6520: Syntax 2
- LIN 6571: Structure of Specific Language
- LIN 6601: Sociolinguistics
- LIN 6707: Psycholinguistics
- LIN 6708C: Methods in Psycholinguistics
- LIN 6720: Second Language Acquisition
- LIN 6796: Cognitive Neuroscience of Language
- LIN 6804: Semantics I
- LIN 6826: Introduction to Formal Pragmatics
- LIN 6856: Semantics II
- LIN 6905: Individual Study
- LIN 6910: Supervised Research
- LIN 6932: Special Topics
- LIN 6940: Supervised Teaching
- LIN 6971: Research for Master's Thesis
- LIN 7641: Seminar in Language Variation
- LIN 7725: Topics in Second Language Acquisition
- LIN 7885: Discourse Analysis and Pragmatics
- LIN 7979: Advanced Research
- LIN 7980: Research for Doctoral Dissertation
- TSL 6171: TESL I: Materials and Techniques
- TSL 6172: TESL II: Materials for Special Purposes

Mathematics Department

Chair: Douglas Cenzer
Graduate Coordinator: Peter Sin

The Department of Mathematics offers the Master of Science (thesis or non-thesis) and the Doctor of Philosophy degrees. The non-thesis Master of Arts in Teaching and Master of Science in Teaching are also offered. Minimum requirements for these degrees are described in the Graduate Degrees section of this catalog.

Areas of specialization for graduate research include algebra, number theory, analysis, geometry, topology, logic and set theory, differential equations, dynamical systems, probability theory, optimization, combinatorial theory, biomathematics, and imaging. Faculty and graduate students in mathematics interact with counterparts in biology, biostatistics, computer science, industrial and systems engineering, philosophy, statistics, and the Emerging Pathogens Institute. The department houses the Center for Applied Mathematics and participates in the Center for Applied Optimization.

Aside from the regularly scheduled courses, the department offers a variety of seminars and special topics courses which engage faculty and graduate students at the frontiers of research.

For more information, please see the program page below or our website: http://www.math.ufl.edu.

Mathematics

College of Liberal Arts and Sciences
Mathematics Department

Mathematics Program Information

The Department of Mathematics offers the degrees of Doctor of Philosophy, Master of Science, and the Master of Arts in Teaching and Master of Science in Teaching, each with a major in mathematics. Complete descriptions of the minimum requirements for these degrees are provided in the Graduate Degrees section of this catalog.

The Department has an accelerated bachelor's/master's program designed for superior undergraduate students who have the ability to pursue such a plan of study leading to the Master of Science degree. The main feature of the program is that up to 12 semester hours of approved graduate level mathematics courses may be used as dual credit for both the undergraduate and the graduate degree. All other requirements for both the bachelor's degree and the master's degree must be met. For admission requirements for this program, see the undergraduate coordinator.

There are opportunities for concentrated study in a number of specific areas of pure and applied mathematics at both the master's and doctoral levels. The faculty directs studies and research in algebra, number theory, analysis, geometry, topology, logic and set theory, differential equations, dynamical systems, probability theory, optimization, combinatorial theory, biomathematics, and imaging.

In addition to the requirements of the Graduate School, the minimum prerequisite for admission to the program of graduate studies in mathematics is the completion, with an average grade of B or better, of at least 24 credits of undergraduate mathematics, including a full year of calculus and three semesters of appropriate work beyond the calculus. The most appropriate courses for this purpose are advanced calculus, linear algebra and abstract algebra. Students lacking part of the requirements will be required to make up the deficiency early in their graduate work.

Prerequisites to individual courses should be determined before registration by consultation with the instructor concerned. Some of the courses listed are offered only as needed. Since times of offering courses are estimated a year in advance, certain changes may be made if needs are known by the Department.

Students pursuing the master's degree in mathematics must pass two comprehensive written examinations, one in algebra and one in analysis or prepare and provide an oral defense of a thesis on original research conducted under the supervision of a faculty adviser. Students pursuing the Master of Arts in Teaching or the Master of Science in Teaching degree must prepare a teaching portfolio and pass an oral examination. Each of these programs normally requires two years for completion.

The requirements for a doctoral degree include 36 hours of 6000-level course work in mathematics; no hours of teaching, colloquium, dissertation, or individual work will count toward this requirement. To become a candidate for the doctoral degree, the student must pass a comprehensive preliminary examination with written and oral components administered by the Department. The doctoral student must also pass a reading knowledge examination in one of the following foreign languages: French, German, or Russian. The dissertation is an important requirement for the doctoral degree in mathematics. The topic for the dissertation may be chosen from a number of areas of current research in pure and applied mathematics.

Details concerning all requirements for graduate degrees in mathematics may be obtained by writing the Mathematics Department Graduate Selection Committee or consulting the Department website, http://www.math.ufl.edu.

Degrees

Doctor of Philosophy

without a concentration

concentration in Imaging Science and Technology

concentration in Quantitative Finance

Master of Arts in Teaching

Master of Science

Master of Science in Teaching

Courses

- MAA 5104: Advanced Calculus for Engineers and Physical Scientists I
- MAA 5105: Advanced Calculus for Engineers and Physical Scientists II
- MAA 5228: Modern Analysis I
- MAA 5229: Modern Analysis II
- MAA 5404: Introduction to Complex Variables for Engineers and Physical Scientists
- MAA 6236: Mathematical Analysis for Statisticians
- MAA 6406: Complex Analysis I
- MAA 6407: Complex Analysis II
- MAA 6616: Analysis I
- MAA 6617: Analysis II
- MAA 7526: Advanced Topics in Functional Analysis I
- MAA 7527: Advanced Topics in Functional Analysis II
- MAD 6206: Combinatorial Theory I
- MAD 6207: Combinatorial Theory II
- MAD 6406: Numerical Linear Algebra
- MAD 6407: Numerical Analysis
- MAD 7396: Topics in Combinatorial Theory I
- MAD 7397: Topics in Combinatorial Theory II
- MAE 6940: Supervised Teaching
- MAE 6943: Internship in College Teaching
- MAP 5304: Intermediate Differential Equations for Engineers and Physical Scientists
- MAP 5345: Introduction to Partial Differential Equations

- MAP 5489: Modeling in Mathematical Biology
- MAP 6208: Numerical Optimization
- MAP 6327: Applied Differential Equations I
- MAP 6356: Partial Differential Equations I
- MAP 6357: Partial Differential Equations II
- MAP 6375: Numerical Partial Differential Equations
- MAP 6376: Finite Element Method
- MAP 6467: Stochastic Differential Equations and Filtering Theory I
- MAP 6468: Stochastic Differential Equations and Filtering Theory II
- MAP 6472: Probability and Potential Theory I
- MAP 6473: Probability and Potential Theory II
- MAP 6487: Biomathematics Seminar I
- MAP 6488: Biomathematics Seminar II
- MAP 6505: Mathematical Methods of Physics and Engineering
- MAP 6506: Mathematical Methods of Physics and Engineering II
- MAP 6941: Internship in Applied Mathematics
- MAP 7436: Seminar in Applied Mathematics I
- MAP 7437: Seminar in Applied Mathematics II
- MAS 5311: Introductory Algebra I
- MAS 5312: Introductory Algebra II
- MAS 6331: Algebra I
- MAS 6332: Algebra II
- MAS 7215: Theory of Numbers I
- MAS 7216: Theory of Numbers II
- MAS 7396: Advanced Topics in Algebra I
- MAS 7397: Topics in Algebra II
- MAT 6905: Individual Work
- MAT 6910: Supervised Research
- MAT 6932: Special Topics in Mathematics
- MAT 6971: Research for Master's Thesis
- MAT 7979: Advanced Research
- MAT 7980: Research for Doctoral Dissertation
- MHF 5107: Introduction to Set Theory
- MHF 5207: Foundations of Mathematics
- MHF 6306: Mathematical Logic I
- MTG 5316: Introduction to Topology I
- MTG 5317: Introduction to Topology II
- MTG 5411: Introduction to Fractal Geometry
- MTG 5412: Introduction to Dynamical Systems and Chaos
- MTG 6256: Differential Geometry I
- MTG 6257: Differential Geometry II
- MTG 6346: Topology I
- MTG 6347: Topology II
- MTG 6401: Ergodic Theory and Dynamical Systems I
- MTG 6402: Ergodic Theory and Dynamical Systems II
- MTG 7396: Advanced Topics in Topology I

Philosophy Department

Chair: John Palmer
Graduate Coordinator: Stewart Duncan

The Philosophy Department offers the Master of Arts and the Doctor of Philosophy degrees. General requirements for these degrees are described in the Graduate Degrees section of this catalog, and program-specific requirements are provided on the Philosophy Program page.

The Department is dedicated both to pursuing high quality research and providing a rigorous education to its graduate students, whether pursuing just the M.A. or the Ph.D. Faculty provide philosophical expertise in a wide variety of areas, including ancient philosophy, modern philosophy, ethical theory, political theory, ethics of technology, bioethics, philosophy of education, metaphysics, epistemology, philosophy of mind, philosophy of logic, philosophy of science, philosophy of social science, philosophy of language, argument theory and Continental philosophy. For a full and updated list of areas of research see the pages of individual faculty.

The M.A. program is suitable for those planning or considering a Ph.D. in Philosophy, for those who hope to gain an advanced degree prior to pursuing professional degrees in such fields as law and medicine, and for those who are considering advanced work in related fields such as linguistics, classical studies, religious studies, psychology, and political science.

The Ph.D. program is suitable for those planning to pursue an academic career, including both those focused more on research and those focused more on teaching. Graduates should expect to be trained in doing high quality research in philosophy, to be mentored in the practice of teaching, and to have opportunities for teaching in a broader array of contexts that should serve well the ability to teach courses in writing and the humanities more generally.

For more information, please see the program page as well as our website at http://phil.ufl.edu.

Philosophy

College of Liberal Arts and Sciences
Philosophy Department

Philosophy Program Information

The Department of Philosophy offers graduate degree programs leading to the M.A. and the Ph.D. degrees in Philosophy.

Graduate students enjoy a supportive community. Teaching assistants are provided with shared office space, and most graduate students participate in organizing a yearly conference, the Southeast Graduate Philosophy conference (for more information, see http://www.phil.ufl.edu/seg).

Admission to either program requires either a bachelor's degree in philosophy or sufficient course work in philosophy as determined by the department. Applicants to either program are evaluated on the basis of their academic record, GRE scores, three letters of recommendation, a statement of purpose, and a writing sample. Students admitted into the Ph.D. program who do not already have an M.A. in Philosophy must complete the coursework requirements for the M.A. as part of their first two years of full-time enrollment in the Ph.D. program.

General program information

All graduate students must take in their first fall semester of enrollment the Graduate Proseminar (PHI 5935), an intensive workshop requiring regular writing and presentation of philosophical papers; they must also take in that first year the foundational course on Graduate Logic (PHI 5135). These two critical courses help ensure success in the core

curriculum, which is designed to provide a thorough grounding in the three main divisions of philosophical work: history, value theory, and the various areas known together as M&E ("metaphysics and epistemology").

Additional core courses include surveys in ancient philosophy (PHP 5005 and PHP 5015), in modern philosophy (PHH 5405 and PHH 5406), ethical theory (PHI 5665), epistemology (PHI 5365) and foundations of analytic philosophy (PHP 5785).

M.A. program information

The M.A. degree requires 36 hours of coursework, which can be completed in two years by registering for 9 credits each fall and spring semester. Distribution requirements mandate a selection of core courses and 6000-level seminars, while electives make up 6 hours of coursework. Requirements include an oral Final Exam administered by a group of faculty selected by the Graduate Studies Committee.

Ph.D. Program information

The Ph.D. requires 90 credit hours, which may include 36 used for the M.A., additional courses at the 6000-level, 3 proposal research hours, 12 doctoral research hours, and the successful completion and defense of a dissertation. In completing the Ph.D. advanced students will normally have an opportunity to teach their own undergraduate courses under the supervision of faculty as well as to work as a Teaching Assistant in many other courses.

Funding

Funding for graduate students is provided primarily by Teaching Assistantships. Newer teaching assistants assist with lower level courses (such as Introduction to Philosophy and Contemporary Moral Issues) and more experienced teaching assistants may assist with more advanced courses. M.A. students who have demonstrated exceptional teaching capabilities may have the chance to teach their own course during the summer after they have completed all course requirements for the degree. Advanced Ph.D. students more regularly get these opportunities, during the fall and spring semesters as well as the summer.

Some funding for supporting graduate student travel to conferences is available.

Further Information

For more information about the department in general, see its website at http://phil.ufl.edu.

More details about the M.A. and Ph.D. programs, their requirements, policies, and procedures, may be found at http://phil.ufl.edu/grad/grad-program.html.

Prospective students can find detailed information on the admissions process at http://phil.ufl.edu/grad.html?page=prospective.

Questions and requests for help can be directed to the Graduate Coordinator, who may be reached at gradcoord@phil.ufl.edu.

Degrees

Doctor of Philosophy
Master of Arts

Courses

- PHH 5405: Modern Philosophy I
- PHH 5406: Modern Philosophy II
- PHH 5605: Studies in Continental Philosophy

- PHH 6105: Seminar in Ancient Philosophy
- PHH 6425: Seminar in Modern Philosophy
- PHI 5135: Graduate Logic
- PHI 5225: Philosophy of Language
- PHI 5325: Philosophy of Mind
- PHI 5365: Epistemology
- PHI 5405: Philosophy of Science
- PHI 5425: Philosophy of Social Science
- PHI 5505: Metaphysics
- PHI 5665: Ethical Theory
- PHI 5905: Individual Work
- PHI 5934: Topics in Philosophy
- PHI 5935: Proseminar
- PHI 6105: Seminar in Logic
- PHI 6226: Seminar in Philosophy of Language
- PHI 6306: Seminar in Epistemology
- PHI 6326: Seminar in Philosophy of Mind
- PHI 6406: Seminar in Philosophy of Science
- PHI 6506: Seminar in Metaphysics
- PHI 6667: Seminar in Ethics
- PHI 6787: Seminar in Continental Philosophy
- PHI 6905: Individual Work
- PHI 6910: Supervised Research
- PHI 6934: Special Topics
- PHI 6940: Supervised Teaching
- PHI 7979: Advanced Research
- PHI 7980: Research for Doctoral Dissertation
- PHP 5005: Ancient Philosophy I
- PHP 5015: Ancient Philosophy II
- PHP 5785: Foundations of Analytic Philosophy
- PHP 6415: Seminar in Kant
- PHP 6795: Seminar in Analytic Philosophy
- PHP 6930: Seminar in School or Thinker

Physics Department

College of Liberal Arts and Sciences

Chair: Kevin Ingersent
Graduate Coordinator: Xiaoguang Zhang

The Department of Physics offers the Master of Science (thesis or nonthesis) and the Doctor of Philosophy degrees. The nonthesis Master of Science in Teaching is also offered. General requirements for these degrees are described in the Graduate Degrees section of this catalog. Program specific requirements are listed under Physics and can be found on our website.

Areas of specialization for graduate research include astrophysics and cosmology, atomic and molecular physics, biological physics, chemical physics, condensed matter physics (theory and experiment), nuclear physics, particle physics (theory and experiment), statistical physics, and low temperature physics.

Special interdisciplinary research programs include the Institute for Fundamental Theory (carried out jointly with the Department of Mathematics), the Institute for Theoretical and Computational Studies in Molecular and Materials Science (also known as the Quantum Theory Project or QTP, carried out jointly with Chemistry, Materials Science and Engineering, and Computer and Information Science and Engineering Departments), the Institute of High Energy and Particle Astrophysics, and Microfabritech (jointly with the College of Engineering). The Center for Condensed Matter Sciences provides opportunities for investigations in a diverse range of subjects and fields, including the Microkelvin Research Laboratory. The University of Florida operates the National High Magnetic Field Laboratory jointly with Florida State University and Los Alamos National Laboratory.

For more information, please see the program page below, and visit our website: http://www.phys.ufl.edu.

Physics

College of Liberal Arts and Sciences
Physics Department

Physics Program Information

The Department of Physics is dedicated to advancing the forefronts of knowledge in both pure and applied physics, thus providing an exciting intellectual climate for our graduate students. Our research activities include astrophysics (particle astrophysics, cosmology and gravitation), condensed matter and materials physics (experimental, theoretical and computational), low temperature physics, elementary particle physics (experimental and theoretical) and biological physics. With such diversity in research offerings you will have an opportunity to pursue research in most areas of contemporary physics. In spite of the size of our Department, we are committed to designing a program of graduate study that is tailored to your experience and interests. Our Graduate Coordinator sees that each of our graduate students receives personal attention and advice as they progress toward their advanced degree.

Graduate Program Overview

Preliminary Examination:

- Covers undergraduate subject matter
- Given twice a year; two years to complete

Graduate Core Courses

- Two semesters of quantum mechanics
- Two semesters of electromagnetism
- One semester of classical mechanics
- One semester of statistical mechanics
- Waivers given for equivalent
- work at other institutions
- Completed in first or second years

Distribution Requirement

- Advanced course work in three subfields
- Usually completed by the end of the second year

Highlights

- Involvement in research in first summer (or sooner)!
- Diversity of research interdisciplinary options!
- Individualized program designed to meet the unique background of each student.

For more information, please see our website: http://www.physics.ufl.edu.

Degrees

Doctor of Philosophy

without a concentration

concentration in Imaging Science and Technology

Master of Science

Master of Science in Teaching

Courses

- AST 6416: Physical Cosmology
- PHY 5277: Physics of Accident Reconstruction and Biomechanics
- PHY 5905: Individual Work
- PHY 6246: Classical Mechanics
- PHY 6346: Electromagnetic Theory I
- PHY 6347: Electromagnetic Theory II
- PHY 6536: Statistical Mechanics I
- PHY 6555C: Cryogenics
- PHY 6645: Quantum Mechanics I
- PHY 6646: Quantum Mechanics II
- PHY 6648: Quantum Field Theory I

- PHY 6905: Individual Work
- PHY 6910: Supervised Research
- PHY 6920: Departmental Colloquium
- PHY 6932: Seminar in Molecular and Computational Physics
- PHY 6943: Internship in College Teaching
- PHY 6971: Research for Master's Thesis
- PHY 7097: Advanced Topics in Theoretical Physics
- PHY 7669: Quantum Field Theory II
- PHY 7939: Special Topics
- PHY 7979: Advanced Research
- PHY 7980: Research for Doctoral Dissertation
- PHZ 5155C: Physical Modeling and Simulation
- PHZ 5245: Introduction to Magnetic Resonance
- PHZ 5354: Introduction to Particle Physics
- PHZ 5405: Introduction to Solid-State Physics
- PHZ 6166: Qualitative Methods of Theoretical Physics
- PHZ 6355: Elementary Particle Physics I
- PHZ 6358: Standard Model of Elementary Particles I
- PHZ 6391: Seminar in Astrophysics
- PHZ 6392: Seminar in Particle Physics
- PHZ 6426: Solid State I
- PHZ 6493: Seminar in Condensed Matter Physics
- PHZ 6607: Special and General Relativity
- PHZ 7357: Elementary Particle Physics II
- PHZ 7359: Standard Model of Elementary Particles II
- PHZ 7427: Solid State II
- PHZ 7428: Modern Condensed Matter Physics
- PHZ 7429: Phases of Condensed Matter
- PHZ 7608: Special and General Relativity II

Plant Molecular and Cellular Biology Department

College of Agricultural and Life Sciences
College of Liberal Arts and Sciences
College of Medicine

Plant Molecular and Cellular Biology (PMCB) currently has 45 faculty members in the program. They are based in the departments of Agronomy, Biology, Environmental Horticulture, Forest Resources and Conservation, Horticultural Sciences, Microbiology and Cell Science, Molecular Genetics and Microbiology, and Plant Pathology within the colleges of Agriculture and Life Sciences, Medicine, and Liberal Arts and Sciences.

Plant Molecular and Cellular Biology (CLAS)

College of Liberal Arts and Sciences
Plant Molecular and Cellular Biology Department

Plant Molecular and Cellular Biology Program Information

Director: Dr. Svetlana Folimonova
Graduate Coordinator: Dr. Gilles Basset
Program Coordinator: Eliana Kampf

Plant Molecular and Cellular Biology (PCMB) is an interdisciplinary and interdepartmental graduate degree program that emphasizes understanding the molecular and cellular mechanisms that mediate plant development, adaptation, and evolution. Students can pursue an M.S. or a Ph.D. degree through the PMCB program. All students complete core courses in Advanced Genetics, Plant Molecular Biology and Genomics, Plant Cellular and Developmental Biology, and Plant Biochemistry. In addition to the core classes, students can select from a variety of courses in biochemistry, molecular biology, physiology, breeding, genetics, evolution, microbiology, and plant pathology.

New students are exposed to a variety of faculty and experimental systems while they rotate through several laboratories during their first two semesters before selecting an adviser and dissertation research area. Both M.S. and Ph.D. students take four required courses: PCB 5065 Advanced Genetics, PCB 5530 Plant Molecular Biology and Genomics, PCB 6528 Plant Cell and Developmental Biology and BOT 6935 Plant Biochemistry, as well as journal colloquium classes (PCB 7922 Journal Colloquium). Additional elective courses are taken after approval by the student's supervisory committee. For additional information see http://pmcb.ifas.ufl.edu.

Successful candidates should have a strong interest in plant molecular and cellular mechanisms controlling development, metabolism, adaptation, and evolution. Applicants typically have a B.S. or M.S. in the agricultural, forestry, biological or chemical sciences.

Degrees Offered with a Major in Plant Molecular and Cellular Biology

Doctor of Philosophy
without a concentration
concentration in Toxicology
Master of Science

Plant Molecular and Cellular Biology Courses

- BOT 6935: Special Topics
- PCB 5065: Advanced Genetics
- PCB 5530: Plant Molecular Biology and Genomics
- PCB 6528: Plant Cell and Developmental Biology
- PCB 6910: Supervised Research
- PCB 6937: Special Topics in Plant Molecular and Cellular Biology
- PCB 6971: Research for Master's Thesis
- PCB 7922: Journal Colloquy in Plant Molecular and Cellular Biology
- PCB 7979: Advanced Research
- PCB 7980: Research for Doctoral Dissertation

Political Science Department

Chair: Daniel Smith
Graduate Coordinator: Michael Martinez

The Department of Political Science currently offers two graduate degrees: Master of Arts (thesis or nonthesis option) and Doctor of Philosophy. The political science--international relations program currently offers the Master of Arts (thesis or nonthesis option). Requirements for these degrees are given in the Graduate Degrees Section of this catalog. For further information, please contact the Political Science Department or follow the hyperlinks below to more information about the specific programs offered.

Political Science

College of Liberal Arts and Sciences
Political Science Department

Political Science Program Information

The Department of Political Science currently offers two graduate degrees: Master of Arts (thesis or nonthesis option) and Doctor of Philosophy. The political science--international relations program currently offers the Master of Arts (thesis or nonthesis option). Requirements for these degrees are given in the Graduate Degrees Section of this catalog. For further information about international relations, please contact the Political Science Department or visit their departmental page in this catalog.

Admission to graduate study in the Department of Political Science normally requires the completion of an undergraduate major in political science or its equivalent. Students without this preparation may be required to make up deficiencies early in their graduate work. The core sequence begins in the fall term, providing basic knowledge that students need in later semesters. In evaluating candidates for admission, the Department considers

- Prior academic achievement
- GRE scores
- Letters of recommendation from three faculty members or others familiar with the academic potential or work habits of the applicant
- A statement of purpose that conveys intellectual ambitions, indicates how the program of study satisfies the student's interests and goals, and tells how the student would contribute to the program.

Fields of specialization offered by the Department include American government and politics, comparative politics, international relations, public policy, political theory, political behavior, and political methodology.

Master of Arts: The M.A. curricula are designed to serve students who want to pursue goals of an advanced general education, to gain skills and knowledge suitable for various types of public or private employment, or to prepare for further work at the doctoral level. M.A. students are required to complete POS 6736: The Conduct of Inquiry and either POS 6737: Political Data Analysis or STA 6126: Statistical Methods in Social Research I. Students may complete their M.A. degrees with or without writing a thesis. Students pursuing the thesis option must complete 30 hours of graduate course work. The thesis is expected to be of length and quality comparable to papers presented at professional academic conferences or published in academic journals. Students pursuing the nonthesis option must complete 36 semester hours of graduate course work and defend two qualifying papers. For both M.A. options, course

work in political science, exclusive of core courses, must include a minimum of two graduate-level courses in one field of political science.

The M.A. degree may be taken in conjunction with the following certificate programs:

- Political campaigning
- Public affairs

Students in these certificate programs pursue the nonthesis option.

Public affairs: This program trains students for leadership positions in state, local, and national governments as well as for careers in nonprofit organizations by providing students with knowledge and skills in the areas of organization behavior, public budgeting and finances, public management, policy analysis, program evaluation, and computer applications. The curriculum consists of seminars in political science, public administration, public policy, process, state and local politics, and research methods. Supervised internships in selected agencies in Florida are arranged by the Department of Political Science as an integral part of the training program. This specialization requires 39 hours of course work plus satisfactory completion of a 3-hour internship at the discretion of the Department. Students must also defend a final management-policy paper that incorporates analytical and substantive expertise. Graduates of the program serve in a variety of professional positions, including city managers, heads of municipal departments, directors of nonprofit organizations, analysts for the state legislature, and budget analysts for the federal government. In addition to the M.A. degree in political science, students receive the Certificate in Public Affairs.

Political campaigning: The program is designed to provide students with the basic political skills, insights, and experience that are critical for success in the rapidly changing profession of politics and political consulting. The program combines an awareness of the academic literature on mass and elite behavior with exposure to the increasingly sophisticated techniques used by campaigns. Students take a total of 39 hours from four major areas:

- Courses required of all M.A. students

- Courses oriented to practical aspects of political campaigning and governmental affairs (lobbying), including a 3-credit campaign-related internship

- Courses placing campaigns and elections in the broader context of American politics

- Related courses offered by the College of Journalism and Communications

Entry-level jobs have included such positions as legislative aide, campaign (or deputy campaign) manager, polling analyst, state party political coordinator, general campaign consultant, and media relations. With additional experience, some former students have gone on to become state legislator (and later, member of the U.S. House of Representatives), deputy chief of staff to the governor of Florida, partner in a major Washington area polling firm, assistant to the Minister of Justice and Attorney General of Canada, and head lobbyist for a nationwide restaurant chain. In addition to the M.A. degree in political science, students receive the Certificate in Political Campaigning.

Law/Public Affairs joint degree program: This program culminates in the Master of Arts in political science and Juris Doctor degrees. A joint degree program culminating in the Master of Arts in political science international relations and Juris Doctor degrees is also available. The joint program enables students to earn both the J.D. and the M.A. in less time than would be required to earn both degrees consecutively. Full-time students who make satisfactory progress can usually earn both degrees in 4 years. Candidates for the joint degree program must meet the entrance requirements for, and be admitted to, both the College of Law and the Department of Political Science. These requirements include both the LSAT and the GRE. Students are encouraged to announce their intent of seeking a joint degree as soon as possible. The Department of Political Science will allow 12 hours of appropriate law school courses to be credited toward the M.A. degree. The 12 credits selected from the law curriculum must be approved by the Political Science

graduate coordinator on the recommendation of the student's supervisory committee. The College of Law will permit 12 hours of credit earned in political science graduate courses to be credited toward the J.D. degree. Students in the joint degree program are permitted, but not required, to pursue a companion certificate program in public affairs or political campaigning.

Combined bachelor's/master's degree program: This combined program is designed for superior students who have the ability to pursue an accelerated program leading to the Bachelor of Arts and the Master of Arts degrees in political science or political science international relations.

Up to 12 semester hours of approved graduate-level political science courses may be used as credit for both the undergraduate and graduate degree. Applicants to the program must present

- Acceptable scores on the verbal, quantitative, and analytical writing portions of the GRE
- Completion of at least 24 semester hours at the University of Florida (including at least 12 semester hours of political science) with a GPA of 3.7 or higher
- Letters of recommendation from two faculty members in the Department of Political Science

The combined program is not recommended for students considering a Ph.D. program in political science at UF but is appropriate for those considering one of the M.A. degree plus certificate programs described above. Further information concerning this program is available from the departmental undergraduate and graduate coordinators.

Doctor of Philosophy: The Ph.D. program emphasizes preparation for academic careers through seminars, independent work with faculty, and professional development experiences including graduate paper readings, placement workshops, and a distinguished lecture series. The Ph.D. prepares students for teaching and research in either an academic or governmental environment and opens doors to other career opportunities in both the private and public sectors. The Ph.D. program emphasizes the development of strong analytic skills and sophisticated research methods. As resources permit, the Department provides students with funding for travel expenses to scholarly meetings and professional (methodological) training support. As part of the preparation for careers in academia, doctoral students are also generally expected to contribute to the teaching mission of the Department. All Ph.D. students must complete the following:

- POS 6736: The Conduct of Inquiry
- POS 6716: Scope and Epistemologies of Political Science
- POS 6737: Political Data Analysis
- POT 6505: Politics and Theory
- Course work in a major and two minor fields of study
- Qualifying examinations in a major field and one minor field
- A dissertation

Fields of study open to Ph.D. students include comparative politics, American politics, public policy, international relations, political behavior, political theory, and political methodology. Applications are particularly welcome from students whose intellectual interests traverse these fields, including those with interests in religion and politics, state political institutions and policy, environmental politics, and minority and ethnic politics.

University of Florida Ph.D. students benefit from associations with faculty in numerous other departments and centers. The Centers for Latin American Studies, African Studies, and European Studies complement department faculty strengths in comparative politics and international relations. Students in the public policy concentration benefit from substantive expertise of faculty in the Institute for Child Health Policy and the Shimberg Center for Housing Studies. Several faculty in the College of Journalism and Communications have interests in media and politics.

For more information, please see our website: http://polisci.ufl.edu.

Degrees Offered with a Major in Political Science

Doctor of Philosophy

without a concentration
concentration in Educational Policy
concentration in Tropical Conservation and Development

Master of Arts

without a concentration
concentration in Public Affairs
concentration in Political Campaigning
concentration in Tropical Conservation and Development

Political Science Departmental Courses

- CPO 5935: Advanced Topics in Comparative Politics
- CPO 6077: Social Movements in Comparative Perspective
- CPO 6091: Introduction to Comparative Political Analysis
- CPO 6206: Seminar in African Politics
- CPO 6307: Latin American Politics I
- CPO 6719: Comparative Gender Politics
- CPO 6728: Ethnicity and Nationalism
- CPO 6732: Democratization and Regime Transition
- CPO 6736: Post-Communist politics
- CPO 6756: Comparative Elections and Party Systems
- CPO 6757: The European Union In Comparative Perspective
- CPO 6786: Peasant Politics and Society
- CPO 6795: Environmental Politics
- CPO 6796: Water Politics
- INR 6036: Globalization, Regionalism, and Governance
- INR 6039: International Political Economy
- INR 6208: Advanced International Relations Theory
- INR 6213: Seminar: Politics of the European Union
- INR 6249: Inter-American Relations
- INR 6305: Politics of American Foreign Policy Making
- INR 6337: Survey of International Security
- INR 6352: International Environmental Relations
- INR 6409: The Politics of International Law
- INR 6507: International Organization
- INR 6607: International Relations Theory
- INR 6936: Seminar in Transnational and Global Studies
- INR 6938: Seminar in Culture and World Politics
- PAD 6108: Public Administration Theory
- PAD 6227: Public Budgeting and Finance
- PAD 6434: Leadership and Ethics in Public Agencies
- POS 6458: Politics of Campaign Finance
- PAD 6946: Internship in Government
- POS 5935: Advanced Topics in Political Science

- POS 6045: Seminar in American Politics
- POS 6127: State Government and Politics
- POS 6146: Urban Politics
- POS 6157: Community Analysis
- POS 6196: Patrons, Clients, Corruption, and Accountability
- POS 6207: Political Behavior
- POS 6272: Political Participation
- POS 6274: Political Campaigning
- POS 6278: Advanced Campaign Strategy
- POS 6279: The Politics of Direct Democracy
- POS 6292: Religion and Politics
- POS 6427: Legislative Process
- POS 6455: Political Parties and Interest Groups
- POS 6476: Bureaucratic Politics in the U.S.
- POS 6707: Qualitative Research Methods for Political Science
- POS 6716: Scope and Epistemologies of Political Science
- POS 6736: The Conduct of Inquiry
- POS 6737: Political Data Analysis
- POS 6747: Topics in Political Research Methodology
- POS 6757: Survey Research
- POS 6909: Individual Work
- POS 6910: Supervised Research
- POS 6933: Special Topics
- POS 6940: Supervised Teaching
- POS 6971: Research for Master's Thesis
- POS 7979: Advanced Research
- POS 7980: Research for Doctoral Dissertation
- POT 6016: Ancient Political Thought
- POT 6056: Modern Political Thought
- POT 6067: Contemporary Political Theory
- POT 6306: Liberalism and Its Critics
- POT 6315: Democratic Theory
- POT 6416: The Marxist Tradition and its Critics
- POT 6505: Politics and Theory
- POT 6516: Political Judgment
- PUP 6006: Policy Evaluation
- PUP 6007: Policy Process
- PUP 6009: Public Policy Analysis
- PUP 6315: Race, Gender, and Politics

Political Science - International Relations

College of Liberal Arts and Sciences
Political Science Department

Political Science--International Relations Program Information

The Department of Political Science currently offers two graduate degrees: Master of Arts (thesis or nonthesis option) and Doctor of Philosophy. The political science--international relations program currently offers the Master of Arts (thesis or nonthesis option). Requirements for these degrees are given in the Graduate Degrees Section of this catalog. For further information, please contact the Political Science Department directly or visit their departmental catalog page.

Admission to graduate study in the Department of Political Science normally requires the completion of an undergraduate major in political science or its equivalent. Students without this preparation may be required to make up deficiencies early in their graduate work. The core sequence begins in the fall term, providing basic knowledge that students need in later semesters. In evaluating candidates for admission, the Department considers

- Prior academic achievement
- GRE scores
- Letters of recommendation from three faculty members or others familiar with the academic potential or work habits of the applicant
- A statement of purpose that conveys intellectual ambitions, indicates how the program of study satisfies the student's interests and goals, and tells how the student would contribute to the program.

Political science--international relations: The M.A. degree in political science-- international relations is designed to provide professional education to those whose primary interest is a career in foreign relations. In this program, students must complete course work in the core of international relations theory and in two or more of the four major subfields of international relations, international political economy, international security, foreign policy, and international organization. The M.A. is a 36-hour degree, requiring successful completion of a 6-credit political science core sequence, 15 credits of departmental or extra-department electives, and a 15- credit international relations major. Students may pursue either a thesis option or take a comprehensive examination at the end of the program.

Law/Public Affairs joint degree program: This program culminates in the Master of Arts in political science and Juris Doctor degrees. A joint degree program culminating in the Master of Arts in political science international relations and Juris Doctor degrees is also available. The joint program enables students to earn both the J.D. and the M.A. in less time than would be required to earn both degrees consecutively. Full-time students who make satisfactory progress can usually earn both degrees in 4 years. Candidates for the joint degree program must meet the entrance requirements for, and be admitted to, both the College of Law and the Department of Political Science. These requirements include both the LSAT and the GRE. Students are encouraged to announce their intent of seeking a joint degree as soon as possible. The Department of Political Science will allow 12 hours of appropriate law school courses to be credited toward the M.A. degree. The 12 credits selected from the law curriculum must be approved by the Political Science graduate coordinator on the recommendation of the student's supervisory committee. The College of Law will permit 12 hours of credit earned in political science graduate courses to be credited toward the J.D. degree. Students in the joint degree program are permitted, but not required, to pursue a companion certificate program in public affairs, or political campaigning.

Degrees

Master of Arts
Master of Arts in Teaching

Political Science Departmental Courses

- CPO 5935: Advanced Topics in Comparative Politics
- CPO 6077: Social Movements in Comparative Perspective
- CPO 6091: Introduction to Comparative Political Analysis
- CPO 6206: Seminar in African Politics
- CPO 6307: Latin American Politics I
- CPO 6719: Comparative Gender Politics
- CPO 6728: Ethnicity and Nationalism
- CPO 6732: Democratization and Regime Transition
- CPO 6736: Post-Communist politics
- CPO 6756: Comparative Elections and Party Systems
- CPO 6757: The European Union In Comparative Perspective
- CPO 6786: Peasant Politics and Society
- CPO 6795: Environmental Politics
- CPO 6796: Water Politics
- INR 6036: Globalization, Regionalism, and Governance
- INR 6039: International Political Economy
- INR 6208: Advanced International Relations Theory
- INR 6213: Seminar: Politics of the European Union
- INR 6249: Inter-American Relations
- INR 6305: Politics of American Foreign Policy Making
- INR 6337: Survey of International Security
- INR 6352: International Environmental Relations
- INR 6409: The Politics of International Law
- INR 6507: International Organization
- INR 6607: International Relations Theory
- INR 6936: Seminar in Transnational and Global Studies
- INR 6938: Seminar in Culture and World Politics
- PAD 6108: Public Administration Theory
- PAD 6227: Public Budgeting and Finance
- PAD 6434: Leadership and Ethics in Public Agencies
- POS 6458: Politics of Campaign Finance
- PAD 6946: Internship in Government
- POS 5935: Advanced Topics in Political Science
- POS 6045: Seminar in American Politics
- POS 6127: State Government and Politics
- POS 6146: Urban Politics
- POS 6157: Community Analysis
- POS 6196: Patrons, Clients, Corruption, and Accountability
- POS 6207: Political Behavior
- POS 6272: Political Participation
- POS 6274: Political Campaigning

- POS 6278: Advanced Campaign Strategy
- POS 6279: The Politics of Direct Democracy
- POS 6292: Religion and Politics
- POS 6427: Legislative Process
- POS 6455: Political Parties and Interest Groups
- POS 6476: Bureaucratic Politics in the U.S.
- POS 6707: Qualitative Research Methods for Political Science
- POS 6716: Scope and Epistemologies of Political Science
- POS 6736: The Conduct of Inquiry
- POS 6737: Political Data Analysis
- POS 6747: Topics in Political Research Methodology
- POS 6757: Survey Research
- POS 6909: Individual Work
- POS 6910: Supervised Research
- POS 6933: Special Topics
- POS 6940: Supervised Teaching
- POS 6971: Research for Master's Thesis
- POS 7979: Advanced Research
- POS 7980: Research for Doctoral Dissertation
- POT 6016: Ancient Political Thought
- POT 6056: Modern Political Thought
- POT 6067: Contemporary Political Theory
- POT 6306: Liberalism and Its Critics
- POT 6315: Democratic Theory
- POT 6416: The Marxist Tradition and its Critics
- POT 6505: Politics and Theory
- POT 6516: Political Judgment
- PUP 6006: Policy Evaluation
- PUP 6007: Policy Process
- PUP 6009: Public Policy Analysis
- PUP 6315: Race, Gender, and Politics

Psychology Department

College of Liberal Arts and Sciences

Chair: Julia A. Graber
Graduate Coordinator: Darragh P. Devine

The Department of Psychology offers the Master of Science and the Doctor of Philosophy degrees. Complete descriptions of the minimum requirements for these degrees are provided in the *Graduate Degrees* section of this catalog. Students are not accepted for a terminal master's degree.

For more information, please see the program page below and our website: http://www.psych.ufl.edu.

Counseling Psychology

College of Liberal Arts and Sciences
Psychology Department

Counseling Psychology Program Information

The Department of Psychology offers the Doctor of Philosophy degree in Counseling Psychology. Students typically complete Masters of Science degree in Psychology prior to the Doctorate in Counseling Psychology. Complete descriptions of the minimum requirements for these degrees are provided in the Graduate Degrees section of this catalog. Students are not accepted for a terminal master's degree.

The Counseling Psychology Graduate Training Program at the University of Florida is one of five training programs offered in the Department of Psychology. The Program is accredited by the American Psychological Association. A predoctoral internship of one year is required. The Counseling Psychology Program at the University of Florida adheres to a generalist, scientist-practitioner training model that emphasizes education and training in the integration of theory, scientific thinking, assessment, research, and practice. This training model conceptualizes science and practice as inseparable and thus promotes practice that is science-based and science that is informed by practice. Furthermore, this training model promotes science and practice that consider individual, developmental, multicultural, and contextual perspectives and that emphasize human strengths with attention to aspects of psychopathology. A dedication to psychological science is essential.

Undergraduate preparation should include at least one course in experimental methods and one course in statistics. Other courses in psychology should include at least three or four of the following: cognition, developmental, learning, personality, physiological, sensory, and social. Applicants should have competitive GRE scores and GPA (3.5 or higher).

For more information, please see our website: http://psych.ufl.edu/index.php/counselingpsychology.

Degrees Offered with a Major in Counseling Psychology

Doctor of Philosophy

Psychology Departmental Courses

- CBH 6056: Comparative Psychology
- CLP 6169: Seminar: Psychology and Deviant Behavior
- CLP 7525: Best Methods for Studying Psychological Change
- DEP 6057: Advanced Developmental Psychology I
- DEP 6058: Advanced Developmental Psychology II
- DEP 6059: Seminar: Special Topics in Developmental Psychology
- DEP 6099: Survey of Developmental Psychology
- DEP 6216: Psychological Disturbances of Children
- DEP 6406: Advanced Adulthood and Aging
- DEP 6409: Seminar: Adult Development and Aging
- DEP 6799: Current Research Methods in Developmental Psychology
- DEP 6936: Current Research in Developmental Psychology
- DEP 7608: Theories of Developmental Psychology
- EAB 6099: Survey of Behavior Analysis
- EAB 6118: Theoretical Foundations of Behavior Analysis
- EAB 6707: Applied Behavior I
- EAB 6712: Experimental Psychopathology
- EAB 6716: Behavior Analysis in Developmental Disabilities

- EAB 6719: Seminar: Strategies and Tactics of Human Behavioral Research
- EAB 6750: Quantitative Methods
- EAB 6780: Ethics and Professional Issues
- EAB 6937C: Seminar: Special Topics in Experimental Analysis of Behavior
- EAB 6939: Seminar: Special Topics in Applied Behavior Analysis
- EAB 7089: Advanced Seminar: Experimental Analysis of Behavior
- EAB 7090: Verbal Behavior
- EXP 6099: Survey of Cognition and Sensory Processes
- EXP 6609: Seminar: Cognition
- EXP 6667: Methods and Research in Cognitive Neuroscience
- EXP 6939: Seminar: Current Issues in Cognition and Sensory Processes
- GEY 7408: Psychotherapy with Older Adults
- MHS 6430: Introduction to Family Counseling
- MHS 6440: Marriage and Couples Counseling
- MHS 7431: Advanced Family Counseling
- PCO 6057: Psychology of Counseling I
- PCO 6058: Psychology of Counseling II
- PCO 6059: Psychology of Counseling III
- PCO 6278: Diversity and Multiculturalism in Counseling Psychology
- PCO 6316C: Psychological Assessment I
- PCO 6317C: Psychological Assessment II
- PCO 6931: History and Contemporary Issues in Counseling Psychology
- PCO 6939: Seminar: Current Topics in Counseling Psychology
- PCO 7217: Professional Ethics and Skills in Counseling Psychology
- PCO 7247: Group Counseling/Psychology
- PCO 7537: Vocational Psychology
- PCO 7944: Practicum in Counseling Psychology
- PCO 7945: Advanced Practicum in Counseling Psychology
- PCO 7949: Internship in Counseling Psychology
- PPE 6059: Seminar in Personality
- PSB 5445: Drug Use and Abuse
- PSB 6076: Nobel Prizewinners in Neuroscience
- PSB 6087: Behavioral and Cognitive Neuroscience I
- PSB 6088: Behavioral and Cognitive Neuroscience II
- PSB 6099: Survey of Physiological and Comparative Psychology
- PSB 7248: Neurobehavioral Relations
- PSB 7249: Seminar in Neural Mechanisms and Behavior
- PSY 6608: History of Psychology
- PSY 6826: Psychology of Eating and Obesity
- PSY 6905: Individual Work
- PSY 6910: Supervised Research
- PSY 6930: Topics in Psychology
- PSY 6939: Seminar: The Teaching of Psychology
- PSY 6940: Supervised Teaching
- PSY 6971: Research for Master's Thesis
- PSY 7979: Advanced Research

- PSY 7980: Research for Doctoral Dissertation
- SOP 6099: Survey of Social Psychology
- SOP 6219C: Advanced Research Techniques in Social-Personality Psychology
- SOP 6409: Seminar: Current Topics in Social-Personality Psychology
- SOP 6419: Seminar: Attitudes and Social Cognition
- SOP 6509: Seminar: Interpersonal Relations and Group Processes
- SOP 6929: Colloquium on Research in Social-Personality Psychology

Psychology (CLAS)

College of Liberal Arts and Sciences
Psychology Department

Psychology Program Information

The Department of Psychology offers the Master of Science and the Doctor of Philosophy degrees. Complete descriptions of the minimum requirements for these degrees are provided in the Graduate Degrees section of this catalog. Students are not accepted for a terminal master's degree.

Doctoral areas of specialization include the research areas of developmental, behavior analysis, behavioral and cognitive neuroscience, social psychology, and counseling psychology. The training program in counseling psychology is accredited by the American Psychological Association. A predoctoral internship of one year is required for the counseling psychology program.

Undergraduate preparation should include at least one course in experimental methods and one course in statistics. Other courses in psychology should include at least three or four of the following: cognition, developmental, learning, personality, physiological, sensory, and social. Applicants should have competitive GRE scores and GPA (3.5 or higher).

Co-major: The Department offers a co-major program in conjunction with the College of Education leading to the Doctor of Philosophy degree in psychology and research and evaluation methodology.

For more information, please see our department website: http://psych.ufl.edu.

Degrees

Doctor of Philosophy
without a concentration
concentration in Women's/Gender Studies
Master of Arts
Master of Science
without a concentration

Psychology Departmental Courses

- CBH 6056: Comparative Psychology
- CLP 6169: Seminar: Psychology and Deviant Behavior
- CLP 7525: Best Methods for Studying Psychological Change
- DEP 6057: Advanced Developmental Psychology I
- DEP 6058: Advanced Developmental Psychology II
- DEP 6059: Seminar: Special Topics in Developmental Psychology
- DEP 6099: Survey of Developmental Psychology
- DEP 6216: Psychological Disturbances of Children

- DEP 6406: Advanced Adulthood and Aging
- DEP 6409: Seminar: Adult Development and Aging
- DEP 6799: Current Research Methods in Developmental Psychology
- DEP 6936: Current Research in Developmental Psychology
- DEP 7608: Theories of Developmental Psychology
- EAB 6099: Survey of Behavior Analysis
- EAB 6118: Theoretical Foundations of Behavior Analysis
- EAB 6707: Applied Behavior I
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- EAB 6716: Behavior Analysis in Developmental Disabilities
- EAB 6719: Seminar: Strategies and Tactics of Human Behavioral Research
- EAB 6750: Quantitative Methods
- EAB 6780: Ethics and Professional Issues
- EAB 6937C: Seminar: Special Topics in Experimental Analysis of Behavior
- EAB 6939: Seminar: Special Topics in Applied Behavior Analysis
- EAB 7089: Advanced Seminar: Experimental Analysis of Behavior
- EAB 7090: Verbal Behavior
- EXP 6099: Survey of Cognition and Sensory Processes
- EXP 6609: Seminar: Cognition
- EXP 6667: Methods and Research in Cognitive Neuroscience
- EXP 6939: Seminar: Current Issues in Cognition and Sensory Processes
- GEY 7408: Psychotherapy with Older Adults
- MHS 6430: Introduction to Family Counseling
- MHS 6440: Marriage and Couples Counseling
- MHS 7431: Advanced Family Counseling
- PCO 6057: Psychology of Counseling I
- PCO 6058: Psychology of Counseling II
- PCO 6059: Psychology of Counseling III
- PCO 6278: Diversity and Multiculturalism in Counseling Psychology
- PCO 6316C: Psychological Assessment I
- PCO 6317C: Psychological Assessment II
- PCO 6931: History and Contemporary Issues in Counseling Psychology
- PCO 6939: Seminar: Current Topics in Counseling Psychology
- PCO 7217: Professional Ethics and Skills in Counseling Psychology
- PCO 7247: Group Counseling/Psychology
- PCO 7537: Vocational Psychology
- PCO 7944: Practicum in Counseling Psychology
- PCO 7945: Advanced Practicum in Counseling Psychology
- PCO 7949: Internship in Counseling Psychology
- PPE 6059: Seminar in Personality
- PSB 5445: Drug Use and Abuse
- PSB 6076: Nobel Prizewinners in Neuroscience
- PSB 6087: Behavioral and Cognitive Neuroscience I
- PSB 6088: Behavioral and Cognitive Neuroscience II
- PSB 6099: Survey of Physiological and Comparative Psychology
- PSB 7248: Neurobehavioral Relations

- PSB 7249: Seminar in Neural Mechanisms and Behavior
- PSY 6608: History of Psychology
- PSY 6826: Psychology of Eating and Obesity
- PSY 6905: Individual Work
- PSY 6910: Supervised Research
- PSY 6930: Topics in Psychology
- PSY 6939: Seminar: The Teaching of Psychology
- PSY 6940: Supervised Teaching
- PSY 6971: Research for Master's Thesis
- PSY 7979: Advanced Research
- PSY 7980: Research for Doctoral Dissertation
- SOP 6099: Survey of Social Psychology
- SOP 6219C: Advanced Research Techniques in Social-Personality Psychology
- SOP 6409: Seminar: Current Topics in Social-Personality Psychology
- SOP 6419: Seminar: Attitudes and Social Cognition
- SOP 6509: Seminar: Interpersonal Relations and Group Processes
- SOP 6929: Colloquium on Research in Social-Personality Psychology

Religion Department

Interim Chair: James Mueller
Graduate Coordinator: Whitney Sanford

The graduate program in the Department of Religion at the University of Florida is designed to prepare students for careers in academia, public service, non-governmental organizations, and various forms of advocacy work. Our five areas of study include: Buddhist Traditions, Global Islam, Hindu Traditions, Religion in the Americas and Religion and Nature. For additional information, please refer to the Graduate Student Manual.

The M.A. Program

The M.A. degree provides a broad background in the study of religious traditions and theoretical orientations in the discipline. An M.A. student can choose whether s/he will concentrate in one of the five areas of study. If s/he chooses to do so, s/he needs to take the courses recommended for that field of specialization. If s/he chooses not to, s/he can pick courses from across the fields. Course work usually culminates in a thesis and an oral examination.

The department also offers a combined program designed for superior students who have the ability to pursue an accelerated program leading to the Bachelor of Arts and the Master of Arts degree in Religion.

The Ph.D. Program

A student usually enters with a religion master's degree either from this or another institution. Those admitted with master's degrees in disciplines other than religion may petition to bypass the religion master's degree with additional religion course work. All students are admitted into one of the areas of study and should fulfill the recommended course work as outlined in the area descriptions. Students in all fields are encouraged to take courses in other departments to support work in their area of specialization.

Course Work

Graduate students in religion ordinarily take courses of different kinds and for different purposes. One aim is to develop familiarity with leading traditions of research and analysis in religious studies. Another is to prepare for PhD examinations. A third is to pursue specific interests relevant to the student's scholarly development, especially in relation to the thesis or dissertation. A fourth is to prepare for careers outside of academia. Students are expected to

consult their supervisory committee chair and the department's graduate coordinator in designing a course of study that satisfies these aims in the limited time available.

Every year a Method and Theory departmental seminar is offered (Method & Theory I or II in alternate years). This course is required of all first and second year graduate students. Its purpose is to help students develop awareness of various approaches to the study of religion, the history of these approaches, and their assumptions about understanding and explaining religious texts and behavior.

Every other year an Interdisciplinary Seminar is offered. The purpose of this course is bridge the department's separate areas of study through the examination of topics and themes broadly relevant to the field of religious studies. The content of this course changes each time it is offered and all first and second year graduate students are required to take this course when it is offered during their first two years of graduate study.

Specialized instruction within the areas of study is carried on primarily in courses detailed in the area descriptions. The department also offers graduate seminars in related areas outside the specific fields. In addition, students regularly participate in individual or small reading courses with a member of the faculty, the form and content of which are tailored to the student's particular needs and interests.

Almost all graduate students in religion take courses outside the department. Most enroll in graduate seminars and reading courses in such departments and centers as African Studies, Anthropology, Botany, English, History, Jewish Studies, Latin American Studies, Philosophy, Political Science, Sociology, Women's Studies and Gender Research, Zoology, and from the interdisciplinary School of Natural Resources and the Environment.

While specific degree requirements and interests shape a candidate's program, most generally enroll in three courses, including both seminars and reading courses, during each of the semesters prior to the M.A. thesis or Ph.D. qualifying examinations.

Mentoring

All students are assigned a faculty mentor upon admission to the program, based on expressions of faculty interest and the student's intended area of study. The mentor and graduate coordinator answer questions and provide support for the student in choosing courses and planning a program. By the end of the second semester all master's degree students must designate their supervisory committee chair and one additional department committee member. By the end of the second semester all doctoral students must designate their committee chair. By no later than the end of the fourth semester of study, all doctoral students must designate a four member supervisory committee including the chairperson and one UF faculty member from outside the department.

Religion

College of Liberal Arts and Sciences
Religion Department

Religion Program

The graduate program in the Department of Religion at the University of Florida is designed to prepare students for careers in academia, public service, non-governmental organizations, and various forms of advocacy work. Our five areas of study include: Buddhist Traditions, Global Islam, Hindu Traditions, Religion in the Americas and Religion and Nature. For additional information, please refer to the Graduate Student Manual.

The M.A. Program

The M.A. degree provides a broad background in the study of religious traditions and theoretical orientations in the discipline. An M.A. student can choose whether s/he will concentrate in one of the five areas of study. If s/he chooses to do so, s/he needs to take the courses recommended for that field of specialization. If s/he chooses not to, s/he can pick courses from across the fields. Course work usually culminates in a thesis and an oral examination.

The department also offers a combined program designed for superior students who have the ability to pursue an accelerated program leading to the Bachelor of Arts and the Master of Arts degree in Religion.

The Ph.D. Program

A student usually enters with a religion master's degree either from this or another institution. Those admitted with master's degrees in disciplines other than religion may petition to bypass the religion master's degree with additional religion course work. All students are admitted into one of the areas of study and should fulfill the recommended course work as outlined in the area descriptions. Students in all fields are encouraged to take courses in other departments to support work in their area of specialization.

Course Work

Graduate students in religion ordinarily take courses of different kinds and for different purposes. One aim is to develop familiarity with leading traditions of research and analysis in religious studies. Another is to prepare for PhD examinations. A third is to pursue specific interests relevant to the student's scholarly development, especially in relation to the thesis or dissertation. A fourth is to prepare for careers outside of academia. Students are expected to consult their supervisory committee chair and the department's graduate coordinator in designing a course of study that satisfies these aims in the limited time available.

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Specialized instruction within the areas of study is carried on primarily in courses detailed in the area descriptions. The department also offers graduate seminars in related areas outside the specific fields. In addition, students regularly participate in individual or small reading courses with a member of the faculty, the form and content of which are tailored to the student's particular needs and interests.

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Degrees Offered with a Major in Religion

Doctor of Philosophy

without a concentration
concentration in Tropical Conservation and Development
concentration in Women's/Gender Studies

Master of Arts

without a concentration
concentration in Jewish Studies
concentration in Tropical Conservation and Development
concentration in Women's/Gender Studies

Courses

- REL 6347: American Buddhism
- REL 6368: Islam in Asia
- REL 6397: Hindu Sacred Texts and Their Ritual Context
- RLG 5143: Religion and Social Change
- RLG 5195: Topics in Religion and Society
- RLG 5199: Religion and Nature in North America
- RLG 5297: Topics in Biblical Studies
- RLG 5338: Topics in Asian Religions
- RLG 5361: Global Islam
- RLG 5365: Studies in Islam
- RLG 5396: Religion and Animals
- RLG 5495: Topics in Religious Thought
- RLG 5549: Studies in Christianity
- RLG 5696: Topics in Jewish Thought
- RLG 5906: Individual Work
- RLG 5937: Topics in Religious Studies
- RLG 6035: Method and Theory I
- RLG 6036: Method and Theory II
- RLG 6095: Utopias and Dystopias
- RLG 6107: Core Seminar in Religion and Nature
- RLG 6125: Religion and Politics in the Americas
- RLG 6126: Religion in the Americas
- RLG 6129: Hindu Traditions in America
- RLG 6137: Religion in North America
- RLG 6138: New Religious Movements
- RLG 6167: Radical Environmentalism
- RLG 6181: Ethics and the Natural Sciences
- RLG 6183: Religion and Environmental Ethics
- RLG 6185: Religion, Nature, and Society
- RLG 6186: Nature in Western Traditions
- RLG 6187: Nature in Asian Religions
- RLG 6196: Globalizing the Sacred
- RLG 6310: Religion and Nature in South Asia
- RLG 6319: Interpreting Asian Religions
- RLG 6339: Women in the Hindu Tradition

- RLG 6346: Buddhist Traditions
- RLG 6385: Native Religions in the Americas
- RLG 6386: Religion and the Latin American Diaspora
- RLG 6387: Religions in Latin America
- RLG 6910: Supervised Research
- RLG 6940: Supervised Teaching
- RLG 6957: Overseas Studies in Religion
- RLG 6971: Research for Master's Thesis
- RLG 7979: Advanced Research
- RLG 7980: Research for Doctoral Dissertation
- SRK 6905: Individual Study in Sanskrit

Sociology and Criminology & Law Department

Chair: Barbara Zsembik
Graduate Coordinator: Monika Ardelt

The Department of Sociology and Criminology & Law offers several programs of graduate study leading to the Ph.D. in Sociology, the Ph.D. in Criminology, Law and Society, the MA in Sociology, the MA in Criminology, Law and Society, and a Joint MA in Criminology/JD degree. The department also partners with the School of Natural Resources and Environment Department to offer the Ph.D. or MA in Interdisciplinary Ecology. Advanced undergraduate majors may complete a combined BA/MA degree in Sociology or a combined BA/MA degree in Criminology, Law and Society.

Combined BA/MA Degree Program in Criminology & Law

Requirements and Recommendations

What is the Combined BA/MA Degree Program?

The BA/MA program provides academically talented students an opportunity to complete a bachelor's and a master's degree in a shorter period of time. The program allows students to explore graduate work in criminology before entering a graduate program. If the student then applies and is accepted into the graduate program (see application procedures for the graduate program), 12 hours of graduate coursework will double-count toward both the B.A. and the M.A., thus reducing the time it would normally take to complete both degrees. Please note, however, if a student is not serious about pursuing an M.A. in criminology, the program is not recommended.

Minimum Requirements for Competitive Admission:

- at least a 3.5 overall UF GPA
- completion of CCJ 3024, CCJ 3701, CCJ 4014, and CJL 3038 with an overall GPA of 3.5 and no grade lower than a B in any criminology course
- one letter of recommendation from a criminology faculty member
- a personal statement of purpose

NOTE: meeting these minimum requirements does not guarantee admission into the combined degree program.

How to Apply:

Students may apply for the combined BAMA program anytime from their second year forward, but students will most likely apply during the second semester of their junior year. We require undergraduate students to submit all application materials by October 15 for admission to the spring semester and by March 15 for admission to the fall semester for full consideration. Undergraduate students in the BA/MA program must apply for admission into the graduate program just like any other graduate applicant to continue their graduate work.

The following steps should help in the application process:

1. Plan ahead when scheduling courses through the junior year (see sample schedule below). All four of the criminology required courses and all of the student's general education requirements should be completed by the end of the student's junior year.

2. At the beginning of the semester in which the student is applying to the program, the student should approach a criminology faculty member about writing a letter of recommendation. The student should also begin working on a personal statement of purpose. The following guidelines should help with writing the statement.

    a. Length-2 to 4 pages

    b. The statement should describe

        1. Applicant's reasons for undertaking graduate study in criminology
        2. Applicant's future career plans
        3. Planned area of concentration within criminology

3. By October 15th of the fall semester or March 15th of the spring semester the student must submit the following items to the Undergraduate Coordinator:

    a. Personal statement of purpose
    b. Letter of recommendation
    c. UF's combined BA/MA application form

Requirements once admitted into the Combined BA/MA program:

Once admitted into the BA/MA program, students complete 12 graduate credit hours for the combined degree before graduation. Six of the 12 credits must be the required CLS courses of Seminar in Criminological Theory (CCJ 6920) and Introduction to Quantitative Methods (CCJ 5934). The remaining 6 graduate credits are based on the student's

interests. See a listing of graduate courses on our web site. Again, keep in mind that acceptance into the combined BA/MA program does not mean automatic admittance into the Master's program upon graduation. The student must still take the GRE and submit an admission application for graduate study in Criminology and Law.

Model Plan of Study for BA/MA Program (assuming fall entry in senior year)

	Fall Semester	Spring Semester
Sophomore	CCJ 3024	CJL 3038
Junior	CCJ 3701 or CCJ 4014 Crim 3000+ level CJL 2000, 4110, 4410 or 4050	CCJ 3701 or CCJ 4014* Crim 3000+ level
Senior	CCJ 6920 Sem. In Crim. Theory CCJ 5934 Intro. to Quant. Methods	Crim 6000+ level Crim 6000+ level

*apply for acceptance into CLS M.A. program by March 15 for fall

Contact Us
If you have questions about this combined degree program, contact the undergraduate coordinator.

Criminology, Law and Society

College of Liberal Arts and Sciences
Sociology and Criminology & Law Department

Criminology, Law and Society Program Information

Requirements for the M.A. and Ph.D. degrees are given in the Graduate Degrees section of this catalog. The graduate program in criminology and law has two areas of special emphasis: crime and justice, and law and society. The degree programs are research-based and prepare students to conduct original exploration into relevant problems, issues, and policies.

M.A. degree program: Admission to the master's degree program requires a bachelor's degree from a criminology/criminal justice or relevant social science or humanities program (political science, sociology, anthropology, psychology, philosophy, history, women's studies, etc.). Qualified students may enter the master's program as undergraduates through the combined B.A./M.A. program. Both M.A. options (thesis and nonthesis) require satisfactory completion of at least 36 credit hours.

Ph.D. degree program: The Doctor of Philosophy program includes a minimum of 90 semester hours of credit beyond the B.A. Students with a criminology or closely related M.A. received in the last 7 years from an accredited U.S. university may request that up to 30 hours credit from their M.A. work be counted toward this total. Those with an M.A. from this department may apply 36 hours. The Department requires Ph.D. students to complete at least 66 hours of course work (excluding research credits), including the M.A. hours. Qualifying examinations take place at the end of a student's course work.

Criminology, Law and Society/Law joint degree programs: The Department of Sociology and Criminology& Law (CLS) and the College of Law offer a joint degree program leading to an M.A. or a Ph.D. in Criminology, Law and Society and a J.D. in law. The joint degree programs enable students to earn both the degrees (the J.D. and the M.A. or the J.D. and the Ph.D.) in less time than would be required to earn both degrees consecutively. Students wishing to pursue the joint program must be admitted to both the Graduate School and the College of Law. These requirements include both the LSAT and GRE. Admission to one may precede the other. Students are encouraged to announce their intent to seek a joint degree as soon as possible. CLS allows 12 hours of appropriate law school courses to be credited toward the CLS degree. The 12 credits selected from the law curriculum must be approved by the graduate coordinator on the recommendation of the student's supervisory committee. The College of Law will permit 12 hours of credit earned in graduate courses to be credited toward the J.D.

Prospective students should examine the research interests of the Criminology Graduate Faculty to obtain a more detailed sense of faculty expertise and research areas, see the department website: http://soccrim.clas.ufl.edu/graduate/. Applications for admission and fellowship support are due January 15 of each year. Students planning to apply for admission should take the Graduate Record Examination at the earliest possible date.

Degrees

Doctor of Philosophy
Master of Arts

Courses

- CCJ 5934: Contemporary Issues in Criminology and Law
- CCJ 6936: Proseminar in Crime, Law, and Justice
- CJL 6039: Law and Society
- CCJ 6285: Criminal Justice Process
- CCJ 6619: Crime and the Life Course
- CCJ 6643: White Collar Crime
- CCJ 6705: Research Methods in Crime, Law, and Justice
- CCJ 6712: Evaluation Research
- CCJ 6905: Independent Study
- CCJ 6910: Supervised Research
- CCJ 6920: Seminar in Criminological Theory
- CCJ 6971: Research for Master's Thesis
- CCJ 7742: Research Methods in Crime, Law, and Justice II
- CCJ 7921: Professional Development in Criminology, Law, and Society
- CCJ 7979: Advanced Research
- CCJ 7980: Research for Doctoral Dissertation
- CJC 6120: Corrections and Public Policy
- CJL 6090: Law and Social Science

Sociology

College of Liberal Arts and Sciences
Sociology and Criminology & Law Department

Sociology Program Information

Sociologists conduct research to understand the social forces that shape all of our lives, often in hopes of improving everyday life and the life chances of each person. Graduate studies in sociology provide the people skills and technical skills to organize information, communicate analytical research to academic and lay audiences, and prepare well-reasoned and carefully-written reports and documents that contribute to societal well-being. Our award-winning and internationally-known faculty successfully mentor graduate students to complete their studies and become established in their professional academic and nonacademic careers.

We offer particular expertise in these areas: environment and resources, families, aging, gender, health, sexualities, life course, and race-ethnicity in US and global perspectives. There is also considerable expertise in: demography, social inequality, Latin American studies, Latino sociology, social psychology, deviance, and political sociology. We take great pride in the fact that our faculty are involved in interdisciplinary research projects that span nearly of all of the University's colleges and academic programs, including: the School of Natural Resources and the Environment, the Water Institute, the Emerging Pathogens Institute, the Center for Latin American Studies, the Center for European Studies, the Center for Women's Studies and Gender Research, the Health Science Center, and the Jewish Studies Center. Wherever you go on campus, you will most likely find at least one Sociologist from our department making major contributions.

Minimum requirements for the M.A. and Ph.D. degrees are given in the Graduate Degrees section of this catalog.

Admission to either Sociology graduate program requires a bachelor's degree in Sociology or related social science as approved by the Department. Current UF students may also enter the M.A. program through the combined B.A./M.A. program. The Sociology graduate programs look for mature students with outstanding potential and research interests that complement those of our faculty.

Prospective students should examine the research interests of the Sociology Graduate Faculty to obtain a more detailed sense of faculty expertise and research areas, see the department website: http://soccrim.clas.ufl.edu/graduate/. Applications for admission and fellowship support are due January 15 of each year. Students planning to apply for admission should take the Graduate Record Examination at the earliest possible date.

Degrees Offered with a Major in Sociology

Doctor of Philosophy

without a concentration
concentration in Tropical Conservation and Development
concentration in Women's/Gender Studies

Master of Arts

without a concentration
concentration in Tropical Conservation and Development

Courses

- SYA 6018: Classical Social Theories
- SYA 6126: Contemporary Sociological Theory
- SYA 6306: Methods in Social Research II
- SYA 6315: Qualitative Research Methods
- SYA 6327: Research Problems in Deviance
- SYA 6407: Quantitative Research Methods
- SYA 6905: Individual Work
- SYA 6910: Supervised Research
- SYA 6942: Applied Social Research Project
- SYA 6971: Research for Master's Thesis
- SYA 7933: Special Study in Sociology
- SYA 7979: Advanced Research
- SYA 7980: Research for Doctoral Dissertation
- SYD 6517: Seminar in Environment and Society
- SYD 6518: Core Issues in Environmental and Resource Sociology
- SYD 6706: Racial and Ethnic Relations
- SYD 6807: Sociology of Gender
- SYD 6825: Men and Masculinities
- SYD 7801: Reproduction and Gender
- SYO 6107: American Families
- SYO 6126: Family Theories
- SYO 6175: Topics in Family Research
- SYO 6407: Health Disparities
- SYO 6427: Health and Aging
- SYO 6535: Social Inequality
- SYP 6735: Sociology of Aging and the Life Course
- SYP 6745: Aging and End-of-Life Issues

Spanish and Portuguese Studies Department

Chair: G. Lord
Graduate Coordinator: L. Álvarez Castro
The Department of Spanish and Portuguese Studies offers a Master of Arts degree (M.A.) in Spanish (thesis and non-thesis options) and a Doctor of Philosophy degree (Ph.D.) in Romance Languages and Literatures, with a concentration in Spanish. Descriptions of the minimum requirements for both degrees are provided in the General Information section of this catalog. For specific information about the program, please visit the graduate section of the departmental webpage:

http://www.spanishandportuguese.ufl.edu/spanish/graduate.html

Candidates for graduate degrees (both M.A. and Ph.D.) in Spanish can choose between two specializations–literature/culture or linguistics. In conjunction with their master's or doctoral work, students may also earn a Certificate in Latin American Studies. Though a graduate degree is not offered in Portuguese, extensive course offerings at the graduate level permit students to develop a strong specialization in Portuguese language and Luso-Brazilian literature, film and culture.

The main prerequisite for admission to the M.A. program is an undergraduate major in Spanish, ideally including advanced courses in the proposed area of specialization. Applicants for the Ph.D. should hold an M.A. or equivalent degree in Spanish. At the discretion of the Graduate Studies Committee, candidates from related fields of study (History, Sociology…) may be offered a conditional admission into the Ph.D. program pending the passing of the M.A. Comprehensive Examination within the first year of study.

All M.A. and Ph.D. students in Spanish who are appointed as teaching assistants must take Romance Language Teaching Methods (FOL / FOL 6943). Besides, all M.A. and Ph.D. students specializing in literature and culture must take Introduction to Graduate Study and Research (SPW 6806). Other requirements vary with degree and specialization. For details, consult the graduate section of the departmental webpage (see above).

The Department is able to offer most students a teaching assistantship that provides a maintenance stipend and includes a tuition waiver. Contingent on positive performance in teaching and graduate work, M.A. students are guaranteed four semesters of support, and Ph.D. students are guaranteed eight semesters of support beyond the M.A. In addition, there are several fellowships, supplements and stipends for which students may apply, and summer teaching may be available.

Prospective students are encouraged to review the departmental webpage in order to familiarize themselves with the program and the application process. Only those applications including all required materials and submitted by the advertised deadlines will be considered. For any questions about the program or how to apply, please contact the graduate coordinator: grad-coord@spanish.ufl.edu.

Highly qualified UF undergraduate students majoring in Spanish may apply for a combined B.A./M.A. program in Spanish that allows up to 12 graduate credits to be counted toward fulfillment of both degrees. Contact the graduate coordinator for qualifications and details.

Romance Languages (Spanish and Portuguese Studies)

College of Liberal Arts and Sciences
Spanish and Portuguese Studies Department

Romance Languages (Spanish and Portuguese Studies) Program Information

The Department of Spanish and Portuguese Studies offers a graduate program leading to the degree of Ph.D. in Romance Languages and Literatures with a concentration in Spanish.

Students may choose a specialization in either literature/cultural studies or Hispanic linguistics. The program strives to achieve balance and depth. A minor is optional; it may be another Romance language or a different field related to the student's major (such as English, History, Latin American Studies, Philosophy, Portuguese/Brazilian Literature, or Women's Studies and Gender Research).

Ph.D. students determine their program of study in close consultation with their Supervisory Committee, which also prepares and administers the Qualifying Examination. Courses should be chosen to develop adequate background for teaching in the field as well as to prepare for more focused work in the area of the dissertation. In the literature/cultural studies track, all candidates must take two courses in literary theory, which will help them to achieve methodological coherence in their dissertations. In the language/linguistics track, students pursue course work in Spanish linguistics, including phonetics and phonology, morphology, syntax, sociolinguistics, historical linguistics and language acquisition. They complement these courses with work in the Linguistics Department. The Qualifying Examination normally covers the core areas listed above, the area of the anticipated dissertation, and any declared minor.

Most doctoral students will be given the opportunity to gain teaching experience through a teaching assistantship, dependent upon departmental need and availability of funds. Renewal of the assistantship is contingent upon satisfactory performance as a teaching assistant and as a graduate student.

For more information, go to: http://spanishandportuguese.ufl.edu/graduate-programs or contact the Graduate Coordinator at grad-coord@spanish.ufl.edu

Degrees Offered with a Major in Romance Languages

Doctor of Philosophy

concentration in Spanish

Spanish and Portuguese Studies Departmental Courses

- FOL 6326: Technology in Foreign Language Education
- FOW 6930: Special Study in Romance Languages and Literatures
- SPN 6060: Spanish for Functional Reading and Translation
- SPN 6166: Teaching Spanish for the Professions
- SPN 6480: Spanish Phonetics and Phonology
- SPN 6940: Supervised Teaching
- SPW 6545: Spanish Romanticism
- SPN 6705: Foundations of Hispanic Linguistics
- SPN 6806: Psycholinguistics of Spanish Bilingualism
- SPN 6845: History of the Spanish Language
- SPS 6905: Individual Study
- SPS 7979: Advanced Research
- SPS 7980: Research for Doctoral Dissertation
- SPW 6535: Spanish Romanticism

Spanish

- SPN 6315: Advanced Composition and Syntax
- SPN 6715: Formal Instruction and Acquisition of Spanish
- SPN 6735: Special Study in Spanish Linguistics
- SPN 6785: Advanced Spanish Phonetics
- SPN 6827: Sociolinguistics of the Spanish-Speaking World
- SPN 6835: Spanish and Spanish-American Dialectology
- SPN 6845: History of the Spanish Language
- SPN 6848: Medieval Spanish Linguistics
- SPN 6855: Structure of Spanish
- SPN 6856: Spanish in Contact: Issues in Bilingualism
- SPN 6900: Directed Readings in Spanish
- FOL 6943: Romance Language Teaching Methods
- SPN 6945: Practicum in Advanced College Teaching
- SPW 6209: Colonial Spanish-American Literature
- SPW 6216: Spanish Prose Fiction of the Golden Age
- SPW 6269: Spanish Novel of the Nineteenth Century
- SPW 6278: Postwar Spanish Fiction
- SPW 6285: Contemporary Spanish-American Narrative I
- SPW 6286: Contemporary Spanish-American Narrative II
- SPW 6306: Spanish-American Theater

- SPW 6315: Spanish Drama of the Golden Age
- SPW 6337: Golden Age Poetry
- SPW 6345: Twentieth-Century Spanish Poetry
- SPW 6356: Spanish-American Poetry from Romanticism to Vanguardismo
- SPW 6357: Contemporary Spanish-American Poetry
- SPW 6366: Spanish-American Essay
- SPN 6425: Writing for the Profession
- SPW 6606: Cervantes
- SPW 6729: The Generation of 1898
- SPW 6806: Introduction to Graduate Study and Research
- SPW 6902: Special Study in Spanish or Spanish-American Literature
- SPW 6905: Individual Work
- SPW 6910: Supervised Research
- SPW 6934: Seminar in Spanish American Literature and Culture
- SPW 6938: Seminar in Spanish Literature and Culture
- SPW 6971: Research for Master's Thesis
- SPW 7979: Advanced Research
- SPW 7980: Research for Doctoral Dissertation

Portuguese

- POW 6276: Twentieth-Century Brazilian Novel
- POW 6385: Brazilian Lyric
- POW 6386: Brazilian Drama
- POW 6905: Individual Work
- POW 6930: Rotating Topics in Brazilian or Portuguese Literature

Spanish

College of Liberal Arts and Sciences
Spanish and Portuguese Studies Department

Spanish Program Information

The Department of Spanish and Portuguese Studies offers a graduate program leading to the degrees of Master of Arts in Spanish or Master of Arts in Teaching in Spanish.

Students may choose to specialize in literature/culture or language/linguistics. A secondary specialization in Portuguese is also offered. Qualified applicants to the M.A. program are eligible for teaching assistantships.

A Master of Arts in Spanish may be earned in one of two ways:

- Non-thesis M.A. This is considered a terminal degree for those anticipating teaching careers in secondary schools or junior colleges, as well as employment in business, government, tourism, etc. Requirements: 30 credit hours and a comprehensive examination.
- M.A. with thesis. This option prepares students for later work toward a Ph.D. Requirements: 30 credit hours, a comprehensive examination, and a thesis. (Internal candidates to the Ph.D. program at UF can submit an extended paper as an alternative to the thesis.)

For more information on the M.A. or M.A.T., go to: http://spanishandportuguese.ufl.edu/graduate-programs or contact the Graduate Coordinator at grad-coord@spanish.ufl.edu.

Degrees Offered with a Major in Spanish

Master of Arts
Master of Arts in Teaching

Spanish and Portuguese Studies Departmental Courses

- FOL 6326: Technology in Foreign Language Education
- FOW 6930: Special Study in Romance Languages and Literatures
- SPN 6060: Spanish for Functional Reading and Translation
- SPN 6166: Teaching Spanish for the Professions
- SPN 6480: Spanish Phonetics and Phonology
- SPN 6940: Supervised Teaching
- SPW 6545: Spanish Romanticism
- SPN 6705: Foundations of Hispanic Linguistics
- SPN 6806: Psycholinguistics of Spanish Bilingualism
- SPN 6845: History of the Spanish Language
- SPS 6905: Individual Study
- SPS 7979: Advanced Research
- SPS 7980: Research for Doctoral Dissertation
- SPW 6535: Spanish Romanticism

Spanish

- SPN 6315: Advanced Composition and Syntax
- SPN 6715: Formal Instruction and Acquisition of Spanish
- SPN 6735: Special Study in Spanish Linguistics
- SPN 6785: Advanced Spanish Phonetics
- SPN 6827: Sociolinguistics of the Spanish-Speaking World
- SPN 6835: Spanish and Spanish-American Dialectology
- SPN 6845: History of the Spanish Language
- SPN 6848: Medieval Spanish Linguistics
- SPN 6855: Structure of Spanish
- SPN 6856: Spanish in Contact: Issues in Bilingualism
- SPN 6900: Directed Readings in Spanish
- FOL 6943: Romance Language Teaching Methods
- SPN 6945: Practicum in Advanced College Teaching
- SPW 6209: Colonial Spanish-American Literature
- SPW 6216: Spanish Prose Fiction of the Golden Age
- SPW 6269: Spanish Novel of the Nineteenth Century
- SPW 6278: Postwar Spanish Fiction
- SPW 6285: Contemporary Spanish-American Narrative I
- SPW 6286: Contemporary Spanish-American Narrative II
- SPW 6306: Spanish-American Theater
- SPW 6315: Spanish Drama of the Golden Age
- SPW 6337: Golden Age Poetry
- SPW 6345: Twentieth-Century Spanish Poetry
- SPW 6356: Spanish-American Poetry from Romanticism to Vanguardismo
- SPW 6357: Contemporary Spanish-American Poetry

- SPW 6366: Spanish-American Essay
- SPN 6425: Writing for the Profession
- SPW 6606: Cervantes
- SPW 6729: The Generation of 1898
- SPW 6806: Introduction to Graduate Study and Research
- SPW 6902: Special Study in Spanish or Spanish-American Literature
- SPW 6905: Individual Work
- SPW 6910: Supervised Research
- SPW 6934: Seminar in Spanish American Literature and Culture
- SPW 6938: Seminar in Spanish Literature and Culture
- SPW 6971: Research for Master's Thesis
- SPW 7979: Advanced Research
- SPW 7980: Research for Doctoral Dissertation

Portuguese

- POW 6276: Twentieth-Century Brazilian Novel
- POW 6385: Brazilian Lyric
- POW 6386: Brazilian Drama
- POW 6905: Individual Work
- POW 6930: Rotating Topics in Brazilian or Portuguese Literature

Statistics Department

Chair: B.D. Presnell
Graduate Coordinator: J. P. Hobert

Graduate programs are available leading to Master of Science in Statistics, Master of Statistics, and Doctor of Philosophy degrees. Minimum requirements for these degrees are described in the *General Information* section of this catalog.

Both master's programs usually require 2 years of course work including material covered in STA 6207, STA 6208, STA 6326, STA 6327, STA 6246, and STA 6329. In addition to earning a "Ph.D. pass" on the first-year evaluation, requirements for the Ph.D. degree include STA 6466, STA 6467, STA 7249, and STA 7346.

Interdisciplinary programs: The Department offers a co-major program in conjunction with the Fisher School of Accounting leading to the Doctor of Philosophy degree in statistics and business administration accounting. The Department is also a partner in the interdisciplinary concentration in quantitative finance, along with the Departments of Mathematics; Industrial and Systems Engineering; and Finance, Insurance, and Real Estate. For information on these programs, consult the departmental graduate coordinator.

Combined program: The Department offers a bachelor's/master's degree program. Contact the graduate coordinator for information.

For more information, please visit http://www.stat.ufl.edu/.

Statistics

College of Liberal Arts and Sciences
Statistics Department

Degrees Offered with a Major in Statistics

Doctor of Philosophy
without a concentration
concentration in Quantitative Finance
Master of Science in Statistics
Master of Statistics

Statistics Departmental Courses

- STA 5106: Computer Programs in Statistical Analysis
- STA 5223: Applied Sample Survey Methods
- STA 5325: Fundamentals of Probability
- STA 5328: Fundamentals of Statistical Theory
- STA 5503: Categorical Data Methods
- STA 5507: Applied Nonparametric Methods
- STA 5701: Applied Multivariate Methods
- STA 5856: Applied Time Series Methods
- STA 6092: Applied Statistical Practice
- STA 6126: Statistical Methods in Social Research I
- STA 6127: Statistical Methods in Social Research II
- STA 6166: Statistical Methods in Research I
- STA 6167: Statistical Methods in Research II
- STA 6177: Applied Survival Analysis
- STA 6207: Regression Analysis
- STA 6208: Basic Design and Analysis of Experiments
- STA 6246: Theory of Linear Models
- STA 6326: Introduction to Theoretical Statistics I
- STA 6327: Introduction to Theoretical Statistics II
- STA 6329: Matrix Algebra and Statistical Computing
- STA 6505: Analysis of Categorical Data
- STA 6707: Analysis of Multivariate Data
- STA 6866: Monte Carlo Statistical Methods
- STA 6905: Individual Work
- STA 6910: Supervised Research
- STA 6934: Special Topics in Statistics
- STA 6938: Seminar
- STA 6940: Supervised Teaching
- STA 6942: Internship
- STA 6971: Research for Master's Thesis
- STA 7179: Survival Analysis
- STA 7249: Generalized Linear Models
- STA 7334: Limit Theory

- STA 7346: Statistical Inference
- STA 7348: Bayesian Theory
- STA 7466: Probability Theory I
- STA 7467: Probability Theory II
- STA 7828: Topics in Stochastic Processes
- STA 7934: Special Topics in Statistics
- STA 7979: Advanced Research
- STA 7980: Research for Doctoral Dissertation

Center for Gender, Sexualities, and Women's Studies Research

Director: Bonnie Moradi
Graduate Coordinator: Kendal Broad

The Center for Gender, Sexualities, and Women's Studies Research offers the MA degree in Women's Studies, with thesis and non-thesis MA options, as well as two Graduate Certificate options. These options give students the opportunity to take advantage of scholarship in this dynamic field, and to become acquainted with different research perspectives and methodologies. Students pursuing interdisciplinary graduate work in the Center learn about feminist, intersectional, and other theoretical approaches and methodologies for examining the roles of gender, race/ethnicity, sexualities, and other sociocultural systems, and they learn about how to TRANSFORM these systems.

The Center offers a regular colloquium series, frequently sponsors speakers, and distributes a newsletter each fall and spring. The Center in Ustler Hall houses archives, a small library, offices, and meeting space.

For more information about our program, please see the program page below or our website: http://wst.ufl.edu/.

Women's Studies

College of Liberal Arts and Sciences
Center for Gender, Sexualities, and Women's Studies Research

Women's Studies Program Information

The Women's Studies program is administered by the Center for Gender, Sexualities, and Women's Studies Research. This interdisciplinary forum for graduate studies offers both a Thesis and a Non-Thesis M.A., as well as two certificates. The Center also offers a regular colloquium series, frequently sponsors speakers, and distributes a newsletter each fall and spring.

Master of Arts (thesis and non-thesis): The Center offers the Master of Arts (M.A.) thesis degree option, which requires the completion and defense of a thesis (30 credit hours), and the Master of Arts non-thesis degree option, which requires completion and defense of a project or paper (30 credit hours). All Master's students take a core curriculum of 9 graduate credits (3 courses). For the thesis M.A., the remaining 21 hours consist of 15 credits of approved electives and 6 thesis credits. For the non-thesis M.A., 21 credits of approved electives are required.

Required courses for all MA students (9 credits):

- WST 5933: Proseminar in Women's Studies
- WST 6508: Advanced Feminist Theory
- WST 6935: Special Topics in Women's Studies

Thesis

15 approved credits at 5000-level or higher
6 credits of WST 6971: Research for Master's Thesis
(3 of which must be taken in the final graduating term)
Total for MA thesis: 30 credits

Non-thesis

21 approved credits at 5000-level of higher;
at least 6 of these credits must be classes in WST.
Total for MA non-thesis: 30 credits

BA/ MA Program: UF offers a number of Bachelor's/Master's programs for superior students. The university created combined degree programs to provide academically talented students an opportunity to complete both a bachelor's and a master's degree in a shorter period of time. The program allows you to double-count graduate courses toward both degrees, thus reducing the time it would normally take to graduate by a semester or more. The combined-degree program reduces the cost of both degrees and enhances your marketability for career advancement.

M.A./J.D. Joint Degree: The faculties of the Levin College of Law and Women's Studies in the College of Liberal Arts and Sciences have approved a joint degree program culminating in both a J.D. degree, awarded by the College of Law, and an M.A. degree (thesis or non-thesis), awarded by the College of Liberal Arts and Sciences. Under this joint degree program, a student can obtain both degrees in approximately one year less than it would take to obtain both degrees if pursued consecutively. A student must satisfy the curriculum requirements for each degree before either degree is awarded. At least 12 credits must be taken in each program. The graduate program in Women's Studies will accept 12 credits of appropriate professional courses toward the M.A. degree. The 12 credits selected from the professional curriculum must be approved by the Graduate Coordinator upon the recommendation of the student's graduate supervisory committee. Reciprocally, the law school will accept 12 credits of appropriate Women's Studies courses toward the satisfaction of the J.D. degree. Admission to the second program is required no later than the end of the third consecutive semester after beginning one degree of the joint degree program. A summer term is counted as a single semester.

Concurrent Degrees: University of Florida provides a concurrent degree program allowing for simultaneous study on an individualized basis that leads to two master's degrees in two different graduate programs. Such a program is initiated by the student and requires prior approval of each academic unit and the Graduate School. If the student is approved to pursue two master's degrees, up to 9 credits of course work from one degree program may be applied toward the second master's degree, thereby allowing both degrees to be completed in less time. The forms required for approval of the concurrent program and petition for acceptance of nine credits of coursework in a second master's program may be found at http://graduateschool.ufl.edu/media/graduate-school/pdf-files/concurrent-degree-program-form.pdf.

PhD/MA Degrees: University of Florida provides a non-traditional degree option that allows those already in a PhD program at UF to apply to a MA program also. Up to nine credits from the doctoral degree program may be counted toward the master's degree program. The forms required for approval of such a degree arrangement are available here: http://graduateschool.ufl.edu/media/graduate-school/pdf-files/nontraditional-degree-form.pdf

Certificates (M.A. or Ph.D. level): Two graduate certificates in Women's Studies for master's and doctoral students are offered in conjunction with degree programs in other academic units. The Graduate Certificate in Women's Studies and the Graduate Certificate in Gender and Development require specific sets of course work, designed to give students a thorough grounding in the discipline. The Graduate Certificate in Women's Studies offers students a general overview of the field. The Graduate Certificate in Gender and Development allows students to focus on issues related to gender, economic development, and globalization.

Graduate courses in women's studies are also available from the following academic units or programs:

• Agricultural and Life Sciences
• Anthropology
• Counselor Education
• English
• History
• Journalism and Communication
• Languages, Literatures, and Cultures
• Latin American Studies
• Linguistics
• Medicine
• Philosophy
• Psychology
• Religion
• Sociology
• Teaching and Learning

For more information, please see our website: http://web.wst.ufl.edu.

Degrees Offered with a Major in Women's Studies

Master of Arts

Courses

- WST 5933: Proseminar in Women's Studies
- WST 6004: Feminist Methods in Research and Scholarship
- WST 6348: Ecofeminism
- WST 6508: Advanced Feminist Theory
- WST 6905: Independent Study
- WST 6935: Special Topics in Women's Studies
- WST 6936: Feminist Challenges to Disciplinary Paradigms
- WST 6946: Internship in Applied Women's Studies and Gender Research
- WST 6957: International Studies in Women's Studies and Gender Research
- WST 6971: Research for Master's Thesis

College of Medicine

Dean: M.L. Good

The College of Medicine offers training opportunities leading to either the Doctor of Philosophy or Master of Science degree in medical sciences. Minimum requirements for these degrees are given in the Graduate Degrees section of this catalog. For more information, please see our website: http://graduate.education.med.ufl.edu/.

The interdisciplinary program (IDP) in biomedical sciences is the major focus leading to the Doctor of Philosophy degree. Other graduate courses and programs are listed under departmental headings. For further information, visit http://biomed.med.ufl.edu/.

Medical Sciences

College of Medicine

Interdisciplinary Program in Biomedical Sciences

Dean: M. L. Good.
Associate Dean for Graduate Education: Thomas Rowe

The College of Medicine offers training opportunities leading to either the Doctor of Philosophy or Master of Science degree in medical sciences. Minimum requirements for these degrees are given in the General Information section of this catalog. The interdisciplinary program (IDP) in biomedical sciences is the major focus leading to the Doctor of Philosophy degree. Other graduate courses and programs are listed under departmental headings.

Interdisciplinary Program (IDP) in Biomedical Sciences

The goal of the IDP is to prepare students for a diversity of careers in research and teaching in academic and commercial settings, after completion of the Ph.D. in Medical Sciences. The program provides a modern, comprehensive graduate education in biomedical sciences while providing both maximum program flexibility and appropriate specialization for advanced training. The IDP represents a cooperative effort of six interdisciplinary advanced concentrations with participation of over 250 faculty members.

During the first semester of study, students undertake a common, comprehensive interdisciplinary core curriculum of classroom study and a responsible conduct of research course. During the second semester, students begin to focus their coursework in one or two concentrations. Throughout the first two semesters, students participate in at least three laboratory rotations in any of the laboratories of the IDP faculty members. The advanced concentration and the supervisory committee chair are chosen no later than the end of the spring semester to maximize flexibility and facilitate an informed decision. Students entering the advanced concentrations take more specialized courses that strengthen their knowledge of these disciplines. The advanced concentration curricula are flexible enough to allow students to integrate course work offered in other advanced concentrations. In addition, journal clubs and seminars associated with their research interests allow students to further augment their scientific development.

Prospective students should have strong backgrounds in biology including genetics, chemistry (organic, quantitative, and biochemistry), physics, and calculus. Demonstrated high motivation and a serious intention to pursue research-related careers are also important considerations. This is best accomplished by performing independent study in a research laboratory for at least a semester, with a year or more being preferred. For more information, write IDP, P.O. Box 100229, College of Medicine, Gainesville, FL 32610-0229. For expanded information about the IDP, visit http://biomed.med.ufl.edu/.

Advanced Concentration in Biochemistry and Molecular Biology

Directors: Robert McKenna and Kevin Brown

The Graduate Faculty of the biochemistry and molecular biology advanced concentration share an interest in the relationships between the structure of a biological macromolecule and the function of that molecule in the cell. The structure (encoded ultimately by the genome) sets the phenotype of the organism. The uniting theme among the Graduate Faculty is their approach to research: Each uses the techniques of biochemistry and molecular biology/genetics to characterize the function of a macromolecule and show how function (and the process it is part of) is determined by the structure of that molecule and its interactions with other macromolecules. Specific research directions range from physical determination of the molecular structure of proteins to regulation of cellular processes to the genetic mapping of disease loci.

For information about other programs and courses in this field, see the Department of Biochemistry and Molecular Biology listing.

Advanced Concentration in Biochemistry and Molecular Biology Courses

- BCH 6040: Research Discussion in Biochemistry and Molecular Biology
- BCH 6107: Biophysical Techniques in Proteomics and Protein Science
- BCH 6206: Advanced Metabolism
- BCH 6207: Advanced Metabolism: Role of Membranes in Signal Transduction and Metabolic Control
- BCH 6208: Advanced Metabolism: Regulation of Key Reactions in Carbohydrate and Lipid Metabolism
- BCH 6209: Advanced Metabolism: Regulation of Key Reactions in Amino Acid and Nucleotide Metabolism
- BCH 6415: Advanced Molecular and Cell Biology
- BCH 6740: Physical Biochemistry/Structural Biology
- BCH 6741C: Magnetic Resonance Imaging and Spectroscopy in Living Systems
- BCH 6744: Molecular Structure Determination by X-ray Crystallography
- BCH 6745: Molecular Structure and Dynamics of NMR Spectroscopy
- BCH 6746: Structural Biology: Macromolecular Structure Determination
- BCH 6747: Structural Biology/Advanced Physical Biochemistry: Spectroscopy and Hydrodynamics
- BCH 6749C: Numerical Methods in Structural Biology
- BCH 6876: Recent Advances in Membrane Biology
- BCH 6877: Recent Advances in Structural Biology
- BCH 6878: Recent Advances in Cytoskeletal Processes
- BCH 6936: Biochemistry Seminar
- BCH 7410: Advanced Gene Regulation
- BCH 7412: Epigenetics of Human Disease and Development
- BCH 7515: Structural Biology/Advanced Physical Biochemistry: Kinetics and Thermodynamics
- GMS 6195: Epigenetics Journal Club

Advanced Concentration in Cancer Biology

Directors: Dietmar Siemann and Maria Zajac-Kaye

The Cancer Biology Concentration (CBC) provides training opportunities in cancer research ranging from basic to translational. The program spans many disciplines, including molecular and cell biology, genetics and epigenetics, biochemistry, microbiology, pharmacology, anatomy, pathology, epidemiology, bioinformatics, immunology and many others involved in the understanding of the development, progression, dissemination, and treatment of cancer.

Students in the will have opportunities to work with outstanding cancer investigators in state of the art facilities. Through combinations of courses, seminars, small group discussions, and an interdisciplinary approach to research, the program allows students to gain a unique understanding of cancer and to build a firm foundation upon which they can build careers in academia, government, and biotech and pharmaceutical industry.

For more information please see our website: http://idp.med.ufl.edu/about/cancer-biology-concentration

Advanced Concentration in Cancer Biology Courses

- BCH 5413: Mammalian Molecular Biology and Genetics
- BCH 7410: Advanced Gene Regulation
- BCH 7412: Epigenetics of Human Disease and Development
- GMS 5905: Special Topics in Biomedical Sciences
- GMS 6009: Principles of Drug Action and Therapeutics
- GMS 6053: Cancer Biology and Therapeutics
- GMS 6061: Nuclear Structure and Dynamics
- GMS 6064: Tumor Biology
- GMS 6065: Fundamentals of Cancer Biology
- GMS 6090: Research in Medical Sciences
- GMS 6232: Advanced Applications of Bioinformatics in Genetics
- GMS 6335: Advanced Stem Cell Biology: Tissue Engineering
- GMS 6338: Recent Advances in Cancer Metastasis
- GMS 6421: Cell Biology
- GMS 6647: Transcriptional and Translational Control of Cell Growth and Proliferation
- GMS 6683: Fundamentals of Vascular Physiology and Pathology
- GMS 6691: Special Topics in Cell Biology and Anatomy
- GMS 6812: Cancer Health Outcomes Assessment
- GMS 6818: Design and Conduct Clinical Trials I
- PHC 6937: Special Topics in Public Health

Advanced Concentration in Clinical and Translational Science

Director: Wayne McCormack

The Clinical & Translational Science PhD program provides graduate students with knowledge and skills required to develop a career in multidisciplinary clinical and translational research. This program uses a team-science approach to provide didactic training and mentoring for predoctoral students performing clinical and/or translational research in health-related fields at UF. Completion of program requirements results in the award of an interdisciplinary concentration in Clinical & Translational Science. Doctoral students from all UF doctoral graduate programs who are interested in health-related research are eligible to apply.

For more information contact:

Susan Gardner
Program Coordinator
sgard@ufl.edu

Dr. Wayne McCormack
Program Director
mccormac@ufl.edu

https://www.ctsi.ufl.edu/education/ph-d-students/

Advanced Concentration in Genetics

Director: M. R. Wallace; Co-Director: Lei Zhou

The concentration in genetics offers graduate training in all facets of modern molecular genetics including bacterial, viral, lower eukaryotic, mouse, developmental, and human genetics. The courses listed are taught in a 5-week modular format, ranging from 1-3 modules.

Advanced Concentration in Genetics Courses

- BCH 7410: Advanced Gene Regulation
- GMS 6010: Yeast Genetics
- GMS 6012: Human Genetics
- GMS 6013: Developmental Genetics
- GMS 6014: Applications of Bioinformatics to Genetics
- GMS 6015: Human Genetics II
- GMS 6034: Advanced Virology I: Genetics and RNA
- GMS 6038: Bacterial Genetics and Physiology
- GMS 6151: Genetic Analysis Using Model Systems
- GMS 6153: Advanced Bacterial Genetics
- GMS 6155: DNA Microarray Data Analysis
- GMS 6195: Epigenetics Journal Club
- GMS 6231: Genomics and Bioinformatics
- GMS 6232: Advanced Applications of Bioinformatics in Genetics
- GMS 6290: Genetics/Genomics Program Graduate Seminar
- GMS 6506: Biologic Drug Development
- GMS 6920: Genetics Journal Colloquy
- GMS 7192: Journal Colloquy

Advanced Concentration in Health Outcomes and Policy

The University of Florida's Master of Science in Medical Sciences, with a concentration in Health Outcomes and Policy, is a specialized degree designed to put its graduates at the forefront of innovative research to develop, implement, and evaluate clinical and community-based programs that promote health and health outcomes. Throughout the curriculum, special emphasis is placed on health disparities and vulnerable populations. In addition to traditional graduate students, our program is available to medical students, post-doctoral researchers, fellows, residents, Ph.D. students, and junior faculty.

We also offer a 16-credit graduate certificate designed to complement other concurrent courses of study and to provide continuing education opportunities for faculty. The certificate can be completed in one year on a part-time basis.

Advanced Concentration in Health Outcomes and Policy Courses

- GMS 5905: Special Topics in Biomedical Sciences
- GMS 6802: Examining Health Outcomes for Chronic Diseases in Clinical and Community-based Research
- GMS 6803: Data Science for Clinical Research
- GMS 6804: Translational Bioinformatics
- GMS 6811: Grant Writing Skills for Clinical Research
- GMS 6812: Cancer Health Outcomes Assessment
- GMS 6816: Pediatric Child Health Outcomes Assessment for Clinical and Community-Based Research
- GMS 6821: Measuring and Analyzing Health Outcomes I
- GMS 6822: Measuring and Analyzing Health Outcomes II
- GMS 6826: Advanced Design and Methodology for Case-Control Studies in Clinical Research
- GMS 6829: Longitudinal Research Design
- GMS 6830: Health Outcomes Research and Policy Development
- GMS 6832: Economic Methods for Evaluating Value in Health
- GMS 6833: Health Outcomes and Policy for Vulnerable Populations
- GMS 6834: Health Policy and Formulation of Payment Mechanisms for Health Care
- GMS 6835: Health Policy Issues in Children's Health
- GMS 6842: Translational Research Methods
- GMS 6844: Experimental and Quasi-Experimental Research Designs for Community Settings
- GMS 6846: Meta-Analysis in Clinical, Health Services Research and Public Health
- GMS 6851: Fundamentals of Dissemination and Implementation Research
- GMS 6852: Community Engaged Research for Clinical Effectiveness and Implementation Science Studies
- GMS 6853: Applied Topics in Dissemination and Implementation Science
- GMS 6854: Applied Topics in Clinical Effectiveness Research
- GMS 6881: Special Studies in Epidemiology and Health Policy Research
- GMS 6882: Directed Readings in Epidemiology and Health Policy
- GMS 6883: Practicum Experience in Epidemiology and Health Policy
- GMS 6884: Research in Epidemiology and Health Policy
- GMS 6885: Translational Health Research Design
- GMS 6893: Clinical and Translational Science Seminar Series
- GMS 6896: Health Outcomes and Policy Seminar
- GMS 7866: Principles of Referent Tracking in Biomedical Informatics

Advanced Concentration in Immunology and Microbiology

Directors: C. E. Mathews and Scott Tibbetts

The concentration in immunology and microbiology offers graduate training in cellular and molecular immunology (including immunopathology, immunogenetics, and autoimmunity) and in microbiology (including virology, bacteriology, microbial genetics, and microbial pathogenesis). The courses listed are taught in a 5-week modular format, ranging from 1-3 modules.

Advanced Concentration in Immunology and Microbiology Courses

- VME 6505: Autoimmunity
- GMS 6034: Advanced Virology I: Genetics and RNA
- GMS 6035: Advanced Virology II: RNA Viruses
- GMS 6036: Molecular Virology III: DNA Viruses
- GMS 6038: Bacterial Genetics and Physiology
- GMS 6039: Bacterial Pathogenesis
- GMS 6040: Host-Pathogen Interactions
- GMS 6121: Infectious Diseases
- GMS 6140: Principles of Immunology
- GMS 6193: Research Conference in Oral Biology
- GMS 6196: Virology Journal Club
- GMS 6198: Bacterial Pathogenesis Journal Club
- GMS 6337: B Cell Development in Health and Disease
- GMS 6381: Special Topics in Pathology
- GMS 6382: Special Topics in Immunology
- GMS 6921: Immunology/Microbiology Journal Colloquy
- GMS 7192: Journal Colloquy
- VME 6934: Topics in Veterinary Medical Sciences

Advanced Concentration in Molecular Cell Biology

Director: Alexander Ishov
Co-Director: Eric Vitriol

The advanced concentration in molecular cell biology (MCB) prepares investigators for careers in biomedical research in academic or industrial settings. This multidisciplinary specialization has more than 50 participating faculty members and offers an extraordinary range of opportunities for advanced study of life at the molecular and cellular levels. The Graduate Faculty share common interests in the molecular interactions that account for functionally integrated subcellular, cellular, and tissue organization found in living organisms. The model systems in use range from yeast and cellular lime molds through Drosophila to birds and mammals. These systems are manipulated and analyzed using a wide range of powerful molecular, genetic, protein chemical, immunological, pharmacological, nuclear magnetic resonance (NMR), and microscopic imaging strategies. Students who select MCB take advanced course work and initiate independent research during the second year. This approach provides broad-based vision early in the program and the appropriate degree of specialization later on.

Advanced Concentration in Molecular Cell Biology Courses

- GMS 5905: Special Topics in Biomedical Sciences
- GMS 6013: Developmental Genetics
- GMS 6061: Nuclear Structure and Dynamics
- GMS 6062: Protein Trafficking
- GMS 6063: Mechanisms of Aging
- GMS 6064: Tumor Biology
- GMS 6065: Fundamentals of Cancer Biology
- GMS 6331: Stem Cell Biology
- GMS 6335: Advanced Stem Cell Biology: Tissue Engineering
- GMS 6336: Advanced Stem Cell Biology: Regenerative Medicine
- GMS 6381: Special Topics in Pathology
- GMS 6417: Integrative Aging Physiology
- GMS 6421: Cell Biology
- GMS 6622: Mitochondrial Biology in Aging and Disease
- GMS 6635: Organization of Cells and Tissues
- GMS 6647: Transcriptional and Translational Control of Cell Growth and Proliferation
- GMS 6690: Molecular Cell Biology Journal Club
- GMS 6691: Special Topics in Cell Biology and Anatomy
- GMS 6692: Research Conference in Anatomy and Cell Biology

Advanced Concentration in Neuroscience

Directors: Jada Lewis and Harry Nick

The Graduate Faculty associated with the neuroscience advanced concentration have expertise in neuroanatomy, molecular and cellular neurobiology, neurodevelopment and aging, neurotransmitter chemistry and pharmacology, neuroendocrinology and neuroimmunology, cellular and molecular neuro-oncology, cellular and membrane neurophysiology, somatosensory and motor systems, transplantation neurobiology, injury and repair of the CNS, and neurobehavioral sciences. Study in marine vertebrate and invertebrate neurobiology is available through Graduate Faculty at the Whitney Laboratory.

Advanced Concentration in Neuroscience Courses

- GMS 6021: Principles of Neuroscience I: Organization and Development of the Nervous System
- GMS 6022: Principles of Neuroscience II: Cellular and Molecular Neuroscience
- GMS 6023: Principles of Neuroscience III: Molecular Neuropharmacology and its Clinical Application
- GMS 6029: Brain Journal Club
- GMS 6052: Ion Channels of Excitable Membranes
- GMS 6072: Neuroendocrinology and Neuroimmunology
- GMS 6073: Developmental Neurobiology
- GMS 6074: Comparative and Evolutionary Neurobiology
- GMS 6078: Synaptic Function and Plasticity
- GMS 6079: Computers in Biology
- GMS 6080: Basic Magnetic Resonance Imaging
- GMS 6592: Ion Channels Journal Club: Pharmacology, Biophysics, and Neuroscience of Excitable Membranes
- GMS 6705: Functional Human Neuroanatomy
- GMS 6709: Current Topics in Vision

- GMS 6711: Neurobiology of Pain
- GMS 6750: Molecular Pathobiology of Neural Disease
- GMS 6760: Comparative Biology of Cell Signaling
- GMS 6791: Visual Neuroscience Journal Club
- GMS 6792: Neuroscience Graduate Research Seminar
- GMS 7794: Neuroscience Seminar
- GMS 7795: Special Topics in Neuroscience

Advanced Concentration in Oral Biology

Chair: R. A. Burne
Graduate Coordinator: J. Brady

The Department of Oral Biology, a unit of the College of Dentistry, offers graduate study leading to the degree of Doctor of Philosophy as part of the College of Medicine's Interdisciplinary Program (IDP) in Biomedical Sciences. The work is designed to provide the degree candidate with a strong background in basic biological principles relevant to the various subspecialties of oral biology, as well as specialized training in various aspects of the diseases and disorders of the oral cavity.

Areas of emphasis include application of microbiological, immunological, cellular, and molecular biological concepts and technologies to answer questions about host-pathogen interactions in oral disease; vaccine development; oral microbial physiology; oral bacterial biofilm biology; saliva and salivary gland biology; microbial antibiotic resistance; and autoimmune diseases. More information is available at http://dental.ufl.edu/departments/oral-biology/.

Prerequisites for admission in addition to those of the Graduate School include a broad base of courses in mathematics, physics, organic and analytic chemistry, advanced biology, biochemistry, molecular biology, and statistical methods. Specific requirements can be obtained from the Graduate Coordinator or the IDP office.

Oral Biology Departmental Courses

- GMS 6160: Introduction to Oral Biology I
- GMS 6161: Introduction to Oral Biology II
- GMS 6173: Stomatognathic System: Form and Function
- GMS 6176: Biology of Tooth Supporting Structures I
- GMS 6177: Biology of Tooth Supporting Structures II
- DEN 6680: Principles and Craniofacial Biology and Emerging Therapies
- DEN 6681: Craniofacial Pathobiology
- GMS 7179: Journal Colloquy

Advanced Concentration in Physiology and Pharmacology

Directors: Gonzalo Torres and Glenn Walter

The Graduate Faculty associated with this advanced concentration have expertise in a variety of disciplines, including molecular and cellular biology, pharmacology, physiology, neuroscience, and biochemistry. These faculty bring together unique strengths to provide the students with diverse training. Students may train in laboratories involved in cardiovascular, neuro, endocrine, and developmental physiology; pharmacology; and toxicology. Students conduct research at the molecular, cellular, and integrative levels. Many of the faculty are involved in multidisciplinary, collaborative research efforts that aim to understand basic physiological mechanisms and pathophysiological processes (e.g., cardiovascular, neurodegenerative, and neoplastic diseases).

Advanced Concentration in Physiology and Pharmacology Courses

- GMS 6051: Signal Transduction
- GMS 6052: Ion Channels of Excitable Membranes
- GMS 6053: Cancer Biology and Therapeutics
- GMS 6400C: Principles of Physiology
- GMS 6401: Medical Renal Physiology
- GMS 6402: Medical Respiration Physiology
- GMS 6405: Fundamentals of Endocrine Physiology
- GMS 6406: Fundamentals of Pulmonary/Respiratory Physiology
- GMS 6408: Fundamentals of Renal Physiology
- GMS 6410: Physiology of the Circulation of Blood
- GMS 6411: Fundamentals of Cardiovascular Physiology
- GMS 6415: Fundamentals of Gastrointestinal Physiology
- GMS 6419: Medical Endocrinology and Reproduction
- GMS 6440: Fundamentals of Medical Physiology
- GMS 6474: Medical Cardiovascular and Muscle Physiology
- GMS 6479: Medical Gastrointestinal Physiology
- GMS 6491: Journal Club in Physiology
- GMS 6563: Molecular Pharmacology
- GMS 6590: Seminar in Pharmacology
- GMS 6592: Ion Channels Journal Club: Pharmacology, Biophysics, and Neuroscience of Excitable Membranes
- GMS 7593: Topics in Pharmacology and Toxicology

Core Courses--IDP

- GMS 6001: Fundamentals of Biomedical Sciences I
- GMS 6003: Fundamentals of Graduate Research and Professional Development
- GMS 6004: IDP Practical Laboratory
- GMS 6007: Fundamentals of Neuroscience
- GMS 6008: Fundamentals of Physiology and Functional Genomics
- GMS 6009: Principles of Drug Action and Therapeutics
- GMS 6065: Fundamentals of Cancer Biology
- GMS 6090: Research in Medical Sciences
- GMS 7877: Responsible Conduct of Biomedical Research
- GMS 7593: Topics in Pharmacology and Toxicology

General and Advanced Courses

- GMS 5905: Special Topics in Biomedical Sciences
- GMS 6090: Research in Medical Sciences
- GMS 6622: Mitochondrial Biology in Aging and Disease
- GMS 6872: Science and Ethics of in Vitro Fertilization
- GMS 6905: Independent Studies in Medical Sciences
- GMS 6910: Supervised Research
- GMS 6875: Ethical and Policy Issues in Clinical Research
- GMS 6940: Supervised Teaching
- GMS 6971: Research for Master's Thesis
- GMS 7950: Fundamentals of Biomedical Science Education
- GMS 7944: Practicum in Biomedical Science Education
- GMS 7877: Responsible Conduct of Biomedical Research
- GMS 7979: Advanced Research
- GMS 7980: Research for Doctoral Dissertation

Other Interdisciplinary Doctoral Concentrations Offered

The interdisciplinary emphasis on vision sciences is also discussed in the Interdisciplinary Graduate Studies section. The program director is Dr. W. Clay Simith, P.O. Box 100284 College of Medicine, Gainesville, FL 32610 or (352) 392-0476.

Interdisciplinary study in toxicology is coordinated by the Center for Environmental and Human Toxicology and is concerned with the effects of chemicals on human and animal health. Additional information is given in the Interdisciplinary Graduate Studies section of this catalog or may be obtained from the codirector, Dr. Colin Sumners , P.O. Box 100215, College of Medicine, Gainesville, FL 32610 or (352) 392-0740.

Degrees Offered with a Major in Medical Sciences

Doctor of Philosophy

without a concentration
concentration in Biochemistry and Molecular Biology
optional second concentration in Clinical and Translational Science
optional second concentration in Health Outcomes and Policy
concentration in Biomedical Informatics
concentration in Cancer Biology
concentration in Clinical and Translational Science
optional second concentration in Health Outcomes and Policy
concentration in Genetics
optional second concentration in Clinical and Translational Science
optional second concentration in Health Outcomes and Policy
concentration in Health Outcomes and Policy
optional second concentration in Clinical and Translational Science
concentration in Imaging Science and Technology
concentration in Immunology and Microbiology
optional second concentration in Clinical and Translational Science
optional second concentration in Health Outcomes and Policy
concentration in Medical Physics
concentration in Molecular Cell Biology
optional second concentration in Clinical and Translational Science
optional second concentration in Health Outcomes and Policy

concentration in Neuroscience
optional second concentration in Clinical and Translational Science
optional second concentration in Health Outcomes and Policy

concentration in Pharmacology & Therapeutics
concentration in Physiology and Functional Genomics
concentration in Physiology and Pharmacology
optional second concentration in Clinical and Translational Science
optional second concentration in Health Outcomes and Policy

concentration in Toxicology

Master of Science

without a concentration
concentration in Aging and Geriatric Practice
concentration in Biomedical Informatics
concentration in Clinical and Translational Science
concentration in Forensic Medicine
concentration in Gerontology
concentration in Health Outcomes and Policy
concentration in Medical Physics
concentration in Pharmacology
concentration in Translational Biotechnology

College of Medicine Courses

- BME 6533: Radiologic Anatomy
- BME 6535: Radiological Physics, Measurements and Dosimetry
- BME 6590: Medical Physics
- BME 6591: Therapeutic Radiological Physics I
- ENU 5626: Radiation Biology
- ENU 5658: Imaging System Analysis with Medical Physics Applications
- ENU 6623: Radiation Dosimetry
- ENU 6636: Medical Radiation Shielding & Protection
- ENU 6652: Clinical Rotation in Diagnostic Radiology
- ENU 6657: Diagnostic Radiological Physics
- ENU 6659: Nuclear Medicine Instrumentation and Procedure
- GEY 5935: Topics in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- GEY 6220: Overview of Geriatric Care Management
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6905: Independent Study in Gerontology
- GMS 5057: Medical Cell Biology
- GMS 5224: Foundations in Precision Medicine: Medical Molecular Genetics
- GMS 5604: Medical Human Embryology
- GMS 5605: Medical Anatomy
- GMS 5606L: Medical Anatomy Lab
- GMS 5613: Medical Human Anatomy by Diagnostic Imaging
- GMS 5630: Medical Histology
- GMS 5905: Special Topics in Biomedical Sciences
- GMS 5909: Finding Biomedical Research Information and Communicating Science

- GMS 6001: Fundamentals of Biomedical Sciences I
- GMS 6003: Fundamentals of Graduate Research and Professional Development
- GMS 6004: IDP Practical Laboratory
- GMS 6007: Fundamentals of Neuroscience
- GMS 6008: Fundamentals of Physiology and Functional Genomics
- GMS 6009: Principles of Drug Action and Therapeutics
- GMS 6010: Yeast Genetics
- GMS 6012: Human Genetics
- GMS 6013: Developmental Genetics
- GMS 6014: Applications of Bioinformatics to Genetics
- GMS 6015: Human Genetics II
- GMS 6017C: In-Vitro Fertilization Laboratory Practicum A
- GMS 6018L: Advanced in-Vitro Fertilization Laboratory Practicum
- GMS 6021: Principles of Neuroscience I: Organization and Development of the Nervous System
- GMS 6022: Principles of Neuroscience II: Cellular and Molecular Neuroscience
- GMS 6023: Principles of Neuroscience III: Molecular Neuropharmacology and its Clinical Application
- GMS 6029: Brain Journal Club
- GMS 6034: Advanced Virology I: Genetics and RNA
- GMS 6035: Advanced Virology II: RNA Viruses
- GMS 6036: Molecular Virology III: DNA Viruses
- GMS 6038: Bacterial Genetics and Physiology
- GMS 6039: Bacterial Pathogenesis
- GMS 6040: Host-Pathogen Interactions
- GMS 6051: Signal Transduction
- GMS 6052: Ion Channels of Excitable Membranes
- GMS 6053: Cancer Biology and Therapeutics
- GMS 6061: Nuclear Structure and Dynamics
- GMS 6062: Protein Trafficking
- GMS 6063: Mechanisms of Aging
- GMS 6064: Tumor Biology
- GMS 6065: Fundamentals of Cancer Biology
- GMS 6070: Sensory and Motor Systems
- GMS 6072: Neuroendocrinology and Neuroimmunology
- GMS 6073: Developmental Neurobiology
- GMS 6074: Comparative and Evolutionary Neurobiology
- GMS 6077: Neural Degeneration and Regeneration
- GMS 6078: Synaptic Function and Plasticity
- GMS 6079: Computers in Biology
- GMS 6080: Basic Magnetic Resonance Imaging
- GMS 6081: Biological Imaging Techniques
- GMS 6082: Introduction to Functional Magnetic Resonance Imaging
- GMS 6090: Research in Medical Sciences
- GMS 6096: Introduction to NIH Grant Writing for Biomedical Sciences
- GMS 6099: Research Methods in Gerontology
- GMS 6108: Bacterial Physiology, Antibiotics, and Genetics
- GMS 6121: Infectious Diseases

- GMS 6132: Introductory Gene and Immunotherapy
- GMS 6140: Principles of Immunology
- GMS 6143: Cells of the Innate Immune System
- GMS 6151: Genetic Analysis Using Model Systems
- GMS 6153: Advanced Bacterial Genetics
- GMS 6155: DNA Microarray Data Analysis
- GMS 6160: Introduction to Oral Biology I
- GMS 6161: Introduction to Oral Biology II
- GMS 6169: Antimicrobial Strategies
- GMS 6173: Stomatognathic System: Form and Function
- GMS 6190: Seminar
- GMS 6191: HIV Journal Club
- GMS 6193: Research Conference in Oral Biology
- GMS 6195: Epigenetics Journal Club
- GMS 6196: Virology Journal Club
- GMS 6198: Bacterial Pathogenesis Journal Club
- GMS 6221: Ethics in Genetics
- GMS 6223: Drosophila Neurogenetics: from Development to Function
- GMS 6231: Genomics and Bioinformatics
- GMS 6232: Advanced Applications of Bioinformatics in Genetics
- GMS 6233: Quantitative Models of Protein Evolution and Phylogenetics
- GMS 6234: Introduction to phylodynamics: A practical approach to molecular phylogenetics of pathogens
- GMS 6251: Molecular Therapy I – Vectors and Molecular Mechanisms
- GMS 6252: Molecular Therapy II – Disease Targets and Applications
- GMS 6253: Molecular Therapy III – Immunology of Gene Transfer
- GMS 6290: Genetics/Genomics Program Graduate Seminar
- GMS 6312: Clinical Chemistry and Toxicology
- GMS 6313: Clinical Chemistry and Toxicology: A Rotation
- GMS 6331: Stem Cell Biology
- GMS 6335: Advanced Stem Cell Biology: Tissue Engineering
- GMS 6336: Advanced Stem Cell Biology: Regenerative Medicine
- GMS 6337: B Cell Development in Health and Disease
- GMS 6350: Forensic Investigation
- GMS 6351: Trauma Analysis
- GMS 6352: Artifacts of Decomposition
- GMS 6353: Gross Anatomical Exam and Forensic Pathology
- GMS 6354: Communication Skills in Forensic Science Context
- GMS 6355: Traffic Homicide Investigation and Reconstruction
- GMS 6356: Applied Osteology
- GMS 6358: Forensic Medicine III
- GMS 6381: Special Topics in Pathology
- GMS 6382: Special Topics in Immunology
- GMS 6383: Current Topics in Immunotherapy
- GMS 6394: Seminar in Mammalian Genetics
- GMS 6400C: Principles of Physiology
- GMS 6401: Medical Renal Physiology

- GMS 6402: Medical Respiration Physiology
- GMS 6403: Advanced Endocrinology
- GMS 6405: Fundamentals of Endocrine Physiology
- GMS 6406: Fundamentals of Pulmonary/Respiratory Physiology
- GMS 6408: Fundamentals of Renal Physiology
- GMS 6410: Physiology of the Circulation of Blood
- GMS 6411: Fundamentals of Cardiovascular Physiology
- GMS 6412: Human Physiology for Biomedical Engineering
- GMS 6413: Advances in Hypertension Research
- GMS 6414: Advanced Renal Physiology
- GMS 6415: Fundamentals of Gastrointestinal Physiology
- GMS 6416: Human Endocrinology and Anatomy of Reproduction
- GMS 6419: Medical Endocrinology and Reproduction
- GMS 6440: Fundamentals of Medical Physiology
- GMS 6471: Fundamentals of Physiology and Functional Genomics I
- GMS 6472: Fundamentals of Physiology and Functional Genomics II
- GMS 6473: Fundamentals of Physiology and Functional Genomics III
- GMS 6474: Medical Cardiovascular and Muscle Physiology
- GMS 6479: Medical Gastrointestinal Physiology
- GMS 6483: Theories of Aging
- GMS 6484: Geriatric and Age Related Diseases
- GMS 6485: Population Based Research on Aging
- GMS 6486: Biology of Aging
- GMS 6487: Anti-aging Interventions
- GMS 6490C: Research Methods in Physiology
- GMS 6491: Journal Club in Physiology
- GMS 6495: Seminar in Physiology
- GMS 6496: Recent Advances in Physiology
- GMS 6497: Seminar on Vision
- GMS 6500: Introduction to Pharmacology
- GMS 6506: Biologic Drug Development
- GMS 6560: Molecules to Man: Past, Present and Future Therapeutic Strategies for Disease
- GMS 6563: Molecular Pharmacology
- GMS 6590: Seminar in Pharmacology
- GMS 6592: Ion Channels Journal Club: Pharmacology, Biophysics, and Neuroscience of Excitable Membranes
- GMS 6607C: Musculoskeletal Systems
- GMS 6609: Advanced Gross Anatomy
- GMS 6621: Vision
- GMS 6622: Mitochondrial Biology in Aging and Disease
- GMS 6635: Organization of Cells and Tissues
- GMS 6683: Fundamentals of Vascular Physiology and Pathology
- GMS 6690: Molecular Cell Biology Journal Club
- GMS 6715: Healthy Aging: Behavioral and Clinical Outcomes
- GMS 6717: Healthy Aging: Biological Outcomes
- GMS 6719: Fundamentals of Computational Neuroscience
- GMS 6771: Clinical Neuroscience of Aging

- GMS 6774: Pain and Aging
- GMS 6780: Addiction: Neuroscience and Trends
- GMS 6786: Medical Writing in Addiction
- GMS 6787: Food Addiction, Overeating and Obesity
- GMS 6800: Fundamentals of Epidemiology
- GMS 6801: Epidemiology, Prevention, and Control of Infectious Diseases
- GMS 6805: Introduction to Applied Ontology
- GMS 6806: Security and Privacy for Clinical Research
- GMS 6810: Intermediate Epidemiology Methods
- GMS 6813: Applied Topics in Pragmatic Trials and Implementation Science
- GMS 6814: Molecular and Genetic Epidemiology
- GMS 6823: Methods for Evaluating Health Care Outcomes and Costs: Module 1
- GMS 6824: Methods for Evaluating Health Care Outcomes and Costs: Module 2
- GMS 6825: Methods for Evaluating Health Care Outcomes and Costs: Module 3
- GMS 6836: Foundations of Learning Health Systems Research
- GMS 6845: Clinical & Translational Research Practicum
- GMS 6847: Translational Research and Therapeutics: Bench, Bedside, Community, & Policy
- GMS 6848: Ensuring Rigor and Reproducibility in Clinical and Translational Research
- GMS 6850: Foundations of Biomedical Informatics
- GMS 6852: Community Engaged Research for Clinical Effectiveness and Implementation Science Studies
- GMS 6855: Medical Writing in Psychiatry
- GMS 6856: Introduction to Biomedical Natural Language Processing
- GMS 6865: Quantitative Literacy for Translational Research
- GMS 6873: Introduction to Medical Bioethics
- GMS 6876: Law & Ethics of Aging
- GMS 6895: CTS Journal Club
- GMS 6903: Manuscript and Abstract Writing for Clinician/Scientists
- GMS 6934: Cancer Biology Data Discussion
- GMS 6943: Master's Translational Biotechnology Internship
- GMS 6945: Team Science
- GMS 6951: Teaching Biomedical Science
- GMS 6952: Curricular Models for Biomedical Science
- GMS 6953: Art and Science of Mentoring
- GMS 6954: Assessing Effectiveness of Biomedical Science Teaching and Curricula
- GMS 6970: Individual Study
- GMS 7093: Introduction to Clinical and Translational Research
- GMS 7191: Research Conference
- GMS 7194: Biotechnology Seminar
- GMS 7886: Health Outcomes and Policy PhD Seminar: Applied Research
- GMS 7887: Health Outcomes & Policy PhD Research Seminar

Biochemistry and Molecular Biology Department

Chair: James B. Flanegan
Graduate Coordinator: Andrew Berglund

Biochemistry and Molecular Biology Department faculty mentor M.S. and Ph.D. students in the College of Medicine interdisciplinary program (IDP) in medical sciences. Students interested in pursuing a doctoral degree can view specific features of the biochemistry and molecular biology concentration at http://biochem.med.ufl.edu/ and http://idp.med.ufl.edu. For admission information, visit the IDP website. Department faculty also mentor Ph.D. students in other college programs and participate actively in the research and teaching functions of various centers such as the Center for Epigenetics and the Center for Structural Biology.

The Biochemistry and Molecular Biology Department also offers a combined BS/MS program that allows students to earn both a Bachelor's and Master's degree at an accelerated pace by counting 12 credit hours of approved courses towards both degrees. Students who are Interdisciplinary Science majors with a focus in Biochemistry or majoring in a related field and doing research with a faculty member in the Department of Biochemistry and Molecular Biology are eligible to apply. This program is considered to be a 4 + 1 program because students may finish both degrees within 5 years. To be considered with this program, students need to work with the department at the beginning of their junior year or earlier to identify courses that can count towards both degrees.

Biochemistry and Molecular Biology

College of Medicine
Biochemistry and Molecular Biology Department

Biochemistry and Molecular Biology Program

In addition to offering the Masters program in Biochemistry and Molecular Biology, the Biochemistry and Molecular Biology Department faculty mentor Ph.D. students in the College of Medicine interdisciplinary program (IDP) in medical sciences as well. Students interested in pursuing a doctoral degree can view specific features of the biochemistry and molecular biology concentration at http://biochem.med.ufl.edu/ and http://idp.med.ufl.edu. For admission information, visit the IDP website.

The Department offers a wide variety of courses for graduate students studying in the life sciences. The research expertise of the faculty spans the areas from cell biology, metabolism, and molecular biology to physical biochemistry/structural biology. Current research interests include viral protease inhibitors, viral RNA replication, bioenergetics and proton translocation, X-chromosome structure and function, cytoskeletal assembly and dynamics, enzyme mechanism and control, chromatin structure, gene expression and regulation, mitochondrial biogenesis and evolution, the genetics of inherited disease, nutrient membrane transporters, protein site-directed mutagenesis, ribosome structure and function, signal transduction, structural biology and dynamics of macromolecules, protein-nucleic acid interactions, transgenic animal models, and virus crystal structure.

Prospective graduate students should have adequate training in chemistry and biology. Minor deficiencies may be made up immediately after entering graduate school. Previous undergraduate experience in a research laboratory is highly recommended. Doctoral students are required to take a core IDP course in fall term of their first year; and beginning in spring term, students take advanced classes in areas of interest. Specific advanced-level courses may be recommended by the student's supervisory chair and committee. Courses are open to all graduate students and advanced undergraduates. Additional courses may be listed in the Advanced Concentration in Biochemistry and Molecular Biology section under the major of Medical Sciences.

Degrees Offered with a Major in Biochemistry and Molecular Biology

Master of Science

Courses

- BCH 5413: Mammalian Molecular Biology and Genetics
- BCH 6040: Research Discussion in Biochemistry and Molecular Biology
- BCH 6107: Biophysical Techniques in Proteomics and Protein Science
- BCH 6206: Advanced Metabolism
- BCH 6207: Advanced Metabolism: Role of Membranes in Signal Transduction and Metabolic Control
- BCH 6208: Advanced Metabolism: Regulation of Key Reactions in Carbohydrate and Lipid Metabolism
- BCH 6209: Advanced Metabolism: Regulation of Key Reactions in Amino Acid and Nucleotide Metabolism
- BCH 6415: Advanced Molecular and Cell Biology
- BCH 6740: Physical Biochemistry/Structural Biology
- BCH 6741C: Magnetic Resonance Imaging and Spectroscopy in Living Systems
- BCH 6744: Molecular Structure Determination by X-ray Crystallography
- BCH 6744L: Molecular Structure Determination by X-Ray Crystallography Laboratory
- BCH 6745: Molecular Structure and Dynamics of NMR Spectroscopy
- BCH 6745L: Molecular Structure and Dynamics by NMR Spectroscopy Laboratory
- BCH 6746: Structural Biology: Macromolecular Structure Determination
- BCH 6747: Structural Biology/Advanced Physical Biochemistry: Spectroscopy and Hydrodynamics
- BCH 6749C: Numerical Methods in Structural Biology
- BCH 6876: Recent Advances in Membrane Biology
- BCH 6875: Crystallography and Cryo-Electron Microscopy
- BCH 6877: Recent Advances in Structural Biology
- BCH 6878: Recent Advances in Cytoskeletal Processes
- BCH 6905: Independent Studies in Biochemistry and Molecular Biology
- BCH 6910: Supervised Research
- BCH 6936: Biochemistry Seminar
- BCH 6971: Research for Master's Thesis
- BCH 7410: Advanced Gene Regulation
- BCH 7412: Epigenetics of Human Disease and Development
- BCH 7414: Advanced Chromatin Structure
- BCH 7515: Structural Biology/Advanced Physical Biochemistry: Kinetics and Thermodynamics
- BCH 7979: Advanced Research

College of Medicine Courses

- BME 6533: Radiologic Anatomy
- BME 6535: Radiological Physics, Measurements and Dosimetry
- BME 6590: Medical Physics
- BME 6591: Therapeutic Radiological Physics I
- ENU 5626: Radiation Biology
- ENU 5658: Imaging System Analysis with Medical Physics Applications
- ENU 6623: Radiation Dosimetry
- ENU 6636: Medical Radiation Shielding & Protection
- ENU 6652: Clinical Rotation in Diagnostic Radiology
- ENU 6657: Diagnostic Radiological Physics

- ENU 6659: Nuclear Medicine Instrumentation and Procedure
- GEY 5935: Topics in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- GEY 6220: Overview of Geriatric Care Management
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6905: Independent Study in Gerontology
- GMS 5057: Medical Cell Biology
- GMS 5224: Foundations in Precision Medicine: Medical Molecular Genetics
- GMS 5604: Medical Human Embryology
- GMS 5605: Medical Anatomy
- GMS 5606L: Medical Anatomy Lab
- GMS 5613: Medical Human Anatomy by Diagnostic Imaging
- GMS 5630: Medical Histology
- GMS 5905: Special Topics in Biomedical Sciences
- GMS 5909: Finding Biomedical Research Information and Communicating Science
- GMS 6001: Fundamentals of Biomedical Sciences I
- GMS 6003: Fundamentals of Graduate Research and Professional Development
- GMS 6004: IDP Practical Laboratory
- GMS 6007: Fundamentals of Neuroscience
- GMS 6008: Fundamentals of Physiology and Functional Genomics
- GMS 6009: Principles of Drug Action and Therapeutics
- GMS 6010: Yeast Genetics
- GMS 6012: Human Genetics
- GMS 6013: Developmental Genetics
- GMS 6014: Applications of Bioinformatics to Genetics
- GMS 6015: Human Genetics II
- GMS 6017C: In-Vitro Fertilization Laboratory Practicum A
- GMS 6018L: Advanced in-Vitro Fertilization Laboratory Practicum
- GMS 6021: Principles of Neuroscience I: Organization and Development of the Nervous System
- GMS 6022: Principles of Neuroscience II: Cellular and Molecular Neuroscience
- GMS 6023: Principles of Neuroscience III: Molecular Neuropharmacology and its Clinical Application
- GMS 6029: Brain Journal Club
- GMS 6034: Advanced Virology I: Genetics and RNA
- GMS 6035: Advanced Virology II: RNA Viruses
- GMS 6036: Molecular Virology III: DNA Viruses
- GMS 6038: Bacterial Genetics and Physiology
- GMS 6039: Bacterial Pathogenesis
- GMS 6040: Host-Pathogen Interactions
- GMS 6051: Signal Transduction
- GMS 6052: Ion Channels of Excitable Membranes
- GMS 6053: Cancer Biology and Therapeutics
- GMS 6061: Nuclear Structure and Dynamics
- GMS 6062: Protein Trafficking
- GMS 6063: Mechanisms of Aging
- GMS 6064: Tumor Biology
- GMS 6065: Fundamentals of Cancer Biology

- GMS 6070: Sensory and Motor Systems
- GMS 6072: Neuroendocrinology and Neuroimmunology
- GMS 6073: Developmental Neurobiology
- GMS 6074: Comparative and Evolutionary Neurobiology
- GMS 6077: Neural Degeneration and Regeneration
- GMS 6078: Synaptic Function and Plasticity
- GMS 6079: Computers in Biology
- GMS 6080: Basic Magnetic Resonance Imaging
- GMS 6081: Biological Imaging Techniques
- GMS 6082: Introduction to Functional Magnetic Resonance Imaging
- GMS 6090: Research in Medical Sciences
- GMS 6096: Introduction to NIH Grant Writing for Biomedical Sciences
- GMS 6099: Research Methods in Gerontology
- GMS 6108: Bacterial Physiology, Antibiotics, and Genetics
- GMS 6121: Infectious Diseases
- GMS 6132: Introductory Gene and Immunotherapy
- GMS 6140: Principles of Immunology
- GMS 6143: Cells of the Innate Immune System
- GMS 6151: Genetic Analysis Using Model Systems
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- GMS 6160: Introduction to Oral Biology I
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- GMS 6173: Stomatognathic System: Form and Function
- GMS 6190: Seminar
- GMS 6191: HIV Journal Club
- GMS 6193: Research Conference in Oral Biology
- GMS 6195: Epigenetics Journal Club
- GMS 6196: Virology Journal Club
- GMS 6198: Bacterial Pathogenesis Journal Club
- GMS 6221: Ethics in Genetics
- GMS 6223: Drosophila Neurogenetics: from Development to Function
- GMS 6231: Genomics and Bioinformatics
- GMS 6232: Advanced Applications of Bioinformatics in Genetics
- GMS 6233: Quantitative Models of Protein Evolution and Phylogenetics
- GMS 6234: Introduction to phylodynamics: A practical approach to molecular phylogenetics of pathogens
- GMS 6251: Molecular Therapy I – Vectors and Molecular Mechanisms
- GMS 6252: Molecular Therapy II – Disease Targets and Applications
- GMS 6253: Molecular Therapy III – Immunology of Gene Transfer
- GMS 6290: Genetics/Genomics Program Graduate Seminar
- GMS 6312: Clinical Chemistry and Toxicology
- GMS 6313: Clinical Chemistry and Toxicology: A Rotation
- GMS 6331: Stem Cell Biology
- GMS 6335: Advanced Stem Cell Biology: Tissue Engineering
- GMS 6336: Advanced Stem Cell Biology: Regenerative Medicine

- GMS 6337: B Cell Development in Health and Disease
- GMS 6350: Forensic Investigation
- GMS 6351: Trauma Analysis
- GMS 6352: Artifacts of Decomposition
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- GMS 6354: Communication Skills in Forensic Science Context
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- GMS 6356: Applied Osteology
- GMS 6358: Forensic Medicine III
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- GMS 6382: Special Topics in Immunology
- GMS 6383: Current Topics in Immunotherapy
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- GMS 6563: Molecular Pharmacology
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- GMS 6847: Translational Research and Therapeutics: Bench, Bedside, Community, & Policy
- GMS 6848: Ensuring Rigor and Reproducibility in Clinical and Translational Research
- GMS 6850: Foundations of Biomedical Informatics
- GMS 6852: Community Engaged Research for Clinical Effectiveness and Implementation Science Studies
- GMS 6855: Medical Writing in Psychiatry
- GMS 6856: Introduction to Biomedical Natural Language Processing
- GMS 6865: Quantitative Literacy for Translational Research
- GMS 6873: Introduction to Medical Bioethics
- GMS 6876: Law & Ethics of Aging
- GMS 6895: CTS Journal Club
- GMS 6903: Manuscript and Abstract Writing for Clinician/Scientists
- GMS 6934: Cancer Biology Data Discussion
- GMS 6943: Master's Translational Biotechnology Internship
- GMS 6945: Team Science
- GMS 6951: Teaching Biomedical Science

- GMS 6952: Curricular Models for Biomedical Science
- GMS 6953: Art and Science of Mentoring
- GMS 6954: Assessing Effectiveness of Biomedical Science Teaching and Curricula
- GMS 6970: Individual Study
- GMS 7093: Introduction to Clinical and Translational Research
- GMS 7191: Research Conference
- GMS 7194: Biotechnology Seminar
- GMS 7886: Health Outcomes and Policy PhD Seminar: Applied Research
- GMS 7887: Health Outcomes & Policy PhD Research Seminar

Biostatistics Department

College of Public Health and Health Professions
College of Medicine

Chair: Peihua Qiu
Associate Chair for Education: Babette Brumback
Graduate Coordinator: Kristen Cason

The Department of Biostatistics offers the Doctor of Philosophy degree in biostatistics, the Master of Science degree in biostatistics, and the Master of Public Health degree with concentration biostatistics, which is described in detail in the Public Health section of the catalog. These programs in the Department are designed to prepare students for research and faculty positions; careers in health agencies and health-related institutions; and for consultation, especially in the biomedical fields. Although each graduate program has a set of required courses, there is ample flexibility in the programs to allow each student to develop strengths and interests through elective courses, seminars, and tutorials.

Doctor of Philosophy

The biostatistics doctoral program requires a minimum of 90 semester credits beyond the bachelor's degree. Students must have a directly related master's degree (i.e. Master of Science in statistics or biostatistics). All students must complete a minimum of 54 credits of biostatistics/statistics course work (30 credits will typically be transferred from a Master of Science program), 6 credits of public health course work, 3 credits of a consulting requirement, 6 credits of the cognate requirement, and 21 credits of dissertation work.

All graduates of the program are expected to be able to

- Conduct independent research in the development of new biostatistical methodology
- Engage in successful collaborations with investigators in new quantitative fields
- Write statistical methodology papers for peer-reviewed statistical and biostatistical journals
- Write collaborative papers for peer-reviewed subject matter journals
- Compete successfully for research and teaching positions in academic institutions, federal and state agencies, or private institutions

Specific course requirements are described at the program website http://biostat.ufl.edu/education/phd-in-biostatistics/curriculum-overview/.

Master of Science

The biostatistics masters degree (MS) requires a minimum of 36 semester credits beyond the bachelor's degree. The program is designed to facilitate students' development of a strong theoretical foundation in biostatistics, broad-based understanding of biostatistical methods, and expertise in a cognate field. A typical student will be enrolled full-time for two years. Upon successful completion of the program, graduates will be awarded an M.S. degree in biostatistics.

The principal goal of the M.S. program is to prepare highly qualified individuals for future Ph.D. training and for careers in biostatistics practice. This training is conducted in the innovative and interdisciplinary public health culture of the college of public health and health professions and the college of medicineWe expect our graduates to be highly competitive in three primary settings: academic university-based settings, industry, and federal agencies that involve research and/or public health practice.

Specific course requirements are described at the program website http://biostat.ufl.edu/education/ms-in-biostatistics/ms-curriculum-overview/.

Biostatistics (Medicine)

College of Public Health and Health Professions
College of Medicine

Department

Biostatistics Department

Biostatistics Program

Doctor of Philosophy

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All graduates of the program are expected to be able to

- Conduct independent research in the development of new biostatistical methodology
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Specific course requirements are described at the program website http://biostat.ufl.edu/education/ms-in-biostatistics/.

Degrees with a Major in Biostatistics

Doctor of Philosophy
Master of Science

Biostatistics Departmental Courses

- GMS 6818: Design and Conduct Clinical Trials I
- GMS 6819: Design and Conduct Clinical Trials II
- GMS 6827: Advanced Clinical Trial Methods
- GMS 6841: Design and Analysis of Translational Research in Biomedical Sciences
- GMS 6861: Applied Biostatistics I
- GMS 6862: Applied Biostatistics II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6020: Clinical Trial Methods
- PHC 6022: Design and Conduct of Clinical Trials
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6050C: Biostatistical Methods I
- PHC 6051: Biostatistical Methods II
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6055: Biostatistical Computing Using R
- PHC 6063: Biostatistical Consulting
- PHC 6068: Biostatistical Computing
- PHC 6080: SAS for Public Health - Data
- PHC 6081: SAS for Public Health - Analysis
- PHC 6092: Introduction to Biostatistical Theory
- PHC 6517: Public Health Concepts in Infectious Diseases
- PHC 6937: Special Topics in Public Health
- PHC 6946: Public Health Internship
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7013: Bias in Observational Research
- PHC 7056: Analysis of Longitudinal Data
- PHC 7066: Large Sample Theory

- PHC 7925: Biostatistics Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- STA 6177: Applied Survival Analysis
- STA 7179: Survival Analysis

College of Medicine Courses

- BME 6533: Radiologic Anatomy
- BME 6535: Radiological Physics, Measurements and Dosimetry
- BME 6590: Medical Physics
- BME 6591: Therapeutic Radiological Physics I
- ENU 5626: Radiation Biology
- ENU 5658: Imaging System Analysis with Medical Physics Applications
- ENU 6623: Radiation Dosimetry
- ENU 6636: Medical Radiation Shielding & Protection
- ENU 6652: Clinical Rotation in Diagnostic Radiology
- ENU 6657: Diagnostic Radiological Physics
- ENU 6659: Nuclear Medicine Instrumentation and Procedure
- GEY 5935: Topics in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- GEY 6220: Overview of Geriatric Care Management
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6905: Independent Study in Gerontology
- GMS 5057: Medical Cell Biology
- GMS 5224: Foundations in Precision Medicine: Medical Molecular Genetics
- GMS 5604: Medical Human Embryology
- GMS 5605: Medical Anatomy
- GMS 5606L: Medical Anatomy Lab
- GMS 5613: Medical Human Anatomy by Diagnostic Imaging
- GMS 5630: Medical Histology
- GMS 5905: Special Topics in Biomedical Sciences
- GMS 5909: Finding Biomedical Research Information and Communicating Science
- GMS 6001: Fundamentals of Biomedical Sciences I
- GMS 6003: Fundamentals of Graduate Research and Professional Development
- GMS 6004: IDP Practical Laboratory
- GMS 6007: Fundamentals of Neuroscience
- GMS 6008: Fundamentals of Physiology and Functional Genomics
- GMS 6009: Principles of Drug Action and Therapeutics
- GMS 6010: Yeast Genetics
- GMS 6012: Human Genetics
- GMS 6013: Developmental Genetics
- GMS 6014: Applications of Bioinformatics to Genetics
- GMS 6015: Human Genetics II
- GMS 6017C: In-Vitro Fertilization Laboratory Practicum A
- GMS 6018L: Advanced in-Vitro Fertilization Laboratory Practicum
- GMS 6021: Principles of Neuroscience I: Organization and Development of the Nervous System

- GMS 6022: Principles of Neuroscience II: Cellular and Molecular Neuroscience
- GMS 6023: Principles of Neuroscience III: Molecular Neuropharmacology and its Clinical Application
- GMS 6029: Brain Journal Club
- GMS 6034: Advanced Virology I: Genetics and RNA
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- GMS 6173: Stomatognathic System: Form and Function
- GMS 6190: Seminar
- GMS 6191: HIV Journal Club
- GMS 6193: Research Conference in Oral Biology
- GMS 6195: Epigenetics Journal Club

- GMS 6196: Virology Journal Club
- GMS 6198: Bacterial Pathogenesis Journal Club
- GMS 6221: Ethics in Genetics
- GMS 6223: Drosophila Neurogenetics: from Development to Function
- GMS 6231: Genomics and Bioinformatics
- GMS 6232: Advanced Applications of Bioinformatics in Genetics
- GMS 6233: Quantitative Models of Protein Evolution and Phylogenetics
- GMS 6234: Introduction to phylodynamics: A practical approach to molecular phylogenetics of pathogens
- GMS 6251: Molecular Therapy I – Vectors and Molecular Mechanisms
- GMS 6252: Molecular Therapy II – Disease Targets and Applications
- GMS 6253: Molecular Therapy III – Immunology of Gene Transfer
- GMS 6290: Genetics/Genomics Program Graduate Seminar
- GMS 6312: Clinical Chemistry and Toxicology
- GMS 6313: Clinical Chemistry and Toxicology: A Rotation
- GMS 6331: Stem Cell Biology
- GMS 6335: Advanced Stem Cell Biology: Tissue Engineering
- GMS 6336: Advanced Stem Cell Biology: Regenerative Medicine
- GMS 6337: B Cell Development in Health and Disease
- GMS 6350: Forensic Investigation
- GMS 6351: Trauma Analysis
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- GMS 6353: Gross Anatomical Exam and Forensic Pathology
- GMS 6354: Communication Skills in Forensic Science Context
- GMS 6355: Traffic Homicide Investigation and Reconstruction
- GMS 6356: Applied Osteology
- GMS 6358: Forensic Medicine III
- GMS 6381: Special Topics in Pathology
- GMS 6382: Special Topics in Immunology
- GMS 6383: Current Topics in Immunotherapy
- GMS 6394: Seminar in Mammalian Genetics
- GMS 6400C: Principles of Physiology
- GMS 6401: Medical Renal Physiology
- GMS 6402: Medical Respiration Physiology
- GMS 6403: Advanced Endocrinology
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- GMS 6440: Fundamentals of Medical Physiology

- GMS 6471: Fundamentals of Physiology and Functional Genomics I
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- GMS 6474: Medical Cardiovascular and Muscle Physiology
- GMS 6479: Medical Gastrointestinal Physiology
- GMS 6483: Theories of Aging
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- GMS 6485: Population Based Research on Aging
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- GMS 7191: Research Conference
- GMS 7194: Biotechnology Seminar
- GMS 7886: Health Outcomes and Policy PhD Seminar: Applied Research
- GMS 7887: Health Outcomes & Policy PhD Research Seminar

Epidemiology Department

College of Public Health and Health Professions
College of Medicine

Chair: Linda Cottler
Ph.D. Program Director: Cindy Prins
M.S. Program Director: Catherine Woodstock Striley

The Department of Epidemiology – jointly governed by both the College of Public Health and Health Professions and the College of Medicine – offers the Doctor of Philosophy degree in epidemiology, Masters of Science in epidemiology, as well as the Master of Public Health degree with a concentration in epidemiology (described here). Minimum requirements for these degrees are described in the Graduate Degrees section of this catalog. The programs in the Department are designed to prepare students for careers in academic research environments, careers in public health agencies and health-related institutions, and for consultation, especially in the biomedical fields.

More information on these programs is available at the program page below and at the department website: http://epidemiology.phhp.ufl.edu.

Epidemiology (Medicine)

College of Medicine
Epidemiology Department

Epidemiology Program Information

The **Ph.D. in Epidemiology program** is in the Department of Epidemiology, which is jointly governed by both the College of Public Health and Health Professions and the College of Medicine. The program requires a minimum of 90 semester credits beyond the bachelor's degree. All students must complete a minimum of 9 credits in Epidemiology foundation course work, at least 36 credits of epidemiology core courses, 6 credits of statistics electives, 18 credits of epidemiology electives, 15 credits of general electives, and 12 credits of dissertation research. All entering students who do not hold MPH or equivalent degrees are also required by the College of Public Health and Health Professions to complete an Introduction to Public Health course.

Students in the Ph.D. program in Epidemiology are admitted to work with a research mentor on that mentor's project, and that research mentor funds the student. Other funding sources are available such as the Graduate School and the Department.

The core course work is designed to incorporate competencies recommended in the report of the 2002 workshop on doctoral education in epidemiology from the American College of Epidemiology and the Association of Schools and Programs of Public Health, and criteria for applied epidemiology competencies. The overall outcomes expected of all graduates are as follows:

1. Apply epidemiological methods to address critical and/or emerging public health issues through the use of

- Appropriate epidemiological research designs
- Advanced statistical analysis methods for health studies
- Data structures and measurement methods for health research
- Biological, behavioral and social theory applied to the understanding and prevention of contemporary threats to health and well-being
- Depth of knowledge in an area of specialization

2. Assimilate the history, philosophy, and ethical principles of epidemiology into current research

3. Develop grant proposals and manage research projects

4. Write scientific papers for publication in peer-reviewed journals, and communicate research results to scientists, policy makers, and the public

5. Compete successfully for research and teaching positions in academic institutions, federal or state agencies, or private institutions.

Students in the Ph.D. program in Epidemiology may apply to graduate with a concentration in Gero-Epidemiology. With the continued "graying" of the worldwide population, the number of individuals at risk for developing age-related disorders continues to increase along with the social, emotional, and economic cost of caring for such individuals. Therefore, nearly every health care-related academic discipline will be faced with the task of integrating Gerontology as a critical area of study. The overarching goal of the Gero-Epidemiology concentration is to provide learners with advanced training in the field of Gero-Epidemiology. This training, provided through courses within the Department of

Epidemiology and the Department of Aging and Geriatric Research (DAGR), will help prepare researchers for the frontlines of interdisciplinary team science targeted towards improving the quality of life, health and society for our ever increasing aging population.

The Department of Epidemiology also participates in the Clinical and Translational Science Interdisciplinary Concentration offered by the Clinical and Translational Science Institute. For more information about this concentration, please visit https://www.ctsi.ufl.edu/education/ph-d-students/cts-interdisciplinary-concentration/.

Details of the Ph.D. in Epidemiology program and application information are available at our website: http://epidemiology.phhp.ufl.edu/about/ph-d-in-epidemiology-2.

Degrees Offered with a Major in Epidemiology

Doctor of Philosophy

without a concentration

concentration in Clinical and Translational Science

concentration in Gero-Epidemiology

Master of Science

Epidemiology (PHHP/COM) Departmental Courses

- PHC 6008: Cardiovascular Epidemiology
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6014: Epidemiology, Prevention, and Control of Chronic Diseases II
- PHC 6034: Epidemic Investigation
- PHC 6041: Landmarks in Psychiatric Epidemiology
- PHC 6070: Epidemiology of Aging
- PHC 6517: Public Health Concepts in Infectious Diseases
- PHC 6598: Foundations in Precision Medicine: Genetic Epidemiology
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6932: Psychiatric Epidemiology Online Seminar Series
- PHC 6937: Special Topics in Public Health
- PHC 6938: Oral and Craniofacial Epidemiology
- PHC 6939: CPE Psychiatric Grand Rounds
- PHC 6971: Research for Master's Thesis
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7007: Cancer Epidemiology
- PHC 7017: Advanced Epidemiologic Methods III
- PHC 7038: Psychiatric Epidemiology
- PHC 7065: Critical Skills in Epidemiological Data Management
- PHC 7083: Computational Epidemiology in Population Science
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7727: Grant Writing for Population Health Research
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7902: Scientific Writing for Peer Reviewed Publications for Popular Science
- PHC 7910: International Field Epidemiology
- PHC 7916: National Field Epidemiology
- PHC 7918: Independent Study
- PHC 7934: Seminar I: Epidemiology Past, Present, and Future

- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation

College of Medicine Courses

- BME 6533: Radiologic Anatomy
- BME 6535: Radiological Physics, Measurements and Dosimetry
- BME 6590: Medical Physics
- BME 6591: Therapeutic Radiological Physics I
- ENU 5626: Radiation Biology
- ENU 5658: Imaging System Analysis with Medical Physics Applications
- ENU 6623: Radiation Dosimetry
- ENU 6636: Medical Radiation Shielding & Protection
- ENU 6652: Clinical Rotation in Diagnostic Radiology
- ENU 6657: Diagnostic Radiological Physics
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Genetics and Genomics (College of Medicine)

- College of Agricultural and Life Sciences
- College of Liberal Arts and Sciences
- College of Medicine

Genetics and Genomics Program Information

Program Co-Directors: Doug Soltis and Maurice Swanson

The University of Florida Genetics Institute is a multi-college, multi-faceted research center which offers the a degree program leading to the Ph.D. in Genetics and Genomics. Minimum requirements for this degree are available in the Graduate Degrees section of this catalog.

What defines the Genetics & Genomics Graduate Program is the philosophy that good geneticists are integrative geneticists, who incorporate many different subfields of genetics into their work. Accordingly, faculty interests and graduate research opportunities include a wide range of areas: advances in gene therapy, understanding the maintenance of genetic variation, understanding plant immune responses, developing improved algorithms for identifying regulatory motifs in DNA sequences, and the challenges of bioethics to strategies for controlling malaria. Due to the fundamental nature of genetics in the life sciences, our training program is distributed across several colleges at UF, including but not limited to the College of Medicine, the College of Liberal Arts and Sciences, the College of Agricultural and the Life Sciences, and the Florida Museum of Natural History.

Graduate Program Overview

First Year:

- Advanced Genetics (PCB 5065)
- Genomics & Bioinformatics (GMS 6231)
- Big Data (GMS 5905)
- Advanced Molecular & Cellular Biology (BCH 6415)
- Ethics in Genetics (GMS 6221)
- Seminar in Genetics (GMS 6290) begins in the first semester and continues throughout students' graduate careers
- Laboratory Rotations (ANG 7979)

The first-year core training is the research rotation program, in which students "rotate" through three labs in a minimum of two colleges. Rotations are critical to selecting a graduate advisor: they provide a hands-on opportunity to participate in the research being conducted in a lab, and a mutual opportunity to evaluate fit between advisor and prospective student.

Second Year:

Individual program of courses and requirements is developed in consultation with major professor and dissertation committee

Admission Standards: Prospective students should have strong backgrounds in biology and other hard sciences. Exceptional students with other backgrounds will also be considered. The research statement required as part of the application has a particularly important part in the admissions decision. Each applicant must describe his/her research interests, so that Graduate Faculty can evaluate knowledge of the discipline, fit to the program, and ability to articulate and motivate an interesting research problem. The required Letters of Recommendation are also extremely important in helping identify applicants with exceptional aptitude for genetics, and with research experience and promise.

Contact the Genetics and Genomics Graduate Program by email, UFGI-Info@ad.ufl.edu or by phone, 352-273-8100. For more information, visit our website: http://www.ufgi.ufl.edu.

Degrees Offered with a Major in Genetics and Genomics

Doctor of Philosophy
Doctor of Philosophy - Clinical and Translational Science

Courses

- AGR 6322: Advanced Plant Breeding
- ANG 6532: Molecular Genetics of Disease
- ANG 7979: Advanced Research
- ANG 7980: Research for Doctoral Dissertation
- BCH 6415: Advanced Molecular and Cell Biology
- BCH 7410: Advanced Gene Regulation

- CAP 5510: Bioinformatics
- CAP 5515: Computational Molecular Biology
- CAP 5805: Computer Simulation Concepts
- CIS 6930: Special Topics in CIS
- COT 5405: Analysis of Algorithms
- FOR 6934: Topics in Forest Resources and Conservation
- FOR 7979: Advanced Research
- FOR 7980: Research for Doctoral Dissertation
- GMS 6012: Human Genetics
- GMS 6013: Developmental Genetics
- GMS 6014: Applications of Bioinformatics to Genetics
- GMS 6015: Human Genetics II
- GMS 6920: Genetics Journal Colloquy
- GMS 7979: Advanced Research
- GMS 7980: Research for Doctoral Dissertation
- HOS 6201: Breeding Perennial Cultivars
- PCB 5065: Advanced Genetics
- PCB 5235L: Experiments in Immunology
- PCB 5615: Molecular Evolution and Systematics
- PCB 6528: Plant Cell and Developmental Biology
- PCB 7979: Advanced Research
- PCB 7980: Research for Doctoral Dissertation
- STA 5325: Fundamentals of Probability
- STA 5328: Fundamentals of Statistical Theory
- STA 6166: Statistical Methods in Research I
- STA 6167: Statistical Methods in Research II
- STA 6208: Basic Design and Analysis of Experiments
- STA 6329: Matrix Algebra and Statistical Computing
- STA 6934: Special Topics in Statistics
- STA 7979: Advanced Research
- STA 7980: Research for Doctoral Dissertation
- ZOO 6927: Special Topics in Zoology
- ZOO 7979: Advanced Research
- ZOO 7980: Research for Doctoral Dissertation

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- BME 6591: Therapeutic Radiological Physics I
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Health Outcomes and Biomedical Informatics Department

College of Medicine

Chair: Betsy Shenkman
Graduate Coordinator/Director: Matthew Gurka
Students can pursue a Ph.D., a Master of Science degree, or a Graduate Certificate.

There is increasing emphasis on assessing health outcomes throughout the lifespan in a variety of healthcare and community settings. Nationally, the National Institute of Health and other federal and state agencies focus on the development of evidence-based programs to promote health, improve health care delivery, and enhance health outcomes.

Outcomes research generates evidence that informs health care program design in clinical and community settings, the promotion of effective clinical and community interventions, quality of care, cost-effective and clinically appropriate choices for patients in the allocation of healthcare resources (clinical effectiveness), and incorporation of best practice models into health-related programs and policies. Outcomes research also provides mechanisms to understand how to translate research into practice and policy, how to improve the quality and efficiency of health programs, and how to achieve equitable and appropriate delivery of health programs and clinical care, particularly for underserved and vulnerable populations.

Our graduate programs are designed to train professionals in the health care and health research fields about the science that supports the development and evaluation of evidence-based clinical and community-based programs focused on improving health outcomes. Further, our programs emphasize methods for translating research into practice and policy. The unique combination of courses offered through these graduate programs will give trainees the tools needed to examine health outcomes and policies in a variety of settings across different age spans and to examine the individual, social, health system, and health policy factors that influence health outcomes.

In addition to traditional graduate students, both programs are available to medical students, post-doctoral students, fellows, residents, Ph.D. students, and junior faculty.

For more information, please visit https://hobi.med.ufl.edu.

Molecular Genetics and Microbiology Department

Chair: H. V. Baker
Graduate Coordinator: A. S. Lewin

The Graduate Faculty of the Department of Molecular Genetics and Microbiology participate in the interdisciplinary program (IDP) in medical sciences, leading to the Doctor of Philosophy degree, with specialization in one of the six advanced concentration areas of the IDP (see *Medical Sciences*). Departmental areas of research associated with the IDP focus on topical problems in molecular genetics, viral genetics, and viral and bacterial pathogenesis. Faculty in the Department of Molecular Genetics and Microbiology also participate in the M.S. programs (see *Medical Sciences*). In addition to courses associated with the IDP, the Department of Molecular Genetics and Microbiology maintains the courses listed below.

Biotechnology: This Master of Science program is for students seeking careers in the biomedical industry as research or managerial associates; students seeking careers as teachers or educators at any level, but primarily high school or junior college; or students seeking an in-depth understanding of modern biology and scientific research as an end in itself or in preparation for further graduate study. The foundation of the M.S. program is a basic understanding of molecular and cell biology and the performance of a high-quality research project, culminating in a thesis, under the direction of a skilled mentor, with supervision by a committee composed of members of the Graduate Faculty. Specialization may be in any of the fields of research being pursued at the College of Medicine including but not limited to molecular genetics, gene therapy, bacterial or viral pathogenesis, protein structure, toxicology, mammalian genetics, wound healing, and congenital eye diseases.

For more information contact the Master's Program Coordinator, Molecular Genetics and Microbiology, P.O. Box 100266, College of Medicine, Gainesville, FL 32610, Telephone (352)392-3314 or visit http://mgm.ufl.edu/.

College of Nursing

Dean: A.M. McDaniel

The nationally ranked College of Nursing offers the graduate degree of Doctor of Philosophy in Nursing Sciences. Requirements for this degree are given in the Graduate Degrees section of this catalog. Students may request special review by the College of Nursing Admissions Committee if they believe they are strong candidates for graduate study but do not fully meet all criteria.

The College also offers the professional degree of Doctor of Nursing Practice. The degree is a practice-focused doctorate designed to prepare expert nurses in specialized advanced practice. The DNP is an advanced educational credential for those who desire advanced practice knowledge but do not need or want a research focus. The focus of DNP program is on innovative and evidence-based practice. The DNP prepares advanced practice nurses with the knowledge, skills and abilities needed in today's and tomorrow's complex health care environment, and to provide advanced practice nurses with educational backgrounds comparable to health care practitioners in other fields. As a professional degree, the rules and regulations as well as the courses for the DNP are not covered under this Catalog; please see the College of Nursing website for more information: http://academics.nursing.ufl.edu/doctor-of-nursing-practice/.

For additional information about the Nursing programs, please see the programs listed below and our website: http://www.nursing.ufl.edu or call (352) 273-6331.

Nursing Program Information (College of Nursing)

The College of Nursing is phasing out the Master of Science in Nursing degree and is not currently accepting applicants to the program.

For more information about other College of Nursing Graduate degrees, please see our website: http://admissions.nursing.ufl.edu/degrees/graduate.

Degrees

Master of Science in Nursing

without a concentration

College of Nursing Courses

- NGR 6002C: Advanced Health Assessment
- NGR 6052C: Adult Nursing: Diagnostics and Procedures
- NGR 6054C: Advanced Neonatal Health Assessment and Diagnostic Reasoning
- NGR 6101: Theory and Research for Nursing
- NGR 6104: State of the Science in Nursing
- NGR 6140: Physiology and Pathophysiology for Advanced Nursing Practice
- NGR 6230C: Acute Care Nurse Practitioner: Diagnostics and Procedures for the Critically Ill
- NGR 6241: Adult Nursing: Common Health Problems
- NGR 6243: Acute Care Nurse Practitioner: Critically Ill Adult
- NGR 6243L: Acute Care Nurse Practitioner: Critically Ill Adult Laboratory
- NGR 6244: Adult Nursing: Chronic Health Problems
- NGR 6247: Complex High Prevalence Illnesses Of Adults
- NGR 6247L: Complex High Prevalence Illnesses Of Adults
- NGR 6248: Adult Acute Care Nurse Practitioner 3

- NGR 6248L: Adult Acute Care Nurse Practitioner 3
- NGR 6255: Advanced Nursing Care of Older Adult
- NGR 6301: Advanced Child Health Nursing I
- NGR 6301L: Advanced Child Health Nursing I
- NGR 6302: Advanced Child Health Nursing II
- NGR 6302L: Advanced Child Health Nursing II
- NGR 6307: Advanced Child Health Nursing III
- NGR 6307L: Advanced Child Health Nursing III
- NGR 6350: Family Nurse Practitioner: Women, Adolescents, And Children
- NGR 6364: Seminar: The Nurse Midwife
- NGR 6371: Pharmacotherapeutics for Advanced Neonatal Nursing
- NGR 6372C: Advanced Pediatric Procedures and Diagnostics
- NGR 6538: Psychopharmacology for Psychiatric Nursing
- NGR 6612: Family Nurse Practitioner: Complex Family Health Care (Focus On Gerontology)
- NGR 6636: Wellness Promotion and Disease Prevention
- NGR 6740: Role Transition: Issues in Advanced Practice Nursing
- NGR 6807: Mixed Methods in Health Research
- NGR 6815: Foundations of Qualitative Health Research
- NGR 6840: Applied Statistical Analysis I
- NGR 6845: Applied Statistical Analysis II
- NGR 6850: Research Methods and Utilization for Nursing
- NGR 6905: Individual Study
- NGR 6930: Special Topics in Nursing
- NGR 6937: Research Synthesis
- NGR 6941: Practicum in Nursing
- NGR 6944: Individual Clinical Practice
- NGR 7003: Advanced Diagnostic Reasoning
- NGR 7115: Philosophy of Nursing Science
- NGR 7124: Theory Development in Nursing
- NGR 7661: Nursing Science in Health Disparities and Vulnerable Populations
- NGR 7700: Leadership and Role Development in Advanced Nursing Practice
- NGR 7709: Nurse Scientist and Scholar I
- NGR 7816: Quantitative Research Design and Measurement in Nursing
- NGR 7827: Outcomes Research and Evaluation
- NGR 7831: Quality Indicators in Nursing Systems
- NGR 7835: Nurse Scientist and Scholar II
- NGR 7871: Nursing Informatics and Data
- NGR 7882: Ethical Theories and Rational Decision Making in Health
- NGR 7891: Health Policy and Finance in Advanced Nursing Practice
- NGR 7979: Advanced Research
- NGR 7980: Research for Doctoral Dissertation

Nursing Sciences

College of Nursing

Nursing Sciences Program

Ph.D. Program Director: Jennifer Harrison Elder

The College of Nursing's Ph.D. program prepares scientists, scholars, advanced practitioners, and leaders in nursing. Comprehensive research and practice preparation is achieved by pairing students with faculty. Students have access to an array of faculty members for interdisciplinary study, clinical practice, and research. Individually directed dissertation research is a major aspect of the Ph.D. program. Research in the College includes aging and health, women's health, bio-behavioral interventions, and health policy.

Progression in the program depends on the student's ability to meet academic standards and clinical competencies as defined by College policy.

To be considered for admission to the Ph.D. program, students must meet the following minimum requirements:

- A BSN or master's degree in nursing from a CCNE/NLN AC accredited program.
- A master's program GPA of 3.5 on a 4.0 scale and a score of 500 or higher on each of the verbal and quantitative sections in the prior version of the Graduate Record Examination (GRE) General Test. In the current version of the GRE a minimum score of 153 in the verbal section and 144 in the quantitative section. OR
- A master's program GPA of 3.2 on a 4.0 scale and a score of 600 or higher on each of the verbal and quantitative sections in the prior version of the Graduate Record Examination General Test. In the current version of the GRE a score a minimum score of 160 in the verbal section and 148 in the quantitative section.
- <u>BSN/PhD Applicant Criteria:</u> A baccalaureate degree GPA of 3.5 on a 4.0 scale in the most recent 60 credits taken toward the bachelor's degree and a score of 600 or higher on each of the verbal and quantitative sections in the prior version of the GRE General Test. In the current version of the GRE a minimum score of 160 in the verbal section and 148 in the quantitative section.
- Completion of the GRE Analytic or the Analytical Writing Measure.
- International students or students whose native language is not English are required to pass one of the following tests with a satisfactory score of
    - Test of English as a Foreign Language (TOEFL):
        - Computer-based: 213
        - Paper-based: 550
        - Web-based: 80
        - iBT Speaking Component: 26
    - International English Language Testing System (IELTS):
        - Overall score: 6.5
        - Speaking Component: 7
    - Michigan English Language Assessment Battery (MELAB):

        - Overall score: 79

    - Successful completion of the University of Florida English Language Institute Program.

- International students or students whose native language is not English with unsatisfactory scores on the TOEFL, and TOEFL iBT Speaking Component, IELTS, or MELAB; unsuccessful completion of the UF English Language Institute Program; or an unacceptable score on the verbal part of the GRE must achieve an acceptable score on an essay administered by the Academic Written English Program at UF.

- Current licensure (or eligibility) as a Registered Nurse in the State of Florida.

- Availability of a primary mentor who is a College of Nursing faculty member with expertise consistent with the students' research focus area.

- Students must be either a U.S. citizen, legal U.S. resident or hold a valid visa.

Please see our website for more information: http://admissions.nursing.ufl.edu/degrees/phd.

Degrees

Doctor of Philosophy

without a concentration

concentration in Clinical and Translational Science

College of Nursing Courses

- NGR 6002C: Advanced Health Assessment
- NGR 6052C: Adult Nursing: Diagnostics and Procedures
- NGR 6054C: Advanced Neonatal Health Assessment and Diagnostic Reasoning
- NGR 6101: Theory and Research for Nursing
- NGR 6104: State of the Science in Nursing
- NGR 6140: Physiology and Pathophysiology for Advanced Nursing Practice
- NGR 6230C: Acute Care Nurse Practitioner: Diagnostics and Procedures for the Critically Ill
- NGR 6241: Adult Nursing: Common Health Problems
- NGR 6243: Acute Care Nurse Practitioner: Critically Ill Adult
- NGR 6243L: Acute Care Nurse Practitioner: Critically Ill Adult Laboratory
- NGR 6244: Adult Nursing: Chronic Health Problems
- NGR 6247: Complex High Prevalence Illnesses Of Adults
- NGR 6247L: Complex High Prevalence Illnesses Of Adults
- NGR 6248: Adult Acute Care Nurse Practitioner 3
- NGR 6248L: Adult Acute Care Nurse Practitioner 3
- NGR 6255: Advanced Nursing Care of Older Adult
- NGR 6301: Advanced Child Health Nursing I
- NGR 6301L: Advanced Child Health Nursing I
- NGR 6302: Advanced Child Health Nursing II
- NGR 6302L: Advanced Child Health Nursing II
- NGR 6307: Advanced Child Health Nursing III

- NGR 6307L: Advanced Child Health Nursing III
- NGR 6350: Family Nurse Practitioner: Women, Adolescents, And Children
- NGR 6364: Seminar: The Nurse Midwife
- NGR 6371: Pharmacotherapeutics for Advanced Neonatal Nursing
- NGR 6372C: Advanced Pediatric Procedures and Diagnostics
- NGR 6538: Psychopharmacology for Psychiatric Nursing
- NGR 6612: Family Nurse Practitioner: Complex Family Health Care (Focus On Gerontology)
- NGR 6636: Wellness Promotion and Disease Prevention
- NGR 6740: Role Transition: Issues in Advanced Practice Nursing
- NGR 6807: Mixed Methods in Health Research
- NGR 6815: Foundations of Qualitative Health Research
- NGR 6840: Applied Statistical Analysis I
- NGR 6845: Applied Statistical Analysis II
- NGR 6850: Research Methods and Utilization for Nursing
- NGR 6905: Individual Study
- NGR 6930: Special Topics in Nursing
- NGR 6937: Research Synthesis
- NGR 6941: Practicum in Nursing
- NGR 6944: Individual Clinical Practice
- NGR 7003: Advanced Diagnostic Reasoning
- NGR 7115: Philosophy of Nursing Science
- NGR 7124: Theory Development in Nursing
- NGR 7661: Nursing Science in Health Disparities and Vulnerable Populations
- NGR 7700: Leadership and Role Development in Advanced Nursing Practice
- NGR 7709: Nurse Scientist and Scholar I
- NGR 7816: Quantitative Research Design and Measurement in Nursing
- NGR 7827: Outcomes Research and Evaluation
- NGR 7831: Quality Indicators in Nursing Systems
- NGR 7835: Nurse Scientist and Scholar II
- NGR 7871: Nursing Informatics and Data
- NGR 7882: Ethical Theories and Rational Decision Making in Health
- NGR 7891: Health Policy and Finance in Advanced Nursing Practice
- NGR 7979: Advanced Research
- NGR 7980: Research for Doctoral Dissertation

College of Pharmacy

Dean: J. Johnson

The College of Pharmacy offers the Doctor of Philosophy and the Master of Science in Pharmacy degrees in the pharmaceutical sciences, with concentrations in medicinal chemistry, pharmacodynamics, pharmaceutical outcomes and policy, and pharmacy which includes pharmaceutics. There are additional concentrations in the Master of Science in Pharmacy program in pharmaceutical sciences offered in a distance-learning, nonthesis format: forensic science, forensic drug chemistry, forensic serology and DNA, clinical toxicology, pharmaceutical chemistry, medication therapy management and clinical pharmacy. Complete descriptions of the minimum requirements for the M.S.P. and Ph.D. degrees are provided in the Graduate Degrees section of this catalog.

The Graduate Faculty and courses offered are listed under department headings in this catalog. The courses listed below consist of seminar, supervised teaching and research, and research for thesis or doctoral dissertation. These courses are offered in each of the departments.

Students who wish to pursue graduate studies in the College of Pharmacy must have an undergraduate degree in pharmacy, chemistry, biology, or related sciences.

Satisfactory completion of a thesis or dissertation based on research is a requirement for a graduate degree in the pharmaceutical sciences.

Inquiries regarding applications and general information about the graduate programs are processed through the College of Pharmacy Graduate Programs Office at graduateadmissions@cop.ufl.edu .

For more information, please see the program pages listed below and our website: http://pharmacy.ufl.edu.

Medicinal Chemistry Department

College of Pharmacy

Chair: Hendrik Luesch
Graduate Coordinator: Chenglong Li

The mission of the department of Medicinal Chemistry is to conduct basic research in chemistry and biochemistry as it relates to drug discovery, to teach these principles in the professional and graduate programs, and to provide service to the scientific community.

The Department of Medicinal Chemistry is located in the College of Pharmacy, and is an integral part of the University of Florida's Health Science Center. Medicinal Chemistry is a unique blend of the physical and biological sciences. The scope of the field is sufficiently broad to give students with many different science backgrounds a rewarding and challenging program of study. Areas of active interest include drug discovery, organic synthesis of medicinal agents, natural products chemistry, prodrugs, topical drug delivery, peptide chemistry, molecular modeling, drug metabolism and molecular toxicology. The department has excellent facilities for research in the major areas of Medicinal Chemistry and faculty have been highly successful in attracting extramural research support for the past several years. The Department faculty members are involved in teaching, research and service.

Medicinal Chemistry areas of research in drug design, marine natural products and toxicology are a unique blend of the physical and biological sciences. The scope of the field is sufficiently broad to give students with many different science backgrounds a rewarding and challenging program of study. Areas of active interest include drug discovery, organic

synthesis of medicinal agents, natural products chemistry, prodrugs, topical drug delivery, peptide chemistry, molecular modeling, drug metabolism and molecular toxicology.

The Department participates in the interdisciplinary concentration in toxicology. For more information, see the *Interdisciplinary Graduate Studies* section of this catalog.

For more information, please visit our website: http://pharmacy.ufl.edu/mc.

Pharmaceutical Sciences (Medicinal Chemistry)

College of Pharmacy
Medicinal Chemistry Department

Medicinal Chemistry Program Information

The College of Pharmacy offers the Doctor of Philosophy degree in Pharmaceutical Sciences with a concentration in Medicinal Chemistry. Medicinal chemistry is a unique blend of the physical and biological sciences. The scope of the field is sufficiently broad to give students with many different science backgrounds a rewarding and challenging program of study. Areas of active research include organic synthesis of medicinal agents, metal chelate design, prodrugs and topical drug delivery, drug metabolism, molecular toxicology, molecular biology, combinatorial chemistry, neurochemistry, analytical chemistry, molecular modeling, natural products, and drug discovery.

The College also offers the Master of Science in Pharmacy degree in Pharmaceutical Sciences (nonthesis option) with concentrations in both forensic drug chemistry and forensic serology and DNA in a distance learning format. Minimum requirements for the M.S.P. and Ph.D. degrees are described in the Graduate Degrees section of this catalog.

The applicant should have an undergraduate degree in pharmacy, chemistry, biology, or premedical sciences. A background in calculus and physical and organic chemistry is required. In addition to graduate medicinal chemistry courses in the College of Pharmacy, graduate courses in chemistry and biochemistry are required for the program.

For more information, please see our websites: http://pharmacy.ufl.edu/education/graduate-programs and http://pharmacy.ufl.edu/mc

Degrees Offered with a Major in Pharmaceutical Sciences

Doctor of Philosophy

concentration in Medicinal Chemistry
optional second concentration in Clinical and Translational Science
concentration in Toxicology

Master of Science in Pharmacy

concentration in Pharmaceutical Chemistry
concentration in Medicinal Chemistry
concentration in Forensic Serology and DNA
concentration in Forensic Science
concentration in Forensic Drug Chemistry
concentration in Clinical Toxicology

Medicinal Chemistry Courses

- PHA 6115: Equilibria, Complexations, and Interactions of Drugs
- PHA 6354: Natural Medicinal Products
- PHA 6356: Structure Determination of Complex Natural Products
- PHA 6357: Herbal & Dietary Supplements
- PHA 6417: Pharmaceutical Analysis II
- PHA 6425: Drug Biotrans and Molecular Mechanisms of Toxicity
- PHA 6432: Fundamentals of Pharmaceutical Chemistry
- PHA 6435: Biosynthetic Logic of Medicinal Natural Products
- PHA 6444: Pharmaceutical Chemistry I
- PHA 6447: Drug Design
- PHA 6448: High Throughput Drug Discovery
- PHA 6471: Synthetic Medicinal Chemistry
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6534: Toxicology of Chemical Weapons
- PHA 6535: Principles of Nucleotide Activity
- PHA 6543: Pharmaceutical Chemistry II
- PHA 6556: Introduction to Clinical Toxicology
- PHA 6557: Clinical Toxicology 1
- PHA 6840: Medicinal Chemistry of Drugs of Abuse
- PHA 6850: Principles of Forensic Science
- PHA 6851: Forensic Analysis of DNA
- PHA 6853: Biological Evidence and Serology
- PHA 6854: Forensic Immunology
- PHA 6855: Forensic Genetics
- PHA 6856: Blood Spatter and Distribution
- PHA 6905C: Research Procedures in Medicinal Chemistry
- PHA 6934: Seminar in Medicinal Chemistry
- PHA 6852: Mammalian Molecular Biology
- VME 6602: General Toxicology
- VME 6605: Toxic Substances
- VME 6613: Forensic Toxicology I
- VME 6614: Forensic Toxicology II
- VME 6650: Principles of Mammalian Pharmacology
- VME 6766: Laboratory Quality Assurance/Quality Control

Pharmaceutical Outcomes and Policy Courses

- PHA 5270: Health Care and Patient Safety
- PHA 5271: Health Care Risk Management
- PHA 5272: Risk Management, Liability and Compliance
- PHA 6206: Introduction to Pharmaceutical Microeconomics
- PHA 6227: Institutional Pharmacy Leadership I

- PHA 6228: Institutional Pharmacy Leadership II
- PHA 6235: Advanced Pharmaceutical Law
- PHA 6236: Health Sciences Liability Law
- PHA 6250: Patient Responsibility in Health Care
- PHA 6254: Structure, Process and Outcomes of Regulation II
- PHA 6264: Pharmacoeconomics and Health Technology Assessment
- PHA 6265: Introduction to Pharmaceutical Outcomes and Policy I
- PHA 6266: Introduction to Pharmaceutical Outcomes and Policy II
- PHA 6268: Pharmacoepidemiology and Patient Safety
- PHA 6269: Pharmaceutical Products and Public Policy
- PHA 6273: Structure, Process and Outcomes of Regulation I
- PHA 6274: Federal Regulations of Drugs and Pharmacy
- PHA 6275: Federal Regulations of Controlled Substances
- PHA 6276: Pharmacy Benefit Design & Management
- PHA 6277: Ethics in Drug Development Production and Use
- PHA 6278: State Regulation of Drugs and Pharmacy
- PHA 6279: Pharmaceutical Outcomes and Policy Seminar
- PHA 6280: Medicare and Medicaid
- PHA 6281: Practices and Procedures of Administrative Agencies
- PHA 6282: Pharmaceutical Policy Process
- PHA 6283: Commercial Applications of Pharmacoeconomics
- PHA 6286: Pharmaceutical Microeconomics
- PHA 6287: Pharmaceutical Health Economics
- PHA 6288: Critical Review of Research Methods
- PHA 6289: Regulating Clinical Research
- PHA 6290: Pharmaceutical Fraud and Abuse
- PHA 6291: Pharmaceutical Health Care Systems
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6717: Measurement in Pharmacy Administration Research
- PHA 6793: Evidentiary Basis of Pharmaceutical Use
- PHA 6796: Study Design in Pharmaceutical Outcomes & Policy Research
- PHA 6798: The Use and Abuse of Statistics in Drug Regulation
- PHA 6799: Patient Safety Program Evaluation
- PHA 6805: Applied Data Interpretation and Reporting of Findings in Pharmacy
- PHA 6860: Prevention of Pharmaceutical Crimes
- PHA 6891: Introduction to Pharmacoepidemiology
- PHA 6892: Practices and Procedures of the IRB
- PHA 6893: Research Ethics
- PHA 6899: Advanced OB/GYN and Pediatric Pharmacoepidemiology
- PHA 6937: Topics in Pharmaceutical Administration

Pharmaceutics Departmental Courses

- PHA 6116: In Vivo and In Vitro Stability of Drugs
- PHA 6118: Molecular Diversity
- PHA 6125: Pharmacokinetics and Biopharmaceutics
- PHA 6133: Translational Clinical Pharmacology
- PHA 6170C: Pharmaceutical Product Formulation
- PHA 6183: Pharmaceutical Gene Delivery
- PHA 6185: Pharmaceutical Drug Development
- PHA 6416: Pharmaceutical Analysis I
- PHA 6418: Applied Translational Systems Pharmacology
- PHA 6427: Pharmacogenetics of Drug Metabolism
- PHA 6440: Seminar in Drug Discovery
- PHA 6449: Pharmacogenomics
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6630: Medication Therapy Management: A Hematologic Focus
- PHA 6631: Foundations of Medication Therapy Management I
- PHA 6632: Foundations of Medication Therapy Management II
- PHA 6633: Medication Therapy Management: A Cardiovascular Focus
- PHA 6634: Medication Therapy Management: An Endocrine Focus
- PHA 6635: Medication Therapy Management: A Renal Focus
- PHA 6636: Medication Therapy Management: A Gastrointestinal Focus
- PHA 6637: Medication Therapy Management: A Psychiatric Focus
- PHA 6638: Medication Therapy Management: A Neurologic Focus
- PHA 6639: Medication Therapy Management: A Respiratory Focus
- PHA 6894: Introduction to Graduate Studies
- PHA 6896: Preclinical Drug Evaluation

Pharmacodynamics Courses

- PHA 5531: Neurotoxicology
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6508: Systems Physiology and Pathophysiology I
- PHA 6509: Systems Physiology and Pathophysiology II
- PHA 6512L: Experiential Research Training in Pharmacodynamics
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 7939: Journal Colloquy in Pharmacodynamics

Pharmacology Courses

- GMS 6563: Molecular Pharmacology
- GMS 6590: Seminar in Pharmacology
- GMS 6592: Ion Channels Journal Club: Pharmacology, Biophysics, and Neuroscience of Excitable Membranes
- GMS 6847: Translational Research and Therapeutics: Bench, Bedside, Community, & Policy
- GMS 7593: Topics in Pharmacology and Toxicology

College of Pharmacy Courses

- PHA 5171: Pharmaceutical Biotechnology
- PHA 6131: Pharmacometrics and Systems Pharmacology
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 6806: Pharmacoeconomic Modeling
- PHA 6910: Supervised Research
- PHA 6935: Selected Topics in Pharmacy
- PHA 6936: Advanced Topics in Pharmaceutical Sciences
- PHA 6938: Research Seminar
- PHA 6940: Supervised Teaching
- PHA 6971: Research for Master's Thesis
- PHA 7979: Advanced Research
- PHA 7980: Research for Doctoral Dissertation

Pharmaceutics Department

College of Pharmacy

Chair: H. C. Derendorf
Graduate Coordinator: S. Song

The focus of the Department of Pharmaceutics, which houses the Center for Drug Discovery, differs sufficiently from that of other College of Pharmacy departments as to justify a specialization. The uniqueness of the department is evident in present research activities which encompass basic, applied and clinical investigations in the areas of Biopharmaceutics and Pharmacokinetics, Pharmaceutical Biotechnology, Pharmaceutical Analysis, Drug Delivery, and Drug Discovery.

In addition to teaching, faculty members in the Department of Pharmaceutics are involved in collaborative research projects with clinical and other basic scientists within the Health Center or on campus. Many maintain collaborative ties with scientists in other universities and the pharmaceutical industry worldwide.

Currently, the Department of Pharmaceutics offers a Ph.D. in Pharmaceutical Sciences with a concentration in Pharmacy. A foundation in physical chemistry, chemistry, mathematics, and in the life sciences is required for applicants to be successful in the program. Many graduates of the Ph.D. program have built international careers in drug discovery and in the pharmaceutical industry. *Please note that all students enter directly into the Ph.D. program as the department does not accept student applications for an M.S. degree*.

The Department of Pharmaceutics is located in the University of Florida J. Hillis Miller Health Science Center complex, which includes colleges of Dentistry, Medicine, Nursing, Pharmacy, Public Health and Health Professions, and Veterinary Medicine. The UF&Shands system also encompasses six research institutes: the Clinical and Translational Science Institute, the McKnight Brain Institute, the Genetics Institute, the UF&Shands Cancer Center, the Institute on Aging and the Emerging Pathogens Institute. The location of the College of Pharmacy in this complex offers a broad variety of opportunities for learning and research collaboration.

For more information, please visit our website: http://pharmacy.ufl.edu/pc.

Pharmaceutical Sciences (Pharmaceutics)

College of Pharmacy
Pharmaceutics Department

Pharmaceutical Sciences (Pharmaceutics) Program Information

The College of Pharmacy offers the Doctor of Philosophy degree in Pharmaceutical Sciences with / without a concentration in Pharmacy, and the Master of Science in Pharmacy (M.S.P) in Pharmaceutical Sciences with / without a concentration in Pharmacy. The minimum requirements for these degrees are listed in the Graduate Degrees section of this Catalog.

Pharmaceutics is the scientific endeavor concerned with the design, formulation, evaluation, and use of drug delivery systems. Its domain extends from studies of the physiochemical properties of drugs and related molecules to investigations of the mechanisms of physiological processes affecting drug delivery and therapeutic effectiveness.

The Department's general focus involves studying the design and evaluation of traditional and novel dosage forms for delivering drug molecules and macromolecules. The design involves physical chemical studies and development of analytical techniques involving spectroscopy and chromatography. Evaluation includes development of sensitive analytical techniques for the drug in biological fluids and subsequent biopharmaceutical and clinical pharmacokinetic studies.

Applicants are required to have a foundation in physical chemistry, chemistry, mathematics, and in the life sciences. *Please note that all students enter directly into the Ph.D. program as the department does not accept student applications for an M.S. degree*.

For more information, please see our websites: http://pharmacy.ufl.edu/pc/education/phd and http://pharmacy.ufl.edu/pc.

Degrees Offered with a Major in Pharmaceutical Sciences

Doctor of Philosophy

without a concentration
concentration in Clinical and Translational Science
concentration in Pharmacy
optional second concentration in Clinical and Translational Science

Master of Science in Pharmacy

without a concentration
concentration in Pharmacy

Pharmaceutics Departmental Courses

- PHA 6116: In Vivo and In Vitro Stability of Drugs
- PHA 6118: Molecular Diversity
- PHA 6125: Pharmacokinetics and Biopharmaceutics
- PHA 6133: Translational Clinical Pharmacology
- PHA 6170C: Pharmaceutical Product Formulation
- PHA 6183: Pharmaceutical Gene Delivery
- PHA 6185: Pharmaceutical Drug Development
- PHA 6416: Pharmaceutical Analysis I
- PHA 6418: Applied Translational Systems Pharmacology
- PHA 6427: Pharmacogenetics of Drug Metabolism
- PHA 6440: Seminar in Drug Discovery
- PHA 6449: Pharmacogenomics
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6630: Medication Therapy Management: A Hematologic Focus
- PHA 6631: Foundations of Medication Therapy Management I
- PHA 6632: Foundations of Medication Therapy Management II
- PHA 6633: Medication Therapy Management: A Cardiovascular Focus
- PHA 6634: Medication Therapy Management: An Endocrine Focus
- PHA 6635: Medication Therapy Management: A Renal Focus
- PHA 6636: Medication Therapy Management: A Gastrointestinal Focus
- PHA 6637: Medication Therapy Management: A Psychiatric Focus
- PHA 6638: Medication Therapy Management: A Neurologic Focus
- PHA 6639: Medication Therapy Management: A Respiratory Focus
- PHA 6894: Introduction to Graduate Studies
- PHA 6896: Preclinical Drug Evaluation

Medicinal Chemistry Courses

- PHA 6115: Equilibria, Complexations, and Interactions of Drugs
- PHA 6354: Natural Medicinal Products
- PHA 6356: Structure Determination of Complex Natural Products
- PHA 6357: Herbal & Dietary Supplements
- PHA 6417: Pharmaceutical Analysis II
- PHA 6425: Drug Biotrans and Molecular Mechanisms of Toxicity
- PHA 6432: Fundamentals of Pharmaceutical Chemistry
- PHA 6435: Biosynthetic Logic of Medicinal Natural Products
- PHA 6444: Pharmaceutical Chemistry I
- PHA 6447: Drug Design
- PHA 6448: High Throughput Drug Discovery
- PHA 6471: Synthetic Medicinal Chemistry
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6534: Toxicology of Chemical Weapons
- PHA 6535: Principles of Nucleotide Activity
- PHA 6543: Pharmaceutical Chemistry II

- PHA 6556: Introduction to Clinical Toxicology
- PHA 6557: Clinical Toxicology 1
- PHA 6840: Medicinal Chemistry of Drugs of Abuse
- PHA 6850: Principles of Forensic Science
- PHA 6851: Forensic Analysis of DNA
- PHA 6853: Biological Evidence and Serology
- PHA 6854: Forensic Immunology
- PHA 6855: Forensic Genetics
- PHA 6856: Blood Spatter and Distribution
- PHA 6905C: Research Procedures in Medicinal Chemistry
- PHA 6934: Seminar in Medicinal Chemistry
- PHA 6852: Mammalian Molecular Biology
- VME 6602: General Toxicology
- VME 6605: Toxic Substances
- VME 6613: Forensic Toxicology I
- VME 6614: Forensic Toxicology II
- VME 6650: Principles of Mammalian Pharmacology
- VME 6766: Laboratory Quality Assurance/Quality Control

Pharmaceutical Outcomes and Policy Courses

- PHA 5270: Health Care and Patient Safety
- PHA 5271: Health Care Risk Management
- PHA 5272: Risk Management, Liability and Compliance
- PHA 6206: Introduction to Pharmaceutical Microeconomics
- PHA 6227: Institutional Pharmacy Leadership I
- PHA 6228: Institutional Pharmacy Leadership II
- PHA 6235: Advanced Pharmaceutical Law
- PHA 6236: Health Sciences Liability Law
- PHA 6250: Patient Responsibility in Health Care
- PHA 6254: Structure, Process and Outcomes of Regulation II
- PHA 6264: Pharmacoeconomics and Health Technology Assessment
- PHA 6265: Introduction to Pharmaceutical Outcomes and Policy I
- PHA 6266: Introduction to Pharmaceutical Outcomes and Policy II
- PHA 6268: Pharmacoepidemiology and Patient Safety
- PHA 6269: Pharmaceutical Products and Public Policy
- PHA 6273: Structure, Process and Outcomes of Regulation I
- PHA 6274: Federal Regulations of Drugs and Pharmacy
- PHA 6275: Federal Regulations of Controlled Substances
- PHA 6276: Pharmacy Benefit Design & Management
- PHA 6277: Ethics in Drug Development Production and Use
- PHA 6278: State Regulation of Drugs and Pharmacy
- PHA 6279: Pharmaceutical Outcomes and Policy Seminar
- PHA 6280: Medicare and Medicaid
- PHA 6281: Practices and Procedures of Administrative Agencies
- PHA 6282: Pharmaceutical Policy Process
- PHA 6283: Commercial Applications of Pharmacoeconomics

- PHA 6286: Pharmaceutical Microeconomics
- PHA 6287: Pharmaceutical Health Economics
- PHA 6288: Critical Review of Research Methods
- PHA 6289: Regulating Clinical Research
- PHA 6290: Pharmaceutical Fraud and Abuse
- PHA 6291: Pharmaceutical Health Care Systems
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6717: Measurement in Pharmacy Administration Research
- PHA 6793: Evidentiary Basis of Pharmaceutical Use
- PHA 6796: Study Design in Pharmaceutical Outcomes & Policy Research
- PHA 6798: The Use and Abuse of Statistics in Drug Regulation
- PHA 6799: Patient Safety Program Evaluation
- PHA 6805: Applied Data Interpretation and Reporting of Findings in Pharmacy
- PHA 6860: Prevention of Pharmaceutical Crimes
- PHA 6891: Introduction to Pharmacoepidemiology
- PHA 6892: Practices and Procedures of the IRB
- PHA 6893: Research Ethics
- PHA 6899: Advanced OB/GYN and Pediatric Pharmacoepidemiology
- PHA 6937: Topics in Pharmaceutical Administration

Pharmacodynamics Courses

- PHA 5531: Neurotoxicology
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6508: Systems Physiology and Pathophysiology I
- PHA 6509: Systems Physiology and Pathophysiology II
- PHA 6512L: Experiential Research Training in Pharmacodynamics
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 7939: Journal Colloquy in Pharmacodynamics

Pharmacology Courses

- GMS 6563: Molecular Pharmacology
- GMS 6590: Seminar in Pharmacology
- GMS 6592: Ion Channels Journal Club: Pharmacology, Biophysics, and Neuroscience of Excitable Membranes
- GMS 6847: Translational Research and Therapeutics: Bench, Bedside, Community, & Policy
- GMS 7593: Topics in Pharmacology and Toxicology

College of Pharmacy Courses

- PHA 5171: Pharmaceutical Biotechnology
- PHA 6131: Pharmacometrics and Systems Pharmacology
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 6806: Pharmacoeconomic Modeling
- PHA 6910: Supervised Research
- PHA 6935: Selected Topics in Pharmacy
- PHA 6936: Advanced Topics in Pharmaceutical Sciences
- PHA 6938: Research Seminar

- PHA 6940: Supervised Teaching
- PHA 6971: Research for Master's Thesis
- PHA 7979: Advanced Research
- PHA 7980: Research for Doctoral Dissertation

Pharmacodynamics Department

Chair: M. Keller-Wood
Graduate Coordinator: C. Frazier

The Department of Pharmacodynamics offers a Doctor of Philosophy degree in Pharmaceutical Sciences with a concentration in Pharmacodynamics, and the Master of Science in Pharmacy (M.S.P) in Pharmaceutical Sciences with a concentration in Pharmacodynamics. The minimum requirements for these degrees are listed in the Graduate Degrees section of this Catalog. The department also participates in the Interdisciplinary Toxicology concentration. *Please note that all students enter directly into the Ph.D. program as the department does not accept student applications for an M.S. degree*.

Pharmacodynamics is an integrated field of study involving pharmacology, physiology, and toxicology in a holistic approach to drug action in living systems. The Department of Pharmacodynamics focuses on neuroendocrinology, cardiovascular pharmacology, and neuropharmacology with diverse research interests in aging, hypertension, reproduction, glaucoma, neurotoxicity, and environmental physiology. Students graduating with a Ph.D. in Pharmacodynamics can compete for jobs in the areas of academia, industry, research institutes, and government laboratories/regulatory agencies.

An undergraduate degree in pharmacy, chemistry, biology, or related sciences is required for students to be successful in the program. In addition to graduate courses in pharmacy, courses are taken in the College of Medicine and in statistics in the College of Liberal Arts and Sciences.

The Department of Pharmacodynamics is located in the University of Florida J. Hillis Miller Health Science Center complex, which includes colleges of Dentistry, Medicine, Nursing, Pharmacy, Public Health and Health Professions, and Veterinary Medicine. The UF&Shands system also encompasses six research institutes: the Clinical and Translational Science Institute, the McKnight Brain Institute, the Genetics Institute, the UF&Shands Cancer Center, the Institute on Aging and the Emerging Pathogens Institute. The location of the College of Pharmacy in this complex offers a broad variety of opportunities for learning and research collaboration.

For more information, please see the program page below and visit our website: http://pharmacy.ufl.edu/pd.

Pharmaceutical Sciences (Pharmacodynamics)

College of Pharmacy
Pharmacodynamics Department

Pharmaceutical Sciences (Pharmacodynamics) Program Information

The College of Pharmacy offers the Doctor of Philosophy in Pharmaceutical Sciences with a concentration in Pharmacodynamics, and the Master of Science in Pharmacy (M.S.P) in Pharmaceutical Sciences with a concentration in Pharmacodynamics. The minimum requirements for these degrees are listed in the Graduate Degrees section of this Catalog. The department also participates in the Interdisciplinary Toxicology concentration.

Pharmacodynamics is an integrated field of study involving pharmacology, physiology, and toxicology in a holistic approach to drug action in living systems. The department focuses on neuroendocrinology, cardiovascular pharmacology, and neuropharmacology with diverse research interests in aging, hypertension, reproduction, glaucoma, neurotoxicity, and environmental physiology.

The program is designed for students committed to pursuing a career in the basic and health related sciences. In addition to graduate courses in pharmacy, courses are taken in the College of Medicine and in statistics in the College of Liberal Arts and Sciences. *Please note that all students enter directly into the Ph.D. program, as the department does not accept students who wish to receive only the M.S. degree.* An undergraduate degree in pharmacy, chemistry, biology, or related sciences is required of applicants.

For more information, please visit our websites: http://pharmacy.ufl.edu/pd/education/phd/prospective-students-3 and http://pharmacy.ufl.edu/pd.

Degrees Offered with a Major in Pharmaceutical Sciences

Doctor of Philosophy

concentration in Pharmacodynamics

optional second concentration in Clinical and Translational Science

Master of Science in Pharmacy

concentration in Pharmacodynamics

Pharmacodynamics Courses

- PHA 5531: Neurotoxicology
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6508: Systems Physiology and Pathophysiology I
- PHA 6509: Systems Physiology and Pathophysiology II
- PHA 6512L: Experiential Research Training in Pharmacodynamics
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 7939: Journal Colloquy in Pharmacodynamics

Medicinal Chemistry Courses

- PHA 6115: Equilibria, Complexations, and Interactions of Drugs
- PHA 6354: Natural Medicinal Products
- PHA 6356: Structure Determination of Complex Natural Products
- PHA 6357: Herbal & Dietary Supplements
- PHA 6417: Pharmaceutical Analysis II
- PHA 6425: Drug Biotrans and Molecular Mechanisms of Toxicity
- PHA 6432: Fundamentals of Pharmaceutical Chemistry
- PHA 6435: Biosynthetic Logic of Medicinal Natural Products
- PHA 6444: Pharmaceutical Chemistry I
- PHA 6447: Drug Design
- PHA 6448: High Throughput Drug Discovery
- PHA 6471: Synthetic Medicinal Chemistry
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6534: Toxicology of Chemical Weapons

- PHA 6535: Principles of Nucleotide Activity
- PHA 6543: Pharmaceutical Chemistry II
- PHA 6556: Introduction to Clinical Toxicology
- PHA 6557: Clinical Toxicology 1
- PHA 6840: Medicinal Chemistry of Drugs of Abuse
- PHA 6850: Principles of Forensic Science
- PHA 6851: Forensic Analysis of DNA
- PHA 6853: Biological Evidence and Serology
- PHA 6854: Forensic Immunology
- PHA 6855: Forensic Genetics
- PHA 6856: Blood Spatter and Distribution
- PHA 6905C: Research Procedures in Medicinal Chemistry
- PHA 6934: Seminar in Medicinal Chemistry
- PHA 6852: Mammalian Molecular Biology
- VME 6602: General Toxicology
- VME 6605: Toxic Substances
- VME 6613: Forensic Toxicology I
- VME 6614: Forensic Toxicology II
- VME 6650: Principles of Mammalian Pharmacology
- VME 6766: Laboratory Quality Assurance/Quality Control

Pharmaceutical Outcomes and Policy Courses

- PHA 5270: Health Care and Patient Safety
- PHA 5271: Health Care Risk Management
- PHA 5272: Risk Management, Liability and Compliance
- PHA 6206: Introduction to Pharmaceutical Microeconomics
- PHA 6227: Institutional Pharmacy Leadership I
- PHA 6228: Institutional Pharmacy Leadership II
- PHA 6235: Advanced Pharmaceutical Law
- PHA 6236: Health Sciences Liability Law
- PHA 6250: Patient Responsibility in Health Care
- PHA 6254: Structure, Process and Outcomes of Regulation II
- PHA 6264: Pharmacoeconomics and Health Technology Assessment
- PHA 6265: Introduction to Pharmaceutical Outcomes and Policy I
- PHA 6266: Introduction to Pharmaceutical Outcomes and Policy II
- PHA 6268: Pharmacoepidemiology and Patient Safety
- PHA 6269: Pharmaceutical Products and Public Policy
- PHA 6273: Structure, Process and Outcomes of Regulation I
- PHA 6274: Federal Regulations of Drugs and Pharmacy
- PHA 6275: Federal Regulations of Controlled Substances
- PHA 6276: Pharmacy Benefit Design & Management
- PHA 6277: Ethics in Drug Development Production and Use
- PHA 6278: State Regulation of Drugs and Pharmacy
- PHA 6279: Pharmaceutical Outcomes and Policy Seminar
- PHA 6280: Medicare and Medicaid
- PHA 6281: Practices and Procedures of Administrative Agencies

- PHA 6282: Pharmaceutical Policy Process
- PHA 6283: Commercial Applications of Pharmacoeconomics
- PHA 6286: Pharmaceutical Microeconomics
- PHA 6287: Pharmaceutical Health Economics
- PHA 6288: Critical Review of Research Methods
- PHA 6289: Regulating Clinical Research
- PHA 6290: Pharmaceutical Fraud and Abuse
- PHA 6291: Pharmaceutical Health Care Systems
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- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6717: Measurement in Pharmacy Administration Research
- PHA 6793: Evidentiary Basis of Pharmaceutical Use
- PHA 6796: Study Design in Pharmaceutical Outcomes & Policy Research
- PHA 6798: The Use and Abuse of Statistics in Drug Regulation
- PHA 6799: Patient Safety Program Evaluation
- PHA 6805: Applied Data Interpretation and Reporting of Findings in Pharmacy
- PHA 6860: Prevention of Pharmaceutical Crimes
- PHA 6891: Introduction to Pharmacoepidemiology
- PHA 6892: Practices and Procedures of the IRB
- PHA 6893: Research Ethics
- PHA 6899: Advanced OB/GYN and Pediatric Pharmacoepidemiology
- PHA 6937: Topics in Pharmaceutical Administration

Pharmaceutics Departmental Courses

- PHA 6116: In Vivo and In Vitro Stability of Drugs
- PHA 6118: Molecular Diversity
- PHA 6125: Pharmacokinetics and Biopharmaceutics
- PHA 6133: Translational Clinical Pharmacology
- PHA 6170C: Pharmaceutical Product Formulation
- PHA 6183: Pharmaceutical Gene Delivery
- PHA 6185: Pharmaceutical Drug Development
- PHA 6416: Pharmaceutical Analysis I
- PHA 6418: Applied Translational Systems Pharmacology
- PHA 6427: Pharmacogenetics of Drug Metabolism
- PHA 6440: Seminar in Drug Discovery
- PHA 6449: Pharmacogenomics
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6630: Medication Therapy Management: A Hematologic Focus
- PHA 6631: Foundations of Medication Therapy Management I
- PHA 6632: Foundations of Medication Therapy Management II
- PHA 6633: Medication Therapy Management: A Cardiovascular Focus
- PHA 6634: Medication Therapy Management: An Endocrine Focus
- PHA 6635: Medication Therapy Management: A Renal Focus
- PHA 6636: Medication Therapy Management: A Gastrointestinal Focus
- PHA 6637: Medication Therapy Management: A Psychiatric Focus

- PHA 6638: Medication Therapy Management: A Neurologic Focus
- PHA 6639: Medication Therapy Management: A Respiratory Focus
- PHA 6894: Introduction to Graduate Studies
- PHA 6896: Preclinical Drug Evaluation

Pharmacology Courses

- GMS 6563: Molecular Pharmacology
- GMS 6590: Seminar in Pharmacology
- GMS 6592: Ion Channels Journal Club: Pharmacology, Biophysics, and Neuroscience of Excitable Membranes
- GMS 6847: Translational Research and Therapeutics: Bench, Bedside, Community, & Policy
- GMS 7593: Topics in Pharmacology and Toxicology

College of Pharmacy Courses

- PHA 5171: Pharmaceutical Biotechnology
- PHA 6131: Pharmacometrics and Systems Pharmacology
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 6806: Pharmacoeconomic Modeling
- PHA 6910: Supervised Research
- PHA 6935: Selected Topics in Pharmacy
- PHA 6936: Advanced Topics in Pharmaceutical Sciences
- PHA 6938: Research Seminar
- PHA 6940: Supervised Teaching
- PHA 6971: Research for Master's Thesis
- PHA 7979: Advanced Research
- PHA 7980: Research for Doctoral Dissertation

Pharmaceutical Outcomes and Policy Department

Chair: A. Winterstein
Interim Graduate Coordinator: R. Segal

Integral to the University of Florida's Health Science Center, the Department of Pharmaceutical Outcomes and Policy offers a unique blend of research and training in patient safety, pharmacoepidemiology, pharmacoeconomics, and social-behavioral issues surrounding medication use.

Pharmaceutical Outcomes and Policy offers a broad spectrum of opportunities for training, including a residential PhD and a residential MS program, for students in the health and related sciences. Students can choose between several specialty areas and have the opportunity to immerse themselves in research early in their training with ongoing faculty research programs.

The Ph.D. degree provides individuals with the credentials to develop and direct clinical research units in universities, pharmaceutical companies and contract research organizations, and government organizations. Successful graduates have a range of technical and disciplinary competencies in research design, measurement, inferential statistics, the communication and evaluation of research, research ethics, healthcare delivery and the medication use system, the drug product, and behavioral and policy issues surrounding medication use. Those successful graduates of the residential MS degree who have a desire to continue their studies can apply for the Ph.D. program, with MS course work and other scholastic requirements applicable.

The Department has excellent facilities for quantitative and qualitative research, and faculty have been highly successful in attracting extramural research support. Qualitative research infrastructure includes conference facilities with state-of-the art equipment for focus groups or patient interviews. Quantitative research facilities include computer labs for students, a department-owned secure research server that houses various population-based datasets, and a variety of software packages.

For more information, please see the program page below and visit our website: http://pop.pharmacy.ufl.edu.

Pharmaceutical Sciences (Pharmaceutical Outcomes and Policy)

College of Pharmacy

Pharmaceutical Outcomes and Policy Department

Pharmaceutical Sciences (Pharmaceutical Outcomes and Policy) Program Information

The College of Pharmacy offers the Master of Science in Pharmacy and Doctor of Philosophy degrees in Pharmaceutical Sciences with a concentration in Pharmaceutical Outcomes and Policy, and an additional concentration in Medication Therapy Management in the M.S.P. Minimum requirements for these degrees are provided in the *Graduate Degrees* section of this catalog.

Research in the department emphasizes the epidemiological, socio-behavioral, administrative, regulatory, and economic aspects of drug therapy and pharmaceutical services, including assessment of safety, effectiveness, efficiency and quality aspects of patient-oriented pharmaceutical services and medication use.

The department offers both a research-oriented residential M.S.P. and Ph.D. degree programs as well as an online M.S.P. program. For the research oriented degree programs, graduate studies include core curricula and four specializations in patient safety and program evaluation, pharmacoeconomics, pharmacoepidemiology and social-behavioral research in medication use. Electives and required courses draw from the resources of the entire University. Graduates are prepared for leadership positions in academia, public service, pharmaceutical industry, and health service industry with a focus on the evaluation of drugs and related services.

The online non-thesis M.S.P. program is designed for working professionals and focuses on pharmaceutical regulation and outcomes. Prior pharmacy experience/knowledge is not required, and the program is available to persons located in the United States only. Coursework is delivered in both asynchronous and live, synchronous sessions. Students may choose among six specialty tracks including Pharmacy Regulation & Policy, Applied Pharmacoeconomics, Drug Regulatory Affairs, Clinical Research Regulation in Pharmacy, Patient Safety & Medication Risk Management, and Institutional Pharmacy Leadership.

For more information, please visit our websites: http://pop.pharmacy.ufl.edu/education/prospective-students and http://pop.pharmacy.ufl.edu.

Degrees Offered with a Major in Pharmaceutical Sciences

Doctor of Philosophy

concentration in Pharmaceutical Outcomes and Policy

optional second concentration in Clinical and Translational Science

Master of Science in Pharmacy

concentration in Medication Therapy Management

concentration in Pharmaceutical Outcomes and Policy

Pharmaceutical Outcomes and Policy Courses

- PHA 5270: Health Care and Patient Safety
- PHA 5271: Health Care Risk Management
- PHA 5272: Risk Management, Liability and Compliance
- PHA 6206: Introduction to Pharmaceutical Microeconomics
- PHA 6227: Institutional Pharmacy Leadership I
- PHA 6228: Institutional Pharmacy Leadership II
- PHA 6235: Advanced Pharmaceutical Law
- PHA 6236: Health Sciences Liability Law
- PHA 6250: Patient Responsibility in Health Care
- PHA 6254: Structure, Process and Outcomes of Regulation II
- PHA 6264: Pharmacoeconomics and Health Technology Assessment
- PHA 6265: Introduction to Pharmaceutical Outcomes and Policy I
- PHA 6266: Introduction to Pharmaceutical Outcomes and Policy II
- PHA 6268: Pharmacoepidemiology and Patient Safety
- PHA 6269: Pharmaceutical Products and Public Policy
- PHA 6273: Structure, Process and Outcomes of Regulation I
- PHA 6274: Federal Regulations of Drugs and Pharmacy
- PHA 6275: Federal Regulations of Controlled Substances
- PHA 6276: Pharmacy Benefit Design & Management
- PHA 6277: Ethics in Drug Development Production and Use
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- PHA 6279: Pharmaceutical Outcomes and Policy Seminar
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- PHA 6281: Practices and Procedures of Administrative Agencies
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- PHA 6283: Commercial Applications of Pharmacoeconomics
- PHA 6286: Pharmaceutical Microeconomics
- PHA 6287: Pharmaceutical Health Economics

- PHA 6288: Critical Review of Research Methods
- PHA 6289: Regulating Clinical Research
- PHA 6290: Pharmaceutical Fraud and Abuse
- PHA 6291: Pharmaceutical Health Care Systems
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6717: Measurement in Pharmacy Administration Research
- PHA 6793: Evidentiary Basis of Pharmaceutical Use
- PHA 6796: Study Design in Pharmaceutical Outcomes & Policy Research
- PHA 6798: The Use and Abuse of Statistics in Drug Regulation
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- PHA 6892: Practices and Procedures of the IRB
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- PHA 6899: Advanced OB/GYN and Pediatric Pharmacoepidemiology
- PHA 6937: Topics in Pharmaceutical Administration

Medicinal Chemistry Courses

- PHA 6115: Equilibria, Complexations, and Interactions of Drugs
- PHA 6354: Natural Medicinal Products
- PHA 6356: Structure Determination of Complex Natural Products
- PHA 6357: Herbal & Dietary Supplements
- PHA 6417: Pharmaceutical Analysis II
- PHA 6425: Drug Biotrans and Molecular Mechanisms of Toxicity
- PHA 6432: Fundamentals of Pharmaceutical Chemistry
- PHA 6435: Biosynthetic Logic of Medicinal Natural Products
- PHA 6444: Pharmaceutical Chemistry I
- PHA 6447: Drug Design
- PHA 6448: High Throughput Drug Discovery
- PHA 6471: Synthetic Medicinal Chemistry
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6534: Toxicology of Chemical Weapons
- PHA 6535: Principles of Nucleotide Activity
- PHA 6543: Pharmaceutical Chemistry II
- PHA 6556: Introduction to Clinical Toxicology
- PHA 6557: Clinical Toxicology 1
- PHA 6840: Medicinal Chemistry of Drugs of Abuse
- PHA 6850: Principles of Forensic Science
- PHA 6851: Forensic Analysis of DNA
- PHA 6853: Biological Evidence and Serology
- PHA 6854: Forensic Immunology
- PHA 6855: Forensic Genetics
- PHA 6856: Blood Spatter and Distribution

- PHA 6905C: Research Procedures in Medicinal Chemistry
- PHA 6934: Seminar in Medicinal Chemistry
- PHA 6852: Mammalian Molecular Biology
- VME 6602: General Toxicology
- VME 6605: Toxic Substances
- VME 6613: Forensic Toxicology I
- VME 6614: Forensic Toxicology II
- VME 6650: Principles of Mammalian Pharmacology
- VME 6766: Laboratory Quality Assurance/Quality Control

Pharmaceutics Departmental Courses

- PHA 6116: In Vivo and In Vitro Stability of Drugs
- PHA 6118: Molecular Diversity
- PHA 6125: Pharmacokinetics and Biopharmaceutics
- PHA 6133: Translational Clinical Pharmacology
- PHA 6170C: Pharmaceutical Product Formulation
- PHA 6183: Pharmaceutical Gene Delivery
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- PHA 6638: Medication Therapy Management: A Neurologic Focus
- PHA 6639: Medication Therapy Management: A Respiratory Focus
- PHA 6894: Introduction to Graduate Studies
- PHA 6896: Preclinical Drug Evaluation

Pharmacodynamics Courses

- PHA 5531: Neurotoxicology
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6508: Systems Physiology and Pathophysiology I
- PHA 6509: Systems Physiology and Pathophysiology II
- PHA 6512L: Experiential Research Training in Pharmacodynamics
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 7939: Journal Colloquy in Pharmacodynamics

Pharmacology Courses

- GMS 6563: Molecular Pharmacology
- GMS 6590: Seminar in Pharmacology
- GMS 6592: Ion Channels Journal Club: Pharmacology, Biophysics, and Neuroscience of Excitable Membranes
- GMS 6847: Translational Research and Therapeutics: Bench, Bedside, Community, & Policy
- GMS 7593: Topics in Pharmacology and Toxicology

College of Pharmacy Courses

- PHA 5171: Pharmaceutical Biotechnology
- PHA 6131: Pharmacometrics and Systems Pharmacology
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 6806: Pharmacoeconomic Modeling
- PHA 6910: Supervised Research
- PHA 6935: Selected Topics in Pharmacy
- PHA 6936: Advanced Topics in Pharmaceutical Sciences
- PHA 6938: Research Seminar
- PHA 6940: Supervised Teaching
- PHA 6971: Research for Master's Thesis
- PHA 7979: Advanced Research
- PHA 7980: Research for Doctoral Dissertation

Pharmacotherapy and Translational Research Department

College of Pharmacy

Chair: R. Frye
Graduate Coordinator: J. Lamba

The Department of Pharmacotherapy and Translational Research provides classroom and clinical instruction for pharmacy students and trains graduate students in clinical translational research. The department is proud of its national reputation as a leader in the areas of pharmacy practice, education and clinical translational research. Faculty members in the department are successful in obtaining research funding from numerous sources, including the National Institutes of Health.

The Department of Pharmacotherapy and Translational Research offers a variety of excellent clinical residencies and research fellowships, and offers a PhD program in Clinical Pharmaceutical Science. The goal of the Clinical Pharmaceutical Sciences training program is to prepare motivated individuals to pursue independent research careers

in academia, industry, or government. The current research focus of the program is on understanding genetic and non-genetic factors that contribute to variability in drug response.

The Department of Pharmacotherapy and Translational Research is located in the University of Florida J. Hillis Miller Health Science Center complex, which includes colleges of Dentistry, Medicine, Nursing, Pharmacy, Public Health and Health Professions, and Veterinary Medicine. The UF&Shands system also encompasses six research institutes: the Clinical and Translational Science Institute, the McKnight Brain Institute, the Genetics Institute, the UF&Shands Cancer Center, the Institute on Aging and the Emerging Pathogens Institute. The location of the College of Pharmacy in this complex offers a broad variety of opportunities for learning and research collaboration.

For more information, please see the program page below and visit our website: http://ptr.pharmacy.ufl.edu.

Pharmaceutical Sciences (Pharmacotherapy and Translational Research)

College of Pharmacy
Pharmacotherapy and Translational Research Department

Pharmaceutical Sciences (Pharmacotherapy and Translational Research) Program Information

The College of Pharmacy offers the Doctor of Philosophy degree in Pharmaceutical Sciences with a concentration in Clinical Pharmaceutical Sciences and the Master of Science in Pharmacy (M.S.P.) in Pharmaceutical Sciences with a concentration in Clinical Pharmacy. The minimum requirements for these degrees are listed in the Graduate Degrees section of this Catalog.

The Clinical Pharmaceutical Sciences training program is a collaborative effort between the Departments of Pharmacotherapy and Translational Research and Pharmaceutics with the goal of preparing motivated individuals to pursue independent research careers in academia, industry, or government. The current research focus of the program is on understanding genetic and non-genetic factors that contribute to variability in drug response.

Students in the program conduct hypothesis-driven clinical research that includes a strong laboratory component. Excellent research facilities are available including state-of-the art bioanalytical and pharmacogenomics laboratories, and an NIH-funded Clinical Translational Science Institute (CTSI) and Clinical Research Center (UF CRC) for clinical study conduction. Upon completion of the core/elective curriculum and dissertation, the Doctor of Philosophy (Ph.D.) Degree is awarded.

Graduate students in the Clinical Pharmaceutical Sciences program are expected to actively participate in clinical practice experiences and are required to spend 200 hours (minimum) to 600 hours (recommended) in a clinical practice setting. These experiences strengthen clinical background and foster development of the student as a translational research scientist. Preference will be given to candidates who have earned a PharmD degree from an accredited school of pharmacy.

For more information, please see our websites: http://ptr.pharmacy.ufl.edu/education/clinical-pharmaceutical-sciences and http://ptr.pharmacy.ufl.edu.

Degrees Offered with a Major in Pharmaceutical Sciences

Doctor of Philosophy

concentration in Clinical Pharmaceutical Sciences

Master of Science in Pharmacy

concentration in Clinical Pharmacy

Medicinal Chemistry Courses

- PHA 6115: Equilibria, Complexations, and Interactions of Drugs
- PHA 6354: Natural Medicinal Products
- PHA 6356: Structure Determination of Complex Natural Products
- PHA 6357: Herbal & Dietary Supplements
- PHA 6417: Pharmaceutical Analysis II
- PHA 6425: Drug Biotrans and Molecular Mechanisms of Toxicity
- PHA 6432: Fundamentals of Pharmaceutical Chemistry
- PHA 6435: Biosynthetic Logic of Medicinal Natural Products
- PHA 6444: Pharmaceutical Chemistry I
- PHA 6447: Drug Design
- PHA 6448: High Throughput Drug Discovery
- PHA 6471: Synthetic Medicinal Chemistry
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- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6534: Toxicology of Chemical Weapons
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- PHA 6543: Pharmaceutical Chemistry II
- PHA 6556: Introduction to Clinical Toxicology
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- PHA 6850: Principles of Forensic Science
- PHA 6851: Forensic Analysis of DNA
- PHA 6853: Biological Evidence and Serology
- PHA 6854: Forensic Immunology
- PHA 6855: Forensic Genetics
- PHA 6856: Blood Spatter and Distribution
- PHA 6905C: Research Procedures in Medicinal Chemistry
- PHA 6934: Seminar in Medicinal Chemistry
- PHA 6852: Mammalian Molecular Biology
- VME 6602: General Toxicology
- VME 6605: Toxic Substances
- VME 6613: Forensic Toxicology I
- VME 6614: Forensic Toxicology II
- VME 6650: Principles of Mammalian Pharmacology
- VME 6766: Laboratory Quality Assurance/Quality Control

Pharmaceutical Outcomes and Policy Courses

- PHA 5270: Health Care and Patient Safety
- PHA 5271: Health Care Risk Management
- PHA 5272: Risk Management, Liability and Compliance
- PHA 6206: Introduction to Pharmaceutical Microeconomics
- PHA 6227: Institutional Pharmacy Leadership I
- PHA 6228: Institutional Pharmacy Leadership II
- PHA 6235: Advanced Pharmaceutical Law
- PHA 6236: Health Sciences Liability Law
- PHA 6250: Patient Responsibility in Health Care
- PHA 6254: Structure, Process and Outcomes of Regulation II
- PHA 6264: Pharmacoeconomics and Health Technology Assessment
- PHA 6265: Introduction to Pharmaceutical Outcomes and Policy I
- PHA 6266: Introduction to Pharmaceutical Outcomes and Policy II
- PHA 6268: Pharmacoepidemiology and Patient Safety
- PHA 6269: Pharmaceutical Products and Public Policy
- PHA 6273: Structure, Process and Outcomes of Regulation I
- PHA 6274: Federal Regulations of Drugs and Pharmacy
- PHA 6275: Federal Regulations of Controlled Substances
- PHA 6276: Pharmacy Benefit Design & Management
- PHA 6277: Ethics in Drug Development Production and Use
- PHA 6278: State Regulation of Drugs and Pharmacy
- PHA 6279: Pharmaceutical Outcomes and Policy Seminar
- PHA 6280: Medicare and Medicaid
- PHA 6281: Practices and Procedures of Administrative Agencies
- PHA 6282: Pharmaceutical Policy Process
- PHA 6283: Commercial Applications of Pharmacoeconomics
- PHA 6286: Pharmaceutical Microeconomics
- PHA 6287: Pharmaceutical Health Economics
- PHA 6288: Critical Review of Research Methods
- PHA 6289: Regulating Clinical Research
- PHA 6290: Pharmaceutical Fraud and Abuse
- PHA 6291: Pharmaceutical Health Care Systems
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6717: Measurement in Pharmacy Administration Research
- PHA 6793: Evidentiary Basis of Pharmaceutical Use
- PHA 6796: Study Design in Pharmaceutical Outcomes & Policy Research
- PHA 6798: The Use and Abuse of Statistics in Drug Regulation
- PHA 6799: Patient Safety Program Evaluation
- PHA 6805: Applied Data Interpretation and Reporting of Findings in Pharmacy
- PHA 6860: Prevention of Pharmaceutical Crimes
- PHA 6891: Introduction to Pharmacoepidemiology
- PHA 6892: Practices and Procedures of the IRB
- PHA 6893: Research Ethics
- PHA 6899: Advanced OB/GYN and Pediatric Pharmacoepidemiology

- PHA 6937: Topics in Pharmaceutical Administration

Pharmaceutics Departmental Courses

- PHA 6116: In Vivo and In Vitro Stability of Drugs
- PHA 6118: Molecular Diversity
- PHA 6125: Pharmacokinetics and Biopharmaceutics
- PHA 6133: Translational Clinical Pharmacology
- PHA 6170C: Pharmaceutical Product Formulation
- PHA 6183: Pharmaceutical Gene Delivery
- PHA 6185: Pharmaceutical Drug Development
- PHA 6416: Pharmaceutical Analysis I
- PHA 6418: Applied Translational Systems Pharmacology
- PHA 6427: Pharmacogenetics of Drug Metabolism
- PHA 6440: Seminar in Drug Discovery
- PHA 6449: Pharmacogenomics
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6630: Medication Therapy Management: A Hematologic Focus
- PHA 6631: Foundations of Medication Therapy Management I
- PHA 6632: Foundations of Medication Therapy Management II
- PHA 6633: Medication Therapy Management: A Cardiovascular Focus
- PHA 6634: Medication Therapy Management: An Endocrine Focus
- PHA 6635: Medication Therapy Management: A Renal Focus
- PHA 6636: Medication Therapy Management: A Gastrointestinal Focus
- PHA 6637: Medication Therapy Management: A Psychiatric Focus
- PHA 6638: Medication Therapy Management: A Neurologic Focus
- PHA 6639: Medication Therapy Management: A Respiratory Focus
- PHA 6894: Introduction to Graduate Studies
- PHA 6896: Preclinical Drug Evaluation

Pharmacodynamics Courses

- PHA 5531: Neurotoxicology
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6508: Systems Physiology and Pathophysiology I
- PHA 6509: Systems Physiology and Pathophysiology II
- PHA 6512L: Experiential Research Training in Pharmacodynamics
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 7939: Journal Colloquy in Pharmacodynamics

Pharmacology Courses

- GMS 6563: Molecular Pharmacology
- GMS 6590: Seminar in Pharmacology
- GMS 6592: Ion Channels Journal Club: Pharmacology, Biophysics, and Neuroscience of Excitable Membranes
- GMS 6847: Translational Research and Therapeutics: Bench, Bedside, Community, & Policy
- GMS 7593: Topics in Pharmacology and Toxicology

Pharmacotherapy and Translational Research Courses

- GMS 7877: Responsible Conduct of Biomedical Research
- PCB 5065: Advanced Genetics
- PHA 6134: Foundations in Precision Medicine: Genomic Technologies
- PHA 6235: Advanced Pharmaceutical Law
- PHA 6427: Pharmacogenetics of Drug Metabolism
- PHA 6449: Pharmacogenomics
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6630: Medication Therapy Management: A Hematologic Focus
- PHA 6631: Foundations of Medication Therapy Management I
- PHA 6632: Foundations of Medication Therapy Management II
- PHA 6633: Medication Therapy Management: A Cardiovascular Focus
- PHA 6634: Medication Therapy Management: An Endocrine Focus
- PHA 6635: Medication Therapy Management: A Renal Focus
- PHA 6636: Medication Therapy Management: A Gastrointestinal Focus
- PHA 6637: Medication Therapy Management: A Psychiatric Focus
- PHA 6638: Medication Therapy Management: A Neurologic Focus
- PHA 6639: Medication Therapy Management: A Respiratory Focus
- PHA 6910: Supervised Research
- PHA 6935: Selected Topics in Pharmacy
- PHA 6936: Advanced Topics in Pharmaceutical Sciences
- PHA 6938: Research Seminar
- PHA 6940: Supervised Teaching
- PHA 6971: Research for Master's Thesis
- PHA 7979: Advanced Research
- PHA 7980: Research for Doctoral Dissertation
- PHC 6001: Principles of Epidemiology in Public Health

College of Pharmacy Courses

- PHA 5171: Pharmaceutical Biotechnology
- PHA 6131: Pharmacometrics and Systems Pharmacology
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 6806: Pharmacoeconomic Modeling
- PHA 6910: Supervised Research
- PHA 6935: Selected Topics in Pharmacy
- PHA 6936: Advanced Topics in Pharmaceutical Sciences
- PHA 6938: Research Seminar
- PHA 6940: Supervised Teaching
- PHA 6971: Research for Master's Thesis
- PHA 7979: Advanced Research
- PHA 7980: Research for Doctoral Dissertation

College of Public Health and Health Professions

Dean: Michael G. Perri
Executive Associate Dean: Stephanie L. Hanson

The University of Florida College of Public Health and Health Professions has established a new educational model that focuses on the integration of public health problem-solving and individual patient care. The college's mission is to preserve, promote and improve the health and well-being of populations, communities and individuals. To fulfill this mission, we foster collaborations among public health and the health professions in education, research and service.

For more information, please see our website: http://phhp.ufl.edu

Departments and Programs within the College of Public Health and Health Professions

College of Public Health and Health Professions Courses

Public Health (M.P.H.)

College of Public Health and Health Professions

Master of Public Health Program Information

Director and Graduate Coordinator: Cindy Prins, PhD, MPH

The Master of Public Health degree is offered as a non-thesis program and is designed to prepare students to become effective public health practitioners, scientists, and educators.

Students select one of six concentration areas:

- Biostatistics
- Environmental health
- Epidemiology
- Public health management and policy
- Public health practice
- Social and behavioral sciences

Both a 48-credit program for students without terminal health science degrees and a 42-credit program for students with a terminal degree are offered. A combined bachelor's/master of public health program is available, as well as a 15-credit college certificate program. Students interested in collaborative programs may pursue joint MPH and DVM, MD, JD, PharmD, DPT, or DMD degrees, or concurrent master's and PhD programs. The MPH degree program and the Public Health certificate are available on campus and online. For program descriptions and information on applying, visit the website: www.mph.ufl.edu.

48-credit Master of Public Health: Students who do not hold a terminal degree in a health science discipline are eligible to apply for the 48-credit program. The program provides comprehensive coverage of core public health content and allows selection of a concentration. Students must complete 16 credits of core public health course work, 15-21 credits of concentration core courses, up to 12 credits of elective courses, and five to eight credits of internship. The course work representing these requirements is described below.

42-credit accelerated Master of Public Health: Students who hold a terminal degree (usually a doctoral degree) in a health science discipline may be eligible for the 42-credit accelerated program. This program requires completion of 16

credits of core public health course work, 21 credits of concentration and elective course work, and a five-credit internship.

Combined degree program: The College offers a combined degree program to allow qualified undergraduates to earn both a bachelor's degree and the Master of Public Health degree efficiently. Seniors with any undergraduate major are eligible for the combined degree program as long as they have an undergraduate GPA of at least 3.2 and competitive scores on the verbal and quantitative portions of the GRE, and their career interests match the MPH program. Students accepted into the combined degree program complete 15 credits of public health course work while still undergraduates, leaving only 33 credits after admission to graduate school. Students must achieve a B or better in public health courses taken as an undergraduate and be accepted to graduate school to complete the program.

Core Courses: All MPH students take five public health core courses. The core courses in environmental health, epidemiology, public health management and policy, and social and behavioral sciences are taken by all students. The core biostatistics course varies across concentration areas. Students in the biostatistics, environmental health, epidemiology and Social and Behavioral Sciences concentrations must take PHC 6052: Introduction to Biostatistical Methods. All other MPH students must take PHC 6050: Statistical Methods for Health Sciences Research I. In addition, all students must take a one-credit seminar in contemporary public health issues and five to eight credits of PHC 6946: Public Health Internship.

Internship, major paper, and oral presentation: Each student completes an internship, which provides an opportunity to apply knowledge acquired in the classroom to a real public health problem in a practice setting. Students may engage in many activities during an internship, but each student must have one special project which serves as the basis for a major paper and an oral presentation. The written and oral presentations represent the culmination of the academic experience in the MPH program. Presentations, which are scheduled on Public Health Day near the end of each semester, provide each student with an opportunity to organize and present the details of the special project to faculty, students, and invited guests. Students are expected to display their understanding of their projects in the larger context of public health as a cross-disciplinary field, and in relation to the competencies expected of all MPH graduates. Two faculty members, including the supervisory committee chair, attend each presentation and are responsible for assessing whether the student has successfully demonstrated a broad knowledge of the field of public health and depth in his or her concentration area.

Master of Public Health with a Concentration in Biostatistics

The contribution of biostatisticians is far reaching and includes both core public health research and consultation with other health professionals. The biostatistics concentration is designed primarily for students with a previous graduate degree (particularly in the health sciences) who want to obtain a solid background in quantitative and analytical methods for public health research. The course work exposes students to methodology typically used to analyze different types of public health data and gives them opportunities to apply these methodologies themselves.

Graduates of the MPH program with a concentration in biostatistics return to their careers with an improved understanding of quantitative methods for public health research. This increased knowledge will facilitate their own research programs and will enhance their ability to critically read the literature in their field. The biostatistics concentration requires completion of four concentration core courses: Regression Methods for the Health and Life Sciences, Epidemiology Research Methods I, Public Health Computing, and Survival Analysis. Remaining courses include the public health internship (PHC 6946) and electives in statistics and public health. Visit the biostatistics concentration website for the most up-to-date information about course options: http://mph.ufl.edu/programs/master-of-public-health/biostatistics.

See the department Biostatistics website for information about other programs offered by the department: http://biostat.ufl.edu/.

Master of Public Health with a Concentration in Environmental Health

Professionals trained in environmental health study the impact of our surroundings on our health. They understand how environmental risk factors can cause diseases like asthma, cancer, and food poisoning. Environmental health professionals make up approximately half of public health personnel and the field accounts for about half of public health expenditures. Students interested in environmental health typically have a background in biological or physical sciences, engineering, nursing, medicine, and veterinary medicine. Prior experience in chemistry, biology, statistics, and Microsoft Excel software is desirable. Please note the prerequisites for Environmental Health courses and speak with the instructor if you have not successfully completed the prerequisites. The following courses are required for all students pursuing the environmental health concentration: Environmental Toxicology Applications in Public Health, Environmental Policy and Risk Management, Environmental Ecology of Human Pathogens, and Global Health and Development I. Students may also choose from elective course work listed on the department website below. Environmental health students complete their programs with an internship (PHC 6946) and electives on a wide variety of environmental health and public health topics.

Visit the environmental health concentration website for the most up-to-date information about course options: http://mph.ufl.edu/programs/master-of-public-health/environmental-health. And visit the Website of the Department of Environmental and Global Health for information about other academic programs and activities in the department: http://egh.phhp.ufl.edu.

Master of Public Health with a Concentration in Epidemiology

Epidemiology focuses on the study of the distribution and determinants of health in populations and communities. It is the scientific foundation of public health research that seeks to reduce risk factors and improve health. The discipline also contributes to public health practice and policy, and research in other health-related fields such as medicine and pharmacy. This concentration area is designed to train professionals to apply the principles and methods of epidemiological investigation in a broad range of settings. The required concentration core courses in epidemiology are Epidemiology Research Methods I, Epidemiology Research Methods I, Epidemiology of Infectious Diseases, and Epidemiology of Chronic Disease. Epidemiology concentration students complete their programs with an internship (PHC 6946) and electives in epidemiology and public health.

Additional detail and options for epidemiology elective course work is at the website: http://mph.ufl.edu/programs/master-of-public-health/epidemiology. Please also visit the website of the Department of Epidemiology for up-to-date information about other epidemiology programs and activities: http://epidemiology.phhp.ufl.edu.

Master of Public Health with a Concentration in Public Health Management and Policy (PHMP)

This concentration focuses on the structure and administration of health organizations and the policies that impact health programs and reimbursement of health services. The concentration encompasses two of the major roles of leaders in public health. Essential skills for managing a health agency or organization include accounting, financial management, human resource management, strategic and program planning, operations research, economics, and monitoring outcome measures. Development, analysis, interpretation, and evaluation of government policies require analytical skills and social skills, as well as a deep understanding of politics.

The PHMP concentration requires six core courses: HSA 5174, HSA 6115, HSA 6152, PHC 6104, PHC 6421, and PHC 6103. In addition, students take two elective courses in one of three areas of specialization:

–Public health management
–Public policy
–Pharmaceutical use and policy.

The PHMP students complete their programs with an internship (PHC 6946) and public health elective courses.

Visit the public health management and policy concentration website for the most up-to-date information about course options: http://mph.ufl.edu/prospective-students/mph/traditional-mph-degree/concentrations/public-health-management-and-policy/.

The website of Department of Health Services Research, Management, and Policy provides additional information about activities and other academic programs in the department: http://hsrmp.phhp.ufl.edu.

Master of Public Health with a Concentration in Public Health Practice

This concentration provides the opportunity to develop breadth in public health by taking coursework in two, three, or four of the core public health concentrations. Such breadth is often required of professionals who assume positions of leadership in public health. It is available to students in joint and concurrent degree programs, medical and other health scientists, and working professionals. The Public Health Practice concentration is available on-campus and online.

The campus curriculum for this concentration follows the same model as the other concentrations. Students pursuing public health practice begin their programs with the five core courses required of all MPH students. Instead of a specified set of concentration core courses, however, these students may choose two or more courses from advanced course options in two to four of the other concentrations. Students complete their degree with a five to eight credit internship. All students in this concentration must hold a prior health professional degree or be enrolled in a joint or concurrent graduate program. To be eligible for the accelerated option, applicants must hold a terminal degree in a health or health-related field.

The online Public Health Practice curriculum begins with the five core courses and then offers two or more courses in epidemiology, environmental health, public health management and policy and social and behavioral sciences. Students complete their degree with a five to eight credit internship. Online students are not available to pursue the MPH on campus in Gainesville, either due to employment or geographic distance.

Master of Public Health with a Concentration in Social and Behavioral Sciences

The social and behavioral sciences concentration is based on the understanding that health and health behavior are influenced by multiple psychological, behavioral, social, and cultural factors. Central to addressing health problems and eliminating health disparities and inequalities, these factors must be understood and addressed using a framework exploring multiple levels (individual, interpersonal, organizational, community, and population) and the interactions among them. Through classroom instruction, research, and field practice, MPH students who concentrate in social and behavioral sciences explore the unique issues faced by diverse groups and populations and acquire skills to achieve social and behavioral change. Students in the social and behavioral sciences concentration are required to take five courses: Assessment and Surveillance in Public Health, Public Health Program Planning and Evaluation, Social and Behavioral Research Methods, Public Health Information for Diverse Populations, and Theoretical Foundations of Public Health. Social and behavioral science students complete their programs with an internship (PHC 6946) and elective courses in public health or related fields.

Visit the social and behavioral science concentration website for the most up-to-date information about course options.

Campus program: http://mph.ufl.edu/prospective-students/mph/traditional-mph-degree/concentrations/social-and-behavioral-science/.

Online program: http://mph.ufl.edu/prospective-students/mph/online-mph-degree/concentrations/social-and-behavioral-sciences/.

Degrees Offered with a Major in Public Health

Master of Public Health

without a concentration
with a concentration in Biostatistics
with a concentration in Environmental Health
with a concentration in Epidemiology
with a concentration in Health Management and Policy
with a concentration in Public Health Practice
with a concentration in Social and Behavioral Sciences

Public Health Courses

- HMG 6747: Marketing in Hospitality/Tourism
- HSA 6114: U.S. Health Care System
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6010: Data Management and Statistical Computing for Epidemiology
- PHC 6014: Epidemiology, Prevention, and Control of Chronic Diseases II
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6055: Biostatistical Computing Using R
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6370: Public Health Biology
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6521: Fundamentals of Public Health Nutrition
- PHC 6530: Public Health Issues of Mothers and Children
- PHC 6601: Seminar in Public Health Teaching
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 6905: Independent Study
- PHC 6913: Biostatistics Project
- PHC 6930: Integrated Public Health Seminar
- PHC 6931: Seminar in Global Public Health
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7056: Analysis of Longitudinal Data
- PHC 7066: Large Sample Theory
- PHC 7980: Research for Doctoral Dissertation
- STA 6177: Applied Survival Analysis
- STA 6208: Basic Design and Analysis of Experiments

Environmental Health Courses

- EES 5245: Water Quality Analysis
- ENV 5105: Foundations of Air Pollution
- FOS 5205: Current Issues in Food Safety and Sanitation
- PHC 6702: Exposure Measurement and Assessment
- SWS 5551: Soils, Water, and Public Health
- VME 6602: General Toxicology
- VME 6603: Advanced Toxicology
- VME 6605: Toxic Substances
- VME 6607: Human Health Risk Assessment

Epidemiology Courses

- PHC 6000: Epidemiology Methods I
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6011: Epidemiology Methods II
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6405: Theoretical Foundations of Public Health
- PHC 6912: Special Project: Independent Research
- PHC 6938: Oral and Craniofacial Epidemiology
- PHC 6946: Public Health Internship

Public Health Management and Policy Courses

- HSA 5174: Fundamentals of Health Care Finance
- HSA 6115: Introduction to Management of Health Services Organizations
- HSA 6152: Overview of U.S. Health Policy
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6421: Public Health Law and Ethics

Social and Behavioral Sciences Courses

- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6441: Health Disparities in the United States
- PHC 6700: Social and Behavioral Research Methods
- PHC 6762: International Public Health
- PHC 6937: Special Topics in Public Health

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study

- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging
- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
- PHC 6312: Water Quality and Human Health
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6316: Health, Risk, and Crisis Communication
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6370: Public Health Biology
- PHC 6403: Adolescence, Risk Taking and Health
- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology
- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6515: Introduction to Entomology Zoonotic Diseases and Food Safety
- PHC 6519: Zoonotic Diseases in Humans and Animals
- PHC 6520: Foodborne Diseases

- PHC 6530: Public Health Issues of Mothers and Children
- PHC 6543: Community Practice of Behavioral Health Risk Prevention
- PHC 6544: Health Behavior Interventions in Practice
- PHC 6561: Public Health Laboratory Techniques
- PHC 6585: Health Promotion and Disease Prevention
- PHC 6586: Interventions for Public Health
- PHC 6601: Seminar in Public Health Teaching
- PHC 6607: Critical Issues in Public Health
- PHC 6700: Social and Behavioral Research Methods
- PHC 6702: Exposure Measurement and Assessment
- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 6762: International Public Health
- PHC 6905: Independent Study
- PHC 6917: Supervised Research Project
- PHC 6931: Seminar in Global Public Health
- PHC 6937: Special Topics in Public Health
- PHC 6945: Public Health Practicum
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7038: Psychiatric Epidemiology
- PHC 7056: Analysis of Longitudinal Data
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application

- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Public Health (Ph.D.)

College of Public Health and Health Professions

Public Health (Ph.D.) Program Information

The College of Public Health and Health Professions does not offer the Ph.D. in Public Health without a concentration. All students accepted into the program must choose one of three concentrations: Environmental Health, One Health, or Social and Behavioral Sciences. Please see those program pages for more information.

Degrees Offered with a Major in Public Health

Doctor of Philosophy

without a concentration

concentration in Health Services Research

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging
- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
- PHC 6312: Water Quality and Human Health
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6316: Health, Risk, and Crisis Communication
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6370: Public Health Biology
- PHC 6403: Adolescence, Risk Taking and Health
- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology

- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
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- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective
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- PHC 6931: Seminar in Global Public Health
- PHC 6937: Special Topics in Public Health
- PHC 6945: Public Health Practicum
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7038: Psychiatric Epidemiology
- PHC 7056: Analysis of Longitudinal Data
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture

- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Rehabilitation Science

College of Public Health and Health Professions

Rehabilitation Science Program Information

Director: David D. Fuller
Graduate Coordinator: Laura Quintana

The interdisciplinary Ph.D. program in rehabilitation science is offered through the College of Public Health and Health Professions. Rehabilitation science describes those disciplines which focus on both basic and applied aspects of health science and services, the social sciences, and engineering as they relate to restoring human functional capacity and improving a person's interaction with the surrounding environment. An important point of emphasis is rehabilitation science should encompass research ranging from molecular biology through population health. The program embraces

a wide range of disciplines, and supports the view that collaboration is the best way to advance human health. Students work closely with their faculty mentor within the broad categories of 1) Movement Science, 2) Disability Science, and 3) Bulbar Science (e.g., emphasis on speech and swallowing rehabilitation). On successful completion of the program, graduates typically take positions in research universities and research centers. Requirements for the Ph.D. degree are provided elsewhere in this catalog.

Admissions decisions are determined by an interdisciplinary admissions committee. The program is a minimum of 90 credit hours of study beyond the bachelor's degree. The curriculum includes 32 credit hours in research application; 18 credit hours within the student's concentration; 16 credit hours of elective courses; 13 graduate credits in research methods and statistics; 6 credit hours in rehabilitation science teaching; and 5 credit hours in rehabilitation science application. core rehabilitation courses required of all students; 50 credits in specialty areas; and 15 credits of dissertation research. Course work should be selected with guidance and approval from the faculty mentor and when applicable, the supervisory committee. Up to 30 credit hours may be transferred in from a master's degree program with the approval of the faculty mentor and steering committee.

For more information, please see our website: http://rehabsci.phhp.ufl.edu.

Degrees Offered with a Major in Rehabilitation Science

Doctor of Philosophy

without a concentration

concentration in Clinical and Translational Science

Rehabilitation Sciences Courses

- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- SPA 5401: Speech Pathology Language Disorder
- SPA 6008: Medical Aspects of Speech-Language Pathology
- SPA 6311: Medical Audiology
- SPA 6340: Amplification I
- SPA 6341: Amplification II
- SPA 7306: Audiologic Assessment in a Medical Setting
- SPA 7391: Business and Professional Issues in Audiology
- SPA 7415: Neurolinguistics of Adult Language Disorders
- SPA 7540: Diagnosis and Treatment of Language and Language-Based Literacy Disorders

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network

- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging
- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
- PHC 6312: Water Quality and Human Health
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6316: Health, Risk, and Crisis Communication
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6370: Public Health Biology
- PHC 6403: Adolescence, Risk Taking and Health
- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology
- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II

- PHC 6447: Ecology of HIV/Aids in the Rural South
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- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy

- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
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- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Behavioral Science and Community Health Department

College of Public Health and Health Professions

Interim Chair: Amy Blue
Graduate Coordinator: Amanda Glynn

The Department of Behavioral Science & Community Health (BSCH) is one of nine academic departments housed in the School of Public Health and Health Professions at the University of Florida. The department offers programs leading to the Master of Public Health (M.P.H.) with a concentration in Social and Behavioral Sciences, as well as the Doctor of Philosophy (Ph.D.) in Public Health with a concentration in Social and Behavioral Sciences. The official minimum requirements for these degrees are available in the Graduate Degrees section of this catalog.

For more information, please see the program pages below and our website: http://bsch.phhp.ufl.edu.

Public Health (Ph.D. - Social and Behavioral Sciences)

College of Public Health and Health Professions

Social and Behavioral Sciences Program Information

Social & Behavioral Sciences

The PhD in Public Health-Social and Behavioral Sciences (SBS) Track is targeted to individuals who wish to develop advanced knowledge and skills in the social and behavioral sciences theories and methods used in public health. Training is designed for those who desire public health careers in research, academics, government, or related health organizations. A prior graduate degree in public health or a related field is strongly preferred.

The program is focused upon the assumption that health and health behavior are impacted by multiple psychological, behavioral, social, and cultural factors. Central to addressing health problems and eliminating health disparities and inequalities, these factors must be understood and addressed at multiple social-ecological levels (individual, interpersonal, organizational, community, and population).

PhD students who concentrate in social and behavioral sciences explore the unique issues faced by diverse groups and populations and acquire skills to achieve social and behavioral change.

Contact

Dr. Mark Hart
Social & Behavioral Sciences Program Director
kramtrah@phhp.ufl.edu

For more information, please visit http://publichealth.phhp.ufl.edu/.

Degrees Offered with a Major in Public Health

Doctor of Philosophy
concentration in Social and Behavioral Sciences

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach

- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
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- PHC 6312: Water Quality and Human Health
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- PHC 6601: Seminar in Public Health Teaching
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- PHC 6702: Exposure Measurement and Assessment
- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 6762: International Public Health
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- PHC 7056: Analysis of Longitudinal Data
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- PHC 7091: Advanced Biostatistical Methods II
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- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
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- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
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- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
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- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling

- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Biostatistics Department

College of Public Health and Health Professions
College of Medicine

Chair: Peihua Qiu
Associate Chair for Education: Babette Brumback
Graduate Coordinator: Kristen Cason

The Department of Biostatistics offers the Doctor of Philosophy degree in biostatistics, the Master of Science degree in biostatistics, and the Master of Public Health degree with concentration biostatistics, which is described in detail in the Public Health section of the catalog. These programs in the Department are designed to prepare students for research and faculty positions; careers in health agencies and health-related institutions; and for consultation, especially in the biomedical fields. Although each graduate program has a set of required courses, there is ample flexibility in the programs to allow each student to develop strengths and interests through elective courses, seminars, and tutorials.

Doctor of Philosophy

The biostatistics doctoral program requires a minimum of 90 semester credits beyond the bachelor's degree. Students must have a directly related master's degree (i.e. Master of Science in statistics or biostatistics). All students must complete a minimum of 54 credits of biostatistics/statistics course work (30 credits will typically be transferred from a Master of Science program), 6 credits of public health course work, 3 credits of a consulting requirement, 6 credits of the cognate requirement, and 21 credits of dissertation work.

All graduates of the program are expected to be able to

- Conduct independent research in the development of new biostatistical methodology
- Engage in successful collaborations with investigators in new quantitative fields
- Write statistical methodology papers for peer-reviewed statistical and biostatistical journals
- Write collaborative papers for peer-reviewed subject matter journals
- Compete successfully for research and teaching positions in academic institutions, federal and state agencies, or private institutions

Specific course requirements are described at the program website http://biostat.ufl.edu/education/phd-in-biostatistics/curriculum-overview/.

Master of Science

The biostatistics masters degree (MS) requires a minimum of 36 semester credits beyond the bachelor's degree. The program is designed to facilitate students' development of a strong theoretical foundation in biostatistics, broad-based understanding of biostatistical methods, and expertise in a cognate field. A typical student will be enrolled full-time for two years. Upon successful completion of the program, graduates will be awarded an M.S. degree in biostatistics.

The principal goal of the M.S. program is to prepare highly qualified individuals for future Ph.D. training and for careers in biostatistics practice. This training is conducted in the innovative and interdisciplinary public health culture of the college of public health and health professions and the college of medicineWe expect our graduates to be highly competitive in three primary settings: academic university-based settings, industry, and federal agencies that involve research and/or public health practice.

Specific course requirements are described at the program website http://biostat.ufl.edu/education/ms-in-biostatistics/ms-curriculum-overview/.

Biostatistics (PHHP)

College of Public Health and Health Professions
College of Medicine

Department

Biostatistics Department

Biostatistics Program

Doctor of Philosophy

The biostatistics doctoral program requires a minimum of 90 semester credits beyond the bachelor's degree. Students must have a directly related master's degree (i.e. Master of Science in statistics or biostatistics). All students must complete a minimum of 54 credits of biostatistics/statistics course work (30 credits will typically be transferred from a Master of Science program), 6 credits of public health course work, 3 credits of a consulting requirement, 6 credits of the cognate requirement, and 21 credits of dissertation work.

All graduates of the program are expected to be able to

- Conduct independent research in the development of new biostatistical methodology
- Engage in successful collaborations with investigators in new quantitative fields
- Write statistical methodology papers for peer-reviewed statistical and biostatistical journals
- Write collaborative papers for peer-reviewed subject matter journals
- Compete successfully for research and teaching positions in academic institutions, federal and state agencies, or private institutions

Specific course requirements are described at the program website http://biostat.ufl.edu/education/phd-in-biostatistics/.

Master of Science

The biostatistics masters degree (MS) requires a minimum of 36 semester credits beyond the bachelor's degree. The program is designed to facilitate students' development of a strong theoretical foundation in biostatistics, broad-based understanding of biostatistical methods, and expertise in a cognate field. A typical student will be enrolled full-time for two years. Upon successful completion of the program, graduates will be awarded an M.S. degree in biostatistics.

The principal goal of the M.S. program is to prepare highly qualified individuals for future Ph.D. training and for careers in biostatistics practice. This training is conducted in the innovative and interdisciplinary public health culture of the college of public health and health professions and the college of medicineWe expect our graduates to be highly competitive in three primary settings: academic university-based settings, industry, and federal agencies that involve research and/or public health practice.

Specific course requirements are described at the program website http://biostat.ufl.edu/education/ms-in-biostatistics/.

Degrees with a Major in Biostatistics

Doctor of Philosophy

Master of Science

Biostatistics Departmental Courses

- GMS 6818: Design and Conduct Clinical Trials I
- GMS 6819: Design and Conduct Clinical Trials II
- GMS 6827: Advanced Clinical Trial Methods
- GMS 6841: Design and Analysis of Translational Research in Biomedical Sciences
- GMS 6861: Applied Biostatistics I
- GMS 6862: Applied Biostatistics II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6020: Clinical Trial Methods
- PHC 6022: Design and Conduct of Clinical Trials
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6050C: Biostatistical Methods I
- PHC 6051: Biostatistical Methods II
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6055: Biostatistical Computing Using R
- PHC 6063: Biostatistical Consulting
- PHC 6068: Biostatistical Computing
- PHC 6080: SAS for Public Health - Data
- PHC 6081: SAS for Public Health - Analysis
- PHC 6092: Introduction to Biostatistical Theory
- PHC 6517: Public Health Concepts in Infectious Diseases
- PHC 6937: Special Topics in Public Health
- PHC 6946: Public Health Internship
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7013: Bias in Observational Research
- PHC 7056: Analysis of Longitudinal Data

- PHC 7066: Large Sample Theory
- PHC 7925: Biostatistics Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- STA 6177: Applied Survival Analysis
- STA 7179: Survival Analysis

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
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- PHC 6153: Public Policy and Aging
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- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology
- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6515: Introduction to Entomology Zoonotic Diseases and Food Safety
- PHC 6519: Zoonotic Diseases in Humans and Animals
- PHC 6520: Foodborne Diseases
- PHC 6530: Public Health Issues of Mothers and Children
- PHC 6543: Community Practice of Behavioral Health Risk Prevention
- PHC 6544: Health Behavior Interventions in Practice
- PHC 6561: Public Health Laboratory Techniques
- PHC 6585: Health Promotion and Disease Prevention
- PHC 6586: Interventions for Public Health
- PHC 6601: Seminar in Public Health Teaching
- PHC 6607: Critical Issues in Public Health
- PHC 6700: Social and Behavioral Research Methods
- PHC 6702: Exposure Measurement and Assessment
- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 6762: International Public Health
- PHC 6905: Independent Study
- PHC 6917: Supervised Research Project
- PHC 6931: Seminar in Global Public Health
- PHC 6937: Special Topics in Public Health
- PHC 6945: Public Health Practicum
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7038: Psychiatric Epidemiology
- PHC 7056: Analysis of Longitudinal Data
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health

- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Clinical and Health Psychology Department

College of Public Health and Health Professions

Department Chair: David Janicke
Program Director and Graduate Coordinator: Russell Bauer
Academic Coordinator: Milan Savic

The Department of Clinical and Health Psychology is a unit of the College of Public Health and Health Professions. The department's programs are its doctoral clinical psychology studies leading to the Ph.D. degree in psychology; an American Psychological Association accredited doctoral internship program; and postdoctoral studies and research. Requirements for the M.S. and Ph.D. degrees are given in the Graduate Degrees section of this catalog.

The clinical psychology doctoral curriculum adheres to the scientist-practitioner model of education and training. Program strengths include research, education, and professional training in health care psychology, with organized areas of concentration in clinical health psychology, clinical child/pediatric psychology, neuropsychology, neurorehabilitation and clinical neuroscience, and emotion neuroscience/psychopathology. Education and training experiences are also available in rural psychology. Interested students can apply for acceptance into the Public Health Program and obtain dual M.P.H./Ph.D. degrees.

Progress in the program is determined by departmental policies which are consistent with American Psychological Association accreditation standards. The curriculum has been continuously accredited by the American Psychological Association since 1953.

Admission to the Department is through appropriate application to the Department's admission committee. A bachelor's degree is generally adequate preparation for graduate admission. It should include undergraduate courses in both experimental psychology and statistics, along with at least three courses from the following psychology areas: developmental, learning, perception, personality, physiological, and social.

For more information, please see the program page below and our website: http://chp.phhp.ufl.edu.

Psychology (Clinical and Health Psychology - PHHP)

College of Public Health and Health Professions
Clinical and Health Psychology Department

Psychology (Clinical and Health Psychology) Program Information

The department of Clinical and Health Psychology is an academic and professional unit in the College of Public Health and Health Professions at the Health Science Center on the University of Florida campus in Gainesville. The doctoral program in clinical psychology has been accredited by the American Psychological Association since 1953 and adheres to the Scientist-Practitioner Model of education and training. The Clinical Psychology Doctoral program is unique in the country in that it is housed in an independent department of Clinical and Health Psychology in a major academic health science setting along with an APA accredited internship. These features foster program strengths in research, teaching and professional training in health care psychology.

To accommodate the broad range of career trajectories possible within Scientist-Practitioner education and training, the program offers a Scientist-Practitioner Emphasis and a Clinical Researcher Emphasis.

The **Scientist-Practitioner Emphasis** allows the student to obtain broad clinical, academic, and research training that readies them for careers anywhere along the science-practice continuum. The student obtains focused research

mentorship in a faculty member's laboratory and obtains broad training in clinical assessment and intervention both in and outside of their designated area of concentration.

The **Clinical Researcher Emphasis** is designed to provide the interested student with more intensive mentor-based training for purposes of preparing for a research career. The Clinical Researcher Emphasis is designed for students who are clearly focused on a research career and therefore want an increased opportunity to perform mentored empirical work. This emphasis focuses on the acquisition of research skills, training in scientific methods and technologies to better understand behavior problems, psychopathology and psychological adjustment to illness and wellness, and to develop empirically validated assessment and treatment procedures. The primary goal of the Clinical Researcher emphasis is to train psychologists for academic settings and other employment venues in which research productivity and innovation is a major job expectancy. In comparison to the scientist-practitioner emphasis, more time is dedicated to research (less time is spent in supervised practicum with the general faculty), and advanced clinical training is focused on patient populations and methods in the student's area of research interest. The Clinical Researcher emphasis follows a "mentorship" model in which the faculty mentor is the student's overall guide and supervisor, and the student's primary research training is accomplished in his/her laboratory.

Students can elect the Clinical Researcher emphasis in the first or second year of study, based on their commitment to a clinical research career and the agreement of a faculty mentor. Students can apply for admission consideration to the Scientist-Practitioner emphasis, the Clinical Researcher emphasis, or both (see Application Procedures).

The Doctoral Program provides the student with training in the concepts, tools, roles, and functions of the clinical psychologist. The overall goals of the graduate program are to prepare the student to:

1. investigate meaningful, empirically testable questions in the quest for understanding a behavioral process, a patient's problem, or a professional issue;

2. function as a professional psychologist;

3. practice competently in the applied areas of psychological assessment/diagnosis, intervention/therapy, and consultation; and

4. contribute to the advancement of psychological knowledge through research or other creative scholarly activity.

Through a combination of general and specialized experiences in the classroom, laboratory, and clinic students develop knowledge and skills as scientist-practitioners. Attitudes are developed toward the practice of psychology and toward related professions which enable effective personal interaction and participation in the interdisciplinary approach to problems of research and practice. As students progress in the program, they develop professional identity through acceptance of increased responsibility for professional decisions, through the execution of significant research projects, and through their contributions to the understanding of psychological problems and processes.

For more information please see our website: http://chp.phhp.ufl.edu

Degrees

Doctor of Philosophy

concentration in Clinical and Health Psychology | optional second concentration in Clinical and Translational Science

concentration in Clinical and Translational Science

Master of Arts

Master of Science

Clinical and Health Psychology Departmental Courses

- CLP 5316: Health Psychology
- CLP 5426: Introduction to Neuropsychology
- CLP 6304: Psychological Foundations of Clinical Psychology I
- CLP 6307: Human Higher Cortical Functioning
- CLP 6308: Psychological Foundations of Clinical Psychology II
- CLP 6309: Psychological Foundations of Clinical Psychology III
- CLP 6344C: Lifespan Foundations of Behavioral Health and Illness I
- CLP 6345: Lifespan Foundations of Behavioral Health and Illness II
- CLP 6375: Introduction to Clinical Psychology
- CLP 6407: Psychological Treatment I
- CLP 6417: Psychological Treatment II
- CLP 6425: Seminar in Clinical Neuropsychology
- CLP 6430: Clinical Psychological Assessment
- CLP 6434C: Clinical Psychology Assessment I
- CLP 6435C: Clinical Psychology Assessment II
- CLP 6446C: Psychological Assessment of Children
- CLP 6447C: Psychological Assessment of Adults
- CLP 6476: Lifespan Psychopathology
- CLP 6497: Psychopathological Disturbances
- CLP 6527C: Measurement, Research Design, and Statistical Analysis in Clinical Psychology I
- CLP 6528C: Measurement, Research Design, and Statistical Analysis in Clinical Psychology II
- CLP 6529: Applied Multivariate Methods in Psychology
- CLP 6905: Individual Work
- CLP 6910: Supervised Research
- CLP 6940: Supervised Teaching
- CLP 6943: Core Practicum in Clinical Psychology
- CLP 6945: Advanced Practicum in Neuropsychology
- CLP 6946: Advanced Practicum in Applied Medical Psychology
- CLP 6947: Practicum in Intervention
- CLP 6948: Advanced Practicum in Clinical Child Psychology
- CLP 6971: Research for Master's Thesis
- CLP 7317: Advanced Health Psychology and Behavior Medicine
- CLP 7404C: Special Issues, Methods, and Techniques in Psychological Treatment
- CLP 7427C: Neuropsychological Assessment of Children
- CLP 7428C: Neuropsychological Assessment of Adults
- CLP 7934: Special Topics In Clinical Psychology
- CLP 7949: Internship
- CLP 7979: Advanced Research
- CLP 7980: Research for Doctoral Dissertation
- DEP 6216: Psychological Disturbances of Children
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 7408: Psychotherapy with Older Adults
- PSB 6115C: Clinical and Cognitive Neuroscience: Methods and Theory

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging
- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
- PHC 6312: Water Quality and Human Health
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6316: Health, Risk, and Crisis Communication
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6370: Public Health Biology
- PHC 6403: Adolescence, Risk Taking and Health
- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology

- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6515: Introduction to Entomology Zoonotic Diseases and Food Safety
- PHC 6519: Zoonotic Diseases in Humans and Animals
- PHC 6520: Foodborne Diseases
- PHC 6530: Public Health Issues of Mothers and Children
- PHC 6543: Community Practice of Behavioral Health Risk Prevention
- PHC 6544: Health Behavior Interventions in Practice
- PHC 6561: Public Health Laboratory Techniques
- PHC 6585: Health Promotion and Disease Prevention
- PHC 6586: Interventions for Public Health
- PHC 6601: Seminar in Public Health Teaching
- PHC 6607: Critical Issues in Public Health
- PHC 6700: Social and Behavioral Research Methods
- PHC 6702: Exposure Measurement and Assessment
- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 6762: International Public Health
- PHC 6905: Independent Study
- PHC 6917: Supervised Research Project
- PHC 6931: Seminar in Global Public Health
- PHC 6937: Special Topics in Public Health
- PHC 6945: Public Health Practicum
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7038: Psychiatric Epidemiology
- PHC 7056: Analysis of Longitudinal Data
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture

- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Environmental and Global Health Department

Interim Chair: Tara Sabo-Attwood
Ph.D. Program Director: Andrew Kane
Graduate Coordinator: Caronne Rush

Faculty listing: Follow this link

The Department of Environmental and Global Health offers graduate work leading to the degrees of Doctor of Philosophy, Master of Health Science, and Master of Public Health. The official minimum requirements for these degrees are listed in the Graduate Degrees section of this catalog.

The Department of Environmental and Global Health focuses upon environmental factors that impact human health. Department faculty, scientists, and students employ numerous disciplines in studying these environmental factors: virology, bacteriology, parasitology, entomology, toxicology, epidemiology, water sciences, veterinary health, environmental engineering, aerosol biology, wildlife health, etc. Research work often involves international travel and

collaboration. A central theme for the department is the interdisciplinary thinking called One Health which reflects the collaborations necessary to tackle public health's most difficult problems. Faculty, students and staff often perform research in the laboratories in the Emerging Pathogens Institute, the Center for Environmental and Human Toxicology, or the Aquatic Pathobiology Laboratory.

For more information, please see the program pages below and our website: http://egh.phhp.ufl.edu.

Environmental and Global Health (M.H.S. - One Health)

College of Public Health and Health Professions

Department

Environmental and Global Health Department

Degrees Offered with a Major in Environmental and Global Health

Master of Health Science

concentration in One Health

Environmental and Global Health Departmental Courses

- PHC 6006: An Introduction to One Health Problem Solving
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6446: Systems Thinking in One Health
- PHC 6722: Environmental and Global Health Research Methods Rotation
- PHC 6900: Environmental and Global Health Journal Club
- PHC 6947: Occupational Health Field Research Experience
- PHC 7307: Quantitative Assessment of Environmental Health Impacts
- PHC 7935: Critical Thinking in Environmental and Global Health

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach

- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging
- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
- PHC 6312: Water Quality and Human Health
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6316: Health, Risk, and Crisis Communication
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6370: Public Health Biology
- PHC 6403: Adolescence, Risk Taking and Health
- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology
- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6515: Introduction to Entomology Zoonotic Diseases and Food Safety
- PHC 6519: Zoonotic Diseases in Humans and Animals
- PHC 6520: Foodborne Diseases
- PHC 6530: Public Health Issues of Mothers and Children
- PHC 6543: Community Practice of Behavioral Health Risk Prevention
- PHC 6544: Health Behavior Interventions in Practice
- PHC 6561: Public Health Laboratory Techniques
- PHC 6585: Health Promotion and Disease Prevention
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- PHC 6762: International Public Health
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- PHC 7091: Advanced Biostatistical Methods II
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- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
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- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling

- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Public Health (Ph.D. - Environmental and Global Health)

College of Public Health and Health Professions
Environmental and Global Health

Degrees Offered with a Major in Public Health

Doctor of Philosophy
concentration in Environmental Health

Environmental and Global Health Departmental Courses

- PHC 6006: An Introduction to One Health Problem Solving
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6446: Systems Thinking in One Health
- PHC 6722: Environmental and Global Health Research Methods Rotation
- PHC 6900: Environmental and Global Health Journal Club
- PHC 6947: Occupational Health Field Research Experience
- PHC 7307: Quantitative Assessment of Environmental Health Impacts
- PHC 7935: Critical Thinking in Environmental and Global Health

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching

- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging
- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
- PHC 6312: Water Quality and Human Health
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6316: Health, Risk, and Crisis Communication
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6370: Public Health Biology
- PHC 6403: Adolescence, Risk Taking and Health
- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology
- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6515: Introduction to Entomology Zoonotic Diseases and Food Safety
- PHC 6519: Zoonotic Diseases in Humans and Animals
- PHC 6520: Foodborne Diseases
- PHC 6530: Public Health Issues of Mothers and Children

- PHC 6543: Community Practice of Behavioral Health Risk Prevention
- PHC 6544: Health Behavior Interventions in Practice
- PHC 6561: Public Health Laboratory Techniques
- PHC 6585: Health Promotion and Disease Prevention
- PHC 6586: Interventions for Public Health
- PHC 6601: Seminar in Public Health Teaching
- PHC 6607: Critical Issues in Public Health
- PHC 6700: Social and Behavioral Research Methods
- PHC 6702: Exposure Measurement and Assessment
- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 6762: International Public Health
- PHC 6905: Independent Study
- PHC 6917: Supervised Research Project
- PHC 6931: Seminar in Global Public Health
- PHC 6937: Special Topics in Public Health
- PHC 6945: Public Health Practicum
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7038: Psychiatric Epidemiology
- PHC 7056: Analysis of Longitudinal Data
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional

- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Public Health (Ph.D. - One Health)

College of Public Health and Health Professions
Environmental and Global Health Department

Degrees Offered with a Major in Public Health

Doctor of Philosophy
concentration in One Health

Environmental and Global Health Departmental Courses

- PHC 6006: An Introduction to One Health Problem Solving
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6446: Systems Thinking in One Health
- PHC 6722: Environmental and Global Health Research Methods Rotation
- PHC 6900: Environmental and Global Health Journal Club
- PHC 6947: Occupational Health Field Research Experience
- PHC 7307: Quantitative Assessment of Environmental Health Impacts
- PHC 7935: Critical Thinking in Environmental and Global Health

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging
- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
- PHC 6312: Water Quality and Human Health
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6316: Health, Risk, and Crisis Communication
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6370: Public Health Biology
- PHC 6403: Adolescence, Risk Taking and Health
- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology

- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6515: Introduction to Entomology Zoonotic Diseases and Food Safety
- PHC 6519: Zoonotic Diseases in Humans and Animals
- PHC 6520: Foodborne Diseases
- PHC 6530: Public Health Issues of Mothers and Children
- PHC 6543: Community Practice of Behavioral Health Risk Prevention
- PHC 6544: Health Behavior Interventions in Practice
- PHC 6561: Public Health Laboratory Techniques
- PHC 6585: Health Promotion and Disease Prevention
- PHC 6586: Interventions for Public Health
- PHC 6601: Seminar in Public Health Teaching
- PHC 6607: Critical Issues in Public Health
- PHC 6700: Social and Behavioral Research Methods
- PHC 6702: Exposure Measurement and Assessment
- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 6762: International Public Health
- PHC 6905: Independent Study
- PHC 6917: Supervised Research Project
- PHC 6931: Seminar in Global Public Health
- PHC 6937: Special Topics in Public Health
- PHC 6945: Public Health Practicum
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7038: Psychiatric Epidemiology
- PHC 7056: Analysis of Longitudinal Data
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture

- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Epidemiology Department

College of Public Health and Health Professions
College of Medicine

Chair: Linda Cottler
Ph.D. Program Director: Cindy Prins
M.S. Program Director: Catherine Woodstock Striley

The Department of Epidemiology – jointly governed by both the College of Public Health and Health Professions and the College of Medicine – offers the Doctor of Philosophy degree in epidemiology, Master of Science in epidemiology, as well as the Master of Public Health degree with a concentration in epidemiology (described here). Minimum requirements for these degrees are described in the Graduate Degrees section of this catalog. The programs in the Department are designed to prepare students for careers in academic research environments, careers in public health agencies and health-related institutions, and for consultation, especially in the biomedical fields.

More information on these programs is available at the program page below and at the department website: http://epidemiology.phhp.ufl.edu.

Epidemiology (PHHP)

College of Public Health and Health Professions
Epidemiology Department

Epidemiology Program Information

The **Ph.D. in Epidemiology program** is in the Department of Epidemiology, which is jointly governed by both the College of Public Health and Health Professions and the College of Medicine. The program requires a minimum of 90 semester credits beyond the bachelor's degree. All students must complete a minimum of 9 credits in Epidemiology foundation course work, at least 36 credits of epidemiology core courses, 6 credits of statistics electives, 18 credits of epidemiology electives, 15 credits of general electives, and 12 credits of dissertation research. All entering students who do not hold MPH or equivalent degrees are also required by the College of Public Health and Health Professions to complete an Introduction to Public Health course.

Students in the Ph.D. program in Epidemiology are admitted to work with a research mentor on that mentor's project, and that research mentor funds the student. Other funding sources are available such as the Graduate School and the Department.

The core course work is designed to incorporate competencies recommended in the report of the 2002 workshop on doctoral education in epidemiology from the American College of Epidemiology and the Association of Schools and Programs of Public Health, and criteria for applied epidemiology competencies. The overall outcomes expected of all graduates are as follows:

1. Apply epidemiological methods to address critical and/or emerging public health issues through the use of

- Appropriate epidemiological research designs
- Advanced statistical analysis methods for health studies

- Data structures and measurement methods for health research
- Biological, behavioral and social theory applied to the understanding and prevention of contemporary threats to health and well-being
- Depth of knowledge in an area of specialization

2. Assimilate the history, philosophy, and ethical principles of epidemiology into current research

3. Develop grant proposals and manage research projects

4. Write scientific papers for publication in peer-reviewed journals, and communicate research results to scientists, policy makers, and the public

5. Compete successfully for research and teaching positions in academic institutions, federal or state agencies, or private institutions.

Students in the Ph.D. program in Epidemiology may apply to graduate with a concentration in Gero-Epidemiology. With the continued "graying" of the worldwide population, the number of individuals at risk for developing age-related disorders continues to increase along with the social, emotional, and economic cost of caring for such individuals. Therefore, nearly every health care-related academic discipline will be faced with the task of integrating Gerontology as a critical area of study. The overarching goal of the Gero-Epidemiology concentration is to provide learners with advanced training in the field of Gero-Epidemiology. This training, provided through courses within the Department of Epidemiology and the Department of Aging and Geriatric Research (DAGR), will help prepare researchers for the frontlines of interdisciplinary team science targeted towards improving the quality of life, health and society for our ever-increasing aging population.

The Department of Epidemiology also participates in the Clinical and Translational Science Interdisciplinary Concentration offered by the Clinical and Translational Science Institute. For more information about this concentration, please visit https://www.ctsi.ufl.edu/education/ph-d-students/cts-interdisciplinary-concentration/.

Details of the Ph.D. in Epidemiology program and application information are available at our website: http://epidemiology.phhp.ufl.edu/about/ph-d-in-epidemiology-2.

Degrees Offered with a Major in Epidemiology

Doctor of Philosophy

without a concentration
concentration in Clinical and Translational Science
concentration in Gero-Epidemiology

Master of Science

Epidemiology (PHHP/COM) Departmental Courses

- PHC 6008: Cardiovascular Epidemiology
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6014: Epidemiology, Prevention, and Control of Chronic Diseases II
- PHC 6034: Epidemic Investigation
- PHC 6041: Landmarks in Psychiatric Epidemiology
- PHC 6070: Epidemiology of Aging
- PHC 6517: Public Health Concepts in Infectious Diseases
- PHC 6598: Foundations in Precision Medicine: Genetic Epidemiology
- PHC 6711: Measurement in Epidemiology and Outcomes Research

- PHC 6932: Psychiatric Epidemiology Online Seminar Series
- PHC 6937: Special Topics in Public Health
- PHC 6938: Oral and Craniofacial Epidemiology
- PHC 6939: CPE Psychiatric Grand Rounds
- PHC 6971: Research for Master's Thesis
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7007: Cancer Epidemiology
- PHC 7017: Advanced Epidemiologic Methods III
- PHC 7038: Psychiatric Epidemiology
- PHC 7065: Critical Skills in Epidemiological Data Management
- PHC 7083: Computational Epidemiology in Population Science
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7727: Grant Writing for Population Health Research
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7902: Scientific Writing for Peer Reviewed Publications for Popular Science
- PHC 7910: International Field Epidemiology
- PHC 7916: National Field Epidemiology
- PHC 7918: Independent Study
- PHC 7934: Seminar I: Epidemiology Past, Present, and Future
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health

- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging
- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
- PHC 6312: Water Quality and Human Health
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6316: Health, Risk, and Crisis Communication
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6370: Public Health Biology
- PHC 6403: Adolescence, Risk Taking and Health
- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology
- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6515: Introduction to Entomology Zoonotic Diseases and Food Safety
- PHC 6519: Zoonotic Diseases in Humans and Animals
- PHC 6520: Foodborne Diseases
- PHC 6530: Public Health Issues of Mothers and Children
- PHC 6543: Community Practice of Behavioral Health Risk Prevention
- PHC 6544: Health Behavior Interventions in Practice
- PHC 6561: Public Health Laboratory Techniques
- PHC 6585: Health Promotion and Disease Prevention
- PHC 6586: Interventions for Public Health
- PHC 6601: Seminar in Public Health Teaching
- PHC 6607: Critical Issues in Public Health
- PHC 6700: Social and Behavioral Research Methods
- PHC 6702: Exposure Measurement and Assessment
- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 6762: International Public Health

- PHC 6905: Independent Study
- PHC 6917: Supervised Research Project
- PHC 6931: Seminar in Global Public Health
- PHC 6937: Special Topics in Public Health
- PHC 6945: Public Health Practicum
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7038: Psychiatric Epidemiology
- PHC 7056: Analysis of Longitudinal Data
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability

- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Health Services Research, Management and Policy Department

Chair: Arch G. Mainous, III
Graduate Coordinator: Ikiah Young

The Department of Health Services Research, Management and Policy offers degree programs at both the master's and doctoral level. The Master of Health Administration (M.H.A.) prepares individuals for management positions in the health care field. The Department also participates in the Master of Public Health (M.P.H.) degree by offering a concentration in Public Health Management and Policy (more information available here).

At the doctoral level, the Department offers the Ph.D. degree in Public Health, Health Services Research Concentration. This full-time program prepares graduates to investigate and evaluate the complexities of health care systems in the U.S. and elsewhere. Health services research is a multidisciplinary field that examines the delivery, organization, financing, and outcomes of health care services.

Minimum requirements for these degrees are available in the Graduate Degrees section of this catalog.

For more information, please see the program pages below and our website: http://hsrmp.phhp.ufl.edu.

Health Administration

College of Public Health and Health Professions

Health Services Research, Management and Policy Department

Health Administration Program Information

The Master of Health Administration (M.H.A.) is a two-year, lock-step program with a summer internship between the first and second years. Small class size permits individual attention and guidance from faculty members. The program prepares qualified individuals motivated by a social mission and responsibility to the community for various management positions in the health services industry. Organizations seek individuals who have the ability to solve business problems and build strategic relationships in a climate of continuous change.

The UF M.H.A. program develops engaged early health care careerists to use evidence-based strategies to improve healthcare quality, affordability, and access. We provide students with fundamental knowledge using a cohort model in a campus-based setting that emphasizes experiential learning and data-driven problem solving both in the classroom and in the practice environment. Students will develop proficiency to detect, analyze, manage and respond to critical administrative issues in both provider and non-provider healthcare organizations. Our program embraces ethical conduct and professionalism, diversity and inclusion, practitioner involvement and team-based learning. Faculty inform practice with research and service to the community.

Applicants from any undergraduate major are considered. For more information about our program and details about the MBA/MHA dual degree, please see our website: http://hsrmp.phhp.ufl.edu/academic-programs/master-of-health-administration.

Degrees

Master of Health Administration

Health Administration Program Courses

- HSA 5174: Fundamentals of Health Care Finance
- HSA 6105: Professional Skills Seminar
- HSA 6114: U.S. Health Care System
- HSA 6115: Introduction to Management of Health Services Organizations
- HSA 6126: U.S. Health Insurance System
- HSA 6152: Overview of U.S. Health Policy
- HSA 6177: Advanced Health Care Finance
- HSA 6188: Strategic Management in Health Administration
- HSA 6196: Healthcare Data Analytics II
- HSA 6198: Information Management in Health Administration
- HSA 6342: Human Resource Management for Health Services Managers
- HSA 6385: Performance Management for Health Care Managers
- HSA 6427: Legal and Ethical Issues in Health Administration
- HSA 6436: Health Economics
- HSA 6855: Internship in Health Administration
- HSA 6905: Individual Study in Health Administration
- HSA 6939: Capstone Seminar in Health Administration

Health Services Research, Management, and Policy Departmental Courses

- HSA 5103: Introduction to the U.S. Health Care System
- HSA 5174: Fundamentals of Health Care Finance
- HSA 6105: Professional Skills Seminar
- HSA 6114: U.S. Health Care System
- HSA 6115: Introduction to Management of Health Services Organizations
- HSA 6126: U.S. Health Insurance System
- HSA 6152: Overview of U.S. Health Policy
- HSA 6175: Health Care Financial Management
- HSA 6177: Advanced Health Care Finance
- HSA 6179: Introduction to Health Care Finance
- HSA 6188: Strategic Management in Health Administration
- HSA 6196: Healthcare Data Analytics II
- HSA 6197: Information Management in Health Administration
- HSA 6198: Information Management in Health Administration
- HSA 6342: Human Resource Management for Health Services Managers
- HSA 6385: Performance Management for Health Care Managers
- HSA 6395: Healthcare Data Analytics I
- HSA 6427: Legal and Ethical Issues in Health Administration
- HSA 6436: Health Economics

- HSA 6855: Internship in Health Administration
- HSA 6858: Internship in Health Services Research
- HSA 6878: Externship in Legal Aspects of Health Services Administration
- HSA 6905: Individual Study in Health Administration
- HSA 6910: Supervised Research
- HSA 6911: Research Seminar in Health Services Research
- HSA 6930: Special Topics in Health Services Administration
- HSA 6935: Seminar in Health Administration
- HSA 6939: Capstone Seminar in Health Administration
- HSA 6940: Supervised Teaching
- HSA 6946: Internship in Public Health Management and Policy
- HSA 7106: Seminar in Health Care Access and Utilization
- HSA 7116: Health Services Organizational Research
- HSA 7157: Research Foundations of Health Policy
- HSA 7414: Society, Health, and Medical Care
- HSA 7437: Advanced Health Economics
- HSA 7707: Health Services Research Methods I
- HSA 7708: Health Services Research Methods II
- HSA 7759: Quality and Outcomes in Health Services Research
- HSA 7905: Advanced Individual Study in Health Services Research
- HSA 7936: Seminar in Health Care Costs and Financing
- HSA 7938: Advanced Seminar in Health Services Research
- HSA 7979: Advanced Research
- HSA 7980: Research for Doctoral Dissertation
- PHC 6313: Environmental Health Concepts in Public Health

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods

- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging
- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
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- PHC 6370: Public Health Biology
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- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology
- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6515: Introduction to Entomology Zoonotic Diseases and Food Safety
- PHC 6519: Zoonotic Diseases in Humans and Animals
- PHC 6520: Foodborne Diseases
- PHC 6530: Public Health Issues of Mothers and Children
- PHC 6543: Community Practice of Behavioral Health Risk Prevention
- PHC 6544: Health Behavior Interventions in Practice
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- PHC 6601: Seminar in Public Health Teaching
- PHC 6607: Critical Issues in Public Health
- PHC 6700: Social and Behavioral Research Methods
- PHC 6702: Exposure Measurement and Assessment
- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective

- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 6762: International Public Health
- PHC 6905: Independent Study
- PHC 6917: Supervised Research Project
- PHC 6931: Seminar in Global Public Health
- PHC 6937: Special Topics in Public Health
- PHC 6945: Public Health Practicum
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7038: Psychiatric Epidemiology
- PHC 7056: Analysis of Longitudinal Data
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling

- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Health Services Research

College of Public Health and Health Professions
Health Services Research, Management and Policy Department

Health Services Research Program Information

The Department of Health Services Research, Management and Policy offers a doctoral degree in Health Services Research. Health services research is a multidisciplinary field of inquiry, both basic and applied, that examines the use, costs, quality, accessibility, delivery, organization, financing, and outcomes of healthcare services. The objective is to increase knowledge and understanding of the structure and processes of the healthcare system, and to assess subsequent effects on individuals and populations. Health services research draws on a variety of disciplines, and integrates their conceptual frameworks and methods to provide new ways of studying and understanding the health care system.

The Ph.D. Program in Health Services Research prepares individuals to conduct inquiry that will inform government officials, corporate leaders, clinicians, health plan managers, and others making decisions about complex health-related problems and issues. Students in the Ph.D. Program in Health Services Research learn to apply research methods and scientific knowledge to the study of health services organizations and systems.

Graduates of the Ph.D. Program in Health Services Research will find career opportunities in academic, private sector, and public service settings. For example, some graduates will combine research interests with a teaching career and accept academic appointments in a wide range of health-related departments in the nation's colleges and universities. Other graduates will pursue health services research in the context of healthcare delivery and choose employment opportunities with hospitals and health systems, managed care companies, the pharmaceutical industry and consulting firms. Finally, graduates may pursue careers in government or other public service entities (such as private foundations), whose programs are increasingly dependent upon the findings and methodologies of health services research.

For more details about our program, please see our website: http://hsrmp.phhp.ufl.edu/academic-programs/ph-d-in-health-services-research.

Degrees

Doctor of Philosophy

Health Services Research Program Courses

- HSA 6910: Supervised Research
- HSA 6911: Research Seminar in Health Services Research
- HSA 6930: Special Topics in Health Services Administration
- HSA 6940: Supervised Teaching
- HSA 7106: Seminar in Health Care Access and Utilization
- HSA 7116: Health Services Organizational Research
- HSA 7157: Research Foundations of Health Policy
- HSA 7414: Society, Health, and Medical Care
- HSA 7437: Advanced Health Economics
- HSA 7707: Health Services Research Methods I
- HSA 7708: Health Services Research Methods II
- HSA 7759: Quality and Outcomes in Health Services Research
- HSA 7905: Advanced Individual Study in Health Services Research
- HSA 7936: Seminar in Health Care Costs and Financing
- HSA 7938: Advanced Seminar in Health Services Research
- HSA 7979: Advanced Research
- HSA 7980: Research for Doctoral Dissertation

Health Services Research, Management, and Policy Departmental Courses

- HSA 5103: Introduction to the U.S. Health Care System
- HSA 5174: Fundamentals of Health Care Finance
- HSA 6105: Professional Skills Seminar
- HSA 6114: U.S. Health Care System
- HSA 6115: Introduction to Management of Health Services Organizations
- HSA 6126: U.S. Health Insurance System
- HSA 6152: Overview of U.S. Health Policy
- HSA 6175: Health Care Financial Management
- HSA 6177: Advanced Health Care Finance
- HSA 6179: Introduction to Health Care Finance
- HSA 6188: Strategic Management in Health Administration
- HSA 6196: Healthcare Data Analytics II
- HSA 6197: Information Management in Health Administration
- HSA 6198: Information Management in Health Administration
- HSA 6342: Human Resource Management for Health Services Managers
- HSA 6385: Performance Management for Health Care Managers
- HSA 6395: Healthcare Data Analytics I
- HSA 6427: Legal and Ethical Issues in Health Administration
- HSA 6436: Health Economics
- HSA 6855: Internship in Health Administration
- HSA 6858: Internship in Health Services Research
- HSA 6878: Externship in Legal Aspects of Health Services Administration
- HSA 6905: Individual Study in Health Administration
- HSA 6910: Supervised Research
- HSA 6911: Research Seminar in Health Services Research
- HSA 6930: Special Topics in Health Services Administration

- HSA 6935: Seminar in Health Administration
- HSA 6939: Capstone Seminar in Health Administration
- HSA 6940: Supervised Teaching
- HSA 6946: Internship in Public Health Management and Policy
- HSA 7106: Seminar in Health Care Access and Utilization
- HSA 7116: Health Services Organizational Research
- HSA 7157: Research Foundations of Health Policy
- HSA 7414: Society, Health, and Medical Care
- HSA 7437: Advanced Health Economics
- HSA 7707: Health Services Research Methods I
- HSA 7708: Health Services Research Methods II
- HSA 7759: Quality and Outcomes in Health Services Research
- HSA 7905: Advanced Individual Study in Health Services Research
- HSA 7936: Seminar in Health Care Costs and Financing
- HSA 7938: Advanced Seminar in Health Services Research
- HSA 7979: Advanced Research
- HSA 7980: Research for Doctoral Dissertation
- PHC 6313: Environmental Health Concepts in Public Health

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging

- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
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- PHC 6301: Aquatic Systems and Environmental Health
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- PHC 7038: Psychiatric Epidemiology
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- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling

- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Occupational Therapy Department

Chair: S. Classen
Program Director: C. Myers

The Department of Occupational Therapy offers graduate programs in occupational therapy leading to the Master of Health Science (M.H.S.) degree and the entry-level Master of Occupational Therapy (M.O.T.) degree. However, we are no longer admitting students into these programs because the Department is transitioning to the Doctor of Occupational Therapy (O.T.D.) degree. Please see the Department website at http://www.ot.phhp.ufl.edu for more information. Complete descriptions of the requirements for the M.H.S. and M.O.T. degrees are provided in the Graduate Degrees section of this catalog.

Master of Health Science: This program is designed for students who have earned an undergraduate degree in Occupational therapy. The thesis option requires four semesters of course work and a formal research thesis, while the nonthesis option requires three semesters of course work and a research project. The program emphasizes research and advanced theories related to occupational therapy practice.

Additional information about the Master of Health Science is available at http://www.ot.phhp.ufl.edu or by telephone at (352)273-6817.

Master of Occupational Therapy: This entry-level degree program is designed for students who do not have an undergraduate degree in occupational therapy. The program provides students with a holistic perspective, including an understanding of the philosophical and theoretical bases for practice in the current health care environment. The M.O.T. program provides a strong background in theory, assessment, and therapeutic interventions. Before their professional preparation in the M.O.T. program, students receive a liberal education in their pre-professional baccalaureate studies, including several courses specifically focused for students planning to enter the M.O.T. program. Students complete these courses in the Bachelor of Health Science degree program at the bachelor's level, or they may complete these courses as part of the M.O.T. program. Currently enrolled students are only admitted into the M.O.T. program once a year and can expect to graduate at the end of the fall term after 1.33 years of successful full-time M.O.T. coursework (5 semesters) and 58 credits.

This program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association. The address for ACOTE is 4720 Montgomery Lane, Suite 200, Bethesda, MD, 20814. The phone number is (301) 652-2682. Graduates of the program are eligible to sit for the national certification exam administered by the National Board for Certification in Occupational Therapy (NBCOT). The website address of NBCOT is www.nbcot.org.

Occupational Therapy

College of Public Health and Health Professions
Occupational Therapy Department

Occupational Therapy Program Information

The UF Department of Occupational Therapy currently offers a Master's in Occupational Therapy (MOT), however, the Department is in the process of transitioning to the Doctor of Occupational Therapy (OTD) and is no longer admitting students to the Master's program. Please see the Department website http://ot.phhp.ufl.edu.

Degrees

Master of Health Science
Master of Occupational Therapy

Occupational Therapy Courses

- OTH 6002: Foundations of Occupational Therapy
- OTH 5115C: Therapeutic Skills II: Areas of Occupation
- OTH 6324: Psychosocial Intervention
- OTH 6435: Therapeutic Skills I
- OTH 6722: Professional Development in Occupational Therapy
- OTH 5726C: Service Delivery and OT Management
- OTH 5770C: Research for Occupational Therapy
- OTH 5812: Practicum I
- OTH 5816: Practicum II
- OTH 5848: Internship I
- OTH 5849: Internship II
- OTH 6008C: Neuroscience of Human Occupation
- OTH 6539: Occupational Therapy Theory
- OTH 6635: Principles of Occupational Therapy Screening and Evaluation I
- OTH 6636: Principles of Occupational Therapy Screening and Evaluation II
- OTH 6641: Occupational Therapy Interventions I
- OTH 6642: Occupational Therapy Interventions II
- OTH 6707: OT Manager
- OTH 6708: Issues in Occupational Therapy Practice I
- OTH 6709: Issues in Occupational Therapy Practice II
- OTH 6720: Trends and Issues in Health Care
- OTH 6861: Specialty Internship
- OTH 6905: Individual Work
- OTH 6907: Professional Development Project
- OTH 6933: Special Topics in Occupational Therapy

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
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- PHC 6317: Risk Communication for Public Health Practice
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- PHC 7727: Grant Writing for Population Health Research
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- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture

- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
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- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Speech, Language, and Hearing Sciences Department

Chair: Susan N. Nittrouer
Associate Chair: Kenneth J. Logan
Graduate Coordinators: Kenneth J. Logan and Scott K. Griffiths

Graduate programs in the Department lead to Master of Arts and Doctor of Philosophy degrees in Communication Sciences and Disorders and to the Doctor of Audiology degree.
Requirements for these degrees are given in the Graduate Degrees section of this catalog.

The Master of Arts in Communication Sciences and Disorders and the Doctor of Audiology degrees are accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association.

The **Master of Arts (M.A.) Program** offers comprehensive academic and clinical training for students who are interested in a career in speech-language pathology. The five-semester program culminates in the completion of either a clinical

externship or a Master's thesis, and it provides graduates with a solid foundation for obtaining employment in a variety of work settings. Students have the opportunity to complete clinical practica at sites within the University of Florida's Health Science Center and at other medical, rehabilitative, and educational facilities on or near the campus. These sites allow students to gain experience with providing clinical services to a range of patient populations.

Applicants to the Master's program must demonstrate successful completion of pre-requisite coursework in both normal bases of communication and introductory concepts in communication disorders. Additional information about these pre-requisites is available on the Department website. Graduates of the program are eligible for the Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP) from the American Speech-Language-Hearing Association as well as state licensure in speech-language pathology. For more information, contact Kenneth J. Logan, Ph.D. (klogan@ufl.edu).

The **Doctor of Audiology (Au.D.) Program** in the Department of Speech, Language, and Hearing Sciences is a four-year graduate degree. Graduate students take course work in theoretical and applied audiologic sciences and research. There are no specific undergraduate courses required for admission to the Au.D. degree program, although applicants with a strong science background are encouraged to apply. Graduates of this program are eligible for the Certificate of Clinical Competence in Audiology (CCC-A) administered by the American Speech-Language-Hearing Association, Board Certification in Audiology administered by the American Academy of Audiology, and for state licensure in audiology. For more information, contact Scott K. Griffiths, Ph.D. (sgriff@phhp.ufl.edu).

The **Ph.D. Program in Rehabilitation Sciences: Speech, Language, and Hearing Sciences and Bulbar Sciences concentrations** provides state-of-the-art education in research practices in speech-language pathology, audiology, and bulbar science in the context of Rehabilitation Science. The Ph.D. program has a strong interdisciplinary focus and is designed to prepare the next generation of researchers who are specialized in basic and/or applied science related to a range of speech, language, hearing, and swallowing functions. The program's goal is to develop researchers who are skilled at independently designing and conducting original research that adds to the body of knowledge in the field. Students are individually mentored and pursue individually designed programs of study that are tailored to their interests and needs. Programs of study often incorporate training in appropriate adjunct fields such as engineering, dentistry, gerontology, linguistics, psychology, medicine, kinesiology, and special education. For more information, see the concentration in Communication and Bulbar Sciences and Disorders description under the Ph.D. in Rehabilitation Sciences. This concentration focuses on research across a range of specialties in speech-language pathology, audiology and bulbar science, including: language acquisition and its disorders, articulation, fluency, voice, adult language disorders, cognitive disorders, hearing science, balance disorders, cochlear implants, swallowing, and other functions of the upper aerodigestive tract. For information about this Ph.D. track, contact Dr. Lori Altmann (laltmann@ufl.edu). For general information about the Ph.D. in Rehabilitation Sciences program, including application deadlines, contact Laura Quintana (lauraq@phhp.ufl.edu).

The Department of Speech, Language, and Hearing Sciences is committed to providing its students with a high-quality educational experience that will prepare them for rewarding employment in the areas of speech-language pathology audiology, and bulbar science, as well as an eagerness for life-long learning and professional development. The department strives to enroll a diverse group of students who possess both high ethical standards and strong academic skills. The application deadline for fall semester admission to the M.A. and Au.D., and Ph.D. programs is January 15.

For more information on the M.A. and Au.D. degree programs and associated application procedures, please see the program webpages on the department website: M.A. (http://slhs.phhp.ufl.edu/academics/masters/); Au.D. (http://audiology.ufl.edu). Additional information about these degree programs also can be found in the Program pages of the Graduate Catalog (see links below). For more information about the Ph.D. degree program, see the website for the Ph.D. in Rehabilitation Sciences: https://rehabsci.phhp.ufl.edu/programs/.

Audiology

College of Public Health and Health Professions
Speech, Language, and Hearing Sciences Department

Audiology Program Information

The Department of Speech, Language, and Hearing Sciences offers the Doctor of Audiology degree. The official minimum requirements for the degree are available in the Graduate Degrees section of this catalog.

The **Doctor of Audiology degree program is a campus-based program** that

- Prepares students for a professional career in audiology;
- Provides a wide array of experiences in the practice of diagnostic and rehabilitative audiology;
- Provides students with complex and diverse skills necessary to meet the challenges of the rapidly changing hearing health care field.

The clinical and academic curriculum includes course work in the basic sciences, applied audiology, clinical research, statistics, audiologic rehabilitation, medical neuroscience, neuro-otology, cochlear implants, health care administration, programmable hearing aids, counseling, and aging. Graduates of this program are eligible for the Certificate of Clinical Competence in Audiology (CCC-A) administered by the American Speech-Language-Hearing Association, Board Certification in Audiology administered by the American Academy of Audiology, and for state licensure in audiology.

The on-campus program for bachelors-level applicants is a four-year graduate degree totaling 110 semester hours. The curriculum includes 78 hours of course work in basic sciences, applied audiology, clinical research, statistics, audiologic rehabilitation, medical neuroscience, neuro-otology, cochlear implants, pharmacology, health care administration, programmable and digital hearing aids, counseling, communication and aging, and speech-language pathology.

In the remaining 32 hours of the on-campus program, students gain extensive clinical practicum experience. These practicum experiences utilize various resources at the University of Florida Health Science Center and affiliated hospitals in the North Florida area as well as the Veterans Administration Medical Center. The final clinical training hours occur during the fourth year of the program as part of an audiology externship placement.

The **Distance Learning Au.D. Degree** is a flexible program designed to provide working professional audiologists with the complex and diverse skills necessary to meet the challenges of the dynamic healthcare marketplace. The program provides an opportunity for working professionals to enhance their clinical skills and knowledge through 45-credit hours of online coursework covering the major content areas in the audiology scope of practice.

For more information, please see our websites: http://audiology.ufl.edu/programs/on-campus/on-campus-au-d and http://audiology.ufl.edu/programs/distance-learning/distance-learning-au-d.

Degrees Offered with a Major in Audiology

Doctor of Audiology

Speech, Language and Hearing Sciences Departmental Courses

- LAE 6505: Applied Preschool Language Disorders: Diagnosis and Treatment
- LIN 5741: Applied English Grammar
- SPA 5051: Clinical Observation in Audiology
- SPA 5102: Auditory Anatomy and Physiology
- SPA 5128: Speech Perception

- SPA 5204: Phonological Disorders
- SPA 5211: Voice Disorders
- SPA 5225: Principles of Speech Pathology: Stuttering
- SPA 5245: Communicative Disorders Related to Cleft Palate
- SPA 5254: Neurocognitive Language Disorders
- SPA 5304: Principles of Audiological Evaluation
- SPA 5315: Peripheral and Central Auditory Disorders
- SPA 5401: Speech Pathology Language Disorder
- SPA 5405: Language Disorders II
- SPA 5553: Instrumentation and Diagnosis in Speech-Language Pathology
- SPA 5563: Psychosocial Aspects of Hearing Loss
- SPA 5646: Speech and Language of the Deaf and Hard of Hearing
- SPA 6008: Medical Aspects of Speech-Language Pathology
- SPA 6010: Basic Auditory Sciences
- SPA 6133L: Hearing Aid Analysis Laboratory
- SPA 6207: Applied Phonological Disorders: Diagnosis and Treatment
- SPA 6211: Applied Voice Disorders: Diagnosis and Treatment
- SPA 6229: Applied Fluency Disorders: Diagnosis and Treatment
- SPA 6233: Speech Motor Control Disorders
- SPA 6270: Auditory Processing Disorders
- SPA 6805: Introduction to Graduate Research
- SPA 6305: Pediatric Audiology
- SPA 6311: Medical Audiology
- SPA 6317: Vestibular Disorders
- SPA 6323: Audiologic Rehabilitation for Adults
- SPA 6324: Audiologic Rehabilitation for Children
- SPA 6340: Amplification I
- SPA 6341: Amplification II
- SPA 6390: Proseminar: Speech-Language Pathology and Audiology
- SPA 6410: Adult Language Disorders
- SPA 6416: Applied Neurogenic Disorders: Diagnosis and Treatment
- SPA 6430: Applied Developmental Disorders: Diagnosis and Treatment in Speech and Language
- SPA 6506: Clinical Clerkship in Audiology
- SPA 6507: Applied Augmentative and Alternative Communication
- SPA 6521: Practicum in Speech-Language Diagnostics: UFSHC
- SPA 6524: Practicum in Speech-Language Therapy: UFSHC
- SPA 6531: Clinical Practice in Hearing Assessment
- SPA 6533: Clinical Practice in Aural Rehabilitation
- SPA 6559: Alternative and Augmentative Communication
- SPA 6564: Communication and Aging
- SPA 6565: Seminar in Dysphagia
- SPA 6570: Seminar: Professional Aspects of Speech-Language Pathology
- SPA 6581: Special Clinical
- SPA 6905: Individual Study
- SPA 6910: Supervised Research
- SPA 6930: Proseminar in Speech-Language Pathology and Audiology

- SPA 6935: Applied Reading Disabilities: Diagnosis and Treatment
- SPA 6936: Special Topics
- SPA 6940: Supervised Teaching
- SPA 6942: Externship in Speech-Language Pathology
- SPA 6971: Research for Master's Thesis
- SPA 7306: Audiologic Assessment in a Medical Setting
- SPA 7318: Clinical Auditory Electrophysiology
- SPA 7319: Balance Disorders: Evaluation and Treatment
- SPA 7325: Audiologic Rehabilitation
- SPA 7343: Cochlear Implants and Assistive Devices
- SPA 7348: Principles of Amplification
- SPA 7353: Environmental Hearing Conservation
- SPA 7354: Seminar in Audiology: Hearing Conservation and Noise Control
- SPA 7391: Business and Professional Issues in Audiology
- SPA 7415: Neurolinguistics of Adult Language Disorders
- SPA 7500: Public School Practicum
- SPA 7523: Practicum in Speech Pathology in a Medical/Dental Setting
- SPA 7540: Diagnosis and Treatment of Language and Language-Based Literacy Disorders
- SPA 7566: Counseling Individuals with Hearing Losses
- SPA 7833: Audiology Research Project
- SPA 7945: Graduate Practicum in Audiology
- SPA 7946: Clinical I: Practicum in Medical Speech and Language Pathology
- SPA 7947: Clinical II: Practicum in Advanced Medical Speech-Language Pathology
- SPA 7958: Clinical Externship
- SPA 7979: Advanced Research
- SPA 7980: Research for Doctoral Dissertation

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases
- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I

- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging
- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
- PHC 6312: Water Quality and Human Health
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6316: Health, Risk, and Crisis Communication
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6370: Public Health Biology
- PHC 6403: Adolescence, Risk Taking and Health
- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology
- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6515: Introduction to Entomology Zoonotic Diseases and Food Safety
- PHC 6519: Zoonotic Diseases in Humans and Animals
- PHC 6520: Foodborne Diseases
- PHC 6530: Public Health Issues of Mothers and Children
- PHC 6543: Community Practice of Behavioral Health Risk Prevention
- PHC 6544: Health Behavior Interventions in Practice
- PHC 6561: Public Health Laboratory Techniques
- PHC 6585: Health Promotion and Disease Prevention
- PHC 6586: Interventions for Public Health
- PHC 6601: Seminar in Public Health Teaching
- PHC 6607: Critical Issues in Public Health
- PHC 6700: Social and Behavioral Research Methods
- PHC 6702: Exposure Measurement and Assessment

- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 6762: International Public Health
- PHC 6905: Independent Study
- PHC 6917: Supervised Research Project
- PHC 6931: Seminar in Global Public Health
- PHC 6937: Special Topics in Public Health
- PHC 6945: Public Health Practicum
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7038: Psychiatric Epidemiology
- PHC 7056: Analysis of Longitudinal Data
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research
- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling

- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

Communication Sciences and Disorders

College of Public Health and Health Professions
Speech, Language, and Hearing Sciences Department

Communication Sciences and Disorders Program Information

The Department of Speech, Language, and Hearing Sciences offers a Master of Arts in Communication Sciences and Disorders. Doctor of Philosophy (Ph.D.) degrees are offered through two tracks within the Rehabilitation Sciences Doctor of Philosophy program: a Speech, Language, and Hearing Sciences track and a Bulbar Science (swallowing and airway defense) track. For more information about a Ph.D. in Speech Pathology and Audiology related topcis, see <Link to RSD pages>.

The **Master of Arts program** is designed to prepare students for entry-level professional practice in speech-language pathology. The program offers students a comprehensive learning experience – one that combines active classroom-based learning with an assortment of "hands on" learning opportunities at the many clinical sites available on or near the University of Florida campus. Graduates of the program can expect to develop the knowledge and skills that are needed to deliver evidence-based clinical services to a wide range of populations in a variety of clinical settings. The Masters program is primarily oriented toward developing students' clinical competence; however, students also have access to a range of opportunities for developing skills in basic and applied research. Students who elect to enter the "thesis track" of the program conduct original research in laboratory and real-world settings under the mentorship of faculty who are widely recognized for their research contributions.

For more information, please see our website: http://slhs.phhp.ufl.edu/academics.

Degrees Offered with a Major in Communication Sciences and Disorders

Doctor of Philosophy
Master of Arts

Speech, Language and Hearing Sciences Departmental Courses

- LAE 6505: Applied Preschool Language Disorders: Diagnosis and Treatment
- LIN 5741: Applied English Grammar
- SPA 5051: Clinical Observation in Audiology
- SPA 5102: Auditory Anatomy and Physiology
- SPA 5128: Speech Perception
- SPA 5204: Phonological Disorders
- SPA 5211: Voice Disorders
- SPA 5225: Principles of Speech Pathology: Stuttering
- SPA 5245: Communicative Disorders Related to Cleft Palate
- SPA 5254: Neurocognitive Language Disorders
- SPA 5304: Principles of Audiological Evaluation
- SPA 5315: Peripheral and Central Auditory Disorders
- SPA 5401: Speech Pathology Language Disorder
- SPA 5405: Language Disorders II
- SPA 5553: Instrumentation and Diagnosis in Speech-Language Pathology
- SPA 5563: Psychosocial Aspects of Hearing Loss
- SPA 5646: Speech and Language of the Deaf and Hard of Hearing
- SPA 6008: Medical Aspects of Speech-Language Pathology
- SPA 6010: Basic Auditory Sciences
- SPA 6133L: Hearing Aid Analysis Laboratory
- SPA 6207: Applied Phonological Disorders: Diagnosis and Treatment
- SPA 6211: Applied Voice Disorders: Diagnosis and Treatment
- SPA 6229: Applied Fluency Disorders: Diagnosis and Treatment
- SPA 6233: Speech Motor Control Disorders
- SPA 6270: Auditory Processing Disorders
- SPA 6805: Introduction to Graduate Research
- SPA 6305: Pediatric Audiology
- SPA 6311: Medical Audiology
- SPA 6317: Vestibular Disorders
- SPA 6323: Audiologic Rehabilitation for Adults
- SPA 6324: Audiologic Rehabilitation for Children
- SPA 6340: Amplification I
- SPA 6341: Amplification II
- SPA 6390: Proseminar: Speech-Language Pathology and Audiology
- SPA 6410: Adult Language Disorders
- SPA 6416: Applied Neurogenic Disorders: Diagnosis and Treatment
- SPA 6430: Applied Developmental Disorders: Diagnosis and Treatment in Speech and Language
- SPA 6506: Clinical Clerkship in Audiology
- SPA 6507: Applied Augmentative and Alternative Communication
- SPA 6521: Practicum in Speech-Language Diagnostics: UFSHC
- SPA 6524: Practicum in Speech-Language Therapy: UFSHC
- SPA 6531: Clinical Practice in Hearing Assessment
- SPA 6533: Clinical Practice in Aural Rehabilitation
- SPA 6559: Alternative and Augmentative Communication
- SPA 6564: Communication and Aging

- SPA 6565: Seminar in Dysphagia
- SPA 6570: Seminar: Professional Aspects of Speech-Language Pathology
- SPA 6581: Special Clinical
- SPA 6905: Individual Study
- SPA 6910: Supervised Research
- SPA 6930: Proseminar in Speech-Language Pathology and Audiology
- SPA 6935: Applied Reading Disabilities: Diagnosis and Treatment
- SPA 6936: Special Topics
- SPA 6940: Supervised Teaching
- SPA 6942: Externship in Speech-Language Pathology
- SPA 6971: Research for Master's Thesis
- SPA 7306: Audiologic Assessment in a Medical Setting
- SPA 7318: Clinical Auditory Electrophysiology
- SPA 7319: Balance Disorders: Evaluation and Treatment
- SPA 7325: Audiologic Rehabilitation
- SPA 7343: Cochlear Implants and Assistive Devices
- SPA 7348: Principles of Amplification
- SPA 7353: Environmental Hearing Conservation
- SPA 7354: Seminar in Audiology: Hearing Conservation and Noise Control
- SPA 7391: Business and Professional Issues in Audiology
- SPA 7415: Neurolinguistics of Adult Language Disorders
- SPA 7500: Public School Practicum
- SPA 7523: Practicum in Speech Pathology in a Medical/Dental Setting
- SPA 7540: Diagnosis and Treatment of Language and Language-Based Literacy Disorders
- SPA 7566: Counseling Individuals with Hearing Losses
- SPA 7833: Audiology Research Project
- SPA 7945: Graduate Practicum in Audiology
- SPA 7946: Clinical I: Practicum in Medical Speech and Language Pathology
- SPA 7947: Clinical II: Practicum in Advanced Medical Speech-Language Pathology
- SPA 7958: Clinical Externship
- SPA 7979: Advanced Research
- SPA 7980: Research for Doctoral Dissertation

College of Public Health and Health Professions Courses

- GEY 5935: Topics in Gerontology
- GEY 6220: Overview of Geriatric Care Management
- GEY 6306: Interpersonal Communication Within the Aging Network
- GEY 6646: Issues and Concepts in Gerontology
- GEY 6936: Professional Development in Gerontology/Geriatrics
- HSA 6940: Supervised Teaching
- HSC 5938: Special Topics
- HSC 6905: Independent Study
- HSC 6940: Supervised Teaching
- PHC 6000: Epidemiology Methods I
- PHC 6001: Principles of Epidemiology in Public Health
- PHC 6002: Epidemiology of Infectious Diseases

- PHC 6003: Epidemiology of Chronic Diseases and Disability
- PHC 6009: Biology and Epidemiology of HIV/AIDS
- PHC 6011: Epidemiology Methods II
- PHC 6016: Social Epidemiology in Public Health
- PHC 6036: Environmental Infectious Diseases: A Molecular Approach
- PHC 6050: Statistical Methods for Health Sciences Research I
- PHC 6052: Introduction to Biostatistical Methods
- PHC 6053: Regression Methods for the Health and Life Sciences
- PHC 6102: Introduction to Public Health Administrative Systems
- PHC 6103: Systems Thinking for Public Health
- PHC 6104: Evidence-Based Management of Public Health Programs
- PHC 6120: Community Assessment and Partnerships
- PHC 6146: Public Health Program Planning and Evaluation
- PHC 6153: Public Policy and Aging
- PHC 6183: Disaster Preparedness and Emergency Response
- PHC 6193: Qualitative Data Analysis
- PHC 6194: Spatial Epidemiology
- PHC 6195: Health information for Diverse Populations: Theory & Methods
- PHC 6220: Overview of Long-Term Care
- PHC 6251: Assessment and Surveillance in Public Health
- PHC 6301: Aquatic Systems and Environmental Health
- PHC 6309: Environmental Justice Issues in Public Health
- PHC 6312: Water Quality and Human Health
- PHC 6313: Environmental Health Concepts in Public Health
- PHC 6316: Health, Risk, and Crisis Communication
- PHC 6317: Risk Communication for Public Health Practice
- PHC 6346: Occupational and Environmental Health Among Agriculture Workers
- PHC 6370: Public Health Biology
- PHC 6403: Adolescence, Risk Taking and Health
- PHC 6404: Gender, Sexuality, and Health
- PHC 6410: Psychological, Behavioral, and Social Issues in Public Health
- PHC 6413: Critical Incidents and Violence in Communities
- PHC 6418: Foundations in Aging and Public Health Policy and Epidemiology
- PHC 6419: Biomedical and Psychological Aspects of Very Late Life
- PHC 6421: Public Health Law and Ethics
- PHC 6441: Health Disparities in the United States
- PHC 6445: Global Public Health and Development II
- PHC 6447: Ecology of HIV/Aids in the Rural South
- PHC 6512: Environmental Management of Vector-Borne Diseases
- PHC 6515: Introduction to Entomology Zoonotic Diseases and Food Safety
- PHC 6519: Zoonotic Diseases in Humans and Animals
- PHC 6520: Foodborne Diseases
- PHC 6530: Public Health Issues of Mothers and Children
- PHC 6543: Community Practice of Behavioral Health Risk Prevention
- PHC 6544: Health Behavior Interventions in Practice
- PHC 6561: Public Health Laboratory Techniques

- PHC 6585: Health Promotion and Disease Prevention
- PHC 6586: Interventions for Public Health
- PHC 6601: Seminar in Public Health Teaching
- PHC 6607: Critical Issues in Public Health
- PHC 6700: Social and Behavioral Research Methods
- PHC 6702: Exposure Measurement and Assessment
- PHC 6706: Health-Medical Outcomes Research and Measurement: A Policy Applications Perspective
- PHC 6711: Measurement in Epidemiology and Outcomes Research
- PHC 6716: Survey Research Methods
- PHC 6762: International Public Health
- PHC 6905: Independent Study
- PHC 6917: Supervised Research Project
- PHC 6931: Seminar in Global Public Health
- PHC 6937: Special Topics in Public Health
- PHC 6945: Public Health Practicum
- PHC 6946: Public Health Internship
- PHC 7000: Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods
- PHC 7038: Psychiatric Epidemiology
- PHC 7056: Analysis of Longitudinal Data
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- PHC 7427: Ethics in Population Science
- PHC 7595: Introduction to Molecular Epidemiology
- PHC 7587: Theory Development and Testing in Behavioral & Community Public Health
- PHC 7727: Grant Writing for Population Health Research
- PHC 7752: Seminar in Instrument Development for Public Health
- PHC 7901: Epidemiology Literature Review and Critique (Journal Club)
- PHC 7907: Social and Behavioral Science Journal Club
- PHC 7979: Advanced Research
- PHC 7980: Research for Doctoral Dissertation
- PHT 5156: Exercise Physiology
- PHT 6125C: Concepts in Clinical Biomechanics
- PHT 6127C: Control of Gait and Posture
- PHT 6167C: Applied Neurophysiology for Physical Therapy
- PHT 6236C: Neurological Dysfunction as Applied to Physical Therapy
- PHT 6316: Neurological Aspects of Orthopedic Rehabilitation
- PHT 6615L: Research Instrumentation in Physical Therapy
- RSD 6718: Neuroplasticity: A Foundation for Neurorehabilitation
- RSD 6110: Rehabilitation Science Theory and Application I
- RSD 6114: Rehabilitation in the United Kingdom
- RSD 6400: Models and Principles of Motor Learning and Control: Application in Rehabilitation Science
- RSD 6700: Rasch Measurement: Introduction and Application
- RSD 6706: Scientific Writing for the Rehabilitation Professional
- RSD 6900: College Classroom: Teaching Process and Practice
- RSD 6905: Individual Work
- RSD 6910: Supervised Research

- RSD 6930: Special Topics in Rehabilitation Science
- RSD 6940: Supervised Teaching
- RSD 7979: Advanced Research
- RSD 7980: Research for Doctoral Dissertation
- RCS 5245: Psychosocial and Cultural Foundations of Rehabilitation Counseling
- RCS 6080: Medical and Psychosocial Aspects of Rehabilitation Counseling
- RCS 6242C: Vocational and Lifestyle Assessment in Rehabilitation Counseling
- RCS 6255C: Individual Evaluation and Assessment in Rehabilitation Counseling
- RCS 6412: Rehabilitation Counseling Theory and Practice
- RCS 6470: Human Sexuality and Disability
- RCS 6601: Forensic Rehabilitation Consultation I
- RCS 6602: Forensic Rehabilitation Consultation II
- RCS 6625: Community Counseling and Case Management
- RCS 6641: Applied Case Management and Consultation in Rehabilitation Counseling
- RCS 6740: Rehabilitation Research
- RCS 6780: Ethical, Legal, and Professional Issues in Rehabilitation
- RCS 6905: Individual Work
- RCS 6931: Special Topics

College of Veterinary Medicine

Dean: G. F. Hoffsis

The UF College of Veterinary Medicine is the state's only veterinary college. UF's College of Veterinary Medicine offers comprehensive services to the public through teaching, research, extension and state-of-the-art patient care.

For more information, please see our website: http://www.vetmed.ufl.edu

Veterinary Medical Sciences

College of Veterinary Medicine

Veterinary Medical Sciences Program

Chair: C. Risco
Graduate Coordinator (Large Animals): I. Larkin
Graduate Coordinator (Small Animals): D. Lewis

The College of Veterinary Medicine offers graduate study leading to the Master of Science and Doctor of Philosophy degrees in veterinary medical sciences. The College also offers certification and a nonthesis concentration in forensic toxicology via web-based distance education. Minimum requirements for the Master of Science and Doctor of Philosophy degrees are described in the *Graduate Degrees* section of this catalog.

The program provides extensive training in basic and applied research for qualified students with a baccalaureate degree or a D.V.M. or equivalent degree. Applicants are expected to have a background in the biological sciences, mathematics, chemistry, and physics. Particular attention is paid to the advanced education of veterinarians, those interested solely in research, and those interested in combining their graduate study with residency training in a clinical specialty. The College offers three areas of specialization within the veterinary medical sciences program:

Large and Small Animal Clinical Sciences: Physiology, endocrinology, aquatic animal health, fish diseases, gastroenterology, immunology, vision sciences, perinatology, reproductive biology, pharmacokinetics, veterinary sports medicine, and wildlife and zoological medicine (I. Larkin and D. Lewis Graduate Coordinators).

Physiological Sciences: Comparative anatomy, physiology, pharmacology, biochemistry, neurobiology, nutrition, reproductive biology, and toxicology (R. Johnson, Graduate Coordinator).

Infectious Diseases and Experimental Pathology: Bacteriology, parasitology, virology, immunopathology, molecular mechanisms of disease and host defense, epidemiology, and veterinary public health (M.T. Long, Graduate Coordinator).

The College participates in the interdisciplinary specialization in toxicology, in cooperation with other departments and colleges in both the Health Science Center and the Institute of Food and Agricultural Sciences and with the Center for Environmental and Human Toxicology (see the Toxicology description under *Interdisciplinary Graduate Studies*).

The following courses in related areas are acceptable for graduate major credit in veterinary medical sciences: **Physiological Sciences:** ANS 6704, ANS 6751, BCH 5413, BCH 6206, BCH 6415, BCH 6740, BMS 6510, GMS 6400C, GMS 6735 , GMS 7706C , GMS 7743. **Infectious Diseases and Experimental Pathology:** BCH 5413, BCH 6415, BMS 603, GMS 5304C, GMS 6140, GMS 6152, GMS 6330, GMS 6332, GMS 6333, GMS 6381, GMS 6382, GMS 6421, STA 6208, STA 6166, STA 6176 . **Large and Small Animal Clinical Sciences:** all of the above.

Degrees Offered with a Major in Veterinary Medical Sciences

Doctor of Philosophy

without a concentration
concentration in Animal Molecular and Cellular Biology
concentration in Clinical and Translational Science
concentration in Toxicology

Master of Science

without a concentration
concentration in Forensic Toxicology
concentration in Shelter Medicine
concentration in Veterinary Forensic Sciences

Veterinary Medical Sciences Courses

- GMS 6070: Sensory and Motor Systems
- GMS 6074: Comparative and Evolutionary Neurobiology
- GMS 6077: Neural Degeneration and Regeneration
- GMS 6312: Clinical Chemistry and Toxicology
- GMS 6313: Clinical Chemistry and Toxicology: A Rotation
- GMS 6393: Seminar in Clinical Chemistry
- PHA 5270: Health Care and Patient Safety
- PHA 5271: Health Care Risk Management
- PHA 5272: Risk Management, Liability and Compliance
- PHA 6115: Equilibria, Complexations, and Interactions of Drugs
- PHA 6116: In Vivo and In Vitro Stability of Drugs
- PHA 6118: Molecular Diversity
- PHA 6125: Pharmacokinetics and Biopharmaceutics
- PHA 6170C: Pharmaceutical Product Formulation
- PHA 6183: Pharmaceutical Gene Delivery
- PHA 6185: Pharmaceutical Drug Development
- PHA 6227: Institutional Pharmacy Leadership I
- PHA 6228: Institutional Pharmacy Leadership II
- PHA 6235: Advanced Pharmaceutical Law
- PHA 6236: Health Sciences Liability Law
- PHA 6250: Patient Responsibility in Health Care
- PHA 6264: Pharmacoeconomics and Health Technology Assessment
- PHA 6265: Introduction to Pharmaceutical Outcomes and Policy I
- PHA 6266: Introduction to Pharmaceutical Outcomes and Policy II
- PHA 6268: Pharmacoepidemiology and Patient Safety
- PHA 6269: Pharmaceutical Products and Public Policy
- PHA 6274: Federal Regulations of Drugs and Pharmacy
- PHA 6275: Federal Regulations of Controlled Substances
- PHA 6276: Pharmacy Benefit Design & Management
- PHA 6277: Ethics in Drug Development Production and Use
- PHA 6278: State Regulation of Drugs and Pharmacy
- PHA 6279: Pharmaceutical Outcomes and Policy Seminar
- PHA 6286: Pharmaceutical Microeconomics
- PHA 6287: Pharmaceutical Health Economics

- PHA 6288: Critical Review of Research Methods
- PHA 6289: Regulating Clinical Research
- PHA 6291: Pharmaceutical Health Care Systems
- PHA 6416: Pharmaceutical Analysis I
- PHA 6417: Pharmaceutical Analysis II
- PHA 6427: Pharmacogenetics of Drug Metabolism
- PHA 6440: Seminar in Drug Discovery
- PHA 6717: Measurement in Pharmacy Administration Research
- PHA 6793: Evidentiary Basis of Pharmaceutical Use
- PHA 6796: Study Design in Pharmaceutical Outcomes & Policy Research
- PHA 6798: The Use and Abuse of Statistics in Drug Regulation
- PHA 6799: Patient Safety Program Evaluation
- PHA 6805: Applied Data Interpretation and Reporting of Findings in Pharmacy
- PHA 6891: Introduction to Pharmacoepidemiology
- PHA 6892: Practices and Procedures of the IRB
- PHA 6893: Research Ethics
- PHA 6894: Introduction to Graduate Studies
- PHA 6896: Preclinical Drug Evaluation
- PHA 6937: Topics in Pharmaceutical Administration
- PHC 6107: Introduction to Veterinary Public Health
- VME 5162C: Avian Diseases
- VME 5244: Physiology: Organ Systems
- VME 6008: Care of Aquatic Megavertebrates
- VME 6010: Aquatic Animal Conservation Issues
- VME 6011: Introduction to Aquatic Wildlife Health Issues
- VME 6017: Manatee Health & Conservation
- VME 6051: Cruelty to Animals and Interpersonal Violence
- VME 6052: Animal Crime Scene Processing
- VME 6053: Skeletal Trauma Analysis in Animals
- VME 6054: Scientific and Legal Principles of Forensic Evidence
- VME 6056: Animal Law
- VME 6135: Diseases of Laboratory Animals I
- VME 6136: Diseases of Laboratory Animals II
- VME 6186: Advanced Topics in Disease Pathogenesis
- VME 6421: Biology and Molecular Biology of Avian Viruses
- VME 6430C: Contemporary Issues in Small Animal Surgery
- VME 6464: Molecular Pathogenesis
- VME 6505: Autoimmunity
- VME 6570: Wildlife Conservation and Forensic Science
- VME 6571: Forensic Applied Animal Behavior
- VME 6572: Forensic Aspects of Agricultural Animal Welfare
- VME 6573: Wildlife Forensic Genetics
- VME 6574: Aquatic Animal Pathology and Forensic Science
- VME 6575: Veterinary Forensic Medicine
- VME 6576: Veterinary Forensic Pathoogy
- VME 6577: Practicing Pathology

- VME 6578: Forensic Veterinary Oesteology
- VME 6579: Veterinary Forensic Radiology and Imaging
- VME 6580: Cybercrime in Wildlife Investigations
- VME 6581: Working Dogs in Conservation and Forensic Science
- VME 6602: General Toxicology
- VME 6603: Advanced Toxicology
- VME 6604: Literature Survey in Toxicology
- VME 6605: Toxic Substances
- VME 6606: Ecological Risk Assessment
- VME 6607: Human Health Risk Assessment
- VME 6613: Forensic Toxicology I
- VME 6614: Forensic Toxicology II
- VME 6615: Veterinary Forensic Toxicology
- VME 6616: Veterinary Agents: Introduction to Critical Thinking and Environmental Monitoring
- VME 6617: Risk Assessment and Mitigation for the Use and Management of Veterinary Agents
- VME 6650: Principles of Mammalian Pharmacology
- VME 6766: Laboratory Quality Assurance/Quality Control
- VME 6767: Issues in the Responsible Conduct of Research
- VME 6771: Veterinary Epidemiologic Research
- VME 6800: Welfare and Wellness for Pets and People
- VME 6810: Integrating Veterinary Medicine with Shelter Systems
- VME 6811: Shelter Animal Physical Health
- VME 6812: Shelter Animal Behavior and Welfare
- VME 6813: Behavioral Health for Shelter Dogs and Cats
- VME 6814: Teaching Clinical Skills in Animal Shelters
- VME 6815: Animal Shelter Population Management by the Metrics
- VME 6816: The Role of the Animal Shelter in Protecting Community and Public Health
- VME 6817: Humane Euthanasia Practicies for Animal Shelters
- VME 6818: High Quality High Volume Spay Neuter
- VME 6820: Introduction to Veterinary Disaster Response
- VME 6905: Problems in Veterinary Medical Sciences
- VME 6910: Supervised Research
- VME 6931: Seminar in Veterinary Medical Sciences
- VME 6932: Seminar in Physiological Sciences
- VME 6933: Seminar in Infectious Diseases and Experimental Pathology
- VME 6934: Topics in Veterinary Medical Sciences
- VME 6936: Seminar in Pathophysiology
- VME 6938: Topics in Aquatic Animal Health
- VME 6939: Topics in International Shelter Medicine
- VME 6940: Supervised Teaching
- VME 6950: Capstone Project Presentation
- VME 6951: Scientific Poster Writing Workshop
- VME 6971: Research for Master's Thesis
- VME 7979: Advanced Research
- VME 7980: Research for Doctoral Dissertation
- WIS 5323C: Impact of Diseases on Wildlife Population

- WIS 5562: Conservation Medicine
- WIS 6557: Wildlife Conservation Laws and Legislation
- WIS 6559: Contemporary Issues in Wildlife Protection and Conservation
- WIS 6561: Wildlife Crime Scene Processing

College of Pharmacy Courses

- PHA 5171: Pharmaceutical Biotechnology
- PHA 6131: Pharmacometrics and Systems Pharmacology
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 6806: Pharmacoeconomic Modeling
- PHA 6910: Supervised Research
- PHA 6935: Selected Topics in Pharmacy
- PHA 6936: Advanced Topics in Pharmaceutical Sciences
- PHA 6938: Research Seminar
- PHA 6940: Supervised Teaching
- PHA 6971: Research for Master's Thesis
- PHA 7979: Advanced Research
- PHA 7980: Research for Doctoral Dissertation

Pharmacodynamics Courses

- PHA 5531: Neurotoxicology
- PHA 6472: Organic Synthesis of Drug Molecules
- PHA 6476: Advanced Combinatorial Chemistry in Drug Discovery
- PHA 6508: Systems Physiology and Pathophysiology I
- PHA 6509: Systems Physiology and Pathophysiology II
- PHA 6512L: Experiential Research Training in Pharmacodynamics
- PHA 6521C: Research Techniques in Pharmacodynamics
- PHA 7939: Journal Colloquy in Pharmacodynamics

Pharmacology Courses

- GMS 6563: Molecular Pharmacology
- GMS 6590: Seminar in Pharmacology
- GMS 6592: Ion Channels Journal Club: Pharmacology, Biophysics, and Neuroscience of Excitable Membranes
- GMS 6847: Translational Research and Therapeutics: Bench, Bedside, Community, & Policy
- GMS 7593: Topics in Pharmacology and Toxicology

Animal Molecular and Cellular Biology Department

Director: P.J. Hansen
For more information about the program, contact P.J. Hansen at pjhansen@ufl.edu, follow the link below to our catalog page, or visit the program's website at http://www.animal.ufl.edu/amcb/.

Animal Molecular and Cellular Biology

- College of Agricultural and Life Sciences
- College of Liberal Arts and Sciences
- College of Veterinary Medicine
- Animal Molecular and Cellular Biology Department

Animal Molecular and Cellular Biology Program

The animal molecular and cell biology (AMCB) graduate program offers Master of Science and Doctor of Philosophy degrees. Faculty are drawn from these disciplines:

- Animal Sciences
- Biochemistry and Molecular Biology
- Large Animal Clinical Sciences
- Obstetrics and Gynecology
- Zoology

Early in the program, students choose a faculty supervisor who will ensure the quality of their research experience. Students may also do optional rotations through the laboratories of one or more other faculty. The Annual Research Symposium features guest speakers and student research presentations. A weekly journal club and monthly seminars draw on the knowledge and diversity the campus offers in molecular and cell biology.

Core course requirements for the M.S. degree are BCH 5045, registration in a 1-credit graduate seminar course and successful completion of a course on responsible and ethical conduct of research. Core course requirements for the Ph.D. include BCH 5413 and GMS 6421, registration in two graduate seminar courses and successful completion of a course on responsible and ethical conduct of research.

Contact P.J. Hansen at pjhansen@ufl.edu or visit the program's website at http://www.animal.ufl.edu/amcb/.

Degrees Offered with a Major in Animal Molecular and Cellular Biology

Doctor of Philosophy
Master of Science

Animal Molecular and Cellular Biology Courses

- ABE 6933: Special Topics in Agricultural and Biological Engineering
- ALS 5364C: Molecular Techniques Laboratory
- ALS 5932: Special Topics
- ALS 6046: Grant Writing
- ANS 5446: Animal Nutrition
- ANS 5935: Reproductive Biology Seminar and Research Studies
- ANS 6288: Experimental Techniques and Analytical Procedures in Meat Research

- ANS 6313: Current Concepts in Reproductive Biology
- ANS 6387: Genetic Analysis of Complex Traits in Livestock
- ANS 6447: Ruminant Nutrition
- ANS 6449: Vitamins
- ANS 6458: Advanced Methods in Nutrition Technology
- ANS 6636: Meat Technology
- ANS 6666L: Molecular and Cellular Research Methods
- ANS 6702: Physiology of the Mammary Gland and Lactation
- ANS 6704: Mammalian Endocrinology
- ANS 6705: Muscle Physiology
- ANS 6707: Growth Physiology in Farm Animals
- ANS 6711: Current Topics in Equine Nutrition and Exercise Physiology
- ANS 6715: Gastrointestinal and Feed Microbiology
- ANS 6716: Physiology in Farm Animals
- ANS 6718: Nutritional Physiology of Domestic Animals
- ANS 6723: Mineral Nutrition and Metabolism
- ANS 6745: Introduction to Statistical Genetics
- ANS 6750: Reproductive Physiology in Farm Animals
- ANS 6751: Physiology of Reproduction
- ANS 6767: Advanced Endocrinology
- ANS 6905: Problems in Animal Science
- ANS 6910: Supervised Research
- ANS 6932: Special Topics in Animal Science
- ANS 6936: Graduate Seminar in Animal Molecular and Cell Biology
- ANS 6939: Animal Molecular and Cellular Biology Journal Colloquy
- ANS 6940: Supervised Teaching
- ANS 6942: Supervised Extension in the Animal Sciences
- ANS 6971: Research for Master's Thesis
- ANS 7979: Advanced Research
- ANS 7980: Research for Doctoral Dissertation
- BCH 5045: Graduate Survey of Biochemistry
- BCH 5413: Mammalian Molecular Biology and Genetics
- BCH 6206: Advanced Metabolism
- BCH 6415: Advanced Molecular and Cell Biology
- BCH 6740: Physical Biochemistry/Structural Biology
- BCH 6876: Recent Advances in Membrane Biology
- BCH 6877: Recent Advances in Structural Biology
- BCH 6878: Recent Advances in Cytoskeletal Processes
- BME 5401: Biomedical Engineering and Physiology I
- GMS 6012: Human Genetics
- GMS 6013: Developmental Genetics
- GMS 6014: Applications of Bioinformatics to Genetics
- GMS 6017C: In-Vitro Fertilization Laboratory Practicum A
- GMS 6018L: Advanced in-Vitro Fertilization Laboratory Practicum
- GMS 6051: Signal Transduction
- GMS 6061: Nuclear Structure and Dynamics

- GMS 6062: Protein Trafficking
- GMS 6065: Fundamentals of Cancer Biology
- GMS 6072: Neuroendocrinology and Neuroimmunology
- GMS 6079: Computers in Biology
- GMS 6140: Principles of Immunology
- GMS 6143: Cells of the Innate Immune System
- GMS 6155: DNA Microarray Data Analysis
- GMS 6221: Ethics in Genetics
- GMS 6231: Genomics and Bioinformatics
- GMS 6233: Quantitative Models of Protein Evolution and Phylogenetics
- GMS 6331: Stem Cell Biology
- GMS 6400C: Principles of Physiology
- GMS 6421: Cell Biology
- GMS 6647: Transcriptional and Translational Control of Cell Growth and Proliferation
- GMS 6861: Applied Biostatistics I
- GMS 6862: Applied Biostatistics II
- MCB 5305L: Microbial Genetics and Biotechnology Laboratory
- MCB 6485: Advanced Techniques in Microbiology and Cell Science
- PCB 5065: Advanced Genetics
- PCB 5235: Immunology
- PCB 5615: Molecular Evolution and Systematics
- PCB 6816: Thermal Physiology
- PHA 6449: Pharmacogenomics
- PHC 7090: Advanced Biostatistical Methods I
- PHC 7091: Advanced Biostatistical Methods II
- STA 6093: Introduction to Applied Statistics for Agricultural and Life Sciences
- VME 5244: Physiology: Organ Systems
- VME 6464: Molecular Pathogenesis
- VME 6602: General Toxicology
- VME 6650: Principles of Mammalian Pharmacology
- VME 6767: Issues in the Responsible Conduct of Research

University of Florida

University Writing Program

The University Writing Program at the University of Florida cultivates effective communication for engaged citizens, supporting their work in academic, business, and international spheres.

The UWP prepares students and faculty to meet their academic and professional writing goals by delivering broad-based instruction in composition, by providing a writing studio for individualized help, and by hosting faculty and student workshops. The UWP houses coursework in First-Year Writing, Second-Year Analytical Thinking and Writing, Third-Year Professional Writing in the Disciplines, and Graduate-Level Scholarship and Publication.

Engaging with students and faculty at all levels of writing and at every stage in the writing process, the UWP develops fundamental concepts of critical reasoning and effective communication.

ENC 5319: Scholarly Writing for Publication is a "service course" to other Graduate-level programs: graduate students learn how to transform research in their field of study into publishable articles, drafting, editing, and revising their work with the guidance of instructor feedback and peer review. With sufficient data, students can produce an article ready for submission to a scholarly journal in their field of study over the course of the semester.

For more information, please see our website: http://writing.ufl.edu.