Enrollment Options
Qualified students can begin classes by registering as a non-degree student for the following term. Consult the departmental graduate advisor about procedures for nondegree status and for transferring non-degree credits earned to a regular degree program.

For More Information
The UF EDGE Web site offers extensive information about our programs, as well as the application and registration process.

UF EDGE offers Master of Science Degrees and Certificate Programs from seven of our highly-ranked engineering departments. Check out our Web site for online programs available through the UF College of Engineering and UF EDGE to find the online program that meets your continuing education needs.

Civil and Coastal Engineering
Computer & Information Science and Engineering
Electrical & Computer Engineering
Environmental Engineering Sciences
Industrial & Systems Engineering
Materials Science & Engineering
Mechanical & Aerospace Engineering
Florida’s Best Engineering College
The UF College of Engineering is ranked as the No. 1 engineering college in Florida and as one of the top 25 in the nation by U.S. News & World Report. Our faculty is recognized internationally for doing cutting-edge research, and they bring their expertise and enthusiasm into the classroom to provide students with the most up-to-date knowledge in the field.

Learn Anywhere, Anytime
UF EDGE brings this exciting learning experience to a worldwide audience of placebound engineers through a variety of distance learning technologies accessible at the workplace, home, and other sites.

UF EDGE programs are delivered either via streaming video or DVD directly to the student. These are the same courses taught by University of Florida College of Engineering faculty on campus. Courses are supplemented by additional course material and interaction.

The degree can be completed in as little as 24 months.

Master Degrees Do Pay Off
A master’s degree in engineering can be worth $2.5 million over the course of your career, according to a recent U.S. Commerce Department Census Bureau study that compares educational level to work-life earnings.

The investment of time and tuition dollars toward a master’s degree can bring a terrific return in total income. Starting salaries for engineers with a master’s can be $8,000 – $10,000 higher than for those with only a bachelor’s degree.

Program Description
The University of Florida offers Master of Science and Master of Engineering degrees with a specialization in systems ecology and ecological engineering. The curriculum is designed to provide a comprehensive base in the fundamentals of systems ecology and ecological engineering. The program includes courses in: ecological engineering, ecological economics, energy analysis, wetlands studies, ecological modeling, and estuarine studies. For additional information on the program contact Mark T. Brown at 352-392-2309 or mtb@ufl.edu

Admission
Admission is coordinated by the Environmental Engineering Sciences Department. Students having a bachelor’s degree in science or engineering (also other specialties, upon approval) are eligible for enrollment provided they meet requirements for admission to the Graduate School (see www.ufl.edu/students for details). Typical admission requirements include a minimum GPA of 3.0 for all upper division undergraduate work, and a score of 1000 or more on the General Test of the Graduate Record Examination (GRE). A passing score on the Fundamental of Engineering (FE) exam may be substituted for the GRE requirement. For details on enrollment contact the academic office at 352-392-0842, StudentServices@ees.ufl.edu

Curriculum for the Master of Science Degree with a Systems Ecology and Ecological Engineering Specialty
Master’s degree programs offered through UF EDGE are non-thesis. Requirements for the degree are 30 credit hours (10 courses) of total course work that include 18 credit hours (6 courses) of required core material and 12 credit hours (4 courses) of electives.

Required Core Courses
EES 5303—Ecological and General Systems
Systems ecology including examples, languages, theoretical formulations and models for design, synthesis and prediction of systems of man and nature.

EES 5307—Ecological Engineering
Principles and practices in design and management of environment with society; systems concepts for organization of humanity, technology, and nature.

EES 6932—Wetland Treatment Systems
Applied and theoretical aspects of wetland use for water quality improvement; natural and constructed treatment wetlands, ecological and engineering design of wetland systems for sustainability and ancillary benefits.

EES 5306—Energy Analysis
Energetics of systems of environments and economics; energy analysis of environmental systems, agroecosystems, regional and national economies; energy evaluation of public policy.

EES 6932—Spring Systems
Occurrence and importance of Florida artisan springs, their flora and fauna; structure, function, organization, and ecological significance; water quality issues, human uses, development threats.

EES 6051—Advanced Environmental Planning and Design
Sustainable communities and regions. Quantitative methods for evaluation of environmental impacts and carrying capacity. Theories of spatial and temporal organization of systems of humanity and nature.

Elective Courses (choose four of the following)
ENV 6441—Water Resources Planning and Management

ENV 6932—The Global Environment Policies and Institutions
A study of global environmental policies, laws, and institutions. Issues of coordinating environmental policies among international governing bodies, nations, and state and local governments. Links between global environmental policy and sustainable development.

ENV 6932—Advanced Environmental Resources Management
Theory and application of engineering economics and systems analysis to the design of environmental management systems. Systems analysis techniques include classical and evolutionary optimization techniques and risk analysis and risk optimization for engineering design.

EES 6318—Principles of Industrial Ecology

ENV 6932—Stormwater Systems Design
This course will develop the chemical, physical and hydrologic aspects of rainfall-runoff; and how these aspects relate to quantity/quality through unit operations and practice (UOP) concepts for control, treatment and/or reuse.

EES 5415—Environmental Health
Effects of environmental pollution upon health. Methods of evaluation, treatment, and prevention of pollutants of health significance.

ENV 6511—Biological Wastewater Treatment
Theory and current research associated with biological treatment processes.

EES 6007—Advanced Energy and Environment
Energy basis for systems of humanity and nature, including principles of systems ecology, ecological economics, and public policy.

CGN 5605—Public Works Planning
Functional approach to planning and implementation of public works needs with emphasis on role of the engineer.

AEB 6933—Natural Resource and Environmental Policy
Prereq: Introductory economics course or consent of instructor. A study of the role of government in natural resource and environmental management. Discusses the rationale for government role. Includes historical perspective on the evolution of natural resource and environmental policies and programs. Surveys current public policies and programs at the state and federal government levels, and identifies institutions which address international and global and environmental issues. Considers the role of economist as policy analyst, providing information on likely consequences of policy options.

SOS 5245—Water Resource Sustainability