

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 non-degree 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. Visit <http://ufedge.eng.ufl.edu> to:

- Sign up for a free online preview to sample a course
- Use the “Contact us” link to get further information regarding course content and ask specific questions

For current information about tuition and financial aid, visit the UF Graduate School Web site at <http://gradschool.rgp.ufl.edu/>.

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UF EDGE Master of Science Degree in Computer Engineering & Computer Science, General



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Non-Profit
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Gainesville, FL

Give Your Career that UF EDGE

Professional engineers can earn a master's degree at a time and place convenient to them through programs from UF EDGE (University of Florida Electronic Delivery of Graduate Engineering). UF EDGE helps technical professionals update core knowledge in their engineering disciplines, learn about emerging technologies, and acquire new skills in related engineering areas.

University of Florida
UF EDGE
Electronic Delivery of Graduate Engineering

<http://ufedge.eng.ufl.edu>

Curriculum for the Master of Science Degree in Computer Engineering & Computer Science, General

Master's degree programs offered through UF EDGE are non-thesis. A non-thesis master's requires the completion of 10 three-semester credit hour courses as outlined in the degree curriculum. A minimum cumulative GPA of 3.00 is required for graduation.

The prerequisites for this program include undergraduate courses in the following areas: programming, (CIS 3020 or CIS3023), data structures and algorithms (COP 3530), operating systems (COP 4600), computer organization (CDA 3101), and discrete mathematics (COT3100).

Florida's Best Engineering College

The UF College of Engineering is ranked as the #1 engineering college in Florida and as one of the top 25 in the nation by US News & World Report magazine. Our faculty is recognized internationally for doing cutting-edge research. 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 place-bound 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 US 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. Over a lifetime, the income advantage of a master's degree averages more than \$400,000.

Admission

Admission is coordinated by the Computer & Information Science & Engineering department.

Applicants must have:

- A bachelor of science degree in computer science or computer engineering with a cumulative undergraduate upper-division GPA of a least 3.0 or a 4.0 scale
- Satisfactory scores on the general portion of the Graduate Record Examination (GRE) totaling 1100 (math and verbal, with math > 600, verbal > 400)

For international students whose first language is not English, a minimum score of 600 (250 on the computer-based test) on the Test of English as a Foreign Language (TOEFL) is required to be excused from English language course requirements.

Fall 2005

COP 5615 Operating System Principles (3)

The concepts and techniques of efficient management of computer system resources.

COP 5536 Advanced Data Structures (3)

Development of efficient data structures used to obtain more efficient solutions to classical problems, such as those based on graph theoretical models, as well as problems that arise in application areas of contemporary interest.

Spring 2006

CDA 5155 Computer Architecture Principles (3)

Fundamental design issues of processor and computer architecture, a variety of design approaches for CPU, memory, and system structure.

CEN 5035 Software Engineering (3)

Topics in projects organization, specification techniques, reliability measurement, documentation.

Fall 2006

COP 5555 Programming Language Principles (3)

History of programming languages, formal models for specifying languages, design goals, run-time structures, and implementation techniques, along with survey of principal programming language paradigms.

CEN 6070 Software Testing and Verification (3)

Prereq: CEN 5035. Concepts, principles, and methods for software testing and verification. Topics include human and machine-based testing strategies, formal proofs of correctness, and software reliability.

Spring 2007

COT 5405 Analysis of Algorithms (3)

Introduction and illustration of basic techniques for designing efficient algorithms and analyzing algorithm complexity.

COP 5725 Database Management Systems (3)

Introduction to systems and procedures for managing large computerized databases.

Fall 2007

CEN 5501 Computer Networks (3)

The design, implementation and internals of modern computer networks. While all layers will be introduced, the data link layer and medium access control sublayer will be only briefly reviewed. The main focus is on the issues for network layer, transport layer, socket layer, and application layer. Topics include routing, congestion control, internetworking, TCP/UDP/IP, performance optimization, and proxy service. If time permits, case studies other than TCP/UDP/IP can be introduced.

CEN 5540 Computer and Network Security (3)

Prereq: COT 5405. Issues, analysis, and solutions. Viruses, worms, logic bombs, network attacks, covert channels, steganography, cryptology, authentication, digital signatures, electronic commerce.