The UF College of Engineering EDGE programs provide an online master’s degree designed for engineers in industry interested in expanding their credentials and knowledge in Materials Science & Engineering. Available courses cover topics such as general materials science and engineering as well as biomaterials, ceramics, composites, electronic materials, metals, and polymers.

All course materials are delivered online, and distance students receive the same lectures, faculty, and assignments as campus students. No travel is required. Engineers worldwide can earn their UF Materials Science & Engineering master’s degree while maintaining their current career.

www.ufedge.ufl.edu
Materials Science & Engineering Degrees
The University of Florida’s College of Engineering and Materials Science & Engineering Department offer four master’s degree program tracks for engineers and students worldwide to continue their materials engineering education online through the UF EDGE program.

Complete Online Delivery
Classes for the Materials Science & Engineering degree program are offered through UF EDGE (Electronic Delivery of Gator Engineering) program. UF EDGE makes a UF continuing education available no matter where you live or work. Lectures are available online in streaming and downloadable video, all semester, making it easy for students to go back and review lectures before exams. Students view courses online, submit coursework online, and interact with professors using e-mail, phone, and course websites. Students are never required to travel to campus, and any course exams are proctored at their place of work and are scanned and emailed for grading.

MSE Department and Accreditation
The University of Florida’s (UF) Materials Science & Engineering (MSE) program is ranked highly in both graduate and undergraduate education MSE programs. The educational programs of the department deal with the scientific and engineering aspects of the structure, properties, synthesis/processing/manufacturing and application of materials. MSE is very involved in developing new materials that address critical issues facing society including energy, sustainability and health care. Because graduates in materials science and engineering are challenged to be general practitioners and specialists, the department provides the necessary balance between the fundamental and technical aspects of the field in all specialties.

The MSE department and undergraduate programs are accredited in the U.S. by ABET. In addition to U.S. accreditation, these online-offered master’s degrees have been accredited by the Institute of Materials Minerals and Mining (IOM3, www.iom3.org) under licence from the UK regulator, the Engineering Council. Accreditation is a mark of assurance that the degree meets the standards set by the Engineering Council in the UK Standard for Professional Engineering Competence (UK-SPEC). An accredited degree will provide you with some or all of the underpinning knowledge, understanding and skills for eventual registration as an Incorporated (IEng) or Chartered Engineer (CEng). Some employers recruit preferentially from accredited degrees, and an accredited degree is likely to be recognized by other countries that are signatories to international accords.

Degree Program Structure
The Master of Science (MS) degree in Materials Science & Engineering (MSE) consists of 10 courses (classes), which total 30 credit hours. Graduate courses in the MSE graduate program available through EDGE include general materials science and engineering courses as well as specialized courses on biomaterials, ceramics, composites, electronic materials, metals, and polymers.

All MSE MS students are required to pass 5 EMA 5000-6000 level core courses (15 credits) with a minimum grade of C or better and must maintain a minimum GPA of 3.0 or above:

Required MSE Core Courses:
EMA 6313: Advanced Materials Principles 1  
EMA 6114: Advanced Materials Principles 2  
EMA 6316: Materials Thermodynamics  
EMA 6136: Diffusion, Kinetics, & Transport  
EMA 6938: Critical Analysis of Research in Materials Science & Eng.

The balance of courses are selected from the following set of electives (choose 5 to complete degree):
EMA 6106 Advanced Phase Diagrams  
EMA 6107 High Temperature Materials  
EMA 6110 Electron Theory of Solids  
EMA 6165 Polymer Physical Science  
EMA 6461 Polymer Characterization  
EMA 6808 Error Analysis & Optimization  
EMA 6580 Science of Biomaterials  
EMA 6715 Fracture of Brittle Materials  
Other EMA 5XXX-6XXX graduate level EDGE courses *  
5XXX-6XXX approved graduate level EDGE course from other engineering programs (up to 2)

*Contact the MSE graduate coordinator for a list of additional available EDGE courses.

EDGE Distance Learning
Distance learning students earn the same degree as traditional on-campus students because the online courses are exactly the same in content and instruction as those taught on campus. UF EDGE students can take as many courses per semester as their work and life schedules permit, and will work with a faculty advisor to make a plan of study to balance their needs as full time practicing engineers, their course load, and graduation requirements.

Completion of a UF MSE Masters Degree requires application and acceptance to the MSE Graduate Program. UF EDGE students can begin any semester (fall, spring, or summer) with options to begin coursework while degree program applications are under department consideration.

More information on the application process can be found at: http://www.mse.ufl.edu/degrees/graduate/degrees/masters-distance-edge.html

General information regarding minimum requirements for these degrees are described in the General Information section of the UF Graduate Catalog.

Contact Information
You can also contact the UF EDGE office with questions about the distance learning process:

Pamela Simon  
UF EDGE Program  
phone: 352-392-9670  
email: edge-admin@eng.ufl.edu

www.ufedge.ufl.edu