Not all courses are offered every semester. Refer to the schedule of courses for each term's specific offerings. More Info (http://registrar.ufl.edu/soc)

Courses at the University of Florida, with the exception of specific foreign language courses and courses in the online Master of Arts in Mass Communication program, are taught in English.

EGN 4640 NSF Fellowship Preparation 1 Credit
Grading Scheme: Letter Grade
Overview of fellowship preparation pertaining to intellectual merit and broader impacts.

EGN 4912 Engineering Directed Independent Research 0-3 Credits
Grading Scheme: S/U
Provides firsthand, supervised research with a faculty advisor or postdoctoral or graduate student mentor. Projects may involve inquiry, design, investigation, scholarship, discovery or application. (S-U)

EGN 4940 Engineering Internship/Co-op 1-3 Credits
Grading Scheme: S/U
Prerequisite: junior standing or higher.

EGN 4949 NSF Engineering Internship/Co-op 1-3 Credits
Grading Scheme: S/U
Prerequisite: junior standing or higher.

EGN 2020C Engineering Design & Society 2 Credits
Grading Scheme: Letter Grade
Introduction to emphasizing the human-centered design process to address societal challenges. Explore solid modeling, introductory programming, sensors, data acquisition, and 3D printing as maker tools for engineering prototyping. In a team environment, utilize multidisciplinary approaches, project management, and written and oral communication skills to create societal-based designs.

EGN 4641 Engineering Entrepreneurship 3 Credits
Grading Scheme: Letter Grade
Engineering Entrepreneurship introduces engineering students to the concepts and practices of technological entrepreneurial thinking and entrepreneurship. Using lectures, case studies, business plans and student presentations, the course teaches life skills in entrepreneurial thought and action that students can utilize when starting technology companies or executing research and development projects in large companies.

EGN 4643 Engineering Innovation 3 Credits
Grading Scheme: Letter Grade
Engineering Innovation introduces students to the concepts of innovative thinking and innovation practices. Using lectures, case studies, team exercises and guest speakers, the course teaches life skills in innovative thought and action that students can use in careers ranging from starting companies to executing research and development projects in large companies.

EGN 4956 National Studies in Engineering 1-4 Credits
Grading Scheme: Letter Grade
Provides a mechanism by which coursework taken as part of an approved study abroad program can be recorded on the UF transcript and counted toward graduation.

EGN 1006 Introduction to Engineering 1 Credit
Grading Scheme: Letter Grade
Introduces the 11 departments that offer undergraduate degrees at UF. Students break into groups of 20, rotating weekly through each department. During these visits, students participate in hands-on experiments to help them make informed decisions about career alternatives.
EGS 2036 Fundamentals of the New Engineer 1 Credit  
**Grading Scheme:** Letter Grade  
Fundamentals of the New Engineer introduces students to key attributes of 21st century engineering leaders and innovators. Student learn concepts and practice of engineering leadership and innovation through study of the ?Attributes of a New Engineer?: Creativity, Leadership, Integrity, Professional Excellence, and Service to the Global Community.

EGS 4034 Engineering Ethics and Professionalism 1 Credit  
**Grading Scheme:** Letter Grade  
Provides students with an interactive study of ethical theory and the development of professionalism. Students review case studies of ethical conflicts in engineering practice. Course covers engineering codes of ethics and requires students to resolve theoretical situations through application of ethical codes.  
**Prerequisite:** junior level standing.

EGS 4038 Engineering Leadership 3 Credits  
**Grading Scheme:** Letter Grade  
Engineering Leadership introduces engineering graduate students to the concepts, theory and practice of engineering leadership; effective written and oral communications and presentations; engineering leadership characteristics, individual differences and self-awareness; developing and building teams; managing change, conflicts, and crises; and understanding real-world ethics and core values.  
**Prerequisite:** junior or senior standing.

EGS 4100 Divergent Thinking 3 Credits  
**Grading Scheme:** Letter Grade  
Acquire divergent thinking skills to support the engineering design process. Emphasizes the importance of practices such as observing, questioning, learning, and experimenting; Stresses cultivating an openness to new experiences In order to generate ideas and devise solutions to complex design problems.  
**Prerequisite:** junior or senior level standing.

EGS 4625 Fundamentals of Engineering Project Management 3 Credits  
**Grading Scheme:** Letter Grade  
Provides a comprehensive understanding of how to plan, optimize, and efficiently manage projects (or tasks) to implement products, services, or developments. Includes building the structure, processes, components, and linkages with a team for successful project delivery within schedule, budget, and quality requirements.  
**Prerequisite:** junior or senior level standing.

EGS 4627 Applied Engineering Project Management 3 Credits  
**Grading Scheme:** Letter Grade  
Applied Engineering Project Management expands on foundational project management practices to include complex as well as new project delivery concepts. Topics include project acquisition; negotiation skills; advanced risk planning and management; program management; project life cycle models and their applicability; and diagnostics and remedies for problem projects.  
**Prerequisite:** EGS 4625 or equivalent, with instructor permission.

EGS 4680 Advanced Engineering Leadership Development 3 Credits  
**Grading Scheme:** Letter Grade  
Further develops the leadership framework and capabilities; involves a case study-based instructional approach that reviews and applies strategic leadership concepts and knowledge critical to the success of engineering-based companies that operate in a highly uncertain and volatile business environment.  
**Prerequisite:** EGS 4038 or instructor permission.

EML 3007 Elements of Thermodynamics and Heat Transfer 3 Credits  
**Grading Scheme:** Letter Grade  
Applications of first and second laws of thermodynamics to closed and open systems. Steady one-dimensional conduction, lumped parameter analysis, convection, radiation. Intended for non-mechanical engineering students.  
**Prerequisite:** CHM 2045 and MAC 2313 and PHY 2048.