

ENGINEERING

Course Search

Not all courses are offered every semester. Refer to the schedule of courses for each term's specific offerings.

[More Info](#)

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.

Courses

CGS 2531 Problem Solving Using Computer Software 3 Credits

Problem-solving introduction and thorough exploration of word processing, spreadsheet management, data analysis, graphical display of data, and multimedia presentations. The problem-solving approach also aids students in their specific majors through software applications requiring major-specific professional communication skills in written, graphical, and presentation forms. (M)

General Education - Mathematics

MR

EEL 3003 Elements of Electrical Engineering 3 Credits

Introduces the theory and practice of electrical engineering for those not majoring in electrical engineering. Discusses circuits, machines, electronics and systems.

Prereq: MAC 2313 and PHY 2049

EGM 3400 Elements of Dynamics 2 Credits

Dynamics of particles and rigid bodies for rectilinear translation, curvilinear motion, rotation and plane motion. Also includes principles of work and energy, and impulse and momentum.

Prereq: EGM 2511, and MAC 2313 with a minimum grade of C

EGN 1935 Special Topics in Freshman Engineering 1-3 Credits

Laboratory, lectures or conferences cover selected topics in engineering.

EGN 2020C Engineering Design & Society 2 Credits

An introductory engineering course emphasizing the human-centered design process to address a societal challenge. Exploration of solid modeling, introductory programming, sensors, data acquisition, and 3D printing as maker tools for engineering prototyping. Teams will utilize multidisciplinary approaches, project management, written and oral communication skills in creating a societal-based design.

EGN 4641 Engineering Entrepreneurship 3 Credits

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.

Prereq: junior or senior standing

EGN 4643 Engineering Innovation 3 Credits

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.

Prereq: junior or senior standing

EGN 4912 Engineering Directed Independent Research 3 Credits

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 4932 Special Topics 1-4 Credits

Covers selected, rotating topics in engineering.

EGN 4940 NSF Fellowship Preparation 1 Credit

Overview of fellowship preparation pertaining to intellectual merit and broader impacts.

EGN 4949 Engineering Internship/Co-op 1-3 Credits

Practical Internship/Co-Op Work Experience Under Approved Industrial Supervision. (S/U)

Prereq: EG classification

EGS 1006 Introduction to Engineering 1 Credit

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

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

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.

Prereq: junior level standing

EGS 4038 Engineering Leadership 3 Credits

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.

Prereq: junior or senior standing

EGS 4100 Divergent Thinking 3 Credits

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.

Prereq: junior or senior level standing

EGS 4625 Fundamentals of Engineering Project Management 3 Credits

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.

Prereq: junior or senior level standing

EGS 4627 Applied Engineering Project Management 3 Credits

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.

EGS 4680 Advanced Engineering Leadership Development 3 Credits

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.

Prereq: EGS 4038 or instructor permission

EML 3007 Elements of Thermodynamics and Heat Transfer 3 Credits

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.

Prereq: CHM 2045, MAC 2313 and PHY 2048
