

UF EDGE: Engineering Innovation Certificate



Engineering Innovation Certificate

This certificate is designed for engineers in industry, the military, or engineering students worldwide interested in expanding their knowledge and practice of engineering specific entrepreneurship, entrepreneurial thinking, business plans, investor presentations, leadership skills, ethics, communications, negotiations, cross-cultural project teams, global collaboration, and engineering innovation principles.

Who Should Participate?

Distance Learning Professionals: Working professionals, military members, students at other universities, and start-up company founders worldwide can participate in the Engineering Innovation Certificate through the UF EDGE distance learning platform. There are no campus visits required to earn this UF graduate level certification, all course content is online, and the certification and UF transcript earned are the same online or on-campus.

Campus Students: UF campus students can earn the same certification offered to distance learning professionals. Campus students wishing to earn the Graduate Engineering Innovation Certificate on their transcript need to earn a B or better in the required Graduate level courses on-campus (note: cannot substitute undergraduate courses). Campus students on internship outside of Gainesville can participate in distance course options; contact Pam Simon for more information.

Application Requirements: Generally to participate, you need a bachelor's degree in engineering, science, technology, or closely related field with a 3.0 undergraduate GPA for admission to the certificate. All participants must apply online for admission to the certificate. There is no fee to apply, and no GRE exam is required to earn certificates.

Completion Requirements: Certificate participants must apply for certificate admission, have to earn a B or better in each certificate course, and fill out a separate free online form with the UF graduate school during their last semester in a certificate course to earn certification.

Contact Information

For information on how to participate, distance or campus, please contact:
Pam Simon Email: pms@ufl.edu Phone: 352-392-9672

For information on course content and professional development outcomes, please contact:
Erik Sander, Director of Innovation Institute, College of Engineering, University of Florida Email: esander@eng.ufl.edu

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Certificate Structure

The certificate consists of a sequence of 3 total courses, students must earn a B or better in each of the 3 courses they complete to earn the certificate, and must apply for the certificate by a set deadline during their last semester taking certificate courses.

Course Descriptions

Students take the following 3 courses in the Engineering Innovation Certificate

Engineering Entrepreneurship is designed to introduce engineering graduate students, company engineers, and engineering managers to the concepts and practices of entrepreneurial thinking and entrepreneurship. Using a combination of lectures, case studies, team business plans, and investor presentation formats, the course teaches life skills in entrepreneurial thought and action that students can utilize in careers ranging from starting companies to planning and executing high risk R&D projects in large companies. The course is firmly presented in a “real-world” format, including students taking the roles of company founders and investors, creating a vision and execution plan for their company, and raising funds – exactly as they would in a true entrepreneurial endeavor.

Engineering Leadership is designed to establish a strong, introductory foundation to bring out key engineering leadership characteristics. The course will be taught through classroom curriculum supplemented with lectures and seminars given by industrial, academic, and government engineering leaders. Course content will be designed based on best-of-breed leadership training materials and processes taken from recognized engineering leadership programs across the US. Skill sets developed in this course are directly complimentary to those required by the next generation of engineering entrepreneurial & intrapreneurial leaders. Topics Include: Awareness of individual strengths/weaknesses and engineering leader characteristics; Ethics and core values; Oral and written communication and presentation skills and strategies; Negotiating and advocating skills; Leadership, team building and organizational behavior in cross-cultural engineering project teams; Visioning and execution strategies for engineering programs; Motivation and crisis management skills.

Engineering Innovation is designed to establish a strong foundation to the concepts and strategies of innovating and utilizing entrepreneurial thought processes within all sizes of organizations, whether in the private, public, or academic sectors. The entrepreneurial thought process, complimented with a strong understanding of the strategies and processes involved in

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recognizing and fostering engineering innovation in a large organizational structure, can be of great value to engineering students and practitioners. Leaders at all levels of engineering or technology-based entities, from company CEO's to R&D project managers, university faculty to research assistants, or government lab directors to scientists, face increasing challenges in driving innovation in a global environment that demands greater dexterity to meet the engineering needs of the 21st century.

Distance Learning Option

For worldwide distance learning professionals (or student outside of Gainesville), all courses in the Engineering Innovation Certificate are offered through the UF EDGE (Electronic Delivery of Gator Engineering) Program. UF EDGE makes continuing your education possible 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. Certificate 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 emailed in for grading. For any questions about the distance learning process, please contact:

Pam Simon Email: pshs@ufl.edu Phone: 352-392-9672

