



Engineering Innovation Course Description

Engineering Innovation (EGN 6642) introduces graduate students to the concepts of innovative thinking and innovation best practices. Using lectures, case studies, team exercises, and guest speakers, this 3-credit general elective course teaches life skills in innovative thought and action that students apply in careers ranging from starting companies to managerial positions in large, industry-leading companies. Course content and lecture materials prepare engineers to pursue professional careers in industry, serving in the military (active, reserve, civilian), employed by governmental organizations, working in the non-profit sector, or creating and launching entrepreneurial ventures.

Innovators have launched new ideas and started new ventures for generations. They have found success through hard work, sacrifice, and from the merits of their problem-solving ideas. In the 21st century global economy, innovation-driven engineering professionals are faced with intensely competitive, technology-based environments. Organizations competing in highly competitive global markets cannot afford to make mistakes when it comes to innovation; doing so can quickly lead to the demise of any engineering-based entity – from research group to conglomerate to military or governmental operation to startup company.

An innovator's orientation is the common denominator by which technology intensive public or private sector organizations succeed in this new world order. Keys to success include a team approach for focusing on enterprise value rather than on individual recognition, creating an environment that promotes discovery, exploiting marketplace opportunities, recognizing and solving problems, conceptualizing and committing to new markets rather than being constrained by traditional boundaries, balancing intelligent risk, and seeking out situations where rapid advancement and incremental improvement are rewarded. Focused execution of an innovative problem-solving idea is reflected in the instructor's "Innovation Equation" where Problem-solving Ideas + Disciplined Execution = Successful Innovation outcomes.

Engineering Innovation is offered in the summer "C" 2016 semester. The course is taught by David Whitney, Assistant Director of the Engineering Innovation Institute. Professor Whitney is an experienced professional and his experiential teaching methods draw upon proven strategies and tactics for accelerating innovation and commercialization. Whitney's expertise is in training innovators and entrepreneurs – and intrapreneurs working in established companies and organizations – to be effective, successful entrepreneurs, innovators, and leaders. Professor Whitney helps students and professionals alike develop and advance innovative, problem-solving products, services, and work processes. He advises Gator Engineers on the best way to commercialize technologies and to create, launch, and operate sustainably profitable ventures.

Please send requests for additional information in connection with Engineering Innovation to Professor Whitney at dwhitney@ufl.edu.