Entrepreneurship for Engineers Summer "C" 2016
(EGN 6640, Sections 7A67 and 7A70)
Course Syllabus and Rules of Engagement

Catalog Description:
Entrepreneurship for Engineers (EGN6640) meets as a combined undergraduate / graduate level course. Engineering students are introduced to the concepts and practices of technology entrepreneurial thinking and entrepreneurial actions. Using lectures, case studies, business plans, guest lectures, and student presentations, the course teaches life skills in entrepreneurial thought and action that students can utilize in starting technology companies or executing R&D projects in large companies.

Course Overview:
Entrepreneurs have started new ventures for generations. Success was more a function of tenacity and a measure of the idea underpinning the business. Errors in the structure and early conduct of the enterprise could be overcome with time through learning. In the new paradigm, tolerance for such errors is acutely narrow. Competition has become intense, technology-based, market-focused and highly competent. In such a competitive environment the lack or misuse of the application of currently available technology to the structure and conduct of a new business could quickly spell its demise. Similarly, the inability to adapt the enterprise to the emergence of new technologies to make it market-driven and structure-perfect could have the same effect. In summary, competition is just too tough; the end could come quickly.

An entrepreneurial orientation – and mindset – is the common denominator among successful enterprises in this new paradigm. The elements that are frequently key to successful competition include a team approach to management focusing on enterprise value rather than individual recognition, structuring an environment that promotes seeking and exploiting opportunities rather than recognizing and solving problems, conceptualizing and committing to new markets rather than being constrained by traditional boundaries, and balancing intelligent risk and the opportunity for rapid advancement.

Organizational size neither offers a safe harbor nor increased risk. New ventures exist either as a new, small business or as an element of a large organization. Large companies have become competitive in this new paradigm by redefining their cultures. Decision-making has been shifted downward in these companies to encourage quick reaction to market opportunities.

Every student who plans a career is faced with navigating these new realities, whether through a big company, small company, new company or old. The goal of this course is to provide the background necessary to understand the entrepreneurial approach to business and to acquire the tools necessary to function effectively in that environment.

Credit Hours: 3

Pre-requisite:
Undergraduate – Junior / Senior Standing
Graduate – None

Course Objectives:
Explore the entrepreneurial mindset and culture that has been developing in companies of all sizes and industries; Examine the entrepreneurial process from the generation of creative ideas to exploring feasibility to creation of an enterprise for implementation of the ideas; Experience the dynamics of participating on a business team and the power inherent in a team relative to individual effort; Create and present a business plan for a technology idea; Provide the background, tools, and life skills to participate in the entrepreneurial process within a large company, in a new venture, or as an investor.

Contribution of course to meeting the professional component:
Not applicable as course is not specific to a major.

Relationship of course to program outcomes:
Provides students with: an ability to function on multidisciplinary teams; an understanding of professional and ethical responsibility; an ability to communicate effectively; a broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context; and knowledge of contemporary issues.

Instructor:
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Teaching Assistant: None
Important notice: Please do **not** send e-mails to Prof. Whitney via Canvas. Instead use dwhitney@ufl.edu to send messages.

Website: https://lss.at.ufl.edu/

Office Hours: For in-person meetings and/or meetings via phone or Skype, please send an e-mail to Prof. Whitney to schedule appointments.

Class/laboratory Schedule: The course will typically be delivered weekly through lectured overview by the instructor or a lecture/seminar/workshop administered by the instructor and supported by guest presenters.

E-mail Communications: All course-related e-mail communications are sent to the student's university-issued official University of Florida e-mail address.

Material and Supply Fees: See UF Registrar's Schedule of Courses.

Textbooks and Software Required: Students are encouraged to read one of the books found in the Recommended Reading section. Students choose which book they wish to read. For software and online connection, students are required to have access to Canvas to view and take action on assignments, announcements, and course-related items posted by the instructor.

Recommended Reading:
The Art of the Start 2: The Time-tested, Battle-hardened Guide for Anyone Starting Anything. Kawasaki, Guy; ISBN: 1591840562; Portfolio – a member of Penguin Group, 2014.

The LEAN Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses. Ries, Eric; ISBN: 978-0-307-88789-4; eISBN: 978-0-307-88791-7; Crown Business, 2011.

Awesomely Simple: Essential Business Strategies for Turning Ideas Into Action. Spence, John; ISBN-10: 0470494514 and ISBN-13: 978-0470494516; Jossey-Bass: 1st Edition, 2009.

Course Outline:
The course is firmly presented in a "real-world" format, with students taking the roles of company founders and investors. Students create a vision and design an execution plan for their companies; capital is raised from student colleagues – exactly as it would in a true entrepreneurial endeavor – as aligned with a business formation simulation exercise. The course is delivered along the following outline of major course themes:

I. Introduction to Entrepreneurship – Introduction to Technology Entrepreneurship and Technology Ventures; Attributes and Myths of Technology Entrepreneurs; Engineers as Entrepreneurs; Mindset of the Entrepreneur and Entrepreneurial Leader; Creating and Selling the Entrepreneurial Value Proposition.
II. Idea Generation and Feasibility Analysis – Entrepreneurial Idea Generation and Feasibility Analysis; Technology Commercialization Potential; Paths and Barriers from Idea to Market; Assessing and Presenting the Opportunity.

III. Business Planning and Execution – Business Structuring and Strategy; Business Planning and the Business Plan; Financial Analysis and Projections; Market and Competitive Analysis; Presenting a Clear, Concise, and Compelling Message (Opportunity); Intellectual Property Strategies for Technology Companies; Marketing, Sales and Distribution Strategies; Investment and Financial Strategies; Venture Growth; and Value Harvesting.

Instructor's Guidelines and Expectations of Student Performance:

- All lecture materials are posted in the Canvas Lessons tab. Students are required to read the materials before, or while, watching class session videos. Reading materials provide valuable insight and instructional supplement to all class session videos.
- All students are expected to complete reading and homework assignments with a high degree of professionalism and academic excellence.
- Class session videos contain content based on experiential learning concepts and methods. Students are expected to demonstrate a "hands-on/real-world" approach in learning about entrepreneurship's origins, applications, and outcomes. One way of demonstrating active participation is to interact and engage with the instructor throughout the semester.
- Unless stated otherwise, all assignments are to be submitted via Canvas by the stated due date/time deadline. It is the student's responsibility to ensure all assignments – whether for individual or team-based assignments – are correctly and completed submitted via Canvas; correct and complete submissions are accompanied by a Canvas system-generated receipt indicating a successful submission. **There is no make-up option and late submissions of course assignments are not accepted**, subject to the policies of the undergraduate catalogue (https://catalog.ufl.edu/ugrad/current) or the policies of the graduate catalogue (http://gradschool.ufl.edu/students/catalog.html) as appropriate.

Much effort has gone into the design, implementation, and delivery of Entrepreneurship for Engineers' course lectures, assignments, and reading materials. It is each student's responsibility to *learn* – which is why students are expected to collaborate with the instructor on:

- Identifying the student's personal learning goals and determining ways to measure the progress made in achieving these goals.
- Thinking critically and stepping out of one's comfort zone(s) to explore entrepreneurial concepts, becoming familiar with proven methods for achieving successful entrepreneurial outcomes, and applying best practices in the workplace – and beyond.
- Actively engaging with the instructor via e-mail exchanges, and/or telephone (Skype) conversations.
- Adhering to the University of Florida's policy on academic conduct and personal integrity. The University's Student Honor Code is adhered to and strictly enforced by the instructor.

Grading:
The course is organized around lectures, readings, class discussions, individual assignments, and group project assignments. All students will self-select their teammates and organize into teams for the purpose of completing group assignments. For example, teams will conceive a problem-solving idea and transform it in into an early stage venture business plan as well as deliver a presentation detailing the team's business plan. The deliverables for each team ("company") includes a business plan (Business Model Canvas), participation in the Gator Engineering Investment Forum, and the company's formal presentation of its Business Model Canvas at the end of the semester. Each company will select a Chief Executive Officer along with other executive officers.

This course is taught simultaneously to undergraduates and graduate students. Both undergraduates and graduate students learn together as the teaching methodology and course content are similar. However, graduate students are required to submit additional assignments per details listed below. Grades will be determined as follows:

Maximum Points for Assignments

Assignment (#)	Assignment Type	Undergraduate Students	Graduate Students
Student Biography (#1)	Individual for all students (undergraduate and graduate).	50	50
Individual Idea Overview (#2)	Individual for all students (undergraduate and graduate).	50	50
Company Idea Overview (#3)	Group for all students (undergraduate and graduate).	100	100
Value Proposition Presentation (#4)	Group for all students (undergraduate and graduate).	100	100
Start-up.com Case Analysis (#5)	No assignment for undergraduate students. Individual for all graduate students.	Not required	200
Financial Projections (#6)	Group for all students (undergraduate and graduate).	100	100
Business Model Canvas Presentation (#7)	Group for all students (undergraduate and graduate).	200	200
Written Business Model Canvas (#8)	Group for all students (undergraduate and graduate).	200	200
Total Points Possible		**800**	**1,000**

It is the sole discretion of the instructor to determine if an individual student is making meaningful and measurable contributions to his/her team (company). The instructor reserves the right to lower an individual student's grade on any, and all, group assignments to a grade the instructor – at his sole discretion – believes accurately reflects the individual student's lack of meaningful and measurable contribution, responsibility, and accountability involving group assignment(s).

For all students, final course grades will be determined by the following Grading Scale:

Final Grade	Undergraduate Students	Graduate Students	Final Grade	Undergraduate Students	Graduate Students
A	720 – 800	900 - 1,000	C	560 – 591	700 – 739
A-	696 – 719	870 – 899	C-	536 – 559	670 – 699
B+	672 – 695	840 – 869	D+	512 – 535	640 – 669
B	640 – 671	800 – 839	D	480 – 511	600 – 639
B-	616 – 639	770 – 799	D-	456 – 479	570 – 599
C+	592 – 615	740 – 769	E	0 – 455	0 – 569

For undergraduate students: A grade of C- will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). Note: a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, visit: https://catalog.ufl.edu/ugrad/current.

For graduate students: In order to graduate, graduate students must have an overall GPA and an upper-division GPA of 3.0 or better (B or better). Note: a B- average is equivalent to a GPA of 2.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, visit: http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html.

Unless indicated otherwise, all assignments must be submitted via Canvas by the stated deadline date and time. Students are strongly encouraged to submit assignments well before deadlines as late submissions will not be accepted under any circumstances and students – or student teams – failing to submit assignments via Canvas by the stated deadline receive 0 points for assignments not submitted on-time and in-full, subject to the policies of the undergraduate catalogue (https://catalog.ufl.edu/ugrad/current) or graduate catalogue (http://gradcatalog.ufl.edu/) as appropriate.

Academic Integrity:
As a student at the University of Florida, you committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." All students are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in performing this assignment." It is expected all students will complete all work independently in each course unless the instructor provides explicit permission for students to collaborate on course tasks (e.g. assignments, papers, quizzes, exams).

As part of UF students' obligation to uphold the university's Honor Code, students should report any condition that facilitates academic misconduct to appropriate personnel. It is a student's individual responsibility to know and comply with all

university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action.

For more information regarding the Student Honor Code, please see:
http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php

Accommodation for Students with Disabilities:
Students requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation.

UF Counseling Services:
Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, psychological and psychiatric services.
- Career Resource Center, Reitz Union, 392-1601, career and job search services.

Software Use:
All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.