

ENG 461/TE461 – Technology Entrepreneurship Spring 2019 Semester (8 Week Course)



Instructors:

Brian Lilly, PhD, is a really cool professor from our very own University. He studied Engineering and Philosophy and owns several manufacturing businesses, and an eco-startup.

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Thomas Foulkes is a doctoral candidate in the ECE and MechSE departments at UIUC. He is the business development lead for a startup in research park and recently founded his own company tackling problems in sustainability. He has successfully completed the national NSF I-Corps and VentureWell programs.

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**** This syllabus will be updated throughout the semester and you will receive updates accordingly via email and compass ****

Class Schedule: Tuesday & Thursday, 8 AM to 10:30 AM

Location: 106B3 Engineering Hall

Office Hours: 15 minutes after each class or by appointment (please schedule via email)

Text: There is no required textbook

Course Description: The course covers a broad range of topics that critically affect technology-based companies and start-up businesses. Primary emphasis is placed on the marketing concerns, company financials, and business plan preparation for these technology based businesses. The students will apply this information by preparing a business plan for a technology based product or service of their choice. As an alternative to a business plan, some students will produce prototypes of their idea or work on a grant/funding proposal for their work. Plans may be prepared in teams or as individuals. Several of the best plans will be entered into the Cozad Business Plan competition. The class lectures and case study discussions will cover considerable material that may not be contained in the textbook. Therefore, class attendance and class participation are an important component of the final grade. Prerequisite: An entrepreneurial spirit and a passion for solving the world's problems with innovative products and solutions.

Reading assignments, chapter exercises, and case study summaries are due on the date shown at the start of class. No late work will be accepted. All assignments and dates are subject to change.

Note: TBD means To Be Determined.

Grading:

- 40% - Project
- 15% - Homework - Due on the date shown
- 20% - Final Oral Presentation
- 10% - Final Multimedia Communication File about Product-Market Fit
- 15% - Attendance and class participation

TIME MANAGEMENT is an important business skill. We expect you to be on time to every class. We will take attendance for participation. We only have two classes each week, **SHOW UP**. Professor Lilly appreciates punctuality, not showing up halfway through class.

PRESENTATION/MEETING DAYS will be held approximately once a month. Before class, you (or your group) will schedule a 10 minute block to talk about your progress with Professor Lilly and Ben. On these class days, we will have activities for you to do in groups, so that you aren't wasting a whole class period doing nothing.

CASE STUDIES will be assigned most weeks. Your written assignments are due before class starts. Please bring a copy to class (paper or electronic) to use as a reference during discussion. Whenever there is a case study due, we will have a (half) our discussion about the study. This is a great time to get participation points and ask questions.

HAVE NO FEAR Professor Lilly is a very animated lecturer. He is loud and likes to joke around, **BUT HE'S A GREAT PROFESSOR** and will answer your questions directly and (fairly promptly) during class. **DO NOT** be afraid to ask questions and share insights, he loves to hear how his students think.

Case Studies: We will have several Case Studies this semester. As mentioned before, they are due before the beginning of each class. We will discuss each study in class. Our goal of the case studies is to stimulate your business mind. Pay attention to the Case Study Critical Requirements. Really try to draw parallels between each study and your plans for the future. If you are a budding entrepreneur, you can learn a lot from these documents and our discussions. Each case study is worth 50 points. All together it will make up 40% of your final grade. On Compass you can view good and bad examples of Case Studies from previous semesters. Don't submit one paragraph and take time to format your paper. It does not need to be longer than one page, size 12, Times New Roman. It should take you no more than an hour (outside of the reading) to complete each study and receive full credit.

Project Progress: In this course, we want to see you bring your ideas to life. Specifically, one idea that has great potential. By the second week you will decide on your semester long project. For this project, you may work alone or in a team (no more than 3 people), to construct a business model, minimum viable product, presentation, apply for grants, scholarships, incubators and accelerators and attempt to start a business. Your initial idea must be approved by the instructors, but we are pretty much open to everything. This semester we are requiring that the topic be related to sustainability.

We **do not** expect you form a full company and break a million dollars in sales in one semester but we want to see **REAL PROGRESS**. You need to create measureable milestones to be reached throughout the course. These milestones are the criteria we will use to grade your work. Again, if a milestone is something big, it is probably ok that it was not reached, as long as significant effort has been shown.

This class designed to be interactive, not overly-demanding, and we hope that you will enjoy it. It is a core class for the Innovation, Leadership and Engineering Entrepreneurship program so we take our work seriously, and we want you to be an engaged and active student. We want to see you advance and grow as engineers, entrepreneurs, and as adults.

	Date	Lecture/Discussion	Assignments Due on the Day Listed at the Start of Class Via Blackboard/Compass
Day 1	1/21	<u>Introduction</u> Syllabus	
Day 2	1/23	Family Business Exercise in company startup Past successes Grant opportunities Case Studies	1-2 paragraphs describing your idea(s) by 5 PM on Thursday, 1/23. Dr. Lilly and Tom will provide feedback.
Day 3	1/28	Case Study 1: John Roughneen	Case Study 1: John Roughneen write-up
Day 4	1/30	Continue Case Study 1: John Roughneen	
Day 5	2/4	Business Communication: How to Present Your Ideas	Watch -- https://www.youtube.com/watch?v=QoAOzMTLP5s Watch -- https://www.youtube.com/watch?v=IP0cUBWTgpY Submit three sentences about who you think your customer is and what your value proposition is right now. Be prepared to present your ideas as 2 min brief overview
Day 6	2/6	Case Study 2: Howard Head Prototyping	Case Study 2: Howard Head summary
Day 7	2/11	Multimedia Communication and Introduction of Final Video Assignment	
Day 8	2/13	Midterm Presentation	Midterm Presentation – Slides due before class and your first business model canvas is also due before class

Day 9	2/18	Incorporating Sustainability into Design and Entrepreneurship	Watch several videos about sustainable design (see Compass/Blackboard) and respond to the writing prompt (also posted in Compass/Blackboard)
Day 10	2/20	Meeting 1-on-1 with Professor Lilly & Tom (5mins)	Sign up for a time on Doodle link by February 25 at 5 PM. You only need to come to your scheduled meeting time.
Day 11	2/25	Case Study 3: TBD	Case Study 3: TBD Summary
Day 12	2/27	Case Study 4: TBD	Case Study 4: TBD Summary
Day 13	3/3	Types of Ventures	1-page response to comments for reading assignment
Day 14	3/5	Manufacturing and Market Research	
Day 15	3/10	Final Presentation	Final Presentation Files Due (PowerPoint and 2-Minute Video)
Day 16	3/12	Final Presentation (Continued)	Final Presentations Continued