LECTURES IN ENGINEERING ENTREPRENEURSHIP
TE 360 / TE 460
SYLLABUS – Spring 2022

Instructor: Gerald Wilson

Teaching Assistant: Mozhde Bagheri Hosseini

Class meeting time and location
Thursdays, 5:30 – 6:30 p.m., 1320 Digital Computer Laboratory for Live Speaker Interaction
Synchronous and Asynchronous mixed depending on speaker availability

Class Zoom link:
https://illinois.zoom.us/j/89786506647?pwd=eE1od1Vmd2xyKzdhbTNneXhEN3BoQT09
Meeting ID: 897 8650 6647
Password: awesome

Contact
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Materials
(1) The course website for live and recorded lectures, announcements, and the grade book are available through Canvas, at: https://canvas.illinois.edu/courses/18399 Logging in will require your NetID and password.
(2) Lectures Recorded and available at: https://echo360.org

Weekly Topics and the Course Objectives:
Each week, students will hear directly from entrepreneurs and professionals who are actively working to promote entrepreneurship. The timing of specific lecture topics is dictated by the availability of the speakers who are busy, successful, serial entrepreneurs, educators, venture capitalists, public servants, etc.

The objectives for the course instruction and activities are:
• Present and discuss the critical importance of entrepreneurship to the world’s economy (employment, technology advancement, societal development, etc…)
• Present examples of the building blocks and practical steps for starting a new enterprise
• Be a portal for students to access TEC, campus, and local entrepreneurial resources
• Enable students to hear from, and interact with, entrepreneurs from various sectors of the economy: software, agriculture, energy, lights, water, bio- and medical sciences, social networks and enterprises, intrapreneurship, and finance. The course focuses on business sectors that derive from disciplines and areas of study within the College of Engineering and the Campus.
• Assist students in understanding entrepreneurship as a career path and how experience in entrepreneurship can form a foundation for other career opportunitie(s).

Course Requirements:
Your participation in the course consists of attending all in-person lectures, watching or attending all Zoom lectures in the event lectures are conducted online or you are in one of the online sections, reading any assigned materials, watching online YouTube videos or participating in virtual events (replacing on-campus event participation). **TE 460 students must submit an additional research paper on CANVAS by midnight on April 14**

**Standard Section (TE360 and TE460) Attendance Policy**
Each student must attend all in-person lectures at the scheduled time, and watch any assigned recorded class lectures. We encourage students to ask questions and show respect to guest speakers who are taking their time to contribute to the course by actively engaging with them. You must complete a short writeup submitted on Canvas for each lecture to receive credit for attendance. Writeups are due within 2 weeks of the lecture except for the final lecture for which the final writeup will be due on May 5, 2022.

**Online Lectures (ONL and ONC Sections)**
Each student must watch all recorded class lectures – Depending on your location and timezone, you are invited to the live lectures at your option. You must complete a short writeup on Canvas for each lecture to receive credit for attendance. Writeups are due within 2 weeks of the lecture being made available on https://echo360.org except for the final lecture for which the final writeup will be due on May 5, 2022.

**TE 460 and Online Student Paper Requirements (Not required for TE 360 students) Due by April 14, 2022**
All students in the TE 460 sections on-site and all online students taking the course for credit must write a two-page commercialization paper on a technology of their choice. This paper should be a two-page assessment of the commercial potential for a technology, or research idea, that you are either working on as part of your masters or Ph.D. studies, something related to your graduate work, something one of your professors is working on, or (if you are in the workforce), an idea from your company, R&D division, etc.

The paper should address the following question:
• What is/are the market(s) for this technology/research/idea?
• What problems would it solve?
• Who would the likely customers be?
• What would be the impediments to getting it to market? (Technical feasibility? Costs? Sales channels? Competition?)
• What would be the best business model be (Starting a company? Licensing to an existing company?)
• Who/what is the competition?
• Why is this technology/research/idea an improvement?
• What intellectual property could best protect it (if any)?

You need not devote much space to discussing the technical aspects of the technology - except to the extent that it impacts the above questions. Try to incorporate as much of what you have read, heard and otherwise learned from the lectures this semester. If you do NOT happen to be working on a technology idea as part of your studies or work responsibilities, then simply select a technology idea in your field generally that you are familiar with.

The paper will be due by April 14th, 2022. Late papers will not be accepted. Written responses should be no more than 2 pages, single-spaced, 11 pt. Times New Roman font with 1.0” margins including exhibits. In addition to the 2-page paper, references and in-text citations are required. The responses will be graded according to the following rubric.

460 Research Paper Marking Guidelines

- Analysis of Subject Matter 80%
- Response Organization 10%
- Clarity and Quality of Writing 5%
- Formatting and References 5%

Announcements
Announcements will be made periodically for the course and posted to the website and e-mailed to the class. Please make sure you watch for the announcements.

Extra Credit
In addition to any assigned in-person, virtual, or YouTube video “events,” students will have an opportunity to earn up to 6% extra credit added to their final course grade for attending/watching and writing reflections for eligible additional events and for exceptional class participation during live lectures. Announcements will be made in class regarding eligible events and instructions for submitting reflections for these events will also be provided on the Canvas site. A breakdown of extra credit that may be earned is provided below:

- Additional event participation and reflection: 3%
- Exceptional class participation: 3%

E-mail
Please e-mail TA and instructors at their respective e-mail addresses listed on this syllabus and not through the e-mail function in Canvas (which we do not typically open with any frequency). When emailing, include the course code along with your last name in the subject line of your email. Allow at least 24 – 48 hours for a response.

Grading Policies
Your grade in this course will be based upon your participation in the lectures, recordings, submission of attendance write-ups and the two-page paper (460 Students and ONL or ONC Sections). There will be no final exam, per se.

TE360: 70% watching and short writeup of lectures, 30% watching or attending eligible YouTube Video “Events,” virtual or in-person events when possible. Three YouTube Video “Events” will
be posted to Canvas along with prompts for the reflections as options for students to complete the additional events requirement.

TE460 (all sections): 35% watching and short writeup of lectures, 30% watching or attending eligible YouTube Video “Events,” virtual or in-person events when possible, and 35% for the research paper. The option of using the three YouTube Video “Events” posted to Canvas to complete the additional events requirement will also apply to TE460 students.

90% - 100% of the total points will be an A. (Approximately 90% - 93% will be an A-; 98% and higher will be an A+)
80% - 89% of the total points will be a B. (Approximately 80% – 83% will be a B-; 88% - 89% will be a B+)
70% - 79% of the total points will be a C. (Approximately 70% - 73% will be a C-; 78% - 79% will be a C+)
60% - 69% of the total points will be a D. (Approximately 60% - 63% will be a D-; 68% - 69% will be a D+)
Anything below 60% of the total points will receive a failing grade.

**APPENDIX: LIST OF RELEVANT TERMS RELATING TO ENTREPRENEURSHIP**

A list of terms that you will likely come across over the course of the semester has been provided here. The definitions have not been provided; you are responsible for finding and understanding the definitions and applications of these terms. Please be familiar with the definition of each of the following terms as they relate to business and entrepreneurship.

- Acquisition
- Angel investor
- Annual report
- Asset
- BAA (broad agency announcement)
- Balance sheet
- Board of directors
- Bonds
- Bootstrapping
- Bubble
- Business model canvas
- Business plan
- CEO (chief executive officer)
- CTO (chief technology officer)
- Capital/capitalization
- Cash flow
- Closely-held
- Copyrights
- Corporation
- DARPA
- DOD, DOE, DNR
- Debt financing
- Directors (see also "board of")
- Dividend
- Dot-com
- Due diligence
- EBITDA (earnings before interest, taxes, depreciation and amortization)
- Earnings
- E-commerce
- Economies of scale
- Elevator pitch
- Entrepreneur, entrepreneurship
- Equity
- Exit strategy
- External financing
- Fair market value
- Financial statement
- First-round funding; first-round financing
- Franchise
- Going public
- Go-To-Market
- Gross income
- Gross revenue
- IPO (initial public offering)
- Income
- Incubator
- Intellectual property (IP)
- Entrepreneur; entrepreneurship
- Leverage
- Leveraged buyout (LBO)
- Liability; liabilities
- Limited liability Company
- Limited liability partnership
- Limited partnership
- Liquidity; liquidity event
- Market research
- Market value (see also "fair market value")
- Merger
- Mezzanine funding