ENG 461/TE461 – Technology Entrepreneurship

Instructor: Brian Lilly, PhD

Text: The Startup Owner’s Manual by Steve Blank and Bob Dorf
AND Business Model Generation by Yves Pigneur

Course Description: The course covers a broad range of topics that critically affect technology based companies and technology based 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. Students entering the class without a particular idea will be provided with an option to participate in PIRL (product innovation research lab) with the School of Art & Design. 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: Junior standing in engineering or science curriculum.

Reading Assignments, Chapter exercises, and case studies are due on the date shown. All assignments and dates are subject to change.

Note: TBD means To Be Determined.

Grading: 40% - Project
30% - Homework - Due on the date shown
20% - Final Oral Presentation
10% - Attendance and class participation

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<th>Date</th>
<th>Lecture/Discussion</th>
<th>Assignments Due</th>
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| Week 1 8/29 | Introduction
- Grant opportunities
- Past successes
- Case Studies
- Exercise in company startup | Case Study 1: John Roughneen 1 page write-up |
| Week 2 9/5 | Elements of a Startup
Case Study 2: Jim Poss | Case Study 2: Jim Poss
Read pages 112-124 in The Startup Owner’s Manual; Answer questions about reading |
| Week 3 9/12 | Present your ideas
5 min brief overview | 1-2 paragraphs describing your idea(s) |
| Week 4 9/19 | Competitive Strategy
Case Study 2: Jim Poss | Case Study 3: Howard Head
Read BMG 20-33, 80-83
Create parts 1-5 of business model canvas for an existing company of your choice |
| Week 5 9/26 | Business Plan
Case Study 3: Howard Head | Case Study 4: Stratego Aero
Read BMG 34-47, 127-133, Create a business model canvas for your own business idea by addressing each section in a cursory/rough way |
| Week 6 10/3 | The Marketing Plan
Case Study 4: Stratego Aero | Case Study 4: Stratego Aero |
| Week 7 10/10 | Family Business and Selling
Case Study 5: | |
| Week 8 10/17 | TBD
Case Study 6: | Midterm Presentation |
| Week 9 10/24 | Midterm Presentation | Midterm Presentation |
| Week 10 10/31 | Types of Ventures
Case Study 7: | Read pages 53-66, 76-81 in The Startup Owner’s Manual and read article: http://www.inc.com/steve-blank/how-test-prototype-minimum-viable-product.html; Answer questions about reading |
| Week 11 11/7 | Legal Information and IP
Case Study 8: | Read pages 171-175 in The Startup Owner’s Manual and read article: |
| Week 12 | 11/14 | Profit and Harvest & Financial Plan | Skim BMG 57-119, summarize and compare the different types of Business Models/Patterns. You can be creative in the comparison- the differences can be displayed in paragraph form, chart/ table form, a ven-diagram, or any other way that you see fit. |
| Week 13 | 11/21 | Sources of Capital | Case Study 9: Refined Business Model Canvas for your business idea, plus a rough canvas for a potentially different model based around the same idea |
| Week 14 | 12/5 | Final Presentation | Final Presentation |
| Week 15 | 12/12 | Reading Day Final Presentations continued if needed |

2/7 QUESTIONS (pp. 112-124)
1. Explain some of the competitive advantages you have as a startup and a college student.
2. Explain some of the competitive difficulties that you may encounter being a smaller startup and a college student.
3. Answer the questions posed on page 124 (starting with “If you’re in a new market” and ending with “Why will they care?”) about your own product/service. Now pretend that you’ve created YouTube but have not yet released it. Research how you think you, as a founder of YouTube, would have answered these questions.

3/28 QUESTIONS (pp. 53-66, 76-81, article)
1. What is an early evangelist? When should you give a product away to get feedback/heavily discount the product to get feedback and when should you sell the product to your early users? (Answer to second question is not in book, think creatively)
2. Explain how you might use a minimum viable product in your own venture. Discuss what this MVP would look like and how you would go about testing it.
3. Choose a product that you like to use. Did this product effectively find the problem/solution fit? What might a minimum viable product look like? Who do you think the early evangelists were?
4. Find one element in the reading that you may find inapplicable/questionable/dislike. Explain why you feel this way and what a more appropriate description/method might be for you
   a. EX. I dislike the phrase “Hand Product Development a detailed marketing-requirements document” (56) because I don’t have a product development team. Instead I will…

4/4 QUESTIONS (pp. 171-175, article)
1. What does “first to file” mean and how will this impact you as an entrepreneur?
2. Do a patent search using Google Patents or the USPTO website (http://www.uspto.gov/patents/process/search/) to find the patent on an object of your choice. Copy the link to this page onto your assignment. Now briefly summarize the important elements of this patent and what information is included in the various parts.
3. Do a patent search using Google Patents or the USPTO website (http://www.uspto.gov/patents/process/search/) on your idea and report the results that are most applicable. Describe why your invention differs from the ones already listed.
4. What is a provisional patent and why might this be useful to you as an entrepreneur?

POTENTIAL CASE STUDIES


Facebook: https://gsbapps.stanford.edu/cases/detail1.asp?Document_ID=2820
