

Stanford University

Technology Entrepreneurship

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Syllabus

Technology Entrepreneurship Part 1, 2015

Charles Eesley, Assistant Professor, Stanford University

About the course

Course Objective

This online course introduces the fundamentals of technology entrepreneurship, pioneered in Silicon Valley and now spreading across the world. You will learn the process technology entrepreneurs use to start companies. It involves taking a technology idea and finding a high-potential commercial opportunity, gathering resources such as talent and capital, figuring out how to sell and market the idea, and managing rapid growth.

The class demonstrates the entrepreneurial mindset: where others see insurmountable problems, entrepreneurs look for opportunities in technology and business solutions. An entrepreneurial perspective is also a wonderful way of thinking in order to tackle new opportunities in social entrepreneurship, whether it is in government or NGOs.

By the conclusion of the course, it is my hope that you understand more specifically how to:

1. Articulate a process for taking a technology idea and finding a high-potential commercial opportunity (high performing students will be able to discuss the pros and cons of alternative theoretical models).
2. Create and verify a plan for gathering resources such as talent and capital.
3. Create and verify a business model for how to sell and market an entrepreneurial idea.
4. Generalize this process to an entrepreneurial mindset of turning problems into opportunities that can be used in larger companies and other settings.

How this Course is Taught

This course is taught via a team-based experiential project. Students can get more out of the experience by joining a team either offline or via <http://novoed.com>, and can work with their teammates on projects. Teams can post links to their project material in blog comments, and can comment on each others' work. The instructor may occasionally view projects, and may post comments, but there is no guarantee that he will view or comment on any particular student or team's work.

Target Audience

This college-level course is designed for all backgrounds and majors, including those with interests in science, engineering, and humanities who seek to understand what the entrepreneurial mindset and its key processes are about. Topics introduced in this course are relevant for future founders of enterprises, as well as the future employees of a independent or corporate startup. People of all ages and backgrounds are welcome in the course.

Course Structure

The course is divided up into 2 parts. Each part has a team project in the form of a write-up and presentation. The team project for this course is the Opportunity Analysis Project, where you will test whether the startup idea you have is worth pursuing and customers agree with the problem you are solving.

The team project for *Technology Entrepreneurship, Part 2*, is the Opportunity Execution Project, where you test the rest of the aspects of the business model and figure out how to actually commercialize the product or service.

Each session corresponds to one week. Each session gives you a different aspect of the business model that you should test for that week. Your team should update a blog each week with the hypothesis you tested, what experiment(s) you ran, and what the outcome was.

Course schedule

This online course in the area of technology entrepreneurship will be running from Jan. - March, 2015.

Technology Entrepreneurship, Part 2 will start afterwards.

Start Dates and Due dates:

Due Sunday
Jan 11
at 5:00pm



Why do some startups succeed when others fail?

*No Evaluations
Required*

Due Sunday
Jan 11
at 11:59pm



Brainstorm 15 best and worst ideas and make a video

Evaluation Period:
Jan 12 - 18

Upcoming Assignments

Due Sunday
Jan 18
at 5:00pm



Form or join a team!

Not Applicable

Due Sunday
Jan 25
at 5:00pm



Create a business model canvas



Evaluation Period:
Feb 1 - 8

Due Sunday
Feb 1



Find and recruit a mentor

Evaluation Period:
Feb 1 - 8

at 5:00pm		
Due Sunday Feb 8 at 5:00pm	 Low-fidelity prototype	Evaluation Period: Feb 8 - 13
Due Sunday Feb 8 at 5:00pm	 Identify the market opportunity & test your value proposition with customers	Evaluation Period: Feb 8 - 15
Due Sunday Feb 15 at 5:00pm	 Opportunity Analysis Project	Evaluation Period: Feb 15 - 22

Social Media:

Follow the instructor on Twitter @eesley

[Facebook group](#) Like our [Facebook page](#) [Google+](#) [LinkedIn group](#)

Proprietary information

You should not upload anything to the site that is proprietary. We certainly are not using this as an idea farm. As a professor, I'm far too busy with academic publishing and the tenure track to be doing that. Besides, the startup world is small and your reputation is your most valuable resource. No one will want to do business again with someone who has a reputation for unethical behavior so you should always hold yourself to the highest ethical standards.

Most of the value of startup ideas is not in the initial idea, it's in the execution and iteration on the idea from

feedback. If you are not comfortable uploading the assignments and getting feedback from others on your startup ideas then you should not take this class. There is always a risk of having an idea stolen but you have to trade that off against the risk that you will never get the feedback you need to improve and execute on the idea. You have to take some small risk of getting your idea "stolen" in order to counteract the much greater risk that you will never improve your idea to the point where it can be executed on and commercialized. So be careful with information, but you have to get out there and talk to people about your idea in order to get enough feedback to move it forward.

Course Details

Resources and Tools

[Resources and tools to help you build your venture are here.](#)

Readings

[Recommended readings are here.](#)

Recommended Sections by Chapter

Technology Ventures: From Idea to Enterprise

Authors: Byers, Dorf, and Nelson

4th Edition, McGraw-Hill Higher Education, ISBN 978-0073523422

PART I

CHAPTER ONE

1.1 Entrepreneurship in Context

1.5 The Technology Entrepreneur

CHAPTER TWO

2.1 Types of Opportunities

2.2 Market Engagement and Design Thinking

2.5 Opportunity Evaluation

CHAPTER THREE

3.3 The Value Proposition

3.4 The Business Model

CHAPTER FOUR

4.1 Venture Strategy

4.4 SWOT Analysis

4.5 Barriers to Entry

CHAPTER FIVE

CHAPTER FIVE

5.1 First Movers Versus Followers

5.4 New Technology Ventures

PART II

CHAPTER SIX

6.1 Creating a New Business

6.5 An Annotated Table of Contents

CHAPTER SEVEN

7.1 Risk and Uncertainty

7.3 Network Effects and Increasing Returns

CHAPTER EIGHT

8.1. Creativity and Invention

8.2 Product Design and Development

CHAPTER NINE

9.5 Marketing Mix

9.8 Diffusion of Technology and Innovation

9.9 Crossing the Chasm

9.10 Personal Selling and the Sales Force

CHAPTER TEN

10.1 Legal Form of the Firm

10.5 The Innovator's Dilemma

PART III

CHAPTER ELEVEN

11.1 Protecting Intellectual Property

CHAPTER TWELVE

12.3 Leadership

12.4 Management

CHAPTER THIRTEEN

13.1 Acquiring Resources and Capabilities

13.4 Vertical Integration and Outsourcing

CHAPTER FOURTEEN

14.1 The Value Chain

14.5 Strategic Control and Operations

CHAPTER FIFTEEN

15.1 Acquisitions and the Quest for Synergy

15.3 Global Business

PART IV

CHAPTER SIXTEEN

16.1 The Revenue Model

16.2 The Cost Model

16.3 The Profit Model

CHAPTER SEVENTEEN

17.1 Building a Financial Plan

17.4 Income Statement

17.5 Cash Flow Statement

CHAPTER EIGHTEEN

18.1 Financing the New Venture

18.3 Sources and Types of Capital

18.9 Valuation

CHAPTER NINETEEN

19.1 The Presentation

19.2 Critical Issues

CHAPTER TWENTY

20.1 Execution

20.2 Stages of an Enterprise

20.3 The Adaptive Enterprise

Recommended Reading

- o The Monk and the Riddle by Randy Komisar, Prologue, Preface, and Chapters 1-3
- Additional Resources (optional) o "The Secret History of Silicon Valley," Steve Blank, Nov 20, 20008.
- o It's Not the People You Know. It's Where You Are, Randall Stross, NYT, Oct 22, 2006.
- o "When it Comes to Innovation, Geography is Destiny," Pascal Zachary, NYT, Feb 11, 2007.
- o "Growth of a Silicon Empire", Henry Norr. o Fred Terman at Stanford o More videos on ECorner on team and culture

Week 2 Creativity and Improvisation

- Videos
- o Video of talk by Kirsten Leute from the Stanford Office of Technology Licensing
- o Video 2-1

- o Video 2-2

- Recommended Reading

- o Brainstorming Rules, Stanford Design Institute, Jul 26, 2009.

- Additional Resources

- o Brainstorming Fundamentals, Stanford Design Institute

- o More videos on ECorner on Creativity

Week 3

From Idea to Opportunity:

- Videos

- o Video 2-3

- o Video 3-1

- Additional Resources

- o More videos on ECorner on opportunity recognition

Week 4

Customer Development and Lean Startups

- Videos

- o Video 4-1 - Customer Development

- o Video 4-2

- o Video 4-3-1

- o Video 4-3-2

- o Video 4-3-3

- Recommended Reading o Browse Steve Blank's blog categories: Customer Development and Customer Development Manifesto o Browse Eric Ries' blog posts on customer development

- Additional Resources o "Four Steps to the Epiphany" available on Amazon or at <http://www.cafepress.com/kandsranch> o More videos on ECorner on product development

Week 4 Additional Material

Legal Aspects

Entrepreneurship in Emerging/Developing Economies Videos and Case Example

Week 5

Entrepreneurial Sales and Marketing

- Videos
 - o Video 4-4
 - o Video 4-5 Marketing
 - o Video 5-2 Sales
- Recommended Reading
 - o Steve Brown's <http://www.innovatorstraction.com/>
- Additional Resources
 - o More videos on ECorner on sales and marketing
 - o The Chasm Group web site, Geoff Moore's marketing strategy consulting firm.

Week 6

OAP Presentations • Upload to YouTube with "technology entrepreneurship 2015"

Course Materials Primary Readings

- Byers, Dorf & Nelson, [Technology Ventures](#), McGraw-Hill, 4th Edition

Recommended Reading

- Recommended reading: [Stanford University Economic Impact via Innovation and Entrepreneurship Full report](#)

Blank, Four Steps to the Epiphany

- Meyer, M., Crane, F. (2011). Entrepreneurship: An Innovator's Guide to Startups and Corporate Ventures (pp. 500). Sage Publications.

Recommended Entrepreneurship Seminar Series • MS and E 472. Entrepreneurial Thought Leaders (ETL)

Last updated by [Chuck Eesley \(Course Instructor\)](#) 8 days ago.

