

**Carnegie Mellon University
Fall Semester 2021**

An essential aspect of creativity is not being afraid to fail.

Edwin Land

Course: 19671 – Tech Startup: Market Discovery (EPP) – A1
95794 – Tech Startup: *Market Discovery* (ISM) – A1

Location: HBH 1005

Time: Thursday, 6:20 PM – 9:10 PM

Instructor: Mark DeSantis, PhD
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TA: TBD

Please call to arrange for office hours.

Course Description:

The first three years of a technology start-up are the most critical; when the company's DNA or trajectory is set. Too few entrepreneurs appreciate this fact and, as a result, many start without the essential skills talents and capabilities needed to set the company on a successful path. Some of these entrepreneurial skills can only be learned through starting and growing a business while others can be learned. This course attempts to bridge the challenging gap between learning and doing entrepreneurship.

We introduce you to an essential skill of **market discovery** or learning to **create, develop and evaluate your concept of your business**. Is my idea a real innovation? Is it also a business or a product or neither? How do I know how big the market is for my product? What are the technology market and competitive risks in my idea and how do I assess them? Can I compete? Can I sell it? How? When? Where? Students will have the opportunity to apply their newfound practical skills gathered in part from lectures from experienced entrepreneurs and investors to case studies role-playing and solving actual problems of local tech businesses.

The best way to learn entrepreneurship is by doing, which is why this course will use 'true-to-life' scenarios as the anchor for the course. The class will be divided into 4 teams will focus on a company that is either (1) a student idea for new start-up, (2) an existing start-up (ideally local) or (3) a hypothetical start-up proposed/conceived by the students, the professor or both.

Course Learning Objectives:

Each student will be better able to do the following by the end of the course:

- Understand how new information and data about the concept of the business, financing and the team can be quickly integrated into the company's ongoing strategy and tactics.
- Think of tech startup planning, not as an occasional activity, but as a continuous, daily process.
- Fuller understanding creating and evaluating the concept of your business, financing that business and building a team to support it.

Course Requirements:

Teams will take their respective cognitive learning-driven start-ups through customer discovery. Specifically, each team will be required to make *a presentation and produce a final report*.

Each presentation will come at the end of each course section, roughly equally spaced throughout the semester. Each team will make a ~25 minute presentation followed by ~15 minutes of discussion between fellow students, faculty and invited guest. Students are, of course, encouraged to draw on resources beyond the assigned reading and lectures.

Presentations will be judged on the quality and depth of the analysis and clarity of presentations (see attached presentation assessment forms). Students can expect not only to develop and provide recommendations.

Grade weighting is as follows:

Customer Discovery Presentation	20%
Customer Discovery Report	70%
Class Participation	<u>10%</u>
Course Grade	100%

Team presentations will be collectively evaluated the quality, depth and usefulness of the recommendations of their peers for that session. Grades are assigned by the professor with consideration to the quality of the discussion in final grade.

Required Texts:

The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company by Steve Blank.

The Four Steps to the Epiphany by Steven Blank

Lean Startup How Constant Innovation Creates Radically Successful Businesses
by Eric Ries.

Venture Deals: Be Smarter Than Your Lawyer and Venture Capitalist by Brad Feld.

Building Great Software Engineering Teams: Recruiting, Hiring, and Managing Your Team from Startup to Success by Joshua Tyler

The Hard Thing About Hard Things: Building a Business When There Are No Easy Answers by Ben Horowitz

Rich versus King: The Entrepreneur's Dilemma by Noam Wasserman

Course Schedule

Class 1 – What is ‘integrative’ tech start-up planning?

Learning Objectives: Introduce basic concepts such as customer discovery, product discovery, minimum viable product (MVP), innovative funding tools/strategies and building/sustaining a start-up team. Introduce the core course concept of *integrative planning* and thinking.

To Do: Students are asked to form teams. The professor will encourage as much diversity in team makeup as possible to ensure students get the most out of their team experience.

Class 2 – Who is My Customer: *Having Lots of Conversations*

Learning Objectives: Understand how, why, when and where the process of ‘customer discovery’ works (and doesn’t work) best. What does customer discovery process look like? How does my concept of my business integrate with an effective customer discovery process?

To Do: Student teams are asked to either propose their own cognitive learning startup, find a start-up (Local ideally) or ask to be assigned a hypothetical one. The professor will work with the teams to ensure they’re confident and comfortable with their start-up.

Required Readings/Viewings:

- *The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company* by Steve Blank. Read chapters 1-4.
- Read *The Four Steps to the Epiphany* by Steven Blank.
- Watch Steve Blank presentation:
<https://www.youtube.com/watch?v=1RTcXwJuCaU>

Guest Lecturer: A serial tech entrepreneur will discuss her challenges in identifying her company’s ultimate customer opportunity.

Class 3 – Is This a Business Part 1: *How Would I Judge?*

Learning Objectives: Understanding how, why, when and where the process of ‘product discovery’ works (and doesn’t work) best. Understanding the difference between customer and product discovery and how the two complement one another.

Required Readings/Viewings:

- *The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company* by Steve Blank. Read chapters 5-12.
- Watch Steve Blank presentation:
<https://www.youtube.com/watch?v=V3syNbgSkwE>

Class 4 – Is This a Business Part 2: *How Would I Judge?*

Learning Objectives: Understand and apply the concept of Minimum Viable Product (MVP) to help you find product-market fit along with its challenges and limitations.

To Do: Students teams are given further guidance on the Customer Discovery Analysis Presentations

Required Readings/Viewings:

- *Lean Startup How Constant Innovation Creates Radically Successful Businesses* by Eric Ries. Read chapters 1-3
- Watch Eric Ries presentation:
<https://www.youtube.com/watch?v=fEvKo90qBns>

Class 5 – Fundraising & Team Building

Learning Objectives: Teams will learn the essential aspects of equity financing of their start-up and building and incenting a start-up team

Required Readings:

- *Venture Deals: Be Smarter Than Your Lawyer and Venture Capitalist* by Brad Feld. Read chapters. 1-6
- *Building Great Software Engineering Teams: Recruiting, Hiring, and Managing Your Team from Startup to Success* by Joshua Tyler. Read chapters 1-9

Class 6 – The Mental Game: *How to Learn and Lead a Tech Start-up*

Learning Objectives: Learn what to expect in the rollercoaster that is being a tech entrepreneur including understanding and managing the difference between: (1) failure and learning, (2) uncertainty and risk and (3) busy and progress.

To Do: Students are given guidance on integrating their customer discovery and funding analysis with their building team analysis.

Required Readings/Viewings:

- *The Hard Thing About Hard Things: Building a Business When There Are No Easy Answers* by Ben Horowitz. Read chapters 7-8
- Read *Rich versus King: The Entrepreneur's Dilemma* by Noam Wasserman (Chapter 1).
- Watch Eric Lunt team building presentation:
<https://www.youtube.com/watch?v=IMDyTwkkl-0>
- Watch Ben Horowitz 'Hard Truths' presentation:
<https://www.youtube.com/watch?v=F2e3RqL4VWs>

Guest Lecturer: A serial entrepreneur will discuss his personal challenges in building, managing and leading a tech start-up team.

Class 7 – Customer Discovery Analysis Presentations

Learning Objectives: Teams share their respective challenges, ideas and approaches.

To Do: Student teams present their customer discovery analysis results to a panel that includes the professor, teaching assistant, outside observers and fellow students. Students are given feedback on areas that need further analysis and potential opportunities. Students receive team grades for this round of presentations.