MGMT 230:
Entrepreneurship
Fall 2021
Quarter 1 (0.5 cu)

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MW 1:45-3:15pm
Classroom: SAIL Room/ARB 140
Office hours: by appointment

Course Overview

How do you take a good idea and turn it into a successful venture? Whether you plan to become a founder, investor, mentor, partner, or early employee of a startup company, this course will take you through the entire journey of new venture creation and development. MGMT 230 is a project-based survey course designed to provide an overview of the entrepreneurial process and give you practical hands-on experience with new venture development. You and a team will have the chance to ideate, test, and develop a pitch for an early-stage startup by incorporating material from class lectures, simulations, labs, and class discussions. By the end of the course, you will have a better understanding of what it takes to create a successful startup, as well as proven techniques for identifying and testing new market opportunities, acquiring resources, bringing new products and services to market, scaling, and exiting new ventures.

Course Objectives

By the end of the course, you will know how to generate and test new venture ideas, validate your assumptions, and prototype the product/offering. You will also have developed a pitch deck for your startup, which you can use to apply for Penn's Y-Prize Competition, Venture Initiation Program (VIP), and Startup Challenge, among other business plan competitions, and develop further into an early-stage company.

Grading

- 30% Regular class attendance and participation
- 20% Individual quizzes (Canvas)
- 50% Team project: venture initiation plan (VIP)

Required Readings

The required readings will be made available through Canvas. Where possible due to copyrights restrictions, we have also made available some of the readings free of charge for educational purposes (via the 'Penn Library Course Reserves' link). Recommended readings will also be provided for students who would like to pursue a concentration in Entrepreneurship and Innovation, and/or a career in entrepreneurship or venture capital. We will use the following text as our main reference book in this course:

1. Wasserman, Noam (2012). *The Founder's Dilemmas: Anticipating and Avoiding the Pitfalls That Can Sink a Startup*. Princeton University Press.

This book is thorough guide to the pitfalls that can sink startups by fellow Wharton alumnus Noam Wasserman (W'92, SEAS'92), based on his decade-long research of startups. The book is on reserve at Lippincott Library and also available at the Penn bookstore.

Recommended Readings
There are three recommended (excellent, but not required) readings for students interested in pursuing entrepreneurship and early-stage company investing beyond this course:

1. Mollick, Ethan (2020). *The Unicorn's Shadow: Combating the Dangerous Myths that Hold Back Startups, Founders, and Investors*. Wharton School Press.
2. Kawasaki, Guy (2015). *The Art of the Start 2.0 The Time-Tested, Battle-Hardened Guide for Anyone Starting Anything*. Portfolio Press, Revised Edition.
3. Feld, Brad and Jason Mendelson (2012). *Venture Deals: Be Smarter Than Your Lawyer and Venture Capitalist*. Wiley.
4. Ries, Eric (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Crown Publishing Group.

Venture Initiation Plan (VIP) Teams
Extensive group work outside of class is an essential part of this course. This means that although the readings each week are relatively light, you will be expected to spend time outside of class interviewing potential customers, obtaining insights from hypothesis tests of your idea using minimum viable products and simple experiments, and conducting secondary market research to understand the market and competition. Course participants will therefore be **asked to form teams of 5-8 people for their VIP projects**. These teams will work together to prepare the final project deliverable for the course.

Team Contributions and "Free Riding"
In general, all members of the same team will receive the same grade for the final project unless team members voice concerns about "free rider" problems. In these cases, the team should notify me as soon as possible and work to remedy the problem. In cases where the problem persists, team feedback will be used to adjust an individual's final project grade. Individual grades on the final project may therefore vary from the team grade, depending on team feedback.

Classroom Expectations
1. **Teamwork.** By participating in this class, you recognize that a significant proportion of your grade will depend on project teamwork, and you agree to abide by the weighting of your grade based on your team contribution ratings provided by your VIP team members.
2. **Disruption.** Please refrain from entering and leaving the classroom during class sessions; late entry or leaving and re-entering are disruptive to other students and to the class environment and will be allowed only under exceptional circumstances (e.g., family emergencies, grave personal illness).
3. **Electronics Use.** Wharton disapproves of the use of electronic devices during any class for non-educational purposes. Experience has shown that such use significantly disrupts learning, both for the students using the device and for others in the class. This policy separately addresses phones, laptops, and tablets, as follows:

- **Phones must be turned off and put away**. If a student must keep a phone on by reason of a personal emergency, the student must inform the instructor before class begins.
- **The use of laptops and tablets is not allowed unless for educational purposes as permitted by the instructor** (e.g., notetaking, reading, or data analysis).

Ethics and Use of Prior Materials
Academic integrity is a core value of the University. Penn's Code of Academic Integrity and Plagiarism Policy outline the University's policies on academic integrity and plagiarism. Plagiarism is using ideas, data, or language from previously published sources (including your own work) without specific or proper acknowledgment. Failure to properly acknowledge your prior work and the work of others will result in a failing grade for an assignment and possible disciplinary action by the University.

Confidentiality
The University is a community for the exchange of ideas and knowledge; policy discourages confidentiality and non-disclosure arrangements. Students will, however, be expected to respect the intellectual property of others.

Individual Attendance and Participation
Students are expected to attend class regularly and be well prepared to participate by having read and prepared the assigned readings. Full attendance and participation credit will be awarded to students who come to class on time and regularly and participate in class sessions and exercises. If you must leave town for a personal or family emergency, please notify the instructor to make proper arrangements for missed sessions.

Individual Quizzes
There will be 5 individual quizzes posted on Canvas testing material covered in class and in the readings. Quizzes will be available ahead of the date when they are due and can be completed any time prior to that date. Quizzes will be graded automatically in Canvas. Please see Canvas for further details and instructions.

Venture Initiation Plan (VIP)
The team project is a venture plan consisting of a *10-slide venture plan deck* [scored out of 100pt] as follows:

1. **Title** [5pt] – Provide company name, your names and roles, and contact information.
2. **Problem/Opportunity** [15pt] – Describe the pain you are alleviation or the pleasure you are providing.
3. **Value Proposition** [15pt] – Explain the *value* of the solution you provide.
4. **Underlying "Magic"** [10pt] – Describe the features that make your offering special and difficult to imitate, using diagrams, flowcharts, prototypes or a demo.
5. **Business Model/Operations** [10pt] – Explain how you make money: who pays you, your channels of distribution, your gross margins, etc. This is an opportunity to drop the names of customers or organizations that are already using your product.
6. **Go-to-Market Plan** [10pt] – Explain how you are going to reach your beachhead customers and launch.
7. **Competitive Analysis** [10pt] – Provide a complete view of the competitive landscape and the current and foreseen alternatives available to your target customers. Explain the advantages of your proposed solution relative to the most competitive alternatives available to your target customers.
8. **Management Team and Advisory Board** [5pt] – Describe the key players of your management team, including your venture team and board of advisors.
9. **Financial Projections and Key Metrics** [10pt] – Provide projected operating income statement and explain the physical units of output needed to deliver the desired financial goals, using a fishbone diagram, or DDP.
10. **Current Status, Accomplishments to Date, Timeline and Use of Funds** [10pt] – Explain progress made along key checkpoints for testing assumptions about the viability of your venture, progress to date, and the timeline for further checkpoints.

Potential Sources of Venture Ideas:

1. Reflect on a problem that you are passionate about. What aspects of the problem do you find compelling and why? Who could you potentially help by solving this problem? Are there existing solutions for this problem? If so, what are their shortfalls and how can people's experience be made better?
2. Interview customers or insiders in your industry or area of interest and find out from them what their pain points are and what potential problems you can solve. Consider spending a day shadowing the customers of an existing product or service and asking them about their experience. Interview a few people in your area of interest to discover problems.
3. Connect with innovators through research hubs such as the Penn Engineering Research and Collaboration Hub (PERCH) at Pennovation Works and learn what they are working on. Draw inspiration from existing technologies and think about potential applications to different markets or customer segments.
4. Speak with people outside of Wharton. Consider meeting people at other departments at Penn or look for interesting ideas in places you don't normally spend time (for example, visit the GRASP lab at Penn or The Laboratory for Research on the Structure of Matter).
5. Learn more about technologies available for commercialization through Y-Prize. You can develop a venture around how to successfully commercialize one of these technologies with your team and enter the Y-Prize competition for a chance to win $10,000.
6. Discover new technologies available for licensing through university-based technology transfer offices (e.g. at Penn, Stanford, MIT) and find new applications for these technologies towards solving people's pain points and existing problems. Many universities, including Penn, own technologies developed by researchers that are available for licensing. You can see these technologies on sites such as the Penn Center for Innovation, MIT TLO, or Stanford OTL.

MGMT 230: Course Outline – Quarter 1 Schedule

Schedule and dates may change. The most up-to-date schedule is on Canvas.

Session	Day	Date	Lecture Topic	Readings	Assignments
1	Wed	Sept 1	Introduction to Entrepreneurship	Chapter 1 (p.1-26) of *The Founder's Dilemmas*.	Read the instructions on how to play *The Startup Game* and watch the introductory video about the objectives of the game before our next class.
2	Wed	Sept 8 *(Rosh Hashanah)*	The Startup Game: Raising Capital and Recruiting Employees in Silicon Valley	The Startup Game simulation instructions.	Individually, post a picture representing a problem or a solution that you find interesting as a potential startup idea on the "Idea Machine" by midnight before our next class.
3	Mon	Sept 13	Hypothesis-Driven Entrepreneurship	"Hypothesis-Driven Entrepreneurship"	Work with your teams to select an idea to develop for your VIP team project during this course.
4	Wed	Sept 15 *(Yom Kippur)*	VIP Team Day (no lecture)		Team day is an opportunity for you and your team to conduct customer interviews and gather insights to help with the development of your venture idea. You are welcome to use the classroom to meet with your team and plan the project, or step outside the classroom and use this time for conducting initial customer interviews.
5	Mon	Sept 20	Testing Hypotheses through Minimum Viable Products	"Test" (Chapter 6) of *The Lean Startup*.	Before our next class: Prepare a short power-point deck of your team's VIP idea to workshop in class during our Testing Lab session. Make sure to include any insights you have gathered (so far!) from initial customer interviews.
6	Wed	Sept 22	MVP Testing Lab (no lecture)		The testing lab is an opportunity for you and your team to work together and develop a list of 4-5 potential MVP tests of your project idea. You are welcome to use the classroom to meet with your team and work through these ideas. In class, the instructor will offer feedback to teams about their ideas and workshop the viability of the MVP tests. **Quiz 1 (due by 11:59pm on Canvas):** "Experimenting in the Entrepreneurial Venture"
7	Mon	Sept 27	Founding Team *Case: Apple's Core*	"Role Dilemmas" *Apple's Core*	Work on your VIP project. Conduct customer development and MVP tests.
8	Wed	Sept 29	Building Your Company and Hiring the Right People	"Hiring Dilemmas" "Organizational Blueprints for Success"	Work within your VIP teams to come up with a list of potential positions for which you will need to hire people and identify a list of potential advisory board members. **Quiz 2 (due by 11:59pm on Canvas):** "Customer Insights"
9	Mon	Oct 4	Startup Operations and Discovery-Driven Planning	"Discovery-Driven Planning"	Prepare DDP for your VIP idea**.**
10	Wed	Oct 6	Financing: Family, Friends, Angels, VCs, and the Crowd	"Investor Dilemmas" "How to Raise Money"	Work within your VIP teams to develop an estimate of how much start-up capital you will need and how you will source it. **Quiz 3 (due by 11:59pm on Canvas):** "Recognizing and Shaping Opportunities"
11	Mon	Oct 11	Power and Money *Case: Evan Williams*	"Reward Dilemmas" *Evan Williams*	Work on your VIP projects. Formulate your pitch deck and begin to formulate your financing and operations slides.
12	Wed	Oct 13	Business Models *Case: Zipcar*	*Zipcar: Refining the Business Model*	**Quiz 4 (due by 11:59pm on Canvas):** "Financing Entrepreneurial Ventures"
13	Mon	Oct 18	Managing Growth *Case: Crunch*	"Scaling a Startup" *Crunch*	Work on your VIP pitch deck. **Quiz 5 (due by 11:59pm on Canvas):** "Developing Business Plans and Pitching Opportunities"
14	Wed	Oct 20	Exit and Harvest *Case: Nantucket Nectars*	"Harvest Time" *Nantucket Nectars*: *The Exit*	**Submit your final VIP pitch deck and team contributions ratings (due by 11:59pm on Canvas)**

MGMT 230: Course Readings

Please prepare all readings ahead of the session for which they are listed.

Module 1 – Ideation

1. Introduction to Entrepreneurship

Read: Chapter 1 (pp. 1-26) of *The Founder's Dilemmas.*

Reflect:

1. Where do good startup ideas come from? What makes a startup idea "good"?
2. What are some common mistakes that many founders make? Why?

2. The Startup Game

Read: instructions on how to play *The Startup Game* and your role (founder, investor, early employee).

Watch: introductory video about how to play the game. If you are assigned to the role of a founder in the game, please come prepared to give a 1-minute pitch of your venture to recruit employees and attract investors.

In-class: Play *the Startup Game*

3. Hypothesis-Driven Entrepreneurship

Read: "Hypothesis-Driven Entrepreneurship: The Lean Startup" (pages 1-26) by Thomas R. Eisenmann, Eric Ries, and Sarah Dillard, HBS Note 812095-PDF-ENG.

Reflect:

1. What makes a "good" hypothesis? Why do entrepreneurs need to form and test hypotheses?
2. When is the "lean startup" method appropriate? When is it *not* appropriate?
3. What were the critical assumptions behind *Rent-the-Runway*? How did its founders go about mitigating the uncertainty around some of these assumptions? What hypotheses did they test and how?

4. VIP Team Day (no lecture)

The goal of team day is to give you and your team the chance to jump-start your VIP project. You can use this time to start forming your venture and planning the final project. To do this, you can:

1. Step outside the classroom and conduct some initial customer insights interviews. Gather information about pain points, potential problems that you and your team can solve with your product offering.
2. What are key areas of uncertainty about this idea? What do you know about the potential demand for this product/offering? What is the "market opportunity" here? Does our team (collectively) have the expertise and knowledge to pursue this opportunity? Are you the best team to develop this product/offering? Why or why not?
3. Think about the 1-minute "pitch" of your VIP idea. Why should others be excited about this idea? What problem does your idea solve? Or does it do something better, cheaper, or faster? Who will benefit from your product/solution? (You don't need to have a fancy power point presentation, but it is helpful to have something concrete to look at and convince other people that it's a good idea!)
4. Develop a set of criteria that will help you and your team identify the most viable idea to develop for your project. For example, one criterion might be "there is adequate demand for this product/offering"; other criteria might be "our team has the requisite skills, knowledge, and unique expertise to pursue this opportunity."

Module 2 – Prototyping

5. Testing Hypotheses through Minimum Viable Products (MVPs)

Read: "Test" (Chapter 6) of *The Lean Startup* by Eric Ries.

Skim: "How to Test Products Like a Googler" by Lucas Pettinati. Available here.

Reflect:

1. What assumptions are you making about your customers (e.g. who they are, what they value, how they behave, what their willingness to pay is)?
2. Which of these assumptions are the most important for the viability of your venture? Think here in terms of demand for your product, your pricing, and any legal or regulatory approval needed.
3. What 2-3 simple experiments can you run to test the most important assumptions? How will you know if your assumption(s) are validated?

In-class: *Team Challenge: Commercializing Google's Driverless Car.*

We will think about Google's driverless car concept and MVP experiments. You will be asked in teams to identify potential ways to commercialize Google's driverless car technology. Which assumptions are critical for the driverless car to succeed commercially? What simple hypothesis tests would you recommend to Google to understand whether the driverless car can be viable as a revenue-generating product or service?

6. MVP Testing Lab (no lecture)

Our goal for this lab is to give you and your team the chance to reflect on the key assumptions behind your product/offering and develop a plan for early MVP tests of your product/offering. Prior teams have found it helpful to think about questions they might ask during customer interviews, flow-charts, or diagrams that map customer behavior to identify bottlenecks and pain-points, and work on mockups and prototypes of the product/offering. The goal of this lab is to surface key assumptions that your team needs to validate using an MVP test and brainstorm potential ways to test these assumptions.

To make the most of this lab:

1. Have a clear sense of which venture idea you would like to develop as a team for your VIP.
2. Think about the core assumptions behind this idea that will determine whether it's "viable" or "not viable" and potential ways to assess the validity of these assumptions. For instance, what questions can you ask during interviews with potential customers to help you confirm/disconfirm key assumptions about their needs/behavior? How can you assess the potential demand for your product/offering?
3. Brainstorm individually some creative MVP tests for your product/offering ahead of class. Based on our prior lecture, what types of MVP tests are most appropriate to your product/offering? For instance, could you design a simple landing page, or an A/B test?

Module 3 –Startup Operations

7. Founding Team: Setting Roles, Allocating Rewards

Read:

1. "Role Dilemmas: Positions and Decision Making" Chapter 5 in *The Founder's Dilemmas* by Noam Wasserman.
2. *Apple's Core*, HBS case 9-809-063.

Reflect:

1. What should Wozniak do about Jobs?
2. Does Apple Computer (at the time of the case) have a good founding team? Why or why not?
3. What makes a person a true "founder"?
4. Who are the "real" founders of Apple Computer?

8. Building Your Company and Hiring the Right People

Read:

1. "Hiring Dilemmas: The Right Hires at the Right Time" Chapter 8 in *The Founder's Dilemmas* by Noam Wasserman.
2. "Organizational Blueprints for Success in High-Tech Start-Ups: Lessons from the Stanford Project on Emerging Companies," James N. Baron and Michael T. Hannan, *California Management Review*, Spring 2002.

Reflect:

1. How can entrepreneurs avoid hiring the wrong people, at the wrong time?
2. What makes some organizational blueprints more attractive than others?
3. What is the role of the founder in establishing these blueprints?

9. Startup Operations and Discovery-Driven Planning

Read: "Discovery-Driven Planning" by Rita McGrath and Ian MacMillan, Harvard Business Review, available here: https://hbr.org/1995/07/discovery-driven-planning

Reflect:

1. What is the goal of entrepreneurial planning? In what ways do startups differ from established organizations when it comes to mitigating risks and uncertainty?
2. Why should founders prepare "reverse" income statements?
3. How are these statements useful as planning documents?

Module 4 –Seeking External Resources

10. Financing: Family, Friends, Angels, VCs, and the Crowd

Read:

1. "Investor Dilemmas: Adding Value, Adding Risks" Chapter 9 in *The Founder's Dilemmas* by Noam Wasserman.
2. "How to Raise Money" Chapter 2 in *Venture Deals* by Brad Feld and Jason Mendelson.

Reflect:

1. When is it a good idea to self-fund versus take money from outside investors?
2. When is it better to take money from the crowd than from venture capitalists?

11. Power and Money

Read:

1. "Reward Dilemmas: Equity Splits and Cash Compensation" Chapter 6 in *The Founder's Dilemmas* by Noam Wasserman.
2. *Evan Williams*, HBS case 9-809-088

Reflect:

1. When are equity splits a bad idea? What criteria should co-founders use when negotiating equity splits?
2. How has Evan Williams gotten himself into this mess? What should he do now?

12. Business Models

Read: *Zipcar: Refining the Business Model*, HBS Case 9-803-096

Reflect:

1. What are the biggest selling points for Chase to push as she tries to raise capital? What is the potential size of the market for Zipcar?
2. What are the key assumptions underlying the May, 2000 Zipcar business model? Or, to put it another way, which elements of the May 2000 plan would you want to monitor most closely during early roll-out to ensure that the business could be profitable?
3. Given the data in Table 8b, what actions would you suggest?

Module 5 – Growth, Exit, and Harvest

13. Managing Growth

Read:

1. "Scaling a Startup: People and Organizational Issues" HBS Note, 812100-PDF-ENG.
2. *Crunch*, HBS case 9-899-233.

Reflect:

1. When is it appropriate to focus on growth versus profits? What are the organizational challenges with scaling a startup?
2. Should Crunch buy SportsLife? What are the biggest challenges facing Crunch?

14. Exit and Harvest

Read:

1. "Harvest Time: Reaping What You've Sown" HBS Chapter, 5436BC-PDF-ENG.
2. *Nantucket Nectars*: The Exit, HBS case 9-810-041.

Reflect:

1. If you are Tom and Tom, what is the minimum price you except for Nantucket Nectars?
2. If you were advising Tom and Tom, what would you tell them to do?