MGMT 230:
Entrepreneurship
Fall 2018
Semester (1.0 cu)

Valentina A. Assenova
The Wharton School
University of Pennsylvania

Office: Steinberg Hall – Dietrich Hall 3202   MW 9:00-10:30 am; 10:30-12:00 pm
Tel: (215) 573-2377   Classroom: VANC 112 (SAIL room)
Email: vaa@wharton.upenn.edu   Office hours: W 1:30-2:30pm (or by appt.)

Course Overview

MGMT 230 integrates the material introduced in business fundamental courses and applies it to the design and evaluation of new ventures. The purpose of this course is to explore the many dimensions of new venture creation and growth and to foster innovation and new business formations in independent and corporate settings. The course addresses both a theoretical perspective on venture initiation and the application of writing an actual business plan. In this course, you are asked to get out of the habit of being a receiver of ideas, facts, concepts and techniques, and get into the habit of generating ideas, identifying problems, analyzing and evaluating alternatives, and formulating workable action plans, thus putting textbook knowledge into practice. Students will get this hands-on experience in the following ways: Through the formation and ongoing work of venture teams that will design a comprehensive business development plan for a start-up company. Teams are expected to utilize the tools and analytical approaches discussed in class to their venture, through lectures and class discussions that are designed to familiarize students with the many dimensions of entrepreneurship and new venture initiation. Class format varies throughout the course: in some class sessions, there will be a lecture on specific topics; other sessions will consist of case discussions of a topic or a discussion of the business concepts that students are developing; guest speakers also lead and participate in some class sessions.

Course Objectives

By the end of the course, you will know how to generate and test new venture ideas, validate your assumptions, prototype your idea, and build, grow, and harvest your venture. You will also have developed a pitch deck for your business plan, 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 as part of the follow-on MGMT 231 (Venture Implementation) elective.

Grading

- 25% individual class attendance and participation
- 25% individual quizzes
- 50% team project: venture initiation plan (VIP)

Course Pack and Core Text
The course pack is available through Wharton Reprographics and includes the cases and required readings. Where possible due to copyrights restrictions, we have also made available some of the readings free of charge for educational purposes through Canvas (via the 'Penn Library Course Reserves' link). Mastery of the required readings and of the concepts discussed in class should be demonstrated in your final VIP presented at the end of the course. Recommended readings will also be provided for students who would like to pursue a concentration in Entrepreneurship and Innovation, and/or pursue a career in entrepreneurship or venture capital. In addition to the course pack, 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 is an excellent and thorough guide by Wharton alumnus Noam Wasserman (W'92, SEAS'92) about the common mistakes many founders make in the process of starting a new company, 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. Ries, Eric (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses.* Crown Publishing Group.
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.

Venture Initiation Project (VIP) Teams
Extensive group work outside of class is an essential part of this course. This means that although the reading list each week is 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 (MVPs) and simple experiments, and conducting secondary market research to understand the market and competition. Course participants are therefore expected to form VIP teams of **4-6 students** whose talents, skills and knowledge are preferably complementary. If students are not in project teams by the project team formation deadline (**September 17, 2018**) they will be assigned to a team.

Team Contribution Ratings
You will be asked to complete a team member evaluation form to rate the contribution of each of the team members by assigning an effort score (out of 100%) to that team member. These scores will be used to calculate the weight that will be applied to an individual's VIP grade. Individual grades will therefore vary within teams, based on peer-assessment of your contribution to team effort.

Classroom Expectations
1. By participating in this class, you recognize that a significant proportion of your grade will depend on project team-work, and you agree to abide by the weighting of your grade on the basis of your team contribution ratings provided by your VIP team members.
2. Please display your name tents and refrain from using laptops, cell phones, and other electronic devices during class. Please also refrain from entering and leaving the classroom during class sessions; late entry or reentry will be allowed only under exceptional circumstances.

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 (25%)
Students are expected to attend class regularly and to be *well prepared to participate* by having read and prepared the readings. Full attendance credit (1/1pt per session) will be awarded to students who come to class on time and regularly. Full participation credit (1/1pt per session) will be awarded for consistently offering insightful and well-informed comments and making an effort to contribute to each session. If you must leave town for a personal or family emergency, please notify the instructor to make proper arrangements for missed sessions.

Individual Quizzes (25%)
There will be **five quizzes posted on Canvas** testing material covered in class and in the readings. Quizzes are to be completed *individually*, cannot be re-taken, and will be graded automatically in Canvas.

Venture Project (VP) Plan (50%)
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 that you're alleviation or the pleasure you're providing.
3. **Value Proposition** [15pt] – Explain the value of the pain you alleviate or the value of the pleasure 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 the value of the pain you alleviate of the value of the pleasure you provide.
6. **Go-to-Market Plan** [10pt] – Explain how you are going to reach your beachhead customers and launch your venture
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, as well as any planned grant providers or equity investors if applicable.
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. Explain the planned sources and uses of funds for asset purchases and replacement, and for operating costs. Compare the physical units of output needed for financial sustainability and current funding sources; explain how you will manage any gaps.
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 the 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 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

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

Session	Day	Date	Topic	Readings Due	Assignments
1	Wed	Aug 29	Introduction to Entrepreneurship	Chapter 1 (p.1-26) of *The Founder's Dilemmas.*	HW: Read instructions on how to play *The Startup Game* by **11:59pm Sept 4**.Watch: introductory video about the game.
			Monday, September 3 – Labor Day – no class		
2	Wed	Sept 5	The Startup Game: Raising Capital and Recruiting Employees in Silicon Valley	The Startup Game simulation instructions.	HW: come up with one potential idea for your VIP and **post your idea on the Idea Machine by 11:59pm Sept 11**; prepare a 1-min pitch of your idea to present in class. You will use this to attract potential VIP team-members ("co-founders").
			Monday, September 10 – Rosh Hashanah – no class		
3	Wed	Sept 12	**Idea Lab**		HW: Form VIP teams on Canvas by **11:59pm Sept 17**.
4	Mon	Sept 17	Hypothesis-Driven Entrepreneurship	"Hypothesis-Driven Entrepreneurship"	Quiz 1: "Experimenting in the Entrepreneurial Venture" **due 11:59pm Sept 23**.
			Monday, September 19 – Yom Kippur – no class		
5	Mon	Sept 24	Prototyping and Experimentation: Human-Centered Approaches	"Learn" (Chapter 3) of *The Lean Startup.*	
6	Wed	Sept 26	Discovering Customer Needs		Quiz 2: "Customer Insights" **due 11:59pm Sept 30**.
7	Mon	Oct 1	Testing Hypotheses through Minimum Viable Products	"Test" (Chapter 6) of *The Lean Startup.*	
8	Wed	Oct 3	Rapid Prototyping: The Food Truck Challenge	"Experiment" (Chapter 4) of *The Lean Startup.*	HW: Prepare a short (10 slides or fewer) presentation of your venture idea and insights from customer interviews and/or MVP tests and post on Canvas by **11:59pm Oct 7**.
			October 4-7 – Fall Break – no classes		
9	Mon	Oct 8	**Testing Lab**		
10	Wed	Oct 10	**Testing Lab – continued**		Quiz 3: "Recognizing and Shaping Opportunities" **due 11:59pm Oct 14**.
11	Mon	Oct 15	Founding Team *Case: Apple's Core*	"Role Dilemmas" *Apple's Core*	
12	Wed	Oct 17	Building Your Company and Hiring the Right People	"Hiring Dilemmas" "Organizational Blueprints for Success in High-Tech Start-Ups"	
13	Mon	Oct 22	Startup Operations and Discovery-Driven Planning	"Discovery-Driven Planning"	HW: prepare VIP progress report and DDP and post on Canvas by **11:59pm Oct 23**.
14	Wed	Oct 24	**Venture Project Lab**		
15	Mon	Oct 29	Financing: Family, Friends, Angels, VCs, and the Crowd	"Investor Dilemmas" "How to Raise Money"	
16	Wed	Oct 31	Power and Money *Case: Evan Williams*	"Reward Dilemmas" *Evan Williams*	Quiz 4: "Financing Entrepreneurial Ventures" **due 11:59pm Nov 4**.
17	Mon	Nov 5	Marketing Simulation: Crossing the Chasm	Read simulation instructions.	
18	Wed	Nov 7	Guest Lecture: IP Law for Entrepreneurs		
19	Mon	Nov 12	Business Models *Case: Zipcar*	*Zipcar: Refining the Business Model*	HW: prepare Madlibs exercise within your VIP team and post on Canvas by **11:59pm Nov 13**.
20	Wed	Nov 14	**Art-of-the-Pitch Lab**	"The Art of Pitching"	
21	Mon	Nov 19	Managing Growth *Case: Crunch*	"Scaling a Startup" *Crunch*	Quiz 5: "Developing Business Plans and Pitching Opportunities" **due 11:59pm Nov 20**.
	Wed	Nov 21	**No class – Th/F schedule**		
			November 22-25 – Thanksgiving Break – no classes		
22	Mon	Nov 26	Exit and Harvest *Case: Nantucket Nectars*	"Harvest Time" *Nantucket Nectars: The Exit*	HW: Sign up for presentation date and time slot for VIP project on Canvas by **11:59pm Nov 27**.
23	Wed	Nov 28	Course Wrap-up		Final VIP pitch deck due on Canvas **by 11:59pm Dec 2**.
24	Mon	Dec 3	Final Project Presentations	-	
25	Wed	Dec 5	Final Project Presentations	-	
26	Mon	Dec 10	Final Project Presentations	-	

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. Idea Lab

The goal of the lab is to give you the chance to generate many ideas for your VIP projects and crowd-source the best ones. You will also discover similar interests to other students and use this as an opportunity to start forming your "co-founding" VIP team. To do this, please:
1. Post one idea that you would like to work on for your VIP project on IdeaMachine (instructions will be sent ahead of class by the Wharton Learning Lab).
2. Prepare a 1-minute "pitch" of your idea. Why should others be excited to work on this idea with you? 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 power point presentation, but it is helpful to look at this as a way to recruit potential "co-founders" for your venture.)

4. 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?

Module 2 – Prototyping

5. Prototyping and Experimentation: Human-Centered Approaches

Read: "Learn" (Chapter 3) of *The Lean Startup* by Eric Ries.
Reflect:
1. What pain point(s) have you experienced as a customer of an existing product or service that you use? Why did you experience these pain points?
2. What potential, easy solutions to your pain point(s) can you think of?
In-class: Video Case: IDEO Shopping Cart Project (21:37 min)

6. Discovering Customer Needs

Reflect with your VIP team:
1. What customer needs or pain points does your VIP idea solve? Which categories of potential customers experience these needs or pain points?
2. Who can you interview to understand your target customer needs and pain points better? Think of 4-5 names of people who you can contact for an informal customer interview.
In-class: We will work on customer interviewing and empathy exercises to learn techniques for discovering customer pain points and hidden needs, and will apply tools from human-centered design approaches to identify potential solutions.

7. 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?

8. Rapid Prototyping: The Food Truck Challenge

Read: "Experiment" (Chapter 4) of *The Lean Startup* by Eric Ries.

Instructions on how to play the Food Truck challenge.

In class: Play New Venture Simulation: The Food Truck Challenge HBS 7201-HTM-ENG

9.-10. Testing Lab

The goal of this lab is for your team to present your initial findings from customer interviews and/or early tests of your product offering. You may use video materials or recordings of customer interviews, flow-charts or diagrams mapping customer behavior, mockups of your app or product, or any other useful prototyping and customer information that you would like to get feedback on. We will use the "wisdom of crowds" approach to ask you and your VIP team probing questions about the demand for your product, customers' willingness to pay, and desired minimal features. We will also aim to surface assumptions that your VIP team needs to test further. To make the most of this lab, please:

1. Prepare your VIP "pitch" of your venture idea, core assumptions, tests used to date to assess the validity these assumptions, and your initial findings from interviews with potential customers.
2. Each team will have time for their presentation and Q&A.

Module 3 –Startup Operations

11. 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"? Who are the "real" founders of Apple Computer?

12. 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? What is the role of the founder in establishing these blueprints?

13. 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? How are these statements useful as planning documents?

14. Venture Project Lab

The goal of this lab is to give you and your VIP teams the opportunity to present progress on your venture ideas to date, including any prototypes, pivots, and validation of key assumptions or hypotheses. You will be asked to present a pro-forma income statement and related planning documents for your venture (don't worry if they're not "right" yet) to scope the economic viability of your venture. You will have the opportunity to obtain valuable feedback about specific areas and to crowd-source ideas for overcoming any challenges you are experiencing.

Ahead of class: Please prepare with your VIP team a short presentation of your progress-to-date on your venture project and the following planning worksheets: (1) a reverse income statement, which models the basic economics of the business (2) pro-forma operations specs, which lay out the operations needed to run the business (3) key assumptions checklist, which is used to ensure the assumptions are checked and validated; and (4) milestones planning chart, which specifies the assumptions to be tested at each project milestone.

Module 4 –Seeking External Resources

15. 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?

16. 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?

17. Marketing Simulation: Crossing the Chasm

Read: instructions on how to play Innovation Marketing Simulation: Crossing the Chasm 8695-HTM-ENG.

Reflect:
1. Why do entrepreneurs need to think about how to "cross the chasm"?
2. In what ways do early adopters differ from mainstream customers? Why do these differences matter for the economic viability of your venture?

18. Guest Lecture: Intellectual Property (IP) Law – Cynthia Dahl, Penn Law School

This session will take place in the evening for all the course sections to accommodate our guest speaker and resident legal expert Prof. Cynthia Dahl. Attendance is optional but encouraged, as this is a highly useful and popular session on the legal aspects of founding a company and the basics of IP law. Please come prepared to ask questions and learn about the Entrepreneurship Legal Clinic at Penn Law School.

19. 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?
20. The Art of the Pitch
Read: "The Art of Pitching" Chapter 6 (pp. 139-173) in *The Art of the Start 2.0 The Time-Tested, Battle-Hardened Guide for Anyone Starting Anything* by Guy Kawasaki.
Review: Investor Presentation Deck for PunchTab, Inc., HBS 812172-PDF-ENG.
Explore: Resources on "Sales, Pitching, and Presenting," available at: http//www.startupinnovation.org/readings-and-resources/
Reflect:
1. What are some of your favorite presentation styles? Why do you think they are effective?
2. If you had to summarize your venture idea in one sentence, what would it be?

Module 5 – Growth, Harvest, and Exit
21. 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?
22. 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?
23. Course Wrap-up
Browse: the Penn Wharton Entrepreneurship website at https://entrepreneurship.wharton.upenn.edu Identify what competitions or opportunities you and your team can pursue to get funding and resources from Penn for developing your idea further.
Reflect:
1. Which courses and funding opportunities at Penn and at Wharton would you like to pursue next for developing your VIP idea further? What competitions might you enter with your VIP pitch deck?
2. What are the most valuable learnings and key take-aways that you gained from this course? What have you learned about the entrepreneurial process and the qualities of successful founders and founding teams from working with your VIP teams?