

## **Entrepreneurial Experience, ENVIRON767-01 (4318)**

**Fall, 2016**

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### **Course Overview**

The focus of this course is the successful creation and early execution of a new venture. The course concentrates on new enterprises based on substantial innovations with potential for high growth and funding by venture capitalists.

The course is based on readings, lectures and case discussion with the intent of allowing students to derive practical lessons from experience in actual ventures. Students in this course will have practical exposure to all the basic operational tools required to start up and operate a company.

The topics to be covered include:

- Value Proposition
- Opportunity Identification
- Company Startup Operations
- Technology Management
- Product Development
- Pitching a Deal
- Finance I (startup financing)
- Scale-up
- Finance II (operations)
- Customer Engagement
- Marketing Communications
- Building Shareholder Value

This course is a follow on to the Foundations in Environmental Entrepreneurship course.

### **Requirements:**

#### **Case/class topic write-ups (40%)**

The course will require three brief analyses written up over the course of the term. These analyses may be either case analyses or focus on topics covered in class. The write-ups will be done individually.

#### **Final project (40%)**

The final project for this course will comprise the mock formation of a company by student teams based on scenarios provided by the instructor or they can be based on a project of the students' choosing. This project will include at least:

- Summary business case and slide deck
- Team formation
- Stock and cash compensation
- Stock agreements
- Employee agreements
- Non-compete/IP agreements
- Consulting/services agreements
- Dilution model
- Initial execution plan

Please note that the assignment is **not** to create a business plan – the focus is on business model, business formation and plan execution, assuming the plan is sound.

This assignment will be completed in teams of up to four students.

## **In Class Participation (20%)**

Because classes will be based on a collective analysis of a case or reading, it is critical that you come to class prepared to participate actively in the discussion. The outline of the classes below should help you prepare for class. Learning for everyone in this class is enhanced through debate, different perspectives and new insights that come from you.

To help you prepare for class you should create 3 PowerPoint slides on at least one reading or case for each class and be prepared to present your summary/analysis to your fellow students (3-5 minute presentation).

For discussions, your goal should be to contribute high *quality* comments, *not* high *quantity*. You detract from class discussion if you talk a lot and do not make a clear point. To contribute high quality comments, you must also listen carefully to the comments of your classmates. You should try to extend or qualify their comments while avoiding repeating them.

To keep class conversations interesting and widely distributed across students, priority will be given to those who have spoken less. Occasionally, students will be called on directly to contribute.

## **Course Grading:**

Grading approach will follow standard letter grade.

## Reading

Readings will be available to students through the Harvard Business Review website. See also course details below.<sup>1</sup>

#	Source	Title	Author
1	Trans. Mater. Res. 1 (2014) 016001	A Lab-to-Market Roadmap for Early-Stage Entrepreneurship	Jesko A. von Windheim
2	HBR Article	Customer Value Propositions in Business Markets	James C. Anderson; James A. Narus; Wouter Van Rossum
3	Case Study	PFT Technologies Inc.	Jesko A. von Windheim
4	HBR Case	How Venture Capitalists Evaluate Potential Venture Opportunities	Michael J. Roberts; Lauren Barley
5	HBR Industry and Background Note	Legal Forms of Organization	Michael J. Roberts
6	HBR Case	Intel Research: Exploring the Future	Alan MacCormack; Kerry Herman
7	Personal Material	IP Mgmt Overview_ NewCo	John M Fuscoe
8	HBR Case	Matrix Semiconductor Inc. (A): Tackling Challenges of Strategic Dimensions	Robert A. Burgelman; Robert E. Siegel; Lyn Denend
9	HBR Industry and Background Note	Deal Structure and Deal Terms	Michael J. Roberts; Howard H. Stevenson
10	HBR Industry and Background Note	Funding New Ventures: Valuation, Financing and Capitalization Tables	Michael J. Roberts
11	HBR Industry and Background Note	Note on Valuation of Venture Capital Deals	Thomas Hellmann
12	HBR Industry and Background Note	Note on Pre-Money and Post-Money Valuation (A)	Linda A. Cyr
13	HBR Case	Pilkington Float Glass--1955	Kim B. Clark
14	HBR Case	Matrix Semiconductor Inc. (B): Transitioning from Innovation to Execution	Robert A. Burgelman; Lyn Denend
15	HBR Industry and Background Note	Note on Business Model Analysis for the Entrepreneur	Richard G. Hamermesh; Paul W. Marshall; Taz Pirmohamed
16	Case Study	Cronos Integrated Microsystems I: Microrelay	Jesko A. von Windheim
17	Case Study	Cronos II: Company Launch	Jesko A. von Windheim
18	Case Study	Cronos III: Company Exit	Jesko A. von Windheim
19	HBR Newsletter Reprint - Other	Presence: How to Get It, How to Use It	
20	HBR Newsletter Reprint - Other	Basic Presentation Checklist	
21	HBR Newsletter Reprint - Other	Coping with Stagefright	John Daly; Isa Engleberg
22	HBR Newsletter Reprint - Other	How to Make Your Case in 30 Seconds or Less	Nick Wreden
23	HBR Newsletter Reprint - Other	Presentations 101	John Clayton
24	HBR Newsletter Reprint - Other	Easy on the Eyes	Kirsten D. Sandberg
25	HBR Newsletter Reprint - Other	Why the Best Presentations Are Good Conversations	Roly Grimshaw
26	HBR Newsletter Reprint - Other	Are Your Presentations Inspiring?	

<sup>1</sup> Green highlighted reading material is optional background reading for the session on "Pitching a Deal"

## ENV 767-01 Schedule (Fall, 2016)

1:25-2:40 pm T/Th

Location: Environmental Hall 1112

Date	Topic	Reading	Case	Class	What
8/30/2016	Introduction	Lab-to-Market Roadmap			house keeping
9/1/2016	Entrepreneurial Process Overview			Lecture	perspectives on entrepreneurship
9/6/2016	Value proposition 1	Customer Value Prop.	PFT	Discussion	3 levels of value prop/PFT process
9/8/2016	Value proposition 2			Lecture	value prop and PFT
9/13/2016	Opportunity ID 1	How VCs select opps		Discussion	What compells investors to invest?
9/15/2016	Opportunity ID 2	Bus Op. Template/Example	Cronos I: Microrelay	Lecture	Method for opp ID
9/20/2016	Company Start-up Ops 1	Legal forms of org/IP Mgmt		Discussion	Pros and Cons of Co legal structure
9/22/2016	Company Start-up Ops 2			Lecture	Operational considerations in a Startup
9/27/2016	Microrelay - Bus. Op. Analysis Due				
9/27/2016	Technology Management 1		Intel	Discussion	Roadmapping/Technology pipeline mgmnt
9/29/2016	Technology Management 2	IP Mgmt Overview_NewCo		Lecture	Managing IP
10/4/2016	Technology Management 3			Lecture	Intel Case Review
10/6/2016	Pitching 1	"Pitch" readings (multiple)	Cronos II: Company Launch	Lecture	how to create a pitch
10/11/2016	Fall break				
10/13/2016	Productization 1		Matrix A&B/Pilkington	Lecture/Discussion	product dev challenges
10/13/2016	Matrix/Pilkington Write-up Due				
10/18/2016	Productization 2		Matrix A&B/Pilkington	Students Present	assignment presentation
10/20/2016	Startup Financing 1	Deal Structure; Notes on Valuation, Premoney	Cronos II: Company Launch	Discussion	valuation & dilution
10/25/2016	Startup Financing 2			Lecture	dilution traps
10/27/2016	Scale-up 1			Lecture	Intro/Experience Curve
11/1/2016	Scale-up 2			Lecture	Revenue Planning
11/3/2016	Finance II/Operations 1			Lecture	Nextreme Example
11/8/2016	Finance II/Operations 2	examples documents		Lecture/Discussion	key documents/final project review
11/8/2016	Dilution Assignment Due				
11/10/2016	Customer Engagement			Lecture	customer engagement
11/15/2016	Business Model			Lecture	how to write a b plan
11/17/2016	Business Plan	Note on Bus Model Analysis	Cronos II: Company Launch	Lecture/Discussion	what is a b model?
11/22/2016	Marketing Communications		Cronos III: Company Exit	Lecture	marcom review
11/24/2016	Thanksgiving Break				
11/29/2016	Exiting a Company		Cronos III: Company Exit	Lecture	Case study of a successful exit
12/1/2016	Final Project			Lecture/Discussion	Review
12/9/2016	Final Project Due				

## ENV 767-01 Course Details

1:25-2:40 pm T/Th

Location: Environmental Hall 1112

	Section #	Topic	Topics Details	Hand-in	Reading1	Reading2	Reading3	Reading4	Reading5
Concept	1	Start-up Challenges Value Proposition	- Company essentials (structure of course) - Technology lifecycle - Value inflection points - 1-page memo		Lab-to-Market Value Proposition	PFT Technologies			
	2	Opportunity Identification	- Opportunity ID process - Key elements of an opportunity	<b>Cronos I: Microrelay</b>	how vcs evaluate deals	Cronos I			
Seed	3	Company Startup Operations	- Stock and cash compensation - Stock agreements - Employee agreements - Non-compete/IP agreements - NDA (mutual and one-way) - consulting agreement		the legal forms of organization	agreement examples (PDF portfolio provided)			
	4	Technology Management	- Strategy - Intellectual property - Technology intelligence		Intel Research	IP Management Overview			
	5	Pitching a Deal	- Presentation skills - Different kinds of presentations - Importance in early stage		Cronos II		Multiple Presentation Skills Readings		
Growth	6	Productization	- Transitioning from research to product - Pitfalls and challenges	<b>Matrix/ Pilkington</b>	Matrix Semi A	Pilkington			
	7	Finance I (startup financing)	- Dilution model - Financing options - VC terms	<b>dilution model</b>	Cronos II	Deal Structure & Terms	Funding New Ventures	Note on Valuation	Note on pre & post-money
	8	Scale-up	- Company transition - Operational plan - Strategy & timing		Pilkington	Matrix B			
Sustaining	9	Finance II (operations)	- Operational plan - Linkage between finance and operations						
	10	Business Model/Plan	- Creating a business plan		Cronos II	Note on Bus Model			
	11	Customer Engagement & Marketing	- Early stage engagement - Importance of execution - Value creation through marketing - Guerrilla marketing		Cronos I	Cronos II			
Exit	12	Exit	- IPO - M&A	<b>Final Project</b>	Cronos III				

Notes: 1) Each section is 2 hours 2) 1 session may be reserved for student presentations and special topics. 3) Highlighted sessions have write-ups due (see schedule for details).