

**THE WHARTON SCHOOL  
UNIVERSITY OF PENNSYLVANIA**

**MGMT 235  
TECHNOLOGICAL INNOVATION AND ENTREPRENEURSHIP  
FALL 2014**

This course introduces the challenges and choices associated with the development of technical ventures. Students will learn how to identify technology-based venture opportunities, evaluate technical feasibility and business potential, and develop a plan for successful commercialization. Class sessions will focus on the issues which must be faced in starting a new venture and the options which are available to the technological entrepreneur. Particular emphasis will be placed on rigorous assessment of the technical and business merits of selected innovations through individual and group projects.

**PREREQUISITE:**

Junior standing in Management and Technology Program or permission of instructor. Because of team project requirements, class size will be limited; priority will be given to graduating Management and Technology students. *(Please Note: Because of the similarities in course objectives and content, credit cannot be earned for both MGMT 235 and MGMT 230 or EAS 546; MGMT 235 credit is approved for both the Wharton Management Entrepreneurship Concentration and the SEAS Engineering Entrepreneurship Minor.)*

**TIME/LOCATION:**

Tuesdays and Thursdays, 1:30 to 3:00 pm

Location: Lauder-Fischer Hall (ground floor auditorium, 256 South 37th Street)

**INSTRUCTOR:**

Professor William F. Hamilton

3537 Locust Walk

Philadelphia, PA 19104

Telephone: 215-898-4145

Email: [hamilton@wharton.upenn.edu](mailto:hamilton@wharton.upenn.edu)

**COURSE TA:** Eddie Nie (WHG '15) [edwardjn@wharton.upenn.edu](mailto:edwardjn@wharton.upenn.edu)

**COURSE ORGANIZATION AND REQUIREMENTS:**

Assigned text and supplementary readings will be augmented by cases and guest lectures. Students will submit written case analyses, individual project reports, and a team business plan project focused on a proposed technological venture. Team project topics will be selected by students in consultation with the instructor. The final course grade will be based on individual written assignments and quizzes (50%), team venture project assignment (35%), and class participation (15%).

**COURSE MATERIALS:**

*Required Readings:* Bulk pack (BP) available from study.net

*Text (T):* Baty, Gordon B. and Blake, Michael S. Entrepreneurship: Back to Basics.

*Canvas (C):* <https://canvas.upenn.edu/courses/1245507>

*Mgmt. 235 Resource Guide:* <http://gethelp.library.upenn.edu/guides/business/MGMT235.html>

*Supplementary materials as appropriate:* Available in the M&T Resource Center, 3537 Locust Walk.

# **MGMT 235 - TECHNOLOGICAL INNOVATION AND ENTREPRENEURSHIP - FALL 2014**

## **PRELIMINARY CLASS SCHEDULE**

<i>Date</i>	<i>Topic</i>	<i>Assignment</i>
1. TH 8/28	<b>INTRODUCTION TO TECHNOLOGICAL INNOVATION AND ENTREPRENEURSHIP</b>	BP: 1, 2, 3; [C: 1, 2, 3, 4, 5 & <u>skim entire text</u> ]
2. T 9/2	<b>CONVERTING TECHNOLOGY INTO NEW BUSINES</b> <b>Guest Resource: Steven Polsky (M&amp;T '86) President and COO/ Flixster</b>	BP: 4, 5; C: 11
3. TH 9/4	<b>EVALUATING AND TESTING NEW VENTURE IDEAS</b>	<u>Project #1</u> , BP 45
4. T 9/9	<b>FEASIBILITY ANALYSIS/INTELLECTUAL PROPERTY</b>	T: 4; BP: 6, 7, 8, 9; C: 6
5. TH 9/11	<b>INVENTIONS AND INVENTORS</b>	<u>Project #2</u>
6. T 9/16	<b>VENTURE DEVELOPMENT SUCCESS FACTORS; IDENTIFYING AND SHAPING OPPORTUNITIES</b>	T: 1, 2; BP: 10; [C: 7, 8]
7. TH 9/18	<b>INITIAL TEAM PROJECT DISCUSSIONS</b>	Venture Project Summaries
8. T 9/23	<b>VENTURE ANALYSIS</b>	<u>Case # 1</u> , BP: 12, 13
9. TH 9/25	<b>THE BUSINESS PLAN</b>	T: 11; BP: 14, 15-17, 18, 19; C: 9, 10
10. T 9/30	<b>TEAM PROJECT ASSESSMENTS &amp; SELECTIONS</b>	Project Assessments
11. TH 10/2	<b>BUSINESS PLAN EVALUATION</b>	<u>Case #2</u> ; BP: 20-24
12. T 10/7	<b>MARKETING CHALLENGES &amp; CHOICES</b> <b>Guest Resource: Rob Weber (M&amp;T '82) CEO/AgileSwitch</b>	BP: 25, 26
TH 10/9	<b>Fall Break</b>	
13. T 10/14	<b>MARKET ANALYSIS</b> Market Estimates	T: 4, 18, 19, 20; BP: 27, 28; C: 12 <u>Initial Project Market Estimates</u>
14. TH 10/16	<b>BUSINESS PLAN EVALUATION</b> <b>Guest Resource: Rob Weber (M&amp;T '82) CEO/AgileSwitch</b>	<u>Case #3</u> ; C: 24
15. T 10/21	<b>FINANCING AND FINANCES- Finding Capital &amp; Structuring the Deal</b>	T: 8, 9; BP: 11,29, 30, 31, 32, 33, 34; [C: 13, 14]
16. TH 10/23	<b>FINANCING AND FINANCES</b> <b>Project Requirements</b>	<u>Initial Estimates of Project Requirements</u> ; BP: 32
17. T 10/28	<b>FINANCING AND FINANCES-VENTURE CAPITAL</b> <b>Guest Resources: James Millar (WG '85) Managing Director/ Princeton University Investments and Josh Kopelman (W'93) Managing Partner/First Round Capital</b>	T:12;BP:35,36,37;[C:5,15,16,17,18]
18. TH 10/30	<b>LESSONS OF EXPERIENCE</b> <b>Guest Resource: Dr. Kunal Ghosh (M&amp;T '03) CEO/Inscopix</b>	TBD

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## **PRELIMINARY CLASS SCHEDULE**

	<i>Date</i>	<i>Topic</i>	<i>Assignment</i>
19.	T 11/4	<b>VENTURE EVALUATION: Avid Radiopharmaceuticals</b>	<u>Case #4: C: 25</u>
20.	TH 11/6	<b>LESSONS OF EXPERIENCE</b> <b>Guest Resource: Steve Heyman (M&amp;T '98) CTO/Dynamic Signal</b>	TBD
21.	T 11/11	<b>CLASS PRESENTATIONS &amp; DISCUSSION OF FIRST VENTURE ANALYSIS</b>	<u>FirstVenture Analysis</u>
22.	TH 11/13	<b>LEGAL ISSUES</b> <b>Guest Resource: Steven Goodman, Esq. (W '62, Penn Law '65) partner/Morgan Lewis</b>	T:25; BP: 42; C: 22
23.	T 11/18	<b>PROJECT DISCUSSIONS-Organizational Issues and Options; FVA comments review</b>	T: 5, 6, 7, 16, 17 [13,14,15,21,22,28]; BP: 39; [C: 19]
24.	TH 11/20	<b>CONVERTING TECHNOLOGY INTO NEW BUSINESS</b> <b>Guest Resource: Doug Alexander (M&amp;T '83), President/ Internet Capital Group</b>	C: 23
25.	T 11/25	<b>RUNNING THE SHOW</b>	T: 23, 29, 30; BP: 40, 41; [C: 20, 21]; <u>Annotated Bibliographies</u>
	TH/27	<b>Thanksgiving Holiday</b>	
26.	T 12/2	<b>COURSE SUMMARY / WRAP-UP</b>	<u>Concepts &amp; Perspectives</u>
27. 28.	TH 12/4 & TBA	<b>TEAM PROJECT PRESENTATIONS</b>	BP: 43, 44; <u>Final Project Presentations</u>
	MO 12/8		<u>Business Plans, Team Peer Evaluations</u> (due to M&T office by 5pm)

- Notes:**
1. Underline=> written assignment due
  2. BP=> Bulk Pack reading; T=> Text Chapter
  3. C=> Canvas reading
  4. [.....]=> Skim read

## **MGMT 235 - TECHNOLOGICAL INNOVATION AND ENTREPRENEURSHIP - FALL 2014**

### **BULKPACK READINGS (BP)**

1. Five Myths About Entrepreneurs: Understanding How Businesses Start and Grow
2. Built to Flip
3. Retooling the Entrepreneur
4. Beating the Odds: Avoid These Mistakes at All Costs!
5. Cautionary Tales – Plus Encouragement – From Three Veteran Entrepreneurs
6. Innovation Evaluation Instrument
7. Critical Factors for Obtaining Venture Funding
8. Top 10 Intellectual Property tips for Early-Stage Companies
9. Business Owners Adjusting to Overhaul of Patent System
10. Finding Fertile Ground
11. How LinkedIn First Raised Money (and endured rejection)
12. Analyzing the New Venture's Feasibility
13. A First Venture Analysis: Rapidrill Corporation
14. Writing a Compelling Executive Summary
- 15-17. Developing the Business Plan
18. How to Write a Great Business Plan
19. Business Insight Special Report: Why Business Plans Don't Deliver
- 20-24. Datacom International, Inc.
25. Network Effects
26. Inside the Tornado
27. Estimating Market Potential
28. Marketing Research
29. Splitting Equity with Backers
30. Structuring the Financing
31. What are the Terms?
32. How to Find the Right Investors for Your Business
33. Non-traditional Financing Sources
34. Those High-Flying Angel Investors
35. You Can Negotiate with Venture Capitalists
36. How Venture Capital Works
37. Venture Capital in Practice: A Case History
38. How Much Money Does Your New Venture Need?
39. How to Build an Organization
40. Do the Right Thing
41. The Harvest and Beyond
42. Learn to Love Your Lawyer
43. The Ten Commandments of Fundraising
44. Guidelines for an Investment Presentation
45. How Entrepreneurs Come Up With Great Ideas

## **MGMT 235 - TECHNOLOGICAL INNOVATION AND ENTREPRENEURSHIP - FALL 2014**

### **CANVAS READINGS (C)**

1. Why You Should Start a Company in... Philadelphia
2. Global Heroes
3. European Entrepreneurs: Les Miserables
4. For Tech Start-Ups, New York Has Increasing Allure
5. Redeye VC -- Hello Philly!
6. Beyond the Search for the Really Cool Idea
7. Success and Failure Factors
8. The Opportunity: Creating, Shaping, Recognizing, Seizing
9. Does Business Planning Facilitate the Development of New Ventures?
10. 'Pivoting' Pays Off for Tech Entrepreneurs
11. Dos and Don'ts for Entrepreneurs, From Those Who Have Actually Done It
12. Understand Your Customers
13. Giving Ideas Wings
14. Ownership, Dilution, Negotiation, and Valuation
15. Start-Ups Crowd 'Accelerators'
16. The Venture Capital Cycle: Introduction
17. Venture Capitalists
18. What do Entrepreneurs Pay for Venture Capital Affiliation?
19. The New Venture Team
20. Pyramiding to the Top
21. True Lies
22. Risks and Mitigation
23. Internet Capital Group: Douglas Alexander
24. AgileSwitch Business Plan
25. Avid Radiopharmaceuticals Business Plan