



ISOM 4020: Innovation Management and Technology Entrepreneurship

Fall 2024

Professor Ohchan Kwon

Course Overview

We see more entrepreneurial opportunities than ever, thanks to recent developments in various technologies. Entrepreneurs armed with novel technologies are challenging incumbent businesses in almost all industries. Existing firms closely monitor entrepreneurs' market entry and adjust their current business strategies. Investors also pay close attention to entrepreneurial activities to seize new investment opportunities. It implies that all students need to understand what makes certain technology-based ventures successful and what makes them less successful. Regardless of initial career choice, most students will be asked to engage in different types of technology-based entrepreneurship at some point.

The course focuses on the critical choices entrepreneurs must make to take advantage of a new opportunity while facing extreme uncertainty and resource constraints. The cases and assignments offer an opportunity to apply the framework to various industries affected by emerging technologies, such as analytics, artificial intelligence, and digital platforms. After finishing the course, students can identify and evaluate novel opportunities and develop business models and strategies to increase their chances of success.

This course is open to all students interested in technological innovation and entrepreneurship. The class is particularly appropriate for those seeking to:

- Become an innovation-driven entrepreneur, or work in a startup company with influence on strategy development and implementation
- Have a career as an investment professional who has to evaluate startup innovators
- Practice as a management consultant whose practice focuses on innovation-driven firms or high-tech industry segments
- Work in the "entrepreneurial side" of a large company aiming to develop new product lines based on novel technologies

Course Readings

There is no required textbook for this class. We will instead use various reading materials and cases, which will be available on Canvas. Lecture slides and notes will also be available on Canvas before each class.

Requirements, Grading, and Due Dates

Grading will be based on the following components:

- Attendance (10%)
- Class participation (10%)
- Two in-class quizzes (20% each, totaling 40%)
- Team project (40%), evaluated by:
 - Peer evaluation (10%)
 - Within-team self-assessment (10%)
 - Faculty evaluation (20%)

1. Attendance (10%)

Attendance is required for this course. To assign attendance scores, I will check attendance in some randomly selected classes throughout the semester. Although consistent attendance is important, I recognize that unavoidable situations occasionally arise. Therefore, one missed class will not affect your grade.

2. Class Participation (10%)

This course is designed to be interactive and discussion-based, with participation being a crucial element. Your participation helps enhance everyone's learning experience. Therefore, engaging in discussions and asking clarifying questions will contribute 10% of your grade. For notable contributions, you will receive a token of recognition during class. If you receive a token, please email me and the TA within 48 hours of the class, summarizing your participation. This process will ensure a fair and transparent assessment of your participation.

3. Quiz (20% * 2 = 40%)

We will have two closed-book in-class quizzes. Each quiz will contribute 20% to your final grade. The first quiz is scheduled for Friday, October 18, and the second for Friday, November 29. Details on the topics and grading rubrics will be provided later.

4. Team Project (40%)

In the team project assignment, you are asked to evaluate a real startup in Hong Kong. Your team, consisting of four to six students, will act as venture capitalists. Your task is to identify a startup with high growth potential but no existing revenue stream and present a compelling case for its future exceptional growth to other potential investors. You are advised to apply the theories and frameworks discussed in the course to support your argument. Additionally, interviews with its founders would help to understand the company thoroughly.

The team project will be assessed based on the following components:

- Faculty Evaluation (20%): For the team project assignment, I will evaluate each team's analysis based on several criteria regarding the quality of your presentation, the rigor of your analysis, and the effectiveness of your application of course concepts. Specific components include:
 - Ability to identify the startup's potential for exceptional growth
 - Clarity and strength of your argument regarding the startup's growth potential
 - Depth of research to demonstrate a comprehensive understanding of the company
 - Application of course theories and frameworks
- Peer Evaluation (10%): Other classmates will assume the role of senior investors allocating venture capital to promising startups. After each presentation, they will vote on the attractiveness of the investment proposals. The aggregated voting results will be considered when evaluating the quality of your team project.
- Self-Assessment Within Teams (10%): At the end of the project, each team member will complete a self-assessment and peer evaluation of their teammates. Evaluation from other teammates will contribute to the final evaluation of the team project.

Communication Policy and Office Hours

I strongly encourage you to contact me or TA regarding any issues related to this course. If you contact me via my email (ohchankw@ust.hk), please begin your email subject with [ISOM4020]. You can also use office hours, which are by appointment.

Course Outline and Readings

(* denotes required readings).

Module I. Identifying Entrepreneurial Opportunities

Class 1 Course Overview

Class 2 Who/What/When/Where/Why of Entrepreneurship

(* Bussgang, Jeffrey. "Are You Suited for a Startup?" (2017).

Class 3 Sources of Innovative Ideas

(* Graham, Paul (2011), "Organic startup ideas." www.paulgraham.com/organic.html

Class 4 Dealing with Entrepreneurial Uncertainty

(* Case: Lytro, mimeo, MIT Sloan School.

*** September 14 – Add/Drop Period Ends ***

Module II. Entrepreneurs' Toolkits

Class 5 Designing Customer Value Proposition

(* Christensen, C.M., Hall, T., Dillon, K. and Duncan, D.S., 2016. Know your customers' jobs to be done. *Harvard Business Review*, 94(9), pp.54-62.

Hale, Kevin. "How to Evaluate Startup Ideas." <https://www.ycombinator.com/library/6e-how-to-evaluate-startup-ideas>

Fitzpatrick, R., 2013. The Mom Test: How to talk to customers & learn if your business is a good idea when everyone is lying to you. Robfitz Ltd.

Class 6 Testing Uncertain Ideas

(*) Case Analysis: Rent the Runway, HBS Case.

(*) Eisenman, T., Ries, E., and S. Dillard. Hypothesis-Driven Entrepreneurship: The Lean Start-Up, HBS Note 9-812-095.

Class 7 Class Exercise

(*) Case Analysis: Superhuman: Commercializing Blazingly Fast Email.

Class 8 Designing Business Model (Market Sizing, Team Building, Designing Profit Formula)

Class 9 Understanding Venture Capitalists' Mindsets; Fundraising & Pitch Deck

(*) Carteron, Nicolas (2020). "Pitch Deck Teardown: Airbnb." <https://medium.com/pitchdecks/pitch-deck-teardown-airbnb-df213beab2ce>

(*) Sequoia Capital, "Writing a Business Plan." <https://www.sequoiacap.com/article/writing-a-business-plan/>

Class 10 Mid-Term Quiz

October 18, Friday

Module III. Entrepreneurial Strategy Compass

Class 11 Overview & Disruption Strategy

(*) Christensen, Clayton, and Michael Raynor. *The innovator's solution: Creating and sustaining successful growth*. Harvard Business Review Press, 2013. Chapter 2: How Can We Beat Our Most Powerful Competitors.

Class 12 Case Discussion: Netflix

*** Netflix, HBS Case 607138-PDF-ENG.**

Class 13 IP Strategy

Class 14 Case Discussion: Getty Images

*** Getty Images, HBS Case 713515-PDF-ENG.**

Class 15 Platform Strategy

Edelman, Benjamin. "How to Launch Your Digital Platform: A Playbook for Strategists."
Harvard Business Review 93, no. 4 (2015): 90–97.

Class 16 Case Discussion: Beepi

*** Beepi, mimeo, MIT Sloan School.**

Class 17 Value Chain Strategy

Class 18 Case Discussion: Zebra Medical Vision

Class 19 Individual Consultation for Team Projects

Module IV. Entrepreneurial Growth

Class 20 Revising Business Models & Identifying Growth Opportunities

(*) Case: Zipcar, HBS Case 803096-PDF-ENG.

(*) Case: Ant Financial.

Class 21 Student Presentations

Class 22 Student Presentations (cont'd)

Class 23 Course Wrap-up & Entrepreneurial Mindset

Class 24 Final Quiz

November 29, Friday

(Last update: 2024-08-22)