Technology and Innovation: Social and Business Perspectives (ISOM 1380/CORE 1340)

Winter 2025

Course Outline

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Course Overview:

Managing technology and innovation is essential to the survival and growth of companies, but it is a tricky business. Even well-established companies often lose their edge, finding their very existence to be threatened by their inability to manage for innovation. Clearly there is no "one best way" to manage innovation.

The course aims to meet three objectives as the following: first, this course stimulates your curiosity and broadens your perspective by posing you puzzling critical dilemmas that deny some of your long-held assumptions and guiding you to think critically about them. You will understand that there is a critical gap between designing and developing innovative technologies and making them commercially successful (i.e., widely adopted); second, the course exposes you to various concepts and frameworks that will help you understand different aspects of technological innovation from a business strategy perspective; third, you will be able to apply the concepts and theoretical frameworks learned from the course to analyze the innovation of a company of your choice and propose sound and implementable recommendations to the company.

Course Readings:

- Lecturer's lecture notes
- Supplementary readings will be assigned.

Group Project/Assignment:

As for the group project, each group can freely choose a company considered to be very innovative (in terms of technology, business model, target market, and so on) and conduct research about the company. Each group is responsible for delivering the company's innovative business activities clearly to the classmates. The presentation may include the company's background, competitors, business models as well as the future prospect.

Exam:

Final Exam (on the last day)

Grading:

Final Exam: 50% Group Project: 25% Peer Evaluation: 15% Class Attendance: 10%

Peer Evaluation:

As a substantial part of the class work is to be done in groups, a peer evaluation will be conducted for each group's work. The main purpose of this evaluation is to know whether all team members contributed equally to the group's work.

Lecture Contents

| # | Topics |
|----|---|
| 1 | Introduction, The Importance of Technological Innovations |
| 2 | Continue "The Importance of Technological Innovations" |
| 3 | Creativity |
| 4 | Patterns of Technological Innovations |
| 5 | Standards Battles and Network Externalities |
| 6 | Timing of Market Entry |
| 7 | Defining the Strategic Direction for Technological Innovation |
| 8 | Open Innovations |
| 9 | Organizing for Innovation |
| 10 | Team Presentations |
| 11 | Final Exam |