



APPLIES TO ACADEMIC YEAR 2014/2015

ELE 3763 Innovation Strategy and Technological Change

Programme

Elective

Responsible for the course

Alessandra Luzzi

Department

Department of Strategy and Logistics

Term

According to study plan

ECTS Credits

7,5

Language of instruction

English

Introduction

How did a company like Nokia go from being the world's number one vendor of smartphones to the tenth largest within four years? How do companies like Apple and Google manage to continually come up with new products and services? Why is the development and adoption of (hybrid) electric vehicles so slow? How did a company like Kodak end up having to declare bankruptcy while owning highly valuable technology assets and being a pioneer in the digital camera market? What is really at the basis of the Apple-Samsung legal battle?

This course explores technological change and innovation from an economic/business standpoint. Technological change affects individual firms or entrepreneurs, industries and economies. We study how firms and entrepreneurs react and contribute to technological change; how they make decisions to both come up with innovations and appropriate their benefits; how they finance innovation.

A variety of companies' examples will illustrate strategic approaches to innovation. We will look at both established firms and new firms.

Learning outcome

- Established an understanding of how technological change impacts on innovation.
- Learned about technological diffusion and adoption.
- Gained understanding of organisation structures for innovation.
- Developed the knowledge about the key elements of innovation and technology strategy.

Acquired Knowledge

After completed course students shall have:

Acquired Skills

After completed course students should be able to:

- Explain how new innovation/technology reach the market and evolve in the industry.
- Account for how technology affect existing firms and entrepreneurial activities
- Analyse and implement a firm's innovation strategy.

Reflection

Students should be able to reflect on the value of innovation and the appropriation of its benefits, especially intellectual property rights and other mechanisms to derive and appropriate value from innovation.

Prerequisites

No particular prerequisites.

Compulsory reading

Books:

Shane, Scott. 2008. Technology strategy for managers and entrepreneurs. Prentice Hall/Pearson Education

Recommended reading

Course outline

- Introduction. What is innovation and technological change. Definitions and basic concepts.
- Technology evolution. How does a new innovation/technology reach the market and evolve in the industry. How does it affect existing firms and entrepreneurial activity.
- Technology diffusion and adoption. What factors influence an innovation/technology diffusion. Why forecasting demand is important and how can we do it.
- How can we measure innovation performance.

PART I: UNDERSTANDING TECHNOLOGICAL CHANGE

PART II: INNOVATION STRATEGY

- The value of innovation and the appropriation of its benefits. Intellectual property rights and other mechanisms to derive and appropriate value from innovation
- Collaboration strategies and Open innovation
- Organization structure for innovation. How can a firm facilitate innovation.
- Sources of innovation. Selection of innovation projects.
- The financing of innovation.

Computer-based tools

No specified computer-based tools are required.

Learning process and workload

The course consists of 36 lecture hours that include two guest lectures and instructor-guided class discussion and case analysis.

Recommended use of hours:

Activity	Use of hours
Participation in lectures	36
Readings/preparation for class	36
Preparation for the term project	75
Preparation for the final exam	50
Exam	3
Total recommended use of hours	200

During the course there will be a few evaluated in-class activities.

(Recommended) As part of the learning process the students shall at the end of the course hand in a term project (in groups of 2 or 3 students) that will consist of a short analysis of a firm/start-up's approach to innovation and a short presentation during the last class. The students can choose the term

project among a list of topics provided at the beginning of the course. Feedback on the term project will be provided and the students will be allowed to use the term project during the final exam as a support material. Further details will be provided in class.

Please note that while attendance is not compulsory, it is the student's own responsibility to obtain any information provided in class that is not included on the course homepage, It's Learning or text book.

Use of hours

36 hours - Lectures (Main course lectures: 31 hours; Guest Lecture with Prof. Espen Andersen: 3 hours;

"Industry Lecture" - To be determined: 2 hours)

9 hours - Supervising and feedbacks (contact hours, Itslearning, individual guidance on assignments, mailing.....)

45 hours total

Examination

A three hour written examination concludes the course.

Examination code(s)

ELE 37631 - Written examination, counts for 100% of the grade in the course ELE 3763, Innovation Strategy and Technological Change, 7.5 ECTS credits.

Examination support materials

No support materials allowed.

Only the term project can be used as support material during the final written exam.

Re-sit examination

A re-sit examination is offered the next time the course is scheduled.

Additional information