# Innovation and R&D management

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***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

Building on strategic management, innovation and entrepreneurship literature, this course aims to provide a broad and reasoned understanding of the multi-level key issues regarding the firms’ innovation process.

The main objectives of this course are:

* To provide an overview of the main theoretical frameworks and analytical tools needed to disentangle the key managerial concerns behind innovation and R&D management, their relationship with the operating environment, and their overall impact on firm’s organization and performance;
* Equip participants with the ability to analyze and critically discuss the main issues and themes in the field of innovation and R&D management.

*Learning outcomes*

Upon successful completion of this course students will be able to:

* Demonstrate knowledge and understanding of the theoretical frameworks for the study and analysis of the sources, types, patterns, and management of innovation;
* Analyze and critically discuss the main issues in innovation and R&D management in the light of real business case examples;
* Display abilities in gathering and interpreting relevant data to connect key issues for innovation management at the individual, organizational, and environmental level;
* Discuss information, ideas, problems, and solutions in the field of innovation and R&D management;
* Undertake further studies to tackle more advanced innovation and R&D management topics.

***COURSE CONTENT***

This is a tentative programme:

1. Sources of innovation
2. The role of the State in innovation
3. Systems of innovation and innovation ecosystems
4. Types and patterns of innovation
5. battles for dominant design
6. Timing of entry and other strategic issues
7. IP appropriability in innovation
8. New product development decisions
9. Organizing for innovation: Teams and structures
10. Open innovation and business models
11. Purpose and Social Innovation
12. Industry 4.0 & Society

The list of themes is provisional and does not follow the said order necessarily. Being a course subject to continuous dynamism, themes could be added/deleted on a yearly basis.

***READING LIST***

* Textbook
* M. Schilling, *Strategic Management of Technological Innovation,* McGraw-Hill Irwin, 2013, 5th edition.
* Additional readings for specific contents not covered by the book will be made available on *Blackboard* in the Syllabus.

Note: Both the textbook and additional readings can be part of the examination.

***TEACHING METHOD***

The teaching method employed in this course drawn inspiration from the old saying *“tell me and I will forget, show me and I will remember, involve me and I will understand”* (Confucius).

The teaching will be characterized by both frontal teaching – involving a lecturer’s introduction of the main topic(s) through an illustration of the content of the text book; and active learning – involving practical students’ engagement in the analysis and discussion of case studies, simulations or games. It is expected that attending students will be engaged in individual and/or group work out of the class. In-class partecipation will be taken in great consideration during assessment.

The course will involve weekly presentations by experts, managers and/or business owners for the purpose of better illustrating some of the issues of the course programme and engage students in practical activities (group projects, presentations).

***ASSESSMENT METHOD AND CRITERIA***

In case the Covid-19 situation will force us to work remotely, this course will be assessed with a written exam (individual exam = 100%). As the course involves several learning components, the final written exam will take the following form:

(1) Multiple choice questions (MCQ) with no penalties, weight 10/30

(2) Two open-ended questions and/or case studies, weight 20/30

Exam will cover the content of the course pack material (lectures slides, book and additional readings) and it will last just above 1 hour.

Exams will take place using **Blackboard** (tests). You will need to access Blackboard using **LockDown Browser** (Respondus). You will find the exam in the section “**Evaluation**” with the instructions.

**Respondus** surveillance tool (proctoring) with the monitor component will be in place.

In case the situation will return to normal, this course will be assessed in the following way:

(2) A *group* project and *presentation* on a given topic/paper(s) assigned during class (35% of the final grade)

(3) An *individual written exam* (65% of the final grade) based on open-ended questions and/or case studies. Exam will cover the content of the course pack material (lectures slides, book and additional readings) and it will last just above 1 hour.