# Innovation and r&d management

## Prof. Alfredo D’Angelo

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

Building on the literatures on strategic management, innovation and knowledge spillovers, and entrepreneurship, this course aims to provide a broad and reasoned understanding of the multi-level key issues regarding the firms’ innovation process. These themes will be discussed within a globalized business context.

The central objective of this course is thus to provide an understanding of the factors that influence the management of innovative firms, with a view at the individual, organizational, and environmental level. Other objectives of the course are to:

* provide participants with a practical understanding of the key concepts driving managerial concerns in the domain of 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 conceptual frameworks and analytical tools needed to do research on themes and topics in the field of innovation and R&D management.

Upon successful completion of this course students will:

* Demonstrate knowledge and understanding of the theoretical frameworks for the study and analysis of the sources, types, patterns, and management of innovation;
* Be able to analyze and critically discuss the main issues in innovation 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;
* Be familiar with innovation management terminology and able to communicate information, ideas, problems, and solutions in this field;
* Be equipped with the learning skills to continue to undertake further study and to tackle more advanced innovation management topics.

***COURSE CONTENTS***

1. Sources of innovation
2. Types and patterns of innovation
3. battles for dominant design
4. Timing and other strategic issues
5. Appropriability in innovation
6. New product development decisions
7. Open innovation, business models and platforms
8. Organizing for innovation: Teams and structures
9. Systems of innovation and innovation ecosystems

***READING LIST[[1]](#footnote-1)***

Textbook

M. Schilling, *Strategic Management of Technological Innovation,* McGraw-Hill Irwin, 2013, 5th edition.

Additional readings for specific contents not covered by the book.

For *attending students* only a selection of book chapters plus a number of readings (one reading per topic) posted on *Blackboard*.

For *not attending students* the entire book plus *all the readings* posted on *Blackboard*.

***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.

The course may involve presentations by experts, managers and/or business owners for the purpose of better illustrating some of the issues of the course programme.

***ASSESSMENT METHOD AND CRITERIA***

*Attending students:* This course is based on an inclusive student’s learning experience and it involves student’s participation assessment throughout the course. This course has several components for the final assessment as follows:

(1) *Individual participation* to class (10%).

(2) A *group* work (40%) on a given topic/paper(s) assigned during class.

(3) An *individual written exam* (50%) of based on multiple choice and open-ended questions. The exam will cover the content of the course pack material (textbook and additional readings).

Specifically, the individual participation and group presentation will be used to assess students’ abilities to analyze and critically discuss the main issues in innovation management in the light of real business case examples, gather and interpret relevant data to connect key issues for innovation management at the individual, organizational, and environmental level; their familiarity with innovation management terminology and their ability to communicate information, ideas, problems, and solutions in this field, and their skills to undertake further study in advanced innovation topics.

The individual written exam will aim at assessing students’ knowledge and understanding of the theoretical frameworks for the study and analysis of the sources, types, patterns, and management of innovation, their ability to analyze and critically discuss the main issue of innovation management and their familiarity with innovation management terminology; their ability to communicate information, ideas, problems, and solutions in this field and their learning skills allowing to tackle more advanced innovation management topics.

*Not attending students* will have to sit a written exam (individual exam = 100%), based on multiple choice and open-ended questions. The exam will cover the content of the course pack material (textbook and additional readings).

***NOTES AND PREREQUISITES***

In case the current Covid-19 health emergency does not allow frontal teaching, remote teaching will be carried out following procedures that will be promptly notified to students.

1. I testi indicati nella bibliografia sono acquistabili presso le librerie di Ateneo; è possibile acquistarli anche presso altri rivenditori. [↑](#footnote-ref-1)