UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Industrial Organization

2627-2-F5603M014

Learning objectives

The course consists of 56 hours of in-person teaching, including both traditional lectures and classroom exercises. It provides an up-to-date and advanced introduction to modern industrial organization, with an applied microeconomic perspective.

The course equips students with the analytical tools needed to understand the behavior of firms with market power. In particular, it examines strategic decisions related to the marketing mix—pricing, product design, promotion, and distribution—within imperfectly competitive markets. It also explores how firms adapt to different market environments, the welfare implications of their strategies for various economic agents, and the role of public policy in fostering market competition.

The theoretical framework is complemented by rigorous analytical reasoning and supported by real-world applications, including brief discussions of case studies.

Solving the exercises at the end of each chapter of the textbook is an essential part of the learning process. These exercises are to be completed individually and will be discussed during class sessions (solutions are provided at the end of the textbook).

By the end of the course, students are expected to:

Acquire knowledge and a solid understanding of the key models of modern industrial organization.

Understand how imperfect markets operate and how firms behave strategically.

Applying knowledge and understanding

Apply theoretical models and technical language to analyze real-world and empirical problems in industrial sectors, making welfare judgements

Critically assess firm behavior and strategic choices in different market contexts, with particular attention to efficiency and distributional outcomes.

It is also expected that students will be able to clearly communicate the results of economic analysis using appropriate formal and verbal tools, both to specialists and non-specialists. And that they will be able to independently explore and deepen their understanding of advanced topics and models not covered in the course, in view of further study or professional development.

Contents

The course aims to provide an extensive and up-to-date introduction to modern industrial organization, within the time limits imposed by a semester of teaching.

Detailed program

- Consumer behaviour: demand systems (substitutes and complements) and welfare measures.
- Firms in perfectly competitive markets and monopoly behaviour.
- Static Imperfect Competition: duopoly/oligopoly price (Bertrand) and quantity (Cournot) setting, strategic complements vs strategic substitutes.
- Aspects of Dynamic Imperfect Competition: Stackelberg models, leaders vs followers, first or second-move advantages, monopolistic competition and entry.
- Sources of Market Power: horizontal (Hotelling) vs vertical product differentiation, and variety differentiation.
- Endogenous entry costs, market concentration and natural oligopoly.

Prerequisites

It is important that students are familiar with microeconomic thinking and elementary methods of algebra, calculus and game theory. The ideal student should have already taken an industrial economics course at the undergraduate level.

Teaching methods

Conventional lectures: exercises will be discussed in approximately the 20% of the total teaching time.

Assessment methods

Written final test: two exercises designed to evaluate the student’s ability to apply course concepts to specific issues and one open question intended to assess theoretical knowledge and understanding of the models discussed during the lectures. Each of the three parts is worth 10 points.
The student may request to take an additional oral exam. In this case, the final grade will be the arithmetic average

of the written and oral exam grades. A student who fails the oral exam will be required to retake the written exam. No midterm exams are scheduled. Assessment tests will take place exclusively during the official exam sessions.

Textbooks and Reading Materials

Paul Belleflamme and Martin Peitz, *Industrial Organization- Markets and Strategies*, Cambridge University Press, (second edition) 2015, chapters 1-5 (except section 5.4). chapter 6: sections 6.1 and 6-2 (up to p. 145).

Semester

First Semester

Teaching language

English

Sustainable Development Goals

INDUSTRY, INNOVATION AND INFRASTRUCTURE