UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Microeconomia

2627-1-E1805M005-E1805M005-1

Learning objectives

The microeconomics course provides the theoretical and practical foundations for understanding the dynamics of how markets operate and the economic decisions of consumers and firms. Upon completion of the course, students will be able to apply economic concepts to analyze real situations.

Knowledge and understanding

- Understand the core principles of microeconomics, including the behavior of consumers and firms, market functioning, and different market structures.
- Gain familiarity with key concepts such as utility, surplus, elasticity, equilibrium, allocative efficiency, market power, externalities, and public goods.
- Know the main analytical tools to address problems of strategic interaction, imperfect information, and market failures.

Applying knowledge and understanding

- Apply theoretical models to interpret real-world economic situations, including the effects of price changes, public policies, and firm strategies in competitive and non-competitive markets.
- Use microeconomic tools and concepts to evaluate the impact of public interventions and regulations on social welfare and resource allocation.

Making judgements

- Develop critical thinking in analyzing imperfect markets and identifying the sources and implications of economic inefficiencies.
- Assess the effects of regulation, public policy, and technological innovation on consumers, firms, and overall welfare.

Communication skills

- Communicate microeconomic analysis clearly and effectively using appropriate language, graphical tools, and analytical reasoning.
- Participate in critical discussions on economic issues.

Learning skills

- Acquire autonomous learning skills necessary for further studies in economics and related fields.
- Develop the ability to use data and sources to interpret economic phenomena and keep up with ongoing developments in the field.

Contents

The course provides the foundations of microeconomics, starting from the introduction to the main economic concepts and economic systems, moving to consumer choice theory and its applications. It examines firms' behavior in production processes and costs, considering both the short and long run, as well as the dynamics of different market structures: perfect competition, monopoly, monopolistic competition, and oligopoly. Special emphasis is placed on asymmetric information, principal–agent relationships, and social preferences, with references to game theory and experimental games. The course also addresses market failures and the role of public intervention, with applications to issues of distribution, inequality, and environmental sustainability.

Detailed program

1. Introduction to Economics and Microeconomics

- Scope and methodology of economics
- Overview of the history of economic thought
- Economic systems
- Introduction to microeconomics
- Microeconomic methodology: models, simplifying assumptions, graphical analysis, and analytical tools
- Supply and demand: introductory elements

2. Economy, Society, and the Environment

- Innovation, technological progress, and economic development
- Innovation and technical change
- Environment and economic activity
- Marginal damage and marginal abatement cost
- Sustainable Development Goals

3. Consumer Choice and Utility Theory

- Preferences and utility functions
- Budget constraints and consumer choice
- Demand curves
    - Income and substitution effects
    - Determinants of demand
- Applications of consumer theory
    - Edgeworth box, contract curve, and efficient allocations

    - Price changes and consumer welfare
- Choice under uncertainty
    - Asymmetric information: adverse selection and moral hazard
    - Principal–agent relationships (labour, insurance)
    - Social preferences and experimental games (ultimatum game, coordination, reciprocity)
    - Market implications of asymmetric information

4. Theory of Production and Costs

- Production processes and production functions
- Production costs and cost structures
- Short run and long run
- Supply curves
- Firm equilibrium

5. Market Structures and Outcomes

- Competitive markets
    - Perfect competition and equilibrium
    - Welfare economics: First and Second Fundamental Theorems
- Monopoly
    - Monopoly models and pricing strategies
    - Welfare effects of monopoly
- Monopolistic competition
    - Product differentiation and variety
    - Efficiency and inefficiencies
- Oligopoly
    - Oligopoly models
    - Elements of game theory

6. Strategic Behaviour and Competition

- Price discrimination
- Predatory practices
- Competition policy and antitrust

7. Market Failures and Public Intervention

- Public goods and externalities
    - Positive and negative externalities
    - Coase Theorem and private solutions
    - Market-based solutions and public intervention
- Market failures and welfare economics
    - Limits of competitive markets
    - Distribution, inequality, and equity
    - Efficiency and equity in public policies

Prerequisites

Mathematics

Teaching methods

The course is structured through a combination of lectures, interactive activities, and advanced thematic workshops.
The in-person lectures, mainly delivered in a traditional format, are complemented by some synchronous online sessions scheduled during the teaching week, with the aim of promoting flexibility and continuity in learning.
Saturdays are dedicated to advanced workshops, where students apply microeconomic models and tools to real-world cases, also using dedicated software, simulations, and empirical insights.
In addition to individual activities, the course includes collaborative work (group projects, guided problem-solving, short simulations) and discussion sessions, aimed at developing critical thinking and applying theoretical concepts to real or hypothetical scenarios.

Assessment methods

The final exam is written and consists of the following: a project work related to a case study of the programme (30% of the final mark) and a final written test consisting of closed and open questions (70% of the final mark).

Textbooks and Reading Materials

The course program is based on Microeconomics *Katz & Rosen* and on additional material provided by the professor.

Semester

II semester

Teaching language

Italian

Sustainable Development Goals

INDUSTRY, INNOVATION AND INFRASTRUCTURE | RESPONSIBLE CONSUMPTION AND PRODUCTION | CLIMATE ACTION