Course guide
240734 - 240734 - Microeconomics I

Last modified: 16/04/2024

Unit in charge:	Barcelona School of Industrial Engineering
Teaching unit:	1039 - UPF - Universitat Pompeu Fabra.

Degree:	BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGIES AND ECONOMIC ANALYSIS (Syllabus 2018). (Compulsory subject).

Academic year: 2024 **ECTS Credits:** 6.0 **Languages:** English

LECTURER

Coordinating lecturer:	Daniel Sánchez Moscona
Others:	Daniel Sánchez Moscona (Theory)
	Akhil Ilango (Seminars)

PRIOR SKILLS

Students should be familiar with the basic tools of multivariate calculus and constrained optimization.

Preferably, students should have mastered the concepts from the course "Introduction to Economics" from Year 1.

TEACHING METHODOLOGY

The course covers the basic economic models of consumer theory, production theory, and partial equilibrium. The student will learn how to formalize and therefore gain a deeper understanding of economic phenomena. The main goal of this course is that the students learn how to work with these basic economic models of consumption, production and market equilibrium.
Theory classes: 30 hours
Seminar classes: 9 hours
Guided activities: 9 hours

LEARNING OBJECTIVES OF THE SUBJECT

Students will become acquainted with the standard models in consumer theory, producer theory and partial equilibrium.

They will learn the precise meaning of some of the terms that are commonly used in all branches of theoretical and applied economics.

Students will learn how to use some of the mathematical tools they have learned in previous courses to be able analyze microeconomic models.

Students will learn how microeconomic models are constructed and how these are useful in explaining relevant economic phenomena.

CONTENTS

Consumer Theory

Description:
Part One: Consumer Choice and Demand

Elements of the problem.
Limits of consumer choice: the budget constraint. Reasons for choice: preferences. Representation of preferences: Utility.

The choice. The formal problem of maximization of preferences and derivation of the demand function. Duality theory. Indirect utility and expenditure function.

Revealed preference and Slutsky equation. Weak and strong axioms of revealed preference. Price indices. The Slutsky equation: Income and substitution effects. Income and substitution effects of Hicks.

Consumer surplus and market demand. Consumer surplus: Discrete goods and continuous goods. Market demand: Aggregation of individual demands. The elasticity of demand and its relation with income.

Full-or-part-time: 29h
Theory classes: 18h
Practical classes: 6h
Guided activities: 5h

Production Theory

Description:
Part Two: The Firm and the Supply Function.

Technology. Technological constraint. Different types of technology. Marginal product and marginal rate of technical substitution. Returns to scale.
Benefit maximization and cost minimization. The formal problem of profit maximization. The cost minimization problem. Cost functions: marginal cost and average cost.
Supply curve. The supply function of a competitive firm. The relation of the supply with marginal costs. The producer surplus. Supply curve of an industry.

Full-or-part-time: 14h
Theory classes: 9h
Practical classes: 2h
Guided activities: 3h

Partial Equilibrium

Description:
Part Three: Supply and Demand.

The equilibrium.
Equilibrium in a competitive market. Comparative statics. Taxes and welfare.

Full-or-part-time: 5h
Theory classes: 3h
Practical classes: 1h
Guided activities: 1h

GRADING SYSTEM

Seminars: 15%
Midterm Exam: 25%
Final Exam: 60%

BIBLIOGRAPHY

Basic:
- Varian, Hal. Intermediate microeconomics : a modern approach. 10th ed. London: Norton, 2024. ISBN 9781324034292.