

Course Syllabus

Course 2014-15

Microeconomics I (20836)

Department/Area of Study: Economics

Course: first

Term: third

Number of credits ECTS: 5

Hours dedicated by students: 125

Language: English

Professor: Rei Sayag

1. Course description

- **Objectives:** Microeconomics I is the first subject of the training cycle in Economic Theory. Its importance and, at the same time, complexity arises from the fact that it is the first time the student becomes familiar with current economic models. Over the course the student will learn to formalize economic phenomena and gain an understanding of their workings. The course covers the basic economic models of consumer theory, production theory, and partial equilibrium.
- **Requirements:** The course takes a first deep look at Microeconomics. The previous knowledge required to follow this class are divided into two parts:
 - *Knowledge of basic mathematics:* Algebra, Probability, Optimization. Most of this knowledge is basic, and students have acquired it before University. Other parts they have learned during the first year at the University in the courses of Mathematics and Data Analysis.
 - *Basic knowledge of economics:* Basic knowledge acquired during the first year of Bachelor studies. Building on topics covered in Introduction to Economics, in Microeconomics I the student learns how to model economic reality.

2. Competences to be attained

<i>General competences</i>	<i>Special competences</i>
<i>Instrumental</i> • Ability to summarize • Skills to manage information • Abstract and critical thinking • Adaptation and clear understanding of the ideas <i>Interpersonal</i> • Ability to work in teams • Ability to criticize	• Analysis of microeconomic models • Understanding of economic reality • Ability to translate economic reality to economic models • Ability to apply basic mathematical concepts to economic models

Systemic • Creativity (ability to generate new ideas) • Independence (ability to work independently)	
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3. Contents

Part One: Consumer Choice and Demand

1. Elements of the problem.
Limits of consumer choice: the budget constraint. Reasons for choice: preferences.
Representation of preferences: Utility.
2. The choice. The formal problem of maximization of preferences and derivation of the demand function.
3. 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.
4. 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.

Part Two: The Firm and the Supply Function.

5. Technology. Technological constraint. Different types of technology. Marginal product and marginal rate of technical substitution. Returns to scale.
6. Benefit maximization and cost minimization. The formal problem of profit maximization. The cost minimization problem. Cost functions: marginal cost and average cost.
7. 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.

Part Three: Supply and Demand.

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

4. Evaluations

- **Continued Obligatory Assessment:**
 - a) *Seminars:* Participation in seminars classes is **obligatory**. In the seminars homework is discussed and new exercises solved. Participation is also taken into account in grading.
- **Final Obligatory Evaluation:**
 - a) Midterm exam (Scheduled on May 18)
 - b) final exam (a minimum of 4/10 is required to pass the class)

Relative weight for each activity:

- Seminar and class participation 10%
- Midterm 20%
- Final exam 70%

The final exam is on June 26. There is also a second chance in July for those **who failed the first exam**. Exact date will be announced.

5. Bibliography and didactic materials:

Varian, H. R. *Intermediate Microeconomics*. 7th or 8th. Edition.

6. Methodology

During the course the following activities will be carried out:

- a) Theoretical sessions in a big group to introduce the concepts and their basic applications..
- b) Seminar sessions in a small group where different concepts introduced during the course are discussed in an interactive way.

7. Outline

Week	Week	Theory	Seminar
1.	From 06/04 to 10/04 (one theory class)	Consumer Preferences (Ch. 3)	
2.	From 13/04 to 17/04	Utility (Ch. 4)	Preference and utility
3.	From 20/04 to 24/04	Budget constraint (Ch. 2)	
4.	From 27/04 to 01/05	Consumer choice (Ch. 5)	
5.	From 04/05 to 08/05	Demand (Ch. 6)	Consumer choice and demand
6.	From 11/05 to 15/05	Revealed preferences and Slutsky equation (Ch. 7 and 8)	Revealed preferences and Slutsky equation
7.	From 18/05 to 22/05	Consumers' surplus and Aggregate demand (Ch. 14 and 15)	
8.	From 25/05 to 29/05 (one theory class)	Technology and profit maximization (Ch. 18 and 19)	Consumers' surplus and Aggregate demand
9.	From 01/06 to 05/06	Cost minimization, cost curves, and firm supply (Ch. 20, 21, and 22)	Technology and profit maximization
10.	From 08/06 to 12/06	Aggregate supply and partial equilibrium (Ch. 23 and 16)	Cost minimization, cost curves, and firm supply
11.	From 15/06 to 16/06	Aggregate supply and partial equilibrium (Ch. 23 and 16)	

