

12E004

6 ECTS

## Advanced Microeconomics I

### Overview and Objectives

This course lays down the foundations of modern economic theory. We will start with the classical theory of choice by first describing in detail the setting, the preferences of the agent, the representation of the agent's preferences by way of utility functions, and finally the behavior of the agent. We will then study these questions in a market setting to model the behavior of the consumer. Our next step will model a firm as a single actor, and will study its production decisions subject to technological constraints. Then, we will study decision making under uncertainty. We will close this course.

This course is the first in a sequence of three, designed for students that intend to pursue a PhD in Economics. It is assumed that the students have an advanced knowledge of intermediate microeconomics and a good mathematical background.

### Course Outline

#### 1.- Abstract Individual Choice Theory.

Mas-Colell, Whiston and Green (1995): Chapter 1.  
Rubinstein (2006): Lectures 1, 2, and 3.  
Jehle and Reny (2001): Chapter 2.3.

#### 2.- Consumer Choice

Mas-Colell, Whiston and Green (1995): Chapters 2 and 3.  
Rubinstein (2006): Lectures 4, 5, and 6.  
Jehle and Reny (2001): Chapter 1.

#### 3.- The Firm

Mas-Colell, Whiston and Green (1995): Chapter 5.  
Rubinstein (2006): Lecture 7.  
Jehle and Reny (2001): Chapter 3.

#### 4.- Uncertainty

Mas-Colell, Whiston and Green (1995): Chapter 6.  
Rubinstein (2006): Lectures 8 and 9.  
Jehle and Reny (2001): Chapter 2.4.

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### 5.- Social Choice Theory

Mas-Colell, Whinston and Green (1995): Chapters 21-22.

Rubinstein (2006): Lecture 10.

Jehle and Reny (2001): Chapter 6.

### Required Activities

There will be eight take home problem sets. The practical sessions, managed by the TA, will be devoted to the solution of some key problems in the problem sets.

### Evaluation

The final grade of the course will be the average of 25% of the problem set grades and 75% of the final exam grade.

### Materials

The three main textbooks are:

Jehle, G. and P. Reny, *Advanced Microeconomic Theory*, 2nd edition. Addison Wesley, 2001.

Mas-Colell, A., M. Whinston and J. Green, *Microeconomic Theory*. Oxford University Press, Oxford 1995.

Rubinstein, A. *Lecture Notes in Microeconomic*

*Theory*. Princeton NJ: Princeton University Press 2006.

Other recommended textbooks are:

Kreps, D., *A Course in Microeconomic Theory*, Princeton University Press, Princeton 1990.

Varian, H. *Microeconomic Analysis*, 3<sup>rd</sup> Edition. W. W. Norton & Co, New York 1992.