

14E021

6 ECTS

## Microeconomics I

### Overview and Objectives

The first part of the course lays down the foundations of modern economic theory. We will start with classical theory of choice by first describing the preferences and choice set of a decision-maker, the representation of this decision-maker's preferences by way of utility functions, and how such methodology applies to study economic behavior. In particular, we will apply it to model the behavior of a consumer, considering her preferences for different goods and her budget constraints, and we are going to close this first part of the course by studying decision making under uncertainty.

The second part of the course examines market outcomes and whether these can be judged as socially desirable both in a partial and general equilibrium approach. The partial equilibrium approach is going to include models of perfect and imperfect competition, as well as the analysis of externalities.

The third part discusses the role of asymmetric information in markets, a relevant topic in modern microeconomics. Adverse selection and signaling problems involve asymmetries of information before signing a contract while moral hazard problems involve asymmetric information after the signature of the contract. As an introduction to the economics of information, we are going to focus on adverse selection and on how it can change our conclusions about what to expect in a given market.

Some sections of the course require some elements of game theory. We are going to introduce these basic concepts as we proceed.

This course, jointly with Microeconomics II, will provide an account of some of the main tools in modern microeconomics. It will not go as deep into technical considerations as the Advanced Microeconomics counterpart. This means we may skip some topics that may be seen as more advanced and technical, and put less emphasis in formalism (mathematical details, notation, proofs,...) that may be recommended if you want to immediately start your own research in economic theory. In some cases intuitions and results will be built upon simple models or examples rather than upon more abstract and general formulations, but the course will keep high standards on what we cover.

### Course Outline

#### Individual Decision-Making

Preferences, Utilities, and Choice

Demand Theory

Decision-making under Uncertainty

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## Microeconomics I

### Markets

Collective Well-Being. Social Welfare and Efficiency

Partial Equilibrium Analysis

A short introduction to Game Theory. Application: Imperfect competition

General Equilibrium

Externalities: Effects and possible corrections

### Asymmetric Information

Screening

Mechanisms

The Effect of Asymmetric Information in Markets and Trade

### Required Activities

There will be several problem sets that students must complete.

### Evaluation

30% problem sets and 70% final exam.

### Materials

There are several textbooks that can prove useful for that course:

#### Parts I-II-III:

Jehle, G. and P. Reny (2001), *Advanced Microeconomic Theory*, Addison Wesley.

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

Rubinstein, A. (2001), *Lecture Notes in Microeconomic Theory*, Princeton University Press.

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

Varian, H. (1992), *Microeconomic Analysis*, W.W. Norton & Co, New York.

Gilboa, I. (2010), *Rational Choice*, MIT Press

#### Part III:

Macho-Stadler, I. and D. Pérez-Castrillo (2001), *An Introduction the Economics of Information*, Oxford University Press

Martimort, D. and J.J. Laffont (2002), *The Economics of Incentives*, Princeton University Press.