

University of Bergamo – Faculty of Engineering

Ph.D. Programme in Economics and Management of Technology

MICROECONOMICS

0) Introduction

Instructor: Andrea Salanti (University of Bergamo)

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Office hours: by appointment

Objectives

An introduction to the role of models in modern (micro)economic theory.

Lectures

1 lecture, four hours.

Course outline

Lecture 1

Laws and Models in Economic Theory

Reading: Slides to be distributed

1) Utility and Demand

Instructor: as 0)

Objectives

A rigorous introduction to the modern microeconomic theory of choice (standard theory of consumer): its objective is to equip doctoral students with the analytical tools required to read modern economic literature in the relevant area.

Prerequisites

Knowledge of differential calculus and free and constrained optimization techniques.

Lectures

2 lectures, four hours each.

Course outline

Lecture 2

Utility maximization and consumers' choice

Reading: Varian – Chapters 7-8 or Jehle and Reny – Sections 1.1-1.4

Lecture 3

Theory of demand and consumers' surplus

Reading: Varian - Chapters 9-10 or Jehle and Reny – Sections 1.5 and 2.1-2.3

References

- G. H. Jehle and Ph. J. Reny (2001), Advanced Microeconomic Theory, Boston: Addison-Wesley (2nd edition)
- H. R. Varian (1992), Microeconomic Analysis, New York: Norton (3rd edition)

2) Production, Cost and Duality

Instructor: Marzio Galeotti (University of Milan)

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Office hours: by appointment

Objectives

A rigorous introduction to the modern microeconomic theory of producer behavior: its objective is to equip doctoral students with the analytical tools required to read modern economic literature in the relevant area. The emphasis is on problem-solving and on empirical applicability of the material taught.

Prerequisites

Knowledge of differential calculus and free and constrained optimization techniques.

Lectures

3 lectures, four hours each.

Course outline

Lecture 4

Theory of the Firm: Production Sets and Production Functions

Reading: Varian - Chapter 1

Lecture 5

Theory of the Firm: Duality Approach: Cost Functions, Shephard's Lemma and Conditional Input Demand Functions

Reading: Varian - Chapters 2-5

Lecture 6

Theory of the Firm (cont'd): Duality Approach: Profit Functions, Hotelling's Lemma and Unconditional Input Demand Functions

Reading: Varian - Chapters 2-5

References

➤ H. R. Varian (1992), Microeconomic Analysis, New York: Norton (3rd edition)

A useful, less rigorous, textbook to refresh your memory can be:

H. R. Varian (1998), Intermediate Microeconomics, New York: Norton.

3) Economics of Information

Instructor: as 0)

Objectives

An introduction to the economics of information: its objective is to equip doctoral students with the analytical tools required to read modern economic literature in the relevant area.

Prerequisites

Knowledge of differential calculus and free and constrained optimization techniques.

Lectures

3 lectures, four hours each.

Course outline

Lecture 7

Expected utility theory

Reading: Varian – Chapter 11 or Jehle and Reny – Section 2.4

Lecture 8

Types of asymmetric information contracts: moral hazard, adverse selection and signalling

Readings: Macho-Stadler and D. Pérez-Carrillo – pp. 3-14; Jehle and Reny – Chapter 8 and a few papers quoted below

Lecture 9

An introduction to auctions and mechanism design

Reading: Jehle and Reny - Chapter 9

References

- G. H. Jehle and Ph. J. Reny (2001), Advanced Microeconomic Theory, Boston: Addison-Wesley (2nd edition)
- I. Macho-Stadler and D. Pérez-Carrillo (1997), An Introduction to the Economics of Information, Oxford: OUP.
- Akerlof (1970), Spence (1973), Rothschild and Stiglitz (1976), Stiglitz and Weiss (1981), Holmström and Milgrom (1991) [for full references, see I. Macho-Stadler and D. Pérez-Carrillo (1997), pp. 237-244]