COURSE SYLLABUS

Microeconomics M

2324-1-F8204B005

Learning objectives

This course (42 hours of teaching and 6 credits) aims to discuss a few advanced topics in microeconomics and it **assumes** a **good** knowledge of basic microeconomic principles. In particular, it focuses on the formulations of the programs of profit and utility maxiization, and on their dual presentations. It aims to make the students familiar with the main properties of the demand and supply functions which derive from those programs, and with their implications in terms of welfare and efficiency measures.
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Contents

This course aims to discuss some fundamental results in the theory of duality in production and consumption theory.

Detailed program

The course first part aims to provide a treatment of duality theory and its applications in modern microeconomics. Problems of consumer and producer optimization will be presented in both primal and dual versions and functional relations among relevant variables will be discussed. In particular, we will discuss:
direct and indirect production functions;
direct and indirect utility functions;
cost/expenditure functions;
profit functions;
quasi-linear preferences and consumer surplus measures;
input and consumption direct and inverse demand functions;

Slutsky decompositions of price effects;
Roy and Hotelling-Wold identities:
Hotelling and Shephard lemmas.

Prerequisites

Basic calculus (analysis and linear algebra) and microeconomics.

Teaching methods

Lectures and classes of exercises.

Assessment methods

Written final test with 2 exercises and 1 open question: each of the three part gives up to 10 point for the final mark.
No partial/intermediate exams.

Textbooks and Reading Materials

Hal R. Varian, *Microeconomic Theory*, third edition, Norton, 1992: Chapter 1 (all but paragraph 1.3), Chapter 2 (all but paragraphs 2.5 and 2.6), Chapter 3 (all), Chapter 4 (all but paragraph 4.5), Chapter 5 (all), Chapter 6 (pp. 87-89, paragraphs 6.4 and 6.5), Chapter 7 (all), Chapter 8 (paragraphs 8.1, 8.2, 8.3, 8.4, and 8.6), Chapter 9 (paragraphs 9.2 and 9.5), Chapter 10 (paragraphs 10.1. 10.2 and 10.3).

- additional stuff uploaded on the course website on the comparative statics of costs, input inverse demand, the indirect production function, duality in consumption and quasilinearity of preferences and the marshallian consumer surplus.

Just another textbook:
Richard Cornes, *Duality and Modern Economics*, Cambridge University Press, 1992.

Semester

II semester.

Teaching language

Italian.

Sustainable Development Goals

RESPONSIBLE CONSUMPTION AND PRODUCTION