

**Course Outline for 'Microeconomics' (EC5110) - 2008/09
Autumn term**

Course Code and Title

EC5110' Microeconomics'

Lecturer

Cecilia Testa (autumn term)

Aims

This course is a graduate level introduction to Microeconomics. The objective of this course is to provide students with a full understanding of the classic Microeconomic theory and with firm grounding in the analytic methods of microeconomic theory used by economists working in research, government, and business. Special emphasis will be placed on the design and the solution of simple economic models and on ensuring that students become familiar with basic optimisation and equilibrium techniques.

Learning outcomes

By the end of the course students should:

- Be familiar with technical – or mathematical – aspects of microeconomics;
- Have a firm grounding of the rational behaviour of individual agents and firms and how they interact in markets. This would include topics such as:
 - rational choice and utility;
 - profit maximization;
 - partial equilibrium and welfare;
 - public goods and externalities

Course Summary

The first part of the course (autumn term) focuses on classical theories of consumer and producer behaviour. We will begin with a careful analysis of the optimisation problems of price-taking consumers and firms. We will then analyse market interaction and the formation of prices in the framework of perfect competition and monopoly. Finally, the course will provide tools to analyse cases of market failures, such as externalities and public good provision.

Course Delivery

The course will be delivered through a two-hours lecture and a one-hour seminar each week. Our approach will emphasise analytical methods of reasoning and thus problem-solving exercises will be a crucial learning tool. Problem sets will be assigned during lectures. Answers to selected problems will be provided and discussed during seminars.

Lecturers are available for consultation (either by you individually, or in small groups) during advertised office hours.

Assessment

- 3-hour unseen examination, which contributes 100% of the final mark and is taken during the Summer term. The exam will test your knowledge and understanding of the material covered in the course.
- the format of the exam will be for students to answer 1 required question per half-unit of the course (1 for half-units or 2 for full-units), plus 2 of 4 additional questions.

Textbook(s)

The first term of the course will draw on two main textbooks:

- A. Mas-Colell, M. Whinston, and J. Green, *Microeconomic Theory*, Oxford University Press, 1995.
- F. Cowell, *Microeconomics, principles and analysis*, Oxford University Press, 2005

The following texts can also be useful as additional readings:

- H. Varian, *Microeconomic Analysis*, 3rd edition, Norton.
- A. Deaton and J. Muellbauer, *Economics and Consumer Behaviour*, Cambridge University Press.
- D. Kreps, *A Course in Microeconomic Theory*, Harvester Wheatsheaf (very useful in the second term).

Weekly timetable (microeconomics EC5110- first term)

Lecture 1: Consumer Preferences - (Cowell chapt. 4, Mas-Colell et al chapt. 1-2)

In addition to learning the material covered in the reading and lecture, by the end of this week you should:

- 1) Be familiar with the concepts of preferences and utility functions in geometric and analytical terms
- 2) Understand the key elements of the consumer choice problem

Lecture 2: Consumer choice (part 1) - (Cowell chapt. 4, Mas-Colell et al chapt. 3-4)

In addition to learning the material covered in the reading and lecture, by the end of this week you should:

- 1) Full understanding of the utility maximisation problem and techniques
- 2) Full understanding of the expenditure minimisation problem and techniques
- 3) Be able to solve exercises using the concept of utility maximisation and expenditure minimisation; relate the utility maximisation and the expenditure minimisation (duality)

Lecture 3: Consumer choice (part 2) - (Cowell chapt. 4, Mas-Colell et al chapt. 3-4)

In addition to learning the material covered in the reading and lecture, by the end of this week you should:

- 1) Be able to derive demand functions, know the main properties of the indirect utility function and expenditure function and apply those concepts to problem solving
- 2) Be able to recover consumers' utility maximising behaviour from consumer choice using the concept of revealed preferences
- 3) Be able to conduct consumer welfare analysis using the concept of consumer surplus

Lecture 4: Producer Theory: technology - (Cowell chapt. 2, Mas-Colell et al chapt. 5)

In addition to learning the material covered in the reading and lecture, by the end of this week you should:

- 1) Understand the concept of the technological constraint faced by the firm
- 2) Be able to describe the technological constraints of the firm using the concept of production set and production function and use these concepts in geometric and analytical problem solving

Lecture 5: Profit maximisation - (Cowell chapt. 2, Mas-Colell et al chapt. 5)

In addition to learning the material covered in the reading and lecture, by the end of this week you should:

- 1) Reach a complete understanding of the profit maximisation problem and techniques
- 2) Know the main properties of the profit function and be able to derive a supply function

Lecture 6: Cost minimisation (Cowell chapt. 2, Masc-Colell et al chapt. 5)

In addition to learning the material covered in the reading and lecture, by the end of this week you should:

- 1) Reach a complete understanding of the cost minimisation problem and techniques
- 2) Be able to derive conditional demand factors and cost functions and know the main properties of the cost functions;
- 3) Understand the link between cost minimisation and profit maximisation (duality)

Lecture 7: The firm and the market - (Cowell chapt. 3, Masc-Colell et al chapt. 10)

In addition to learning the material covered in the reading and lecture, by the end of this week you should:

- 1) Industry supply curve
- 2) Price setting under monopoly

Lecture 8: Competitive markets, equilibrium and welfare - (Cowell chapt 5, Masc-Colell et al chapt. 10)

In addition to learning the material covered in the reading and lecture, by the end of this week you should:

- 1) Partial equilibrium analysis
- 2) Fundamental welfare theorem in partial equilibrium

Lecture 9: Externalities - (Cowell chapt. 9, Masc-Colell et al chapt. 11)

- 1) Have a full understanding of the concept of externality
- 2) Have a full understanding of the alternative solutions to the externality problem and be able to use those concepts externality in problem solving

Lecture 10: Public goods - (Cowell chapt. 9 , Masc-Colell et al chapt. 11)

In addition to learning the material covered in the reading and lecture, by the end of this week you should:

- 1) Be able to characterise public goods;
- 2) Have a full understanding of the market failures in the provision of public goods and be able to apply these concepts to problem solving