# Course Outline 2017/18
# Microeconomic Theory — EC5110

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**Office Hours: Tuesday 9-10am; Wednesdays 11am-12pm.**

## AIMS

This course is a graduate level introduction to microeconomic theory, aiming to acquaint students with the basics of modern microeconomic analysis. During the course, the students will learn the core tools that economists use to analyze problems of resource allocation in market settings.
We will begin with a review of the prerequisite mathematical tools. We will then apply these tools to the formal analysis of the optimizing behaviour of producers and consumers. Finally, we will introduce markets and the notion of competitive equilibrium, first in a partial equilibrium setting and then in a general equilibrium setting.

## LEARNING OUTCOMES

Upon completion the course students should be able to:

- Apply the basic tools of economics to analyze problems of scarce resource allocation.
- Formulate and solve both the profit maximization and the cost minimization problems of a price-taking producer; understand the key properties of the solutions.
- Formulate and solve both the Marshallian (utility maximizing) and the Hicksian (cost minimizing) demand problems; understand the key properties of the solutions.
- Perform basic welfare analysis using compensating and equivalent variations and consumer surplus.
- Understand the notion of partial equilibrium; solve for partial equilibrium with perfect competition and under monopoly.
- Understand the notion of general equilibrium; solve for the Walrasian equilibrium in a pure exchange economy.
- Understand the First and Second Welfare Theorems.

## COURSE DELIVERY

The course consists of a two-hour lecture and a one-hour seminar each week. Given the subject's mathematical content, the only way to understand the material is to work through problems and exercises. Students are encouraged to work together in groups on these problems. Problem sets will be assigned during lectures and answers to selected problems will be discussed during seminars. Students are strongly encouraged to talk to the course leader about the course by coming to see him either during regular office hours or by appointment.

## ASSESSMENT

Summative assessment:

- **2-hour final examination** during the Exam term, which contributes 75% of the final mark and is taken during the Summer term.
- **1-hour in-class test,** which contributes 25% of the final mark and is taken during the seminar slot in week 8 of the Autumn term (the week after Reading week)

Formative assessment:

- **Weekly problem sets**

Detailed solutions to problem sets will be posted on Moodle. Students will be able to assess their own performance by comparing their answers to the posted suggestions. In addition, discussions during seminars and the instructor's office hours will provide more personalized feedback.

- **In-class test** (as listed under "summative assessment" above)

Solutions will be posted on Moodle (collective feedback). Scripts will be marked and numerical grades assigned (individual feedback).

## READING

The main text for the course will be

- Hal R. Varian. (1992). *Microeconomic Analysis*, 3rd edition. W. W. Norton and Company.

The following texts can also be useful as additional reading:

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

Also:

- Kreps, David, *A Course Microeconomic Theory,* Princeton University Press

The scope and level of difficulty are similar to Varian's.

**WEEKLY TIMETABLE**

**Lectures 1 Overview of the course. Optimization problems.**
Reading: Lecture notes; Varian, Chapter 26-27

**Lectures 2–4: Producer theory: Technologies; profit maximization; cost minimization**
Reading: Lecture notes; Varian, Chapters 1–5

**Lectures 5–8: Consumer theory: Preferences; utility maximization; cost minimization; The Slutsky equation; choice under risk; risk aversion.**
Reading: Lecture notes; Varian, Chapters 7–11

**Lecture 9: Partial equilibrium: Perfect competition and monopoly**
Reading: Lecture notes; Varian, Chapters 13–14

**Lecture 10: General equilibrium in a pure exchange economy; First and Second Welfare Theorems**
Reading: Lecture notes; Varian, Chapter 17