

**NORTHEASTERN UNIVERSITY**  
**Department of Economics**

ECNG710  
Microeconomic Theory II  
Fall 2007  
Email: [zho.wang@neu.edu](mailto:zho.wang@neu.edu)

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**Lectures:** Wednesday, 4:00pm-7:00pm, 204 BK

**Office Hours:** Tuesday 10:30am – 12:30pm, Wednesday 10:30-11:30am, and by appointment

**Topics:** This is an advanced course in microeconomic theory, building on the master's-level course in microeconomics. In the first half, we will cover topics in the neoclassical theory (partial equilibrium and general equilibrium). In the second half, we will cover game theory and its applications. The goal of this course, in conjunction with Microeconomic Theory I, is to provide you with the necessary analytical tools and framework for considering and solving problems in applied microeconomics.

**Prerequisites:** It is presumed that you have a sound grasp of economic theory at the master's level and of mathematics at the level of *Mathematics for Economists* (Simon and Blume 1994).

**Assessment:** Grades are determined by a midterm exam (40%), a final exam (50%), and problem sets that will be assigned on a (nearly) weekly basis (10%). You can work in groups on certain, but not all questions of each problem set. You should try to solve the problems before consulting with others. Do not use solution manuals of any kind. Otherwise, it will be treated as plagiarism.

**Textbooks:**

Mas-Colell, A., M. D. Whinston, and J. R. Green. 1995. *Microeconomic Theory*. New York: Oxford University Press.

Gibbons, R. 1992. *Game Theory for Applied Economists*. Princeton: Princeton University Press.

- The Mas-Colell et al book is the standard textbook, and we will follow this book more or less for the first half.
- The Gibbons text is a good introduction to game theory, with an emphasis on application. We will largely follow Gibbons in the second half.
- Another good resource for the material to be presented in this class is Varian's *Microeconomic Analysis*.

## **Lecture Schedule and Readings**

### Mas-Colell part I: Individual and Firm Decision Making

- Firm Production (Mas-Colell chapter 5; Varian chapters 1 to 5)
- Consumer (Mas-Colell chapters 1 to 4 and Chapter 6; Varian chapters 7-11)

### Mas-Colell part III: Market Equilibrium and Market Failure

- Competitive Markets (Mas-Colell chapter 10)
- Externality and Public Goods (Mas-Colell chapter 11)
- Market power: Monopoly (Mas-Colell chapter 12 in part, Varian chapter 14)

### Mas-Colell Part IV: General Equilibrium

- Exchange economies and 2x2 production economies (Mas-Colell chapter 15)
- General equilibrium theory (Mas-Colell chapter 16)

### Game Theory and Applications

- Static games of complete and perfect information (Gibbons chapter 1)
- Dynamic games and subgame perfection (Gibbons chapter 2)
- Static games of incomplete information (Gibbons chapter 3)
- Dynamic Games of incomplete information (Gibbons chapter 4)

### Applications of game theory

- Adverse selection, signaling, and screening (Mas-Colell chapter 13)
- Principal-agent economics and moral hazard (Mas-Colell chapter 14)