

ECON6213 Microeconomics II

Spring 2025

Instructor: Dr. Qihong Liu

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Class Time: M/W, 2:00-3:15pm

Office Hours: M/W, 1-2pm and by appointment

Website: <https://canvas.ou.edu>

Office: Cate Center CCD1, Room 426

Classroom: Cate Center CCD1 326

Course Description

This is the second graduate course in microeconomic theory. It consists of two main parts: noncooperative game theory (Part 1) and market equilibrium with asymmetric information (Part 2). In Part 1, we will first study the basic elements of games, then analyze static and dynamic games of complete and incomplete information. We will discuss their various economic applications. In Part 2, we will study market equilibrium with asymmetric information. We will start from the problems of information asymmetry and adverse selection, and investigate how markets and institutions develop in response to these problems. We will then analyze the principal-agent problem. Applications of the theoretical developments will be discussed.

Textbooks

Required:

[MWG] A. Mas-Colell, M. Whinston and J. Green: *Microeconomic Theory*, Oxford University Press, 1995.

Recommended:

[LM] Laffont, J-J. and D. Martimort: *The Theory of Incentives: The Principal-Agent Model*, Princeton University Press, 2002

Assessment

Grades are based on homework (20%), class participation (10%), midterm (30%) and final (40%). You are encouraged to form study groups to discuss homework and lecture materials. All exams will be in closed-book forms.

Problem Sets

Several problem sets will be assigned during the semester. You will have at least one week to complete each assignment. Late homework will not be accepted. You need to submit original work. In particular, you cannot use solution from previous years or from online sources.

You are strongly encouraged to work with other students in this class. Each student is required to write his or her own answers, and write the names of the other students s/he worked with on each homework assignment.

Honor Policy

You may not access any old problem sets, old exams, answer keys without my explicit permission. When collaborating with others, do not copy answers from another student. Always cite any resources or individuals you consult to complete an assignment.

Exam Dates

Midterm – Wednesday, March 5

Final – Thursday, May 8, 4:30-6:30pm

Tentative Outline

MWG=Mas-Colell, Whinston and Green. Approximate number of lectures to cover each chapter is listed in parenthesis.

1. Basic Elements of Noncooperative Games. MWG 7 (3)
 - (i) Introduction. MWG 7.A-7.B
 - (ii) Extensive form games. MWG 7.C
 - (iii) Normal form games. MWG 7.D
 - (iv) Randomized choices. MWG 7.E
2. Simultaneous-Move Games and Applications. MWG 8 (6)
 - (i) Dominant and dominated strategies MWG 8.A-8.C
 - (ii) Nash equilibrium. MWG 8.D
 - (iii) Economic applications of NE.
 - (iv) Games of incomplete information: BNE. MWG 8.E
 - (v) Economic applications of BNE.
 - (vi) Refinement of NE: Trembling hand perfection. 8.F
3. Dynamic Games and Applications. MWG 9 (8)
 - (i) Sequential rationality, backward induction and subgame perfection. MWG 9.B
 - (ii) Economic applications of SPNE.

- (iii) Beliefs and sequential rationality. MWG 9.C
- 4. Adverse Selection, Signaling and Screening. MWG 13, 14.C; LM 2-3. (6)
- 5. The Principal-Agent Model. MWG 14.A-B; LM 2-3. (3)