
Microeconomic Theory (II)

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Course Web: [NTU COOL](#)

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Classroom: AgEcon 3

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Course Description

This course offers an introduction to noncooperative game theory. The course is intended both for graduate students who wish to develop a solid background in game theory in order to pursue research in the applied fields of economics and related disciplines, and for undergraduate students wishing to specialize in economic theory. Meanwhile, we will also extend the discussion to auction theory and basic mechanism design.

Course Objective

This course aims to enable students to:

- Become familiar with various types of game theory models.
- Use game theory to analyze economic issues.
- Analyze agent decisions using a formal theoretical framework.
- Enhance the rigor of decision-making and avoid logical fallacies through mathematical analysis.
- Understand the fundamental theories and applications of auction theory and mechanism design.

Prerequisites

- Microeconomics
- Microeconomic Theory (I)
- Calculus
- Statistics

Office Hours

Fri. 13:20 –14:20 (By appointment only)

Textbooks

Strategy: An Introduction to Game Theory, 3rd Edition by J. Watson (華泰文化代理)

Reading Materials

Auction Theory, 2nd Edition by V. Krishna – Chapter 2,3 and 5.

Grading Policy

- 5% Proficiency Quiz
- 50% Midterm
- 50% Final

If your final grade is higher than your midterm grade, your final will account for 100% instead.

Course Videos

- Past lectures in Chinese
 - [Game Theory](#)
 - [Auction & Mechanism Design](#)

Course Schedule

Week	Date	Topic
Week 1	2/21	About this Class Proficiency Quiz
Week 2	2/28	(No Class) National Holiday
Week 3	3/7	Extensive Form Strategies and the Normal Form Beliefs, Mixed Strategies, and Expected Payoffs
Week 4	3/14	Dominance and Best Response
Week 5	3/21	Rationalizability and Iterated Dominance Nash Equilibrium
Week 6	3/28	Nash Equilibrium Mixed-Strategy Nash Equilibrium
Week 7	4/4	(No Class) National Holiday
Week 8	4/11	Details of the Extensive Form Sequential Rationality and Subgame Perfection
Week 9	4/18	Midterm
Week 10	4/25	Random Events and Incomplete Information Bayesian Nash Equilibrium and Rationalizability
Week 11	5/2	Perfect Bayesian Equilibrium General Auction
Week 12	5/9	General Auction
Week 13	5/16	Mechanism Design
Week 14	5/23	Mechanism Design
Week 15	5/30	(No Class) National Holiday
Week 16	6/6	Final