

Course number		U-LAS06 10020 LE43					
Course title (and course title in English)	Applied Game Theory-E2			Instructor's name, job title, and department of affiliation	Graduate School of Economics		
	Applied Game Theory-E2				Program-Specific Senior Lecturer,ZHOU YU		
Group	Humanities and Social Sciences		Field(Classification)		Jurisprudence, Politics and Economics(Foundations)		
Language of instruction	English		Old group	Group A		Number of credits	2
Number of weekly time blocks	1	Class style	Lecture (Face-to-face course)		Year/semesters	2024 • Second semester	
Days and periods	Thu.4		Target year	Mainly 1st year students		Eligible students	For all majors

[Overview and purpose of the course]

This course is to help students understand basic solution concepts, acquire the basic analytical tools in the applied game theory, and understand stylized applications of applied game theory. It may also get across with some knowledge of mechanism design and market design. This course covers a number of important applications in both game theory and market design such as signaling game, cheaper talk game, repeated game, marriage market matching, and auction.

[Course objectives]

- Understand the key concepts and models in the applied game theory
- Mastering the ability to use game theoretical models to analyze practical issues

[Course schedule and contents)]

The lectures will be organized as follows.

1. Introduction I: strategic reasoning
2. Introduction II: building a strategic model
3. Nash equilibrium in the discrete game
4. Nash equilibrium in the continuous game
5. Mixed strategy Nash equilibrium
6. Sequential game with perfect information I
7. Sequential game with perfect information II
8. Sequential game with imperfect information I
9. Sequential game with imperfect information II
10. Game with private information
11. Signaling game
12. Repeated game
13. Nash bargaining and Rubinstein bargaining (I)
14. Nash bargaining and Rubinstein bargaining (II)

Total: 14 classes and 1 feedback

Continue to Applied Game Theory-E2(2)

Applied Game Theory-E2(2)

[Course requirements]

Basic calculus

[Evaluation methods and policy]

Class participation (60%)

Final examination (40%)

[Textbooks]

Harrington, Joseph 『Games, strategies and decision making (Second Edition)』 (Worth Publishers, 2014)
(ISBN-10:1429239964)

[References, etc.]

(References, etc.)

Peters, Hans 『Game theory: A Multi-leveled approach』 (Springer, 2015) ISBN:978-3-662-51877-9

[Study outside of class (preparation and review)]

Students should read the class materials carefully

[Other information (office hours, etc.)]

Office hour by appointment