



Course Code Game Theory Module 3, 2026

Course Information

Instructor: Fan Wu

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Office Hour:

Teaching Assistant:

Phone:
Email:

Classes:

Lectures: Mon & Thur 15:30-17:20
Mar.2,5,9,12,16,19,23,26,30, Apr.2,8,9,13,15,16,20,23,27
Venue: PHBS Building, Room

1. Course Description

1.1 Context

Course overview: This is an evolving course that is designed to introduce you to game theory. It is still under development. I shall adjust the content according to the feedback from students.

Prerequisites: Calculus

1.2 Textbooks and Reading Materials

Game Theory (Fudenberg & Tirole)

2. Learning Outcomes

2.1 Intended Learning Outcomes

Learning Goals	Objectives	Assessment (YES with details or NO)
1. Our graduates will be effective communicators.	1.1. Our students will produce quality business and research-oriented documents.	No
	1.2. Students are able to professionally present their ideas and also logically explain and defend their argument.	Yes. There will be a lot of proofs in this course, and you will be expected to prove things.
2. Our graduates will be	2.1. Students will be able to lead and	No

skilled in team work and leadership.	participate in group for projects, discussion, and presentation.	
	2.2. Students will be able to apply leadership theories and related skills.	No
3. Our graduates will be trained in ethics.	3.1. In a case setting, students will use appropriate techniques to analyze business problems and identify the ethical aspects, provide a solution and defend it.	No
	3.2. Our students will practice ethics in the duration of the program.	No
4. Our graduates will have a global perspective.	4.1. Students will have an international exposure.	No
5. Our graduates will be skilled in problem-solving and critical thinking.	5.1. Our students will have a good understanding of fundamental theories in their fields.	Yes. The goal of this course is to present the useful results from game theory in a way that you can use them in economics.
	5.2. Our students will be prepared to face problems in various business settings and find solutions.	No
	5.3. Our students will demonstrate competency in critical thinking.	Yes. There will be a lot of proofs in this course, and you will be expected to prove things.

2.2 Course specific objectives

The goal of this course is to present the useful results from game theory in a way that you can use them in economics. There will be a lot of proofs in this course, and you will be expected to prove things.

2.3 Assessment/Grading Details

The grade will be based on participation (10%), homework (30%), final exam (60%).

2.4 Academic Honesty and Plagiarism

It is important for a student's effort and credit to be recognized through class assessment. Credits earned for a student work due to efforts done by others are clearly unfair. Deliberate dishonesty is considered academic misconducts, which include plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; or altering, forging, or misusing a University academic record; or fabricating or falsifying of data, research procedures, or data analysis.

All assessments are subject to academic misconduct check. Misconduct check may include reproducing the assessment, providing a copy to another member of faculty, and/or communicate a copy of this assignment to the PHBS Discipline Committee. A suspected plagiarized document/assignment submitted to a plagiarism checking service may be kept in its database for future reference purpose.

Where violation is suspected, penalties will be implemented. The penalties for academic misconduct may include: deduction of honour points, a mark of zero on the assessment, a fail grade for the whole course, and reference of the matter to the Peking University Registrar.

AI tools requirements:

Using AI tools to complete assignments or assessments without the approval of the course instructor will be regarded as an act of academic dishonesty. Depending on the severity of the situation, penalties will be implemented in accordance with the provisions of the Peking University Graduate Student Handbook.

For more information of plagiarism, please refer to *PHBS Student Handbook*.

3. Topics, Teaching and Assessment Schedule

We shall cover the first 9 chapters of Game Theory (Fudenberg & Tirole), including games in strategic form and Nash equilibrium, iterated strict dominance and rationalizability, correlated equilibrium, extensive-form games, multi-stage games with observed actions, repeated games, Bayesian games and Bayesian equilibrium, mechanism design, equilibrium refinements: perfect Bayesian equilibrium, sequential equilibrium, and trembling-hand perfection, reputation effects. If we have time, advanced topics (chapter 11-14) will also be covered.

4. Miscellaneous

Any remarks that incite national division or propagate religion are strictly prohibited. Such violations will be treated with the utmost severity and constitute grounds for an immediate failing grade and potential expulsion from the university.