

Course Code Microeconomics (Session F5) Module 1, Academic Year2025-26

Course Information

Instructor:

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Office Hour: Mon & Thur 15:30-17:00; Wed: 10:30-12:00

Teaching Assistant: Danyi Shu

Phone: Email:

Classes:

Lectures: Mon & Thur 10:30-12:20 Venue: PHBS Building, Room 321

Course Website:

If any.

1. Course Description

1.1 Context

Course overview: This course provides a rigorous, applications-oriented introduction to modern microeconomics. We develop core tools in consumer theory (preferences, utility/dualities, demand, welfare measurement), choice under uncertainty and intertemporal choice, and producer theory (technology, cost, profit maximization), then analyze competitive and general equilibrium and the welfare theorems. Building on these foundations, we study market power (monopoly, pricing, oligopoly), strategic interaction and information (static/dynamic game theory, adverse selection, moral hazard, signaling/screening), and selected topics such as auctions and mechanism design. Emphasis is on economic intuition grounded in formal analysis, linking theory to empirical evidence and policy applications.

Prerequisites: Basic calculus and linear algebra

1.2 Textbooks and Reading Materials

No textbook is required. Reference books are Nicholson and Snyder's Microeconomic Theory: Basic Principles and Extensions and Osborne and Rubinstein's Models in Microeconomic Theory: Expanded Second Edition.

2. Learning Outcomes

2.1 Intended Learning Outcomes

Learning Goals	Objectives	Assessment (YES with details or NO)
1. Our graduates will be effective	1.1. Our students will produce quality business and research-oriented documents.	No
communicators.	1.2. Students are able to professionally present their ideas and also logically explain and defend their argument.	Yes
2. Our graduates will be skilled in team work and leadership.	2.1. Students will be able to lead and participate in group for projects, discussion, and presentation.	Yes
	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.	Yes
	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
	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

2.2 Course specific objectives

Equip students to formulate and analyze core microeconomic models and derive testable implications: develop mastery of consumer and producer theory (preferences/choice, demand dualities, technology, cost/profit), choice under uncertainty and intertemporal choice, competitive and general equilibrium with welfare theorems, market power and strategic interaction (monopoly, oligopoly, static/dynamic games), and information economics (adverse selection, signaling, screening). Students will learn to construct precise models, prove and interpret equilibrium results, and apply calculus-based comparative statics and optimization to policy and empirical contexts.

2.3 Assessment/Grading Details

Assessment for the course will be based on a combination of assignments (20%), a midterm (40%), and a final exam (40%)

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

- Sept. 1 Introduction & course overview; preferences and choice (axioms, utility representation).
- Sept. 4 Consumer theory: utility maximization, demand functions, expenditure minimization.
- Sept. 8 Duality: Marshallian & Hicksian demand, Slutsky equation, comparative statics.
- Sept. 11 Choice under uncertainty: expected utility, risk aversion, insurance.
- Sept. 15 Intertemporal choice and applications (savings, investment, consumption smoothing).
- Sept. 18 Producer theory: technology, production sets, cost minimization, profit maximization.
- Sept. 22 Competitive markets: partial equilibrium, supply & demand, welfare analysis.
- Sept. 25 General equilibrium: Edgeworth box, Walrasian equilibrium, efficiency.
- Sept. 29 Welfare theorems, existence and uniqueness of competitive equilibria; review.
- Oct. 9 Midterm Exam (covers consumer/producer theory, uncertainty, general equilibrium).
- Oct. 13 Monopoly and pricing strategies (price discrimination, two-part tariffs).
- Oct. 16 Oligopoly models: Cournot, Bertrand, Stackelberg.
- Oct. 20 Introduction to game theory: normal form games, Nash equilibrium.
- Oct. 23 Extensive form games: subgame perfection, repeated games.
- Oct. 27 Asymmetric information: adverse selection, signaling, screening.
- Oct. 30 Auctions, mechanism design basics; applications in markets and policy.
- Nov. 3 Matching models and social choice; applications from Osborne & Rubinstein.
- Nov. 6 Review and integration of themes; preparation for final exam.

4. Miscellaneous