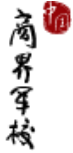# ECON511
Advanced Microeconomics I
Module 1, 2024-2025

Course Information

Instructor: Young Joon Park
Office: PHBS Building, Room 760

Phone: 86-755-2603-2019
Email: yjpark@phbs.pku.edu.cn
Office Hour: Tuesday 3:30 pm -5:30 pm (or by appointment)

Teaching Assistants: *TBA*
TA Office hour: TBA

Classes:
Lectures: Tuesday/Friday 1:30 pm - 3:20 pm

Venue: PHBS Building, TBA

1. Course Description

1.1 Context

Course overview:
We cover essential tools and current topics of modern microeconomic theory. This is the first course of the microeconomic sequence offered to the economics and finance program.

Prerequisites:
Basic knowledge and understanding of undergraduate-level microeconomics are necessary. Compared to undergraduate-level microeconomics courses, graduate-level microeconomics utilizes more mathematical methods and logical derivations of key results. Basic knowledge of Calculus, Linear Algebra, and Probability Theory is required.

You are expected to have passed the math requirements (either a math exam or a business math course). If you do not have enough background in Economics or haven't learned Economics in your undergraduate, please talk to the instructor.

1.2 Textbooks and Reading Materials

***Advanced Microeconomic Theory*, (2011) 3rd Ed. Geoffrey A. Jehle & Phillip J. Reny, Prentice Hall**

Several other textbooks might be helpful for your reference.
Microeconomic Theory (1995), Mas-Colell, Whinston & Green, Oxford University Press.
Microeconomic Analysis (1992), H. Varian, W. W. Norton & Company.
Mathematics for Economists (1994), Simon & Blume, W. W. Norton & Company.

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 (There is a good chance that students can use the materials covered in this class in producing business or research-oriented documents. These features, however, will not be directly assessed in class.)
	1.2. Students are able to professionally present their ideas and also logically explain and defend their argument.	NO (There is a good chance that students can use the materials covered in this class to improve their logical argument. These features, however, will not be directly assessed in class.)
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.	NO
	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 course covers one of the most fundamental theories of Economics regarding economic agents)
	5.2. Our students will be prepared to face problems in various business settings and find solutions.	YES (Many problems of economics agents will be considered, and students will be asked to solve these problems in both abstract and practical form)
	5.3. Our students will demonstrate competency in critical thinking.	YES (The course will provide students the tools to describe numerous problems and analyze them, which requires their critical thinking ability.

2.2 Course specific objectives

The course has several objectives: (a) acquiring basic knowledge of modern microeconomic theory that you can further pursue at a higher level, (b) getting familiar with the use of theoretical tools in other topics in economics and finance, and (c) developing the ability to set up a model

and to analyze economic issues formally.

2.3 Assessment/Grading Details

Your grade depends on two exams (80%), class participation (10%), and homework (10%).

There will be two exams, midterm (35%) and final (45%). Both exams are closed-book exams. The actual date and time of the midterm exam will be announced later in class.

The final exam is cumulative and covers all materials discussed in the course.
The weight of each exam is determined and not negotiable.
There is no make-up exam.
Attendance will be marked periodically.
Each absence without approval is worth a 2% deduction of your final grade.

There will be several problem sets (10%).
Advanced Microeconomics can be complicated and abstract. You will not understand the material by just coming to class. The materials can only be learned well through practice, so you must work through the examples and spend time solving problems.
The purpose of the problem sets is to help you check your understanding of the materials. It will also be handy in preparing for the exams because some of the exam questions will be similar (or even identical) to those in the problem sets.

2.4 Academic Honesty and Plagiarism

A student's effort and credit need to be recognized through class assessment. Credits earned for a student's work due to efforts done by others are clearly unfair. Deliberate dishonesty is considered academic misconduct, which includes 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 an academic misconduct check. Misconduct checks may include reproducing the assessment, providing a copy to another faculty member, and/or communicating 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 purposes.

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

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

3. Topics, Teaching, and Assessment Schedule

I. Introduction & Mathematics Overview (Ch.A1, A2)
▪ Main Objectives of the Course
▪ Introduction to Modeling Methods and Motivation
▪ Review of Calculus and Linear Algebra
▪ Some Topics of Real Analysis and Topology

II. Consumer Theory (Ch. 1, 2.1-2.3)

- Preliminaries of Consumer's Choice
- Preference Ranking
- Utility Representation
- Utility Maximization Problem and Marshallian Demand
- Indirect Utility Function
- Expenditure Minimization Problem and Hicksian Demand
- Expenditure Function
- Duality
- Comparative Static Analysis of Demand

III. Producer Theory (Ch. 3)
- Production Sets and Production Function
- Cost Function and Cost Minimization Problem
- Short Run Cost Functions
- Long Run Cost Functions
- Factor Demand Functions

IV. Market Equilibrium
- Aggregate Supply
- Aggregate Demand
- Market Equilibrium

V. Decision Under Uncertainty (Ch. 2.4)
- Objective and Subjective Uncertainty
- Expected Utility Hypothesis and von Neumann-Morgenstern Utility Function
- Allais Paradox
- Alternative Models of Choice under Uncertainty
- Attitude toward Risk
- Measure of Risk Aversion
- First and Second Order Stochastic Dominance

In case time permits, we will also cover:

VI. Intertemporal Choice & Production: Supply and Demand for Factor Market
- Supply of Labor: The Labor-Leisure Decision
- Supply of Capital: The Consumption-Saving Decision
- Intertemporal Production: The Demand for Capital

4. Miscellaneous