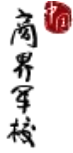




**PHBS**  
北京大学汇丰商学院



# ECON511

## Advanced Microeconomics I

### Module 1, 2024-2025

#### Course Information

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Office Hours: Monday/Thursday 12:30-13:30 & 17:20-18:00, Wednesday 17:00-18:00

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TA Office hour: Monday/Thursday 10:00-12:00 RM 527

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#### **Classes:**

Lectures: Monday/Thursday 15:30-17:20 (24F2R)

Venue: PHBS Building, 231

**Course Website:** [https://cms.phbs.pku.edu.cn/claroline/course/index.php?cid=ECON511\\_015](https://cms.phbs.pku.edu.cn/claroline/course/index.php?cid=ECON511_015)

## 1. Course Description

### 1.1 Context

Course overview:

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

Prerequisites:

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

**You have to pass the math requirements (either math exam or business math course) in order to take the 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

There are two other textbooks that are useful for your reference.

*Microeconomic Theory* (1995), Mas-Colell, Whinston & Green, Oxford University Press.

*Lecture notes in microeconomic theory: the economic agent*, A. Rubinstein, Princeton University Press, 2012. (freely available on <https://arielrubinstein.tau.ac.il/books.html> in English and Chinese)

## 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 be not 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 be not 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 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 analyse them, which necessarily require 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 pursuit in 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 formally analyze economic issues.

## **2.3 Assessment/Grading Details**

Your grade depends on two exams (80%), and four problem sets (20%).

There will be two exams, midterm (35%) and final (45%). Both exams are closed-book exams.

Midterm exam is scheduled in-class on **October 14 (Monday), in class.**

Final Exam is scheduled on **November 12 (Tuesday), 16:00-18:00.**

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.

There will be four problem sets (20%). Due at the beginning of the lecture on **September 26, October 10, October 28, and November 7.**

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 it is important that you 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**

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.

For more information of 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

- 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

## **4. Miscellaneous**