

Advanced Microeconomics I

General Information:

Lecturer: Young Joon Park, yparkucsd@gmail.com or yjpark@phbs.pku.edu.cn (Office: C403)

Lectures: Monday/Thursday 10:30-12:20 at C102 (Section 1) and 3:30-5:20 at C105 (Section 2)

Office Hours: Monday/Thursday 2:00-3:00 or by appointment

Course Webpage: <http://cms.pkusz.edu.cn/claroline/course/index.php?cid=ECON511>

Teaching Assistants: TBD

Weekly TA Sessions: TBD

TA Office Hours: TBD

Course Description:

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. The course has several objectives: (a) acquiring basic knowledge of modern microeconomic theory that you can further pursue 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 model and formally analyze economic issues.

Prerequisites:

The knowledge of undergraduate-level microeconomics is necessary.

Compared to undergraduate-level microeconomics, Adv. Microeconomics use more mathematical methods.

Basic knowledge of Calculus, Linear Algebra and Probability Theory is required.

You have to pass the math camp in order to take the course.

You are strongly recommended to take Business Mathematics if you find your mathematical background is not strong enough.

If you do not have enough background in Economics or haven't learned Economics in your undergraduate, please talk to me.

Textbook:

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

There are several other textbooks that might be useful 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.

Evaluation:

Your grade depends on two quizzes, the Final exam, class participation, and homework.

There will be two quizzes (20% each) and one final exam (45%).
Tentatively, the quizzes are scheduled on Monday, Sept. 23rd and Monday October 21st.
The Final exam will be held on either November 11th, or 12th.
All exams are closed-book exam.
The actual date and time of exams may change due to other scheduling issues. In that case, the announcement will be made in advance.
The final exam is cumulative.

The class participation (5%) will be marked periodically.

There will be several problem sets (10%) that will be marked in a “loose” way.

List of Topics:

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
- Aggregate 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
- Profit Maximization and Supply
- 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