

# SOSC120004.07

## Microeconomics

Spring 2023

**Instructor:** Prof. Zhuoran Lu (陆卓然)

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**Office Hour:** Thursday, from 10:00 to 12:00, or by appointment

**Lecture:** Thursday, from 13:30 to 16:10. Classroom: HGX502

**Teaching Assistant:** Xiongfei Dong (董雄飞); Email: 20210690003@fudan.edu.cn

**Course Prerequisite:** Calculus, Principles of Economics

**Course Description:** The goal of this course is for students to learn to think rigorously on their own about how economic agents make choices and the implications of these choices. Lectures focus on presentation of analytical tools that form the basis for such thinking. Problem sets provide students with practice applying these tools. Students will be evaluated on their understanding of these tools and their ability to apply them to new problems. Most of what you learn here will be applied later in other economics and business courses you will take. For economics and business major, this course is likely to be the most important one you will take.

**Course Objectives:** The intent of this course is to provide a rigorous presentation of microeconomics, the branch of economics that deals with the behavior of individual decision makers such as consumers and firms.

**Course Website:** The primary course website is *elearning*. Check the website regularly. Announcements, lecture notes, problem sets, and other useful items will be posted here.

**Textbook:** The required textbook is *Microeconomics*, Robert S. Pindyck and Denial L. Rubinfeld, 9th edition, Pearson. The 8th Edition is fine. You can also buy older editions. In this case, you are responsible for finding the material covered in class.

**Homework:** Problem sets will be assigned almost every lecture. Late homework will not be accepted for any reason. Problem sets are designed to enable students to become proficient using the concepts and analytical methods presented in the lectures and readings. They provide excellent practice for the exams. Students who do not work these problems should expect to do poorly on the exams. Students may collaborate on problem sets, although each must submit her/his own answers in her/his own words.

**Exams:** There will be one midterm and one comprehensive final exam. All exams are closed book and closed note. Midterm exam will be given in class, the time of which depends on the teaching progress. A cumulative final exam will be given on Thursday, June 15, 2023, from 13:00 to 15:00. The time of the final exam cannot be changed, and alternative exam times will not be offered, so please resolve any conflicts now. Practice exams will be posted on elearning before the exams. They provide a good indication of the style and level of questions likely to be on the exams you will take.

**Grading:** Your final grade will depend on class participation, homework, a midterm and a comprehensive final exam. Class participation will count 10% of the final grade, homework will count 20% of the final grade, the midterm will count 20%, and the final will count the remaining 50%.

**Course Schedule:** The schedule of topics covered in lectures will approximate the schedule below. The schedule may be subject to change.

## **Tentative Outline**

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| <b>Part I Introduction and Basic Theory</b>   |
| <p><b>Lecture 1. Introduction</b></p> <ol style="list-style-type: none"> <li>1. The Themes of Microeconomics</li> <li>2. What Is a Market?</li> <li>3. Why Study Microeconomics?</li> </ol> <p><b>Lecture 2. The Basics of Supply and Demand</b></p> <ol style="list-style-type: none"> <li>1. Supply and Demand</li> <li>2. The Market Mechanism</li> <li>3. Changes in Market Equilibrium</li> <li>4. Elasticities of Supply and Demand</li> <li>5. Short-Run versus Long-Run Elasticities</li> </ol> |
| <b>Part II Consumer Theory</b>  |
| <p><b>Lecture 3. Consumer Behavior</b></p> <ol style="list-style-type: none"> <li>1. Consumer Preferences</li> <li>2. Budget Constraints</li> <li>3. Consumer Choice</li> <li>4. Revealed Preference</li> <li>5. Marginal Utility and Consumer Choice</li> </ol> <p><b>Lecture 4. Individual and Market demand</b></p> <ol style="list-style-type: none"> <li>1. Individual Demand</li> <li>2. Income and Substitution Effects</li> <li>3. Market Demand</li> <li>4. Consumer Surplus</li> </ol>        |

**Lecture 5. Uncertainty and Consumer Behavior**

1. Describing Risk
2. Preferences Toward Risk
3. Reducing Risk

**Part III. Producer Theory****Lecture 6. Production**

1. Firms and Their Production Decisions
2. Production with One Variable Input (Labor)
3. Production with Two Variable Inputs
4. Returns to Scale

**Lecture 7. The Cost of Production**

1. Measuring Cost: Which Costs Matter?
2. Costs in the Short Run
3. Costs in the Long Run
4. Long-Run versus Short-Run Cost Curves
5. Production with Two Outputs—Economies of Scope

**Lecture 8. Profit Maximization and Competitive Supply**

1. Perfectly Competitive Markets
2. Profit Maximization
3. Marginal Revenue, Marginal Cost, and Profit Maximization
4. Short-Run and Long-Run Supply Curve

**Lecture 9. The Analysis of Competitive Markets**

1. Evaluating the Gains and Losses from Government Policies
2. The Efficiency of Competitive Markets

**Lecture 10. Monopoly**

1. Monopoly
2. Monopoly Power
3. Sources of Monopoly Power
4. The Social Costs of Monopoly Power

**Lecture 11. Pricing with Market Power**

1. Capturing Consumer Surplus
2. Price Discrimination
3. Intertemporal Price Discrimination and Peak-Load Pricing
4. The Two-Part Tariff

**Lecture 12. Introduction to Game Theory**

1. Gaming and Strategic Decisions
2. Dominant Strategies
3. Nash Equilibrium
4. Repeated Games
5. Sequential Games

**Lecture 13. Monopolistic Competition and Oligopoly**

1. Monopolistic Competition
2. Oligopoly
3. Competition versus Collusion: The Prisoners' Dilemma
4. Cartels

**Lecture 14. Markets for Factor Inputs**

1. Competitive Factor Markets
2. Equilibrium in a Competitive Factor Market
3. Factor Markets with Market Power

**Part IV General Equilibrium****Lecture 15. General Equilibrium and Economic Efficiency**

1. General Equilibrium Analysis
2. Efficiency in Exchange
3. Equity and Efficiency
4. Efficiency in Production
5. The Gains from Free Trade
6. An Overview—The Efficiency of Competitive Markets