

# Microeconomics

## Syllabus

### INSTRUCTOR INFORMATION:

Instructor: Zhen-Hua WU [w.nju@foxmail.com]

Assistant Professor of Economics and Finance, School of Business, Nanjing University

### Prerequisites

Calculus + Probability (very simple)

### Course Description and Objectives

Students will learn the internal workings of a market economy, including price determination and resource allocation in both competitive and monopolistic situations.

Upon successful completion of this course, the student should be able to demonstrate a clear understanding of how market prices are determined for both outputs and inputs, how consumers form their demand decisions, how the firm's production decisions are determined, and the roles played by market structures. In particular, the student should be able to calculate **equilibrium** price and quantity, to calculate and use various elasticity measures, to decompose consumer response to a price change into income and substitution effects, to predict the effect of changes in input prices and technology on production costs, and to identify profit-maximizing output, input and price levels for firms operating under various market structures, including the so-called digital-economy.

### COURSE MATERIALS:

Slides [**really necessary!**] + Lecture Notes (If it is necessary!)

If you really want to read a book, check the following [**really NOT necessary!**]

- *Principles of Microeconomics / Economics* by Gregory Mankiw
  - *Intermediate Microeconomics: A Modern Approach* by Hal Varian
  - *Microeconomics* by Robert Pindyck and Daniel Rubinfeld
- Any edition will be fine.

## **Assignments:**

Exams:

**Homework (send to TA)+ Exam+ [Presentation ( TBD)]**

*Homework: (Group + Individual)*

- You **should** finish the homework **in groups**, each with 2 people. Bring a copy to class for discussion.
- **Case study:**

*“The Companies Conducting Layoffs in 2023: Here’s the List”*

*“Meta Embraces AI as Facebook, Instagram Help Drive a Rebound”*

Anything related to AI, big-tech, crypto, fin-tech, or, more broadly, digital economy based on these 2 articles.

**\*\*\*[Group up in the break!]**

**\*\*\*When preparing homework, it is prohibited to get information, assistance, or materials from people who have prepared this case previously, either for this course or for any other course at any university.**

**Give me precisely the source of the cases.**

Note that we might discuss each case in detail during the lectures, but “answers” to the cases will not be posted or distributed. Cases are learning tools for which there are many valid answers and the analytical approach is more important than the actual numbers.

## **Timeline**

1. Introduction:
  - a) Preliminaries
  - b) Supply & Demand
  - c) Benefits & Costs
2. Economic Decision Making

- a) Consumption
- b) Production
- c) Uncertainty
  - i. Time
  - ii. Risk
  - iii. Behavior Economics [O]
- 3. Market
  - a) Competitive Market
    - i. Equilibrium and Efficiency
    - ii. General Equilibrium [O]
  - b) Market Failures [Game Theory]
    - i. Monopoly
    - ii. Pricing
    - iii. Oligopoly
    - iv. Asymmetric Information
- 4. Sharing Economy, Attention Economy ... [O]
- 5. Marxian Economic Theory [O]

The order might be changed during the process.