#### SHANGHAI UNIVERSITY OF FINANCE AND ECONOMICS

### Econ 101560: Intermediate Microeconomics

**Spring** 2025

Class (0127): Monday 15:25 - 17:05; Thursday 8:00 - 9:40, Week 1-12

Location: Room 204, No.1 Teaching Building

Instructor: TA

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Office Hour: TBD/by appointment TBD/by appointment

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# Course Description

This course offers a rigorous introduction to the foundational concepts and methods of microeconomics, focusing on both theory and practical applications. Key topics include consumption theory, production theory, and market equilibrium. Depending on time, the course may also explore additional topics such as market failure arising from externalities and public goods, as well as behavioral economics. Problem sets and quizzes will allow students to practice and apply the concepts learned, while classroom experiments will help connect theoretical ideas to real-world scenarios. Through a combination of analytical tools and interactive learning, students will develop a deeper understanding of how economic principles can be applied to solve practical problems.

Prerequisites: Calculus, Principles of Economics

## **Textbooks**

## Required:

Hal R. Varian, *Intermediate Microeconomics: A Modern Approach*, W.W. Norton & Company, 8th/9th edition. ("Varian" henceforth)

#### Recommended:

- 1. Theodore C. Bergstrom and Hal R. Varian, Workouts in Intermediate Microeconomics, W. W. Norton & Company. (highly recommended)
- 2. Walter Nicholson and Christopher Snyder, *Microeconomic Theory: Basic Principles and Extensions*, 12th edition.

# Grades

The course grade will be based on the following distribution (tentative):

Class Participation	5%
Quizzes	4%
Problem Sets	16%
Midterm Exam	25%
Final Exam	50%

Four quizzes will be given in class, with no retakes allowed. Unless otherwise specified, all (four) problem sets are due by the beginning of class on the  $\underline{\text{Monday}}$  following the week they are assigned. Late submissions will incur a penalty of 50% point deduction.

Both exams are closed-book. The Midterm Exam is scheduled for the Thursday of Week 6 (April 3) during class time. The Final Exam is <u>university-wide</u> and will be structured as follows:

Multiple Choice Questions (30%) True/False Questions (16%) Long Answer Questions (54%)

# Course Schedule

All lecture notes/slides (and Problem Sets) will be available at <u>the Canvas Website</u>. Reading the corresponding chapters of Varian before each lecture is recommended.

Week	Day	Date	Contents	Assignments
1	Mon.	2/24	Ch1: The Market	
	Thu.	2/27	Ch2: Budget Constraint	
2	Mon.	3/2	Ch3: Preferences	
	Thu.	3/6	Ch4: Utility	
3	Mon.	3/10	Ch5: Choice	PS1 due
	Thu.	3/14	Ch6: Demand	Quiz 1
4	Mon.	3/17	Ch8: Slutsky Equation	
	Thu.	3/20	Ch8: Slutsky Equation	
5	Mon.	3/24	Ch14: Consumer Surplus	
	Thu.	3/27	Ch15: Market Demand	Quiz 2
6	Mon.	3/31	Ch16: Equilibrium	PS2 due
	Thu.	4/3	$Midterm\ Exam$	

Week	Day	Date	Contents	Assignments
7	Mon.	4/7	Ch19: Technology	
	Thu.	4/10	Ch20: Profit Maximization	
8	Mon.	4/14	Ch21: Cost Minimization	
	Thu.	4/17	Ch22: Cost Curves	
9	Mon.	4/21	Ch23: Firm Supply	Quiz 3
	Thu.	4/24	Ch24: Industry Supply	
10	Mon.	4/28	Ch25: Monopoly	PS3 due
	Thu.	5/1	Labor Day Holiday	
11	Mon.	5/5	Ch26: Monopoly Behavior	Quiz 4
	Thu.	5/8	Ch28: Oligopoly	
12	Mon.	5/12	Ch32: Exchange	
	Thu.	5/15	Ch32: Exchange; Review	PS4 due
TBA			Final Exam	

# **Outlines**

As outlined in the (tentative) Course Schedule, this course is structured into several sections. We begin with an overview of the microeconomic market as a whole, followed by a detailed examination of its two key components: the consumer side and the producer side. We then explore imperfect competitive market behaviors, including monopoly and oligopoly. Finally, we delve into a more complex general equilibrium problem.

### Part I: Introduction

This section includes Chapter 1: The Market. This chapter provides a brief introduction to commonly used microeconomic concepts and tools by establishing a model of the market for apartments, such as exogenous variables, endogenous variables, market equilibrium, comparative static analysis, reservation price, and Pareto efficiency. The purpose of this chapter is to provide students with a preliminary understanding of how microeconomic concepts are applied through case studies, with subsequent chapters offering detailed definitions and introductions to the relevant concepts.

• Chapter 1: The Market

## Part II: Consumer Theory

This section provides a detailed introduction to consumer theory. Under some basic assumptions, consumers choose the best bundle of goods they can afford. Chapter 2 discusses the consumer's budget constraint, explaining what is meant by "affordable"; Chapters 3 and 4 introduce consumer preferences and utility functions to describe what constitutes

the "best" bundle of goods; Chapters 5 and 6 examine how, given a consumer's budget constraint and preferences, the optimal bundle of goods is determined, thereby defining the consumer's demand for various goods. Chapter 8 thoroughly investigates how changes in the price of goods affect demand and decomposes the total change in demand into two effects: the substitution effect and the income effect. Chapter 14 explores how changes in the price of goods affect consumer welfare with three measures: changes in consumer surplus, compensating variation, and equivalent variation. Chapter 15 derives the market demand for goods and provides a detailed definition of elasticity. Chapter 16 discusses how to use the market demand curves to determine the market equilibrium price.

• Chapter 2: Budget Constraint

• Chapter 3: Preferences

• Chapter 4: Utility

• Chapter 5: Consumer Choice

• Chapter 6: Demand

• Chapter 8: Slutsky Equation

• Chapter 14: Consumer's Surplus

• Chapter 15: Market Demand

• Chapter 16: Equilibrium

# Part III: Production and Supply

This section provides a detailed introduction to producer theory. Chapter 19 uses firms' inputs, outputs, and production functions to describe the technological constraints faced by firms. Chapters 20 and 21 address the profit maximization and cost minimization problems for firms in a perfectly competitive market, respectively. By solving these optimization problems, the optimal production plans and cost functions for firms in a perfectly competitive market are derived. Given the firm's cost function, Chapter 22 introduces various cost curves, which more intuitively depict the firm's production technology. Using these cost curves, Chapter 23 solves the optimal supply of firms in a competitive market, illustrating the firm's supply curve in both the long run and short run. Chapter 24 studies industry equilibrium in both the short run and long run by aggregating the supply of individual firms to obtain the industry supply.

• Chapter 19: Technology

• Chapter 21: Cost Minimization

• Chapter 22: Cost Curves

• Chapter 20: Profit Maximization

• Chapter 23: Firm Supply

• Chapter 24: Industry Supply

# Part IV: Imperfect Competition

This section discusses firm behavior in imperfectly competitive markets. Chapter 25 introduces the monopoly market, where there is only one firm in the market. This chapter studies the profit maximization problem of the monopolist and explores the impact of monopoly outcomes on social welfare. Chapter 26 introduces monopolistic behaviors such as price discrimination and two-part tariff. Chapter 28 examines the oligopoly market, where there are a limited number of firms, each with significant market power, meaning their decisions can affect market prices. Oligopoly is a market structure between perfect competition and complete monopoly. This chapter introduces several common oligopoly models, including the Cournot quantity competition model, the Stackelberg quantity competition model, and the Bertrand price competition model.

• Chapter 25: Monopoly

• Chapter 26: Monopoly Behavior (optional)

• Chapter 28: Oligopoly

# Part V: General Equilibrium

This section brings market demand and supply together in a perfectly competitive market to define equilibrium. Chapter 16 focuses on partial equilibrium, which refers to a situation where a single good reaches market clearing, meaning market demand equals market supply. This chapter explores how to solve for partial equilibrium and the impact of taxes on equilibrium outcomes. Chapters 32 examines general equilibrium, where all goods reach market clearing. This chapter considers an exchange economy in which only consumers are present in the market with no production. Each good is endowed by the consumers themselves, referred to as endowments.

• Chapter 32: Exchange

### Honor code

Shanghai University of Finance and Economics upholds an honor code, and students are expected to maintain the highest standards of academic integrity. This means students pledge not to cheat, lie, plagiarize, or steal in any academic matters. The minimum penalty for academic dishonesty is receiving a score of 0 on the exam. Additional penalties may include reporting the incident to the relevant school departments, and the matter will be handled according to the applicable regulations.