

## Course Outline

### EE311 Microeconomic Theory (Section 046402)

**Semester 2/2023 (January 8 - May 4, 2024)**

**Lecture Time:** Wednesday and Friday, 13.00-15.00 hours

**Lecture Venue:** Room 203

**Teaching Materials Platform:** Google Classroom, class code: noyk7zx

#### Instructor:

**Name:** Ajarn Pimwilai Kijjanapanich  
**Office Hours:** Wednesday and Friday, 10.30-12.00 or by appointment at Room 512, Faculty of Economics, Tha Prachan Campus  
**Email:** [pimwilai@econ.tu.ac.th](mailto:pimwilai@econ.tu.ac.th)

**Number of Credit:** 4 Credits (4-0-8)

**Prerequisite:** EE211 (or EE213) and MA216 (or MA211)

#### Course Description:

Consumer behavior focusing on indifference curve analysis, intertemporal consumption, consumption and risks. Theory of production and cost, the birth of the firm using information cost, structure and behavior of imperfect competitive markets which are monopoly, monopolistic competition and duopoly markets. Introduction to game theory. Price setting in practice. Price determination in factor markets, general equilibrium analysis, welfare Economics, market failures and measures to correct.

#### Course Objectives:

1. Understand and able to apply the consumer behavior and demand theory.
2. Understand and be able to explain the relationship between inputs and output in the short run and long run. Understand types of cost curves and their properties as well as understanding the relationship between production and costs.
3. Know the characteristics of each type of product market structure. Know how to determine the equilibrium price and quantity for each market structure.
4. Know how to determine the equilibrium price and quantity for each type of factor market.

5. Understand the three general equilibrium conditions and the Pareto optimality concept.
6. Understand the factors that lead to market failure and the way to solve the market failure.

### Method of Instruction:

There are a total of 60 class hours for this course or 4 hours per week. Class activities each week will consist of three hours of lectures, and one hour of discussions, exercises, and quizzes. Students are expected to work on about four 15-minute quizzes during class hours and participate in class discussions.

### Student Evaluation:

Quizzes/assignments	15%
Mid-term examination	40%
Final examination	45%

### Important Dates

Add-Drop period	January 8-21, 2024
Midterm	<b>Wed., February 28, 2024; 15.00-18.00</b>
Final	<b>Mon., May 13, 2024; 13.30-16.30</b>
Last day for course withdrawal	March 17, 2024

### Expected Learning Outcomes

#### 1. Morality and Ethics

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students demonstrate integrity.	Exercises and quizzes
○	2. Students prioritize social and public benefits over personal ones.	
●	3. Students are punctual and comply with the code of conduct of the institution and society at large.	
○	4. Students are responsible and accountable to society, the nation, and the subject of economics.	
○	5. Students realize the cultural and environmental value of a sustainable society.	

#### 2. Knowledge

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students know and understand modern economics principles and theories, and are up to date with new developments.	Exercises, quizzes, and exams
●	2. Students know and understand Thai and global economic structure and the importance of major international economic events.	

●	3. Students know and understand the instruments of economic analysis.	
●	4. Students know and understand applied fields in economics, including monetary, public, international, business, natural resource, and environmental, industrial, agricultural, cooperative, political, developmental, and entrepreneurial economics as well as agribusiness.	
○	5. Students are informed about related fields including sociology, business administration, education, law policy, and science.	

### 3. Intellectual Development

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students have developed individual critical thinking.	Exercises
●	2. Students are sufficiently trained in research skills.	
●	3. Students demonstrate an ability to analyze and synthesize data, as well as appropriately integrate economics concepts to understand the causes of current economic problems in Thailand. Based on analysis and synthesis, students demonstrate an ability to propose policy guidelines to resolve problems.	

### 4. Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students are responsible for assigned tasks and work in groups effectively.	Exercises, quizzes, discussion
●	2. Students have problem-solving skills.	
○	3. Students show leadership skills and team spirit.	
●	4. Students are always improving themselves.	
○	5. Students have good interpersonal skills, adapt, and work under different conditions.	

### 5. Quantitative Analysis, communication, and information technology

Applicability	Expected Learning Outcomes	Evaluation Method
○	1. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation,	Exercises, quizzes, discussion

	conclusions, and recommendations to resolve problems.	
○	2. Students communicate effectively and select appropriate presentation methods.	
○	3. Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	

Remark: ● Primary expected outcome ○ Secondary expected

### Main Text:

There are several textbooks that cover similar materials. **The first three books will be used extensively, but, for many topics, they can be used interchangeably with the other listed books.** It is important to realize, however, that no single textbook contains all the materials covered in this course. It is therefore essential that you read several sources, and that you review the concepts listed under “REVIEW” on your own, so that our time can be more valuably spent on new topics.

- 1) **Besanko, David, and Ronald R. Braeutigam, *Microeconomics: An Integrated Approach*, (4<sup>th</sup> ed.) New York: John Wiley & Sons, 2014.**
- 2) **Pindyck, Robert S. and Daniel E. Rubinfeld. *Microeconomics*, (9<sup>th</sup> ed.), New Jersey: Prentice-Hall, 2018.**
- 3) **Perloff, *Microeconomics*, (8<sup>th</sup> ed.) Boston: Pearson, 2018.**
- 4) Salvatore, Dominick, *Microeconomics: Theory and Applications*, (5<sup>th</sup> ed.), New York: Oxford University Press. 2008.
- 5) Frank, Robert H. (8<sup>th</sup> ed.). *Microeconomics and Behavior*, New York: McGraw-Hill, 2010.
- 6) Miller, R.L., and R.P.H. Fishe. *Microeconomics: Price Theory in Practice*, New York: Harper Collins, 1995.
- 7) Hirshleifer, Jack *Price Theory and Applications* (6<sup>th</sup> ed.), New Jersey: Prentice - Hall, 1998.
- 8) Griffiths, Alan and Stuart Wall, *Microeconomics: Theory & Applications*, London: Longman, 2000.
- 9) Nicholson, Walter and Christopher M. Snyder, *Intermediate Microeconomics and Its Application*, (11<sup>th</sup> ed.), Dryden Press, 2009.
- 10) Varian, Hal *Intermediate Microeconomics*, (5<sup>th</sup> ed.) New York: Norton, 1999.

### Suggested Readings (For fun):

Levitt, Steven D. and Stephen J. Dubner, *Freakonomics*, New York: Harper Torch, 2006.

Harford, Tim, *The Undercover Economist: Exposing Why the Rich Are Rich, the Poor Are Poor--and Why You Can Never Buy a Decent Used Car!*, Oxford University Press, 2006.

Marshall Jevons, *Murder at the Margin*, New Jersey: Princeton University Press, 1978, 1993.

*The Fatal Equilibrium*, New York: Balantine Books, 1985.

*A Deadly Indifference*, New Jersey: Princeton University Press, 1995.

Oyer, Paul, *Everything I Ever Needed to Know about Economics I Learned from Online Dating*, Harvard Business Review Press, 2014.

Dan Ariely, *The Upside of Irrationality: The Unexpected Benefits of Defying Logic at Work and at Home*, Harper; 1 edition (June 1, 2010)

Dan Ariely, *Predictably Irrational, Revised and Expanded Edition: The Hidden Forces That Shape Our Decisions*, Harper Perennial; 1 Exp Rev edition (April 27, 2010)

Dan Ariely, *The Honest Truth About Dishonesty: How We Lie to Everyone--Especially Ourselves*, Harper Perennial; Reprint edition (June 18, 2013)

## **Suggested Movies and useful links:**

### **Movies**

- "A Beautiful Mind" Universal Studios, 2001.
- "An Inconvenient Truth", 2006.
- "Inside Job", 2010.

### **Links**

- Student Resources for Frank's text: [http://highered.mcgraw-hill.com/sites/0073375942/student\\_view0/index.html](http://highered.mcgraw-hill.com/sites/0073375942/student_view0/index.html)
- Nobel Prize in Economic Sciences: [http://nobelprize.org/nobel\\_prizes/economics/shortfacts.html](http://nobelprize.org/nobel_prizes/economics/shortfacts.html)
- Robert H. Frank: <http://www.robert-h-frank.com/>
- Econ Ph.D. Net: <http://www.econphd.net/>
- Hal R. Varian: <http://people.ischool.berkeley.edu/~hal/>
- The Official Paul Krugman Web Page: <http://web.mit.edu/krugman/www/>
- The Undercover Economist: <http://timharford.com>
- The Airport Economist: <http://www.theairporeconomist.com>
- The Economist Magazine: <http://www.economist.com>

## Teaching Plan (Subject to change):

### 1. Introduction

#### 1.1 Why Study Microeconomics?

Application of Demand and Supply concepts: government intervention

**Review:** Concepts of consumer and producer surplus.

**Read:** Besanko & Braeutigam Chs. 2 & 9, Pindyck & Rubinfeld Chs. 2 and 9, Perloff Chs.2,3,9, Frank Ch. 2, Salvatore Ch.2. Miller & Fishe Ch. 3, and newspaper articles!

### 2. Consumer Behavior and Demand Theory

#### 2.1 Indifference Curve Analysis

- assumptions
- analysis of goods, bads, neuters

**Review:** Properties of indifference curves.

**Read:** Besanko & Braeutigam Ch. 3 & 4., Pindyck & Rubinfeld Ch. 3, Perloff Ch.4 & App. 4A, Salvatore Ch.3 (3.1-3.2), Frank Ch.3, Hirshleifer Ch. 3(pp. 70-73), Miller & Fishe Ch.5, Griffiths & Wall Ch.1 (pp.-33).

#### 2.2 Consumption equilibrium and changes in equilibrium

- consumption equilibrium and duality
- changes in income
- changes in price: income effect and substitution effect
- compensated and uncompensated demand curves
- market demand
- network externalities
- application: vouchers vs. income transfers
- revealed preferences, index numbers, and welfare changes

**Review:** Construction of demand curves, elasticities.

**Read:** Besanko & Braeutigam Ch. 5, Pindyck & Rubinfeld Ch. 4, Appendix, Perloff Ch. 5; Salvatore Ch 3 (3.4-3.5) Chs.4 -5, Frank Ch.4-5, Appendix; Hirshleifer Ch.4,Ch.5 (pp.117-152), Miller & Fishe Ch.4 (pp.119-120); Appendix 5A and Ch.6, Griffiths and Wall Ch.1 (pp.33-50), Ch.2, (pp.55-68), Varian Ch. 7.8 & Ch. 8.

#### 2.3 Intertemporal consumption (consumption overtime)

- time preference and time value of money
- cases: regular income, productive opportunities, inheritance
- supply of saving
- consumption and pricing of durable goods and non-renewable resources

**Read:** Pindyck & Rubinfeld Ch.15, Perloff Ch. 16, Salvatore Ch.16, Frank Ch.15 Appendix, Hirshleifer Ch.14. Miller & Fishe Ch.5 (pp.617-632), Varian Ch. 10.

## 2.4 Consumption under uncertainty

- expected utility
- preference toward risk
- gambling and insurance
- The Demand for Risky Assets

**Read:** Besanko & Braeutigam Ch. 15 (15.1-15.4), Pindyck & Rubinfeld Ch.5, Perloff Ch.17 (17.1-17.2), Salvatore Ch.6, Frank Ch.6 (pp.198-210), Miller & Fische Ch.5 (pp.644-649), Griffiths & Wall Ch.3 (pp.102-113).

## 3. Transactions Costs and Institutional Economics

- costs of market exchange
- components of transaction costs
- optimal search
- meaning of “institutions”
- origin of firms, an example of an institution
- rules, behavior and objectives of the firm
- profit maximization
- utility maximization and satisficing

**Read:** Miller & Fische Ch.7, Frank Ch.6 Appendix, Griffiths and Wall Ch.5, Baumol W.J.Economic Theory and Operations Analysis, 4<sup>th</sup> ed.(Prentice – Hall) 1977, Ch.15, Kreps, A Course in Microeconomic Theory, (Harvester Wheatsheaf) 1990, Ch. 20, Coase “The Nature of the Firm”, *Economica*, 4:386-405, 1937, Stigler, “The Economics of Information”, *Journal of Political Economy*, 69:3, 1961.

## 4. Production and Costs

### 4.1 Production equilibrium

- least cost combination
- duality in production
- relationship between product curves and cost curves

### 4.2 Production functions and costs

- homogeneous production functions and their properties
- returns to scale
- elasticity of substitution

**Review:** All product and cost curves; e.g. AP, MP, TP, TC, AC, MC.

**Read:** Besanko & Braeutigam Ch. 6-8, Pindyck & Rubinfeld Chs.6-7, Perloff Ch.6-7, Salvatore Chs. 7-8, Frank Chs.9-10, Miller & Fische Chs.8-9, Griffiths & Wall Ch.4.

## 5.Product Markets

### 5.1 Perfectly competitive markets

- long-run equilibrium and efficiency

**Review:** Characteristics of perfectly competitive markets, price and output under perfect competition.

**Read:** Besanko & Braeutigam Ch. 9, Pindyck & Rubinfeld Ch.8, , Perloff Ch. 8, Hirshleifer & Glazer Ch.7 (pp.175-186), Salvatore Ch.9, (pp.240-248), Frank Ch.11, Miller and Fische Ch.10, Griffiths and Wall Ch.6.

## 5.2 Monopoly

- meaning of market power
- price and output determination
- multi-plant monopoly
- monopoly and resource allocation
- regulation of monopolies and contestable markets
- other pricing strategies
- price discrimination: degrees and hurdles
- two-part tariffs and other strategies

**Review:** Simple monopoly

**Read:** Besanko & Braeutigam Ch. 11.1-11.6 & 12, Pindyck & Rubinfeld Ch.10 (10.1-10.4 and 10.7) & Ch.11, Perloff Ch.11,12; Salvatore Ch.10 & Ch.13, Frank Ch.12, Miller & Fische Ch.11-12, Hirshleifer Ch.8, Griffiths and Wall Ch.7.

## 5.3 Monopolistic competition

- characteristics of monopolistic competition
- equilibrium price and output in the short run and long run
- implications on resource allocation

**Read:** Besanko & Braeutigam Ch. 13.5, Pindyck & Rubinfeld Ch.12.1, Perloff 13.7, Frank Ch.13, Miller & Fische Ch.13 (pp.515-523), Salvatore Ch. 11 (11.1-11.2)

## 5.4 Oligopoly

- meaning of oligopoly
- various models of oligopoly:
  - kinked demand
  - collusion and cartel
  - Cournot, Bertrand and Stackelberg
  - price leadership or dominant firm
  - game theory and its application to oligopolistic markets
- introduction
- equilibrium: Dominant strategy, Nash equilibrium, Maximin
- Prisoners' dilemma
- sequential games
- Strategic moves: entry deterrence

**Read:** Besanko & Braeutigam Ch. 13.1-13.4 & 14, Pindyck and Rubinfeld Ch.12.2-12.6 & Ch.13, Perloff Ch. 13,14, Hirshleifer Ch.10, Salvatore Ch.11 (11.3-11.8) Ch. 12, Frank Ch.13, Miller & Fishe Ch.13 (pp.526-557); Chiang, Fundamental Methods of Mathematical Economics, Ch. 21.

## 6. Factor Markets

### 6.1 Competitive factor markets

- demand for a factor (cases of one variable input and several variable inputs)
- supply of inputs to a firm and market supply of inputs
- price and quantity of factor employed

**Read:** Pindyck & Rubinfeld Ch.14.1-14.2, Perloff Ch.5 (5.5), 15 (15.1). Hirshleifer Ch.11, Salvatore Ch. 14, Frank Ch.14, Miller & Fishe Ch.14 (pp.565-592), Griffiths & Wall Ch.9 (pp.379-383).

### 6.2 Factor Markets with Monopoly and Monopsony Power

- marginal revenue product
- marginal and average factor cost
- price and quantity of factor employed

**Read:** Besanko & Braeutigam Ch. 11.7, Pindyck and Rubinfeld Ch. 10.5-10.6 & Ch.14.3, Perloff Ch. 15 (15.2, 15.3), Hirshleifer Ch.11 (pp.333-341), Frank Ch.14, Miller & Fishe Ch.14 (pp.595-599), Griffiths & Wall Ch.9 (pp.383-385), Salvatore Ch.15.

### 6.3 Factor Markets with Monopoly Power of Seller of Input

- monopoly power over the wage rate
- price and quantity of factor employed
- bilateral monopoly

**Read:** Pindyck & Rubinfeld Ch.14.4, Hirshleifer Ch.12 (12.4) (pp.356-363), Salvatore Ch.15, Miller & Fishe Ch.14 (pp.599-606).

### 6.4 Economic Rent

- meaning of economic rent
- rent-seeking behavior and resource allocation

**Read:** Besanko & Braeutigam Ch. 9.5, Pindyck and Rubinfeld Ch.14 (pp.529-532), Frank Ch.15 (pp.569-70), Hirshleifer Ch.12 (12.7), Miller & Fishe Ch.14 (pp.588-589), Griffiths &

## 7. General Equilibrium Analysis and Welfare Economics

### 7.1 General Equilibrium: consumption, production, and exchange

- welfare criteria
- Pareto optimum and efficiency

- perfect competition and Pareto optimum
- welfare maximization and Pareto optimum conditions

**Read:** Besanko & Braeutigam Ch. 16.1-16.4, Pindyck & Rubinfeld Ch.16 (16.1-16.4, 16.6), Perloff Ch. 10, Hirshleifer Ch.15 (15.2), Miller & Fiske Ch.16, Salvatore Ch.17, Frank Ch.16, Griffiths & Wall Ch.9 (pp.421-433).

## 7.2 Market Failure and Imperfections

- imperfect competition, externalities, public goods, and asymmetric information
- correction of failure and imperfections: government or private sector

**Read:** Besanko & Braeutigam Ch. 17, Pindyck & Rubinfeld Ch.16 (16.7) & Chs.17-18, Perloff Ch. 18,19, Hirshleifer Ch.15 (15.3), Miller & Fiske Ch.17, Salvatore Chs.18-19, Frank Chs.17-18, Griffiths & Wall Ch.9 (pp.433-437) & Ch.11.

**Watch:** "An Inconvenient Truth", "Inside Job"

**Tentative Learning Activities:**

<b>Class No.</b>	<b>Date</b>	<b>Topics</b>
1	Jan 10	Application of Demand and Supply concepts: government intervention
2	Jan 12	Application of Demand and Supply concepts: government intervention
3	Jan 17	Consumer Behavior and Demand Theory: Indifference Curve Analysis
4	Jan 19	Consumption equilibrium and Changes in equilibrium
5	Jan 24	Applications: vouchers vs. income transfers, revealed preferences, index numbers
6	Jan 26	Intertemporal consumption
7	Jan 31	Intertemporal consumption
8	Feb 2	Consumption under uncertainty
9	Feb 7	Consumption under uncertainty
10	Feb 9	Production and Costs
11	Feb 14	Production and Costs
12	Feb 16	Perfectly competitive markets
13	Feb 21	Monopoly
14	Feb 23	Monopoly
<b>Midterm Examination: Wednesday, February 28, 2024; 15.00-18.00</b>		
15	Mar 6	Pricing strategies
16	Mar 8	Pricing strategies
17	Mar 13	Monopolistic competition and Oligopoly
18	Mar 15	Various models of oligopoly
19	Mar 20	Various models of oligopoly
20	Mar 22	Game theory and its application
21	Mar 27	Game theory and its application
22	Mar 29	Factor Markets
23	Apr 3	Factor Markets
24	Apr 5	Factor Markets
25	Apr 10	General Equilibrium Analysis
	Apr 12	Songkran Festival (No class)
	Apr 17	Songkran Festival (No class)
26	Apr 19	General Equilibrium Analysis
27	Apr 24	General Equilibrium Analysis and Market Failure and Imperfections
28	Apr 26	Market Failure and Imperfections
29	May 1	Market Failure and Imperfections
30	May 3	Market Failure and Imperfections
<b>Final Examination: Monday, May 13, 2024; 13.30-16.30</b>		