

Course Outline

EE 311: Microeconomics Theory

Semester 1/2021 (August 9 - November 27, 2021)

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

Prerequisite: EE 211 and MA 216

Course Description:

Demand and supply analysis, consumer behaviour and demand theory, production and cost of production, different types of product market structures, price determination in factor markets, decision-making over time, general equilibrium analysis, and introductory welfare economics and public policy.

Class Time and Logistic

Class day: Wednesdays and Fridays

Class time: 11.00 AM – 1.00 PM

Teaching Materials Platform: [BE Moodle / Google Classroom]

Meeting Platform: [Zoom]

Instructors:

Name: Asst Prof Dr. Phongthorn Wrasai [Sec. 046401]

Office Hours: Virtual meeting via Zoom on Fridays, 2.30 - 4.30 pm; or by email

Email: pwrasai@econ.tu.ac.th, pwrasai@gmail.com

Name: Loylom Prasertsri [Sec. 046402]

Office Hours: Virtual meeting via Zoom on Thursdays, 2.30 - 4.30 pm; or by email

Email: loylom@econ.tu.ac.th

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 in each week will consist of three hours of lectures, and one hour of discussions, exercises and quizzes. Students are expected to work on about two 15-minute quizzes during class hours, and participate in class discussions.

Grading Criteria:

Quizzes	15%
Mid-term examination	35%
Final examination	50%

Important Dates

Class begins	11 August 2021
Add-Drop period	16 – 19 August 2021
Midterm Exam period (no classes)	26 Sep - 3 Oct 2021
Midterm	Saturday, 2 October 2021; 13.00 – 15.30 hrs
Final	Friday, 3 December 2021; 09.00 – 12.00 hrs
Last day for course withdrawal	15 November 2021
Last classes	27 November 2021

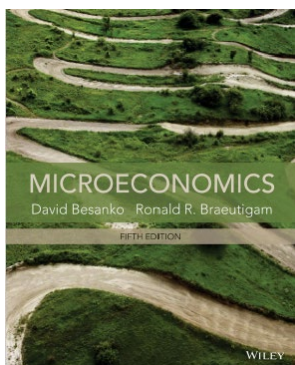
Holidays

Wednesday, 13 October 2021	Anniversary of the Death of King Bhumibol
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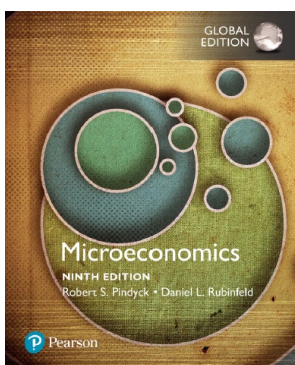
Main Textbooks

There are several textbooks that cover similar materials. **The first four 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.

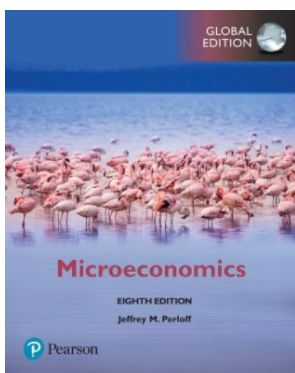
- 1) **Besanko, David, and Ronald R. Braeutigam, *Microeconomics: An Integrated Approach*, (5th ed.) New York: John Wiley & Sons, 2014.**



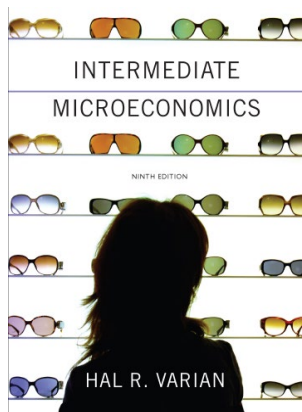
- 2) Pindyck, Robert S. and Daniel E. Rubinfeld. *Microeconomics*, (9th ed.), New Jersey: Prentice -Hall, 2018.



- 3) Perloff, *Microeconomics*, (8th ed.) Boston: Peason, 2018.



- 4) Varian, Hal *Intermediate Microeconomics*, (9th ed.) New York: Norton, 2014.



- 5) Salvatore, Dominick, *Microeconomics: Theory and Applications*, (5th ed.), New York: Oxford University Press. 2008.
- 6) Frank, Robert H. (9th ed.). *Microeconomics and Behavior*, New York: McGraw-Hill, 2015.
- 7) Miller, R.L., and R.P.H. Fishe. *Microeconomics: Price Theory in Practice*, New York: Harper Collins, 1995.
- 8) Hirshleifer, Jack *Price Theory and Applications* (6th ed.), New Jersey: Prentice - Hall, 1998.
- 9) Griffiths, Alan and Stuart Wall, *Microeconomics: Theory & Applications*, London: Longman, 2000.
- 10) Nicholson, Walter and Christopher M. Snyder, *Intermediate Microeconomics and Its Application*, (11th ed.), Dryden Press, 2009.

Supplementary Reading (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)

Movies:

“A Beautiful Mind” Universal Studios, 2001.

“An Inconvenient Truth”, 2006.

“Inside Job”, 2010.

Some Useful Links:

Student Resources for Frank's text:

http://highered.mcgraw-hill.com/sites/0073375942/student_view0/index.html

Nobel Prize in Economic Sciences:

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>

Expected Learning Outcomes:**1. Morality and Ethics**

Applicability	Expected Learning Outcomes
●	1.1 Students demonstrate integrity.
○	1.2 Students prioritize social and public benefits over personal ones.
●	1.3 Students are punctual and comply with the code of conduct of the institution and society at large.
○	1.4 Students are responsible and accountable to society, the nation, and the subject of economics.
○	1.5 Students realize the cultural and environmental value of the sustainable society.

2. Knowledge

Applicability	Expected Learning Outcomes
●	2.1 Students know and understand modern economics principles and theories, and are up to date with new developments.
●	2.2 Students know and understand Thai and global economic structure, and the importance of major international economic events.
●	2.3 Students know and understand instruments of economic analysis.
●	2.4 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.
○	2.5 Students are informed about related fields including sociology, business administration, education, law policy, and science.

3. Intellectual Development

Applicability	Expected Learning Outcomes
●	3.1 Students have developed individual critical thinking.
●	3.2 Students are sufficiently trained in research skills.

Applicability	Expected Learning Outcomes
●	3.3 Students demonstrate an ability to analyze and synthesize data, as well as appropriately integrate economics concepts to understand 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
●	4.1 Students are responsible for assigned tasks and work in groups effectively.
●	4.2 Students have problem-solving skills
○	4.3 Students show leadership skills and team spirit.
●	4.4 Students are always improving themselves.
○	4.5 Students have good interpersonal skills, adapting and working under different conditions.

5. Quantitative Analysis, Communication and Information Technology

Applicability	Expected Learning Outcomes
○	5.1 Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.
●	5.2 Students communicate effectively and select appropriate presentation methods.
○	5.3 Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.

Teaching Plan:

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.

2. Consumer Behavior and Demand Theory

2.1 Indifference Curve Analysis

- assumptions
- properties of indifference curve
- 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, Frank Ch.3.

2.2 Consumer equilibrium and changes in equilibrium

- consumer 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

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 Chs. 4-5, Appendix; Varian Ch. 7.8 & Ch. 8.

2.3 Intertemporal consumption (consumption overtime)

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

Read: Varian, Ch. 10, Pindyck & Rubinfeld Ch.15, Perloff Ch. 16, Frank Ch.15 Appendix.

2.4 Consumption under uncertainty

- describing risky outcomes
- evaluating risky outcomes
- bearing and eliminating risk
- the demand for risky assets (Pindyck, Ch.5, Topic 5.4)

Read: Besanko & Braeutigam Ch. 15 (15.1-15.4), Pindyck & Rubinfeld Ch.5, Perloff Ch. 17 (17.1-17.2), Frank Ch. 6 (pp.198-210), Varian Ch. 12

3. Production and Costs

3.1 Production equilibrium

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

3.2 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 Chs. 6-8, Pindyck & Rubinfeld Chs.6-7, Perloff Chs.6-7, Frank Chs.9-10.

4. Product Markets

4.1 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, Frank Ch.11.

4.2 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; Frank Ch.12.

4.3 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.

4.4 Oligopoly

- meaning of oligopoly
- various models of oligopoly:
 - kinked demand
 - collusion and cartel
 - Cournot and Stackelberg
 - Bertrand
 - price leadership or dominant firm

4.5 Game theory and its application

- Game theory
 - Modelling situations (games) when an agent's utility is affected by others' choices
 - Predicting choice (via solution concepts) in games
- Simultaneous move game
 - Modelling: players, normal form, strategy, payoffs etc
 - Solution concepts: dominant strategy equilibria, IESDS, Nash equilibria
- Sequential move games (Perfect information games)
 - Modelling: game tree, extensive form, subgames, strategy
 - Solution concepts: subgame perfect equilibria, backwards induction

Read: Besanko & Braeutigam Ch. 13.1-13.4 & 14, Pindyck and Rubinfeld Ch.12.2-12.6 & Ch.13, Perloff Ch. 13,14, Frank Ch.13.
Watch: "A Beautiful Mind"

5. Factor Markets

5.1 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), Frank Ch.14.

5.2 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), Frank Ch.14.

5.3 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.

6. General Equilibrium Analysis and Welfare Economics

6.1 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, Frank Ch.16.

6.2 Market Failure and Imperfect information

- 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 Chs. 18,19, Frank Chs.17-18.

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

Teaching Plan:

No.		Date	Topics
1	Wed	11 August 2021	Introduction Application of Demand and Supply concepts: government intervention
2	Fri	13 August 2021	Application of Demand and Supply concepts: government intervention
3	Wed	18 August 2021	Consumer Behavior and Demand Theory: Indifference Curve Analysis
4	Fri	20 August 2021	Consumer equilibrium and Changes in equilibrium
5	Wed	25 August 2021	Applications: vouchers vs income transfers, revealed preferences Quiz 1: Lecture No. 1-4
6	Fri	27 August 2021	Intertemporal consumption
7	Wed	1 September 2021	Intertemporal consumption
8	Fri	3 September 2021	Intertemporal consumption
9	Wed	8 September 2021	Consumption under uncertainty
10	Fri	10 September 2021	Consumption under uncertainty
11	Wed	15 September 2021	Consumption under uncertainty Quiz 2: Lecture No. 5-8
12	Fri	17 September 2021	Production and Costs
13	Wed	22 September 2021	Perfectly competitive markets
14	Fri	24 September 2021	Monopoly
Midterm exam: Saturday, 2 October 2021; 13:00 – 15:30 hrs			
15	Wed	6 October 2021	Monopoly
16	Fri	8 October 2021	Pricing strategies
17	Mon	11 October 2021	Pricing strategies [Make up class: H.M. King Bhumibol Adulyadej The Great Memorial Day*]
	Wed	13 October 2021	**** No class **** H.M. King Bhumibol Adulyadej The Great Memorial Day*
18	Fri	15 October 2021	Monopolistic competition and Oligopoly
19	Wed	20 October 2021	Various models of oligopoly
20	Wed	22 October 2021	Various models of oligopoly
21	Fri	27 October 2021	Game theory and its application

No.		Date	Topics
22	Wed	29 October 2021	Game theory and its application Quiz 3: Lecture No. 14-20
23	Fri	3 November 2021	Factor Markets
24	Wed	5 November 2021	Factor Markets
25	Wed	10 November 2021	Factor Markets
26	Fri	12 November 2021	General Equilibrium Analysis
27	Wed	17 November 2021	General Equilibrium Analysis Quiz 4: Lecture No. 21-27
28	Fri	19 November 2021	General Equilibrium Analysis
29	Wed	24 November 2021	Market Failure and Imperfections
30	Fri	26 November 2021	Market Failure and Imperfections
Final Exam: Friday, 3 December 2021; 09.00 – 12.00 hrs			

ACADEMIC CALENDAR & HOLIDAY SEMESTER 1/2021

Semester 1/2021 (August 9 - November 27, 2021)	
Classes Begin	August 9, 2021
Add-drop period	August 6 - 15, 2021
Tuition Fee Installment Plan For ID.61-63 only <i>(9 AM - 10.30 PM)</i>	#Round 1 (July 16 – 18, 2021) #Round 2 (August 30 – September 3, 2021) #Round 3 (September 20 – 22, 2021)
<i>H.M. Queen Sirikit The Queen Mother's Birthday*</i>	<i>August 12, 2021</i>
<i>Prince Mahidol Day*</i>	<i>September 24, 2021</i>
Mid-term Examination Period	September 27 - October 3, 2021
Withdrawal period with "W" on record	October 11 - November 15, 2021
<i>H.M. King Bhumibol Adulyadej The Great Memorial Day*</i>	<i>October 13, 2021</i>
<i>Substitution for King Chulalongkorn's Day*</i>	<i>October 22, 2021</i>
<i>King Chulalongkorn's Day*</i>	<i>October 23, 2021</i>
Last day of class for Semester 1/2021	November 27, 2021
Final exam period	November 29-30, December 1-3, 7-9, 11-17, 2021
<i>H.M. King Bhumibol Adulyadej The Great's Birthday*</i>	<i>December 5, 2021</i>
<i>Substitution for H.M. King Bhumibol Adulyadej The Great's Birthday*</i>	<i>December 6, 2021</i>
<i>Constitution Day*</i>	<i>December 10, 2021</i>

Remark * Holiday, No classes during this period