



# B.E. International Program

Faculty of Economics, Thammasat University



## Course Outline

### EE 311 Microeconomics Theory

<b>Semester:</b>	1/2019 (August 13- Dec 16 2019)
<b>Lecture Time:</b>	Section 046401: Wednesdays and Fridays, 11.00 – 13.00 hours Section 046402: Wednesdays and Fridays, 11.00 – 13.00 hours
<b>Lecture Venue:</b>	Section 046401: Room 302, Faculty of Economics Section 046402: Room 303, Faculty of Economics Faculty of Economics, Prachan Campus

### Instructors:

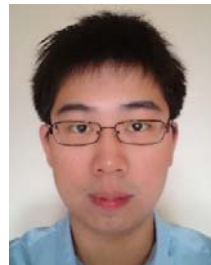


**Asst. Prof. Dr. Phongthorn Wrasai**  
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Office Hours: by appointment



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(Section 046402)

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Office Hours: by appointment

*Prerequisites:* EE 211 and MA 216

**Course Description:** Demand and supply analysis, consumer behavior 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.

**Objectives of the course:**

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 four 15-minute quizzes during class hours, and participate in class discussions.

**Evaluation:**

Midterm Examination	35 %
Homework Assignments	5 %
4 Quizzes	10 %
Final Examination	50 %

Mid-term examination                      35 % (**Friday, October 4, 2019; 11.30 AM – 2.00 PM**)

Final examination                              50 % (**Monday, December 2, 2019; 1.30 – 4.30 PM**)

**Exam periods: (no class)**

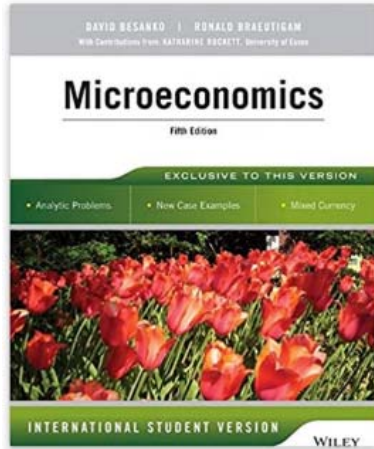
Midterm: Sep 30- Oct. 5

Final:     Dec 2-4, 6-9, 11-16

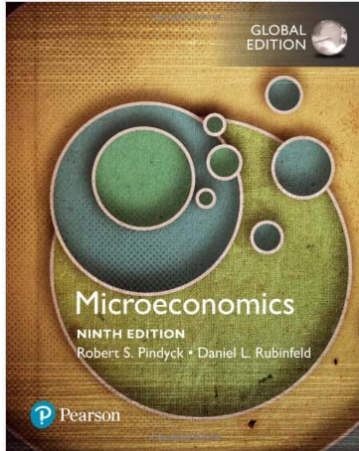
**Main Textbooks**

There are several textbooks that cover similar material. The first four listed textbooks will be used extensively, especially the first one 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 material 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.

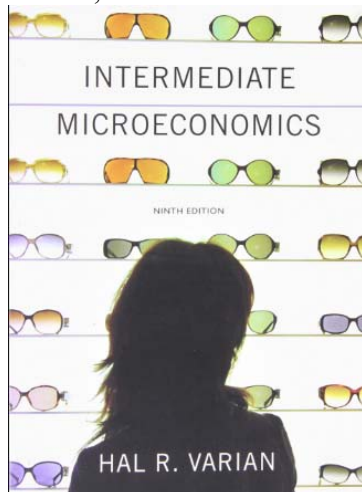
- 1) Besanko, David, and Ronald R. Braeutigam, *Microeconomics*, (5<sup>th</sup> ed.) John Wiley & Sons, 2015 (Hereafter, Besanko) with **WileyPLUS**



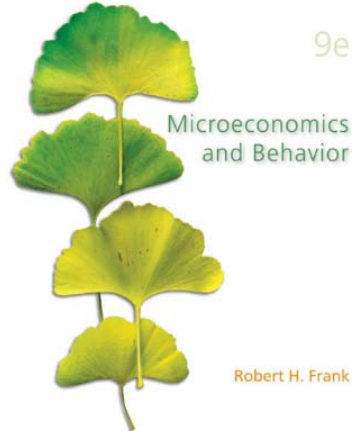
- 2) Pindyck, Robert S. and Daniel E. Rubinfeld. *Microeconomics*, (9<sup>th</sup> ed.), Pearson, 2018.



- 3) Varian, Hal *Intermediate Microeconomics: A Modern Approach*, (9<sup>th</sup> ed.) New York: Norton, 2014.



- 4) Frank, Robert H. *Microeconomics and Behavior*, (9<sup>th</sup> ed.), New York: McGraw-Hill, 2015



- 5) Perloff, *Microeconomics*, ( 8<sup>th</sup> ed.), Pearson, 2018.
- 6) Salvatore, Dominick, *Microeconomics: Theory and Applications* (5<sup>th</sup> ed.), Oxford University Press. 2008.
- 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: Decisions, Markets, and Information* (7<sup>th</sup> ed.), Cambridge University Press, 2005.
- 9) Griffiths, Alan and Stuart Wall, *Microeconomics: Theory & Applications*, London: Longman, 1996.
- 10) Nicholson, Walter, *Intermediate Microeconomics and Its Application*, (12<sup>th</sup> ed.), Cengage Learning, 2015

### Supplementary Reading (for fun):

Frank, Robert. *The Economic Naturalist: In Search of Explanations for Everyday Enigmas* (Paperback). Basic Books (April 7, 2008).

Harcourt, Tim, *The Airport Economist*, Crows Nest: Allen & Unwin, 2008.

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!* Random House Trade Paperbacks (January 30, 2007).

Levitt D. [Steven](#) and [Stephen J. Dubner](#). *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything*, William Morrow; Revised & Expand, Roughcut edition, 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.

[Wheelan](#), Charles. *Naked Economics: Undressing the Dismal Science*. W. W. Norton & Company (September 2003)

### List of Economics Films:

“Star Wars”

Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb (1964)

“A Beautiful Mind” Universal Studios, 2001.

“Norma Rae” Trimark, 1979, video released 2001.

“Speed” Twentieth-Century Fox, 1994.

“The Rainmaker”, Paramount 1997

“Erin Brockovich” Universal, 2000.

“Hero” Miramax, 2004.

“Day After Tomorrow”, Fox 2004.

“An Inconvenient Truth”, 2006 - Capitalism and the environment

“Moneyball”, 2011 - About an econometric model

“Inside Job”, 2010 - -About the 2007-2008 financial crisis

“Margin Call”, 2011 - About the 2007-2008 financial crisis

“The Big Short” 2015 - About the 2007-2008 financial crisis

“The Dark Knight” 2008 - Oligopolies and Game Theory

“Anchorman” 2004 - Efficiency and Externalities

“Indiana Jones” - Demand and Supply

“Margin Call” (2011)

## Some Useful Links

**Freakonomics: A Rogue Economist Explores the Hidden Side of Everything**

<http://freakonomics.com/>



**Nobel Prize in Economic Sciences:** <https://www.nobelprize.org/prizes/lists/all-prizes-in-economic-sciences/>

**Greg Mankiw’s Blog:** <http://gregmankiw.blogspot.com/>

**Hal R. Varian:** <http://people.ischool.berkeley.edu/~hal/>

**Krugman’s Blog:** <http://krugman.blogs.nytimes.com/>

**The Undercover Economist:** <http://timharford.com>

**The Airport Economist :** <http://www.theairporeconomist.com>

**The Economist Magazine:** <http://www.economist.com>

### Interactive Excel Exercises:

There are 11 Interactive Excel Exercises located in <http://econ.tu.ac.th/class/archan/CHAYUNT/Site/EE311.html>

Each exercise contains a mathematical model in which the user can change some parameters that determine the behavior of model to change the equilibrium results and answer accompanies questions. Each exercise also includes a short explanation worksheet to help the user to understand the underlying theory related to the exercise.

### 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.
●	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.
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**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

Week	Topics learning in class	Learners' Activities
<p><b>Week 1</b> (Wed 14, Fri 16 Aug)</p>	<p><b>CHAPTER 3 CONSUMER PREFERENCES AND THE CONCEPT OF UTILITY</b></p> <p><b>3.1 Representations of Preferences</b></p> <ul style="list-style-type: none"> <li>• Assumptions About Consumer Preferences,</li> <li>• Ordinal and Cardinal Ranking</li> </ul> <p><b>3.2 Utility Function</b></p> <ul style="list-style-type: none"> <li>• Preferences with a Single Good: The Concept of Marginal Utility</li> <li>• Preferences with Multiple Goods: Marginal Utility</li> <li>• Indifference Curves, and the Marginal Rate of Substitution</li> </ul> <p><b>3.3 Special Preferences</b></p> <ul style="list-style-type: none"> <li>• Perfect Substitutes</li> <li>• Perfect Complement</li> <li>• The Cobb–Douglas Utility Function</li> <li>• Quasilinear Utility Functions</li> </ul>	<p><b>Read:</b> Besanko, Ch. 3</p>
<p><b>Week 2</b> (Wed 21, Fri 23 Aug)</p>	<p><b>CHAPTER 4 CONSUMER CHOICE</b></p> <p><b>4.1 The Budget Constraint</b></p> <ul style="list-style-type: none"> <li>• How does a Change in Price Affect the Budget Line</li> <li>• How does a Change in Income Affect the Budget Line</li> </ul> <p><b>4.2 Optimal Choice</b></p> <ul style="list-style-type: none"> <li>• Using the Tangency Condition to Understand When a Basket Is Not Optimal</li> <li>• Finding an Optimal Basket</li> <li>• Two Ways of Thinking about Optimality Corner Points</li> </ul> <p><b>4.3 Consumer Choice with Composite Goods</b> Application: Coupons and Cash Subsidies Application: Joining a Club Application: Borrowing and Lending Application: Quantity Discounts</p>	<p><b>Read:</b> Besanko, Ch. 4</p>
<p><b>Week 3</b> (Wed 28, Fri 30 Aug)</p> <p><b>Week 4</b> (Wed 4, Fri 6 Aug)</p>	<p><b>CHAPTER 5 THE THEORY OF DEMAND</b></p> <p><b>5.1 Optimal Choice and Demand</b></p> <ul style="list-style-type: none"> <li>• The Effect of Change in Price</li> <li>• The Effect of Change in Income</li> <li>• The Effect of Change in Price or Income: An Algebraic Approach</li> </ul>	<p><b>Read:</b> Besanko, Ch. 5</p>

	<p><b>5.2 Change in Price of a Good: Substitution Effect and Income Effect</b></p> <ul style="list-style-type: none"> <li>• The Substitution Effect</li> <li>• The Income Effect</li> <li>• The Substitution and Income Effects When Good are not Normal</li> </ul> <p><b>5.3 Change in Price of a Good: The Concept of Consumer Surplus</b></p> <ul style="list-style-type: none"> <li>• Understanding Consumer Surplus from the Demand Curve</li> <li>• Understand Consumer Surplus from the Optimal Choice Diagram: Compensating Variation and Equivalent Variation</li> </ul> <p><b>5.4 Market Demand</b> Market Demand with Network Externalities</p> <p><b>5.5 The Choice of Labor and Leisure</b></p> <p><b>5.6 Consumer Price Indices (CPI)</b></p>	
<p><b>Week 5</b> (Wed 11, Fri 13 Sept)</p>	<p><b>CHAPTER 15 RISK AND INFORMATION</b></p> <p><b>15.1 Describing Risky Outcomes</b></p> <ul style="list-style-type: none"> <li>• Lotteries and Probabilities</li> <li>• Expected Value</li> <li>• Variance</li> </ul> <p><b>15.2 Evaluating Risky Outcomes</b></p> <ul style="list-style-type: none"> <li>• Utility Functions and Risk Preferences</li> <li>• Risk-Neutral and Risk-Loving Preferences</li> </ul> <p><b>15.3 Bearing and Eliminating Risk</b></p> <ul style="list-style-type: none"> <li>• Risk Premium</li> <li>• When Would a Risk Averse Person Choose to Eliminate Risk? Demand for Insurance?</li> <li>• Asymmetric Information: Moral Hazard and Adverse Selection</li> </ul> <p><b>15.4 Analysing Risky Decisions</b></p> <ul style="list-style-type: none"> <li>• Decision Tree Basics</li> <li>• Decision Tree with a Sequence of Decisions</li> <li>• The Value of Information</li> </ul> <p><b>15.5 Auctions</b></p>	<p><b>Read:</b> Besanko, Ch. 15</p>
<p><b>Week 6</b> (Wed 18, Fri 20 Sept)</p>	<p><b>CHAPTER 6 INPUT AND PRODUCTION FUNCTION (QUICK REVIEW &amp; SELF STUDY)</b></p> <p><b>6.1 Introduction to Inputs and Production Functions</b></p>	<p><b>Read:</b> Besanko, Chs. 6, 7, 8</p>

<p><b>Week 7</b> (Wed 25, Fri 27 Sept)</p>	<p><b>6.2 Production Functions with a Single Inputs</b></p> <p><b>6.3 Production Functions with More Than One Input</b></p> <p><b>6.4 Substitutability Among Inputs</b></p> <p><b>6.5 Returns to Scale</b></p> <p><b>6.6 Technological Progress</b></p> <p><b>Appendix: The Elasticity of Substitution for a Cobb-Douglas Production Function</b></p> <p><b>CHAPTER 7 COSTS AND COST MINIMIZATION (QUICK REVIEW &amp; SELF STUDY)</b></p> <p><b>7.1 Cost Concepts for Decision Making</b></p> <p><b>7.2 The Cost Minimization Problem</b></p> <p><b>7.3 Comparative Statics Analysis of the Cost-Minimization Problem</b></p> <p><b>7.4 Short-Run Cost Minimization</b></p> <p><b>CHAPTER 8 COST CURVES (QUICK REVIEW &amp; SELF STUDY)</b></p> <p><b>8.1 Long Run Cost Curves</b></p> <p><b>8.2 Short Run Cost Curves</b></p> <p><b>8.3 Special Topics in Cost</b></p> <p><b>8.4 Estimating Cost Functions</b></p>	
<p><b>MIDTERM EXAM (35%)</b> <b>Friday, October 4, 2019; 11.30 AM – 2.00 PM</b></p>		
<p><b>Week 8</b> (Wed 9, Fri 11 Oct)</p> <p><b>Week 9</b> (Wed 16, Fri 18 Oct)</p>	<p><b>CHAPTER 11 MONOPOLY</b></p> <p><b>11.1 Profit Maximization by a Monopolist</b></p> <p><b>11.2 The Importance of Price Elasticity of Demand</b></p> <p><b>11.3 Comparative Statics for Monopolists</b></p> <p><b>11.4 Monopolist with Multiple Plants and Markets</b></p>	<p><b>Read:</b> Besanko, Ch. 11</p>

	<p><b>11.5 The Welfare Economics of Monopoly</b></p> <p><b>11.6 Why do Monopoly Market Exist?</b></p> <p><b>CHAPTER 12 CAPTURING CONSUMER SURPLUS</b></p> <p><b>12.1 Capturing Consumer Surplus</b></p> <p><b>12.2 First Degree Price Discrimination</b></p> <p><b>12.3 Second Degree Price Discrimination</b></p> <p><b>12.4 Third Degree Price Discrimination</b></p> <p><b>12.5 Tying (Tie-in-Sales)</b></p> <ul style="list-style-type: none"> <li>• Pure Bundling</li> <li>• Mixed Bundling</li> </ul> <p><b>12.6 Advertising</b></p> <p><b>And more pricing strategies on</b></p> <ul style="list-style-type: none"> <li>• Intertemporal Price Discrimination</li> <li>• Peak Loaded Pricing</li> <li>• Two-Part Tariffs</li> </ul>	
<p><b>Week 10</b> (Wed 23, Fri 25 Oct)</p>	<p><b>CHAPTER 14 GAME THEORY AND STRATEGIC BEHAVIOR</b></p> <p><b>14.1 The Concept of Nash Equilibrium</b></p> <ul style="list-style-type: none"> <li>• A Simple Game</li> <li>• The Nash Equilibrium</li> <li>• The Prisoners' Dilemma</li> <li>• Dominant and Dominated Strategies</li> <li>• Games with More Than One Nash Equilibrium</li> <li>• Mixed Strategies</li> <li>• Summary: How to Find All Nash Equilibria in a Simultaneous-Move Game with Two Players</li> </ul> <p><b>14.2 The Repeated Prisoners' Dilemma</b></p> <p><b>14.3 Sequential-Move Games and Strategic Moves</b></p> <ul style="list-style-type: none"> <li>• Analyzing Sequential-Move Games</li> <li>• The Strategic Value of Limiting One's Options</li> </ul>	<p><b>Read:</b> Besanko, Ch. 14</p> <p>On Game Theory, Watch <b>A Beautiful Mind</b></p>

<p><b>Week 11</b> (Wed 30 Oct, 1 Nov)</p> <p><b>Week 12</b> (Wed 6, Fri 8 Nov)</p>	<p><b>CHAPTER 13 MARKET STRUCTURE AND COMPETITION (OLIGOPOLY AND MONOPOLISTIC COMPETITION)</b></p> <p><b>13.1 Describing and Measuring Market Structure</b></p> <p><b>13.2 Oligopoly with Homogenous Products</b></p> <ul style="list-style-type: none"> <li>• The Cournot Model of Oligopoly</li> <li>• The Bertrand Model of Oligopoly</li> <li>• Why are the Cournot and Bertrand Equilibria Different?</li> <li>• The Stackelberg Model of Oligopoly</li> </ul> <p><b>13.3 Dominant Firm Markets</b></p> <p><b>13.4 Oligopoly with Horizontally Differentiated Products</b></p> <ul style="list-style-type: none"> <li>• What is Product Differentiation?</li> <li>• Bertrand Price Competition with Horizontally Differentiated Products</li> </ul> <p><b>13.5 Monopolistic Competition</b></p> <ul style="list-style-type: none"> <li>• Short-Run and Long-Run Equilibrium in Monopolistically Competitive Markets</li> <li>• Price Elasticity of Demand, Margins, and Number of Firms in the Market</li> <li>• Do Price Fall When More Firms Enter?</li> </ul>	<p><b>Read:</b> Besanko, Ch. 13</p> <p>On Perfect Competition and Monopolistic Competition: Watch <b>You've Got Mail.</b></p> <p>On Monopoly and Oligopoly: Watch <b>Do the Right Thing</b></p>
<p><b>Week 13</b> (Wed 13, Fri 15 Nov)</p>	<p><b>FACTOR MARKETS (LABOR)</b></p> <ul style="list-style-type: none"> <li>• <b>The Perfectly Competitive Firm's Short-Run Demand for Labor</b></li> <li>• <b>The Perfectly Competitive Firm's Long-Run Demand for Labor</b></li> <li>• <b>The Market Demand Curve for Labor</b></li> <li>• <b>An Imperfect Competitor's Demand for Labor</b></li> <li>• <b>The Supply of Labor</b></li> <li>• <b>The Noneconomist's Reaction to the Labor Supply Model</b></li> <li>• <b>The Market Supply Curve</b></li> <li>• <b>Monopsony</b></li> <li>• <b>Minimum Wage Laws</b></li> <li>• <b>Labor Unions</b></li> <li>• <b>Discrimination in the Labor Market</b></li> </ul>	<p><b>Read:</b> Frank, Ch. 14, pages 459-482.</p>
<p><b>Week 14</b> (Wed 20, Fri 22 Nov)</p>	<p><b>CHAPTER 16 GENERAL EQUILIBRIUM THEORY</b></p> <p><b>16.1 General Equilibrium Analysis: Two Market</b></p> <p><b>16.2 General Equilibrium Analysis: Many Market</b></p>	<p><b>Read:</b> Besanko, Ch. 16</p>

	<ul style="list-style-type: none"> <li>• The Origins of Supply and Demand in a Simple Economy</li> <li>• The General Equilibrium in Our Simple Economy:</li> <li>• Walras's Law</li> </ul> <p><b>16.3 General Equilibrium Analysis: Comparative Statics</b></p> <p><b>16.4 The Efficiency of Competitive Markets</b></p> <ul style="list-style-type: none"> <li>• What is Economic Efficiency?</li> <li>• Exchange Efficiency</li> <li>• Input Efficiency</li> <li>• Substitution Efficiency</li> <li>• Pulling the Analysis Together: The Fundamental Theorems of Welfare Economics</li> </ul>	
<b>Week 15</b> (Wed 27, Fri 29 Nov)	<p><b>CHAPTER 17 EXTERNALITIES AND PUBLIC GOODS</b></p> <p><b>17.1 Introduction</b></p> <p><b>17.2 Externalities</b></p> <ul style="list-style-type: none"> <li>• Negative Externalities and Economic Efficiency</li> <li>• Positive Externalities and Economic Efficiency</li> <li>• Property Right and the Coase Theorem</li> </ul> <p><b>17.3 Public Goods</b></p> <ul style="list-style-type: none"> <li>• Efficient Provision of a Public Good</li> <li>• The Free-Rider Problem</li> </ul>	<p><b>Read:</b> Besanko, Ch. 17</p> <p>On Externalities: Watch Erin Brockovich (2000), The Pelican Brief, Jurassic Park</p> <p>On Property Rights and the Rule of Law: Watch Jerry Maguire</p>
<p><b>FINAL EXAM (50%)</b> <b>Monday, December 2, 2019; 1.30 – 4.30 PM</b></p>		



## ACADEMIC CALENDAR SEMESTER 1/2019

Event	Semester 1 (August - December 2019)
Classes Begin	August 13, 2019
Adding and Dropping Courses W/O Record	August 13 - 26, 2019
Payment	August 13 - 27, 2019
Mid-term Examination Period	September 30 - October 5, 2019
<i>His Majesty the late King Bhumibol Adulyadej Memorial Day*</i>	<i>October 13, 2019</i>
<i>Substitution for His Majesty the late King Bhumibol Adulyadej Memorial Day*</i>	<i>October 14, 2019</i>
Course Withdrawal With "W"	October 16 - 21, 2019
<i>King Chulalongkorn Memorial Day*</i>	<i>October 23, 2019</i>
Last Day of Classes	November 30, 2019
Final Examination Period	December 2-4, 6-9, 11-16, 2019
<i>The birthday of His Majesty the late King Bhumibol Adulyadej*</i>	<i>December 5, 2019</i>
<i>Constitution Day*</i>	<i>December 10, 2019</i>

**Remark:**

\* Holiday, No classes during this period