



(Tentative) Course Syllabus  
For  
Economics Courses  
Semester 1/2021

## EE100 Academic Writing for Economic Issues

<b>Number of credits:</b>	3 credits (3-0-6)
<b>Lecture Time:</b>	Tuesday, 14.00 – 17.00 hours
<b>Lecture Venue:</b>	Room 203, Faculty of Economics
<b>Instructor:</b>	Eric D. Ramstetter, Room Office Room 470, Faculty of Economics 4F Email: ramstmnc at gmail.com

**Prerequisites:** 2<sup>nd</sup> year student or above *(have taken at least 34 credits)*

### COURSE DESCRIPTION AND OBJECTIVES:

In this seminar-style class, students will first read and summarize a large volume of shorter, simpler papers in economics' journals. Students will write outlines and summaries of the readings, and present them in class. The instructor will correct mistakes as necessary with the assistance of other students in the class. Second, students will write a short essay (see guidelines on p. 7) reviewing the academic economic literature on a topic to be chosen by the student in consultation with the instructor. Students will practice how to outline an essay by sections and paragraphs, how to make paragraphs flow naturally, and how to write, clear, succinct introductions and conclusions, in essays that are easy for the reader to understand.

### COURSE EVALUATION:

A term paper of 3000-3500-words will account for 70% of the course grade. Term papers will survey the economics' literature on the student's chosen research topic; see "Term Paper Guidelines" on p. 6 for details. Class 9 is tentatively scheduled for student presentations of short, preliminary outlines of proposed term papers and related discussions. The purpose of the outline presentations is to help students refine their chosen topic, clearly state the core, analytical question(s) that their survey paper asks, and organize their papers so they become easier to write. Discussions of presentations will also emphasize how students need to read and summarize a large number of academic, refereed papers, and how to cite the papers carefully in the paper and in the list of references. For students planning to write a thesis or dissertation, it may be beneficial to use the term paper as practice for part that thesis or dissertation. The most important principle when writing a paper is to make it very easy for the reader of the paper to find the references cited and evaluate the author's interpretation of those references.

**WARNING: If you plagiarize or fail to cite sources appropriately, you will FAIL THIS CLASS and may be subject to suspension or expulsion from the University for academic dishonesty**

30% of class evaluation will be based on attendance, outlines & presentations, and participation in class discussions. Students will be required to prepare 1-2 page outlines of assigned course readings and term papers, and to present them in class in about 10-15 minutes. In your reading and term-paper outlines, please use no graphics or powerpoint. Rather please only use text and maybe a simple equation or two, in simple Word (docx) format (e.g, 12 point Times New Roman font on A4 paper) so the instructor can add revisions, as appropriate. Please submit all outlines by email to my teaching email (ramtmnc at gmail.com) by 6am of the day of your presentation them. Presentations will be followed by comments from the instructor and general discussion.

Final papers should be submitted in Microsoft Word (docx) or Adobe Acrobat format (pdf) to my teaching email (ramstmnc at gmail.com). Please see the "Term Paper Guidelines" on p. 6 for details. The instructor encourages students to choose a topic related to the subject students are considering for theses or

dissertations, and perhaps eventual publication. An important goal of the class is to help students to learn research and writing techniques necessary to write a good thesis or dissertation, and eventually publish academically. These analytical, statistical, and writing techniques will also be useful in non-academic careers (e.g, business or government).

**CONSULTATIONS:** The instructor will be available for student consultations before and after most classes. It is also possible to make appointments for other times. Please confirm the date and time of appointments by email at least 24 hours before the appointment.

**COURSE MATERIALS:** Course materials will be maintained on a usb drive and on the classroom PC in 2 folders: (1) the "SyllabusAssignmentsReadings" folder will contain this syllabus, a list of reading assignments, and all readings; (2) the "Outlines" will contain all student outlines, which will be made available to all students in the class. Updates to these folders will be provided as necessary. **Please bring a usb flash drive or a PC/tablet with a USB port to class to receive timely updates.**

#### **DETAILED SCHEDULE AND READING LIST (1/4)**

Classes will be Tuesdays at 1400-1700. Makeups will likely be necessary because of holidays and will be announced when confirmed.

#### **Part 1: Economic Growth and Development**

Class 01 11 Aug:

00-Introductions and review of citation methodology; discussion of plagiarism

01a-Feldstein, Martin (2017), "Underestimating the Real Growth of GDP, Personal Income, and Productivity", *Journal of Economic Perspectives* 31 (2): 145-64.

01b-Waldfoegel, Joel (2017), "How Digitization Has Created a Golden Age of Music, Movies, Books, and Television." *Journal of Economic Perspectives* 31 (3): 195-214

Class 02 18 Aug

02a-Gollin, Douglas (2014), "The Lewis Model: A 60-Year Retrospective." *Journal of Economic Perspectives* 28 (3): 71-88.

02b-Mokyr, Joel, Chris Vickers, and Nicolas L. Ziebarth (2015), "The History of Technological Anxiety and the Future of Economic Growth: Is This Time Different?" *Journal of Economic Perspectives* 29 (3): 31-50.

02c-Acemoglu, Daron and James Killian (2019), "Automation and New Tasks: How Technology Displaces and Reinstates Labor", *Journal of Economic Perspectives*, 33(2), 3-30.

02d-Bloom, Nicholas, John Van Reenan, and Heidi Williams (2019), "A Toolkit of Policies to Promote Innovation", *Journal of Economic Perspectives*, 33(3), 163-184.

Class 03 25 Aug

03a-Bernanke, Ben S. (2013), "A Century of US Central Banking: Goals, Frameworks, Accountability." *Journal of Economic Perspectives* 27 (4): 3-16.

03a-Tarullo, Daniel K. (2019), "Financial Regulation: Still Unsettled a Decade After the Crisis", *Journal of Economic Perspectives*, 33(1), 61-80.

03c-Aikman, David, Jonathan Bridges, Anil Kashyap, and Caspar Siegert (2019), "Would Macroprudential Regulation Have Prevented the Last Crisis?", *Journal of Economic Perspectives*, 33(1), 107-130.

03d-Kapur, Devesh (2020), "Why Does the Indian State Both Fail and Succeed?", *Journal of Economic Perspectives*, 34(1), 31-54.

Class 04 01 Sep

04a-Eichengreen, Barry, and Ngaire Woods (2016), "The IMF's Unmet Challenges." *Journal of Economic Perspectives* 30 (1): 29-52.

04b-Ravallion, Martin (2016), "The World Bank: Why It Is Still Needed and Why It Still Disappoints." *Journal of Economic Perspectives* 30 (1): 77-94.

04c-Baldwin, Richard (2016), "The World Trade Organization and the Future of Multilateralism." *Journal of Economic Perspectives* 30 (1): 95-116.

04d-Easterly, William, and Tobias Pfutze (2008), "Where Does the Money Go? Best and Worst Practices in Foreign Aid." *Journal of Economic Perspectives* 22 (2): 29-52.

#### **DETAILED SCHEDULE AND READING LIST (2/4)**

#### **Part 2: Internationalization, Firms, Productivity, and Wages**

Class 05 08 Sept

05a-Bernard, Andrew B., J. Bradford Jensen, Stephen J. Redding, and Peter K. Schott (2007), "Firms in International Trade", *Journal of Economic Perspectives* 21 (3): 105-130.

05b-Melitz, Marc J. and Daniel Trefler (2012), "Gains from Trade when Firms Matter", *Journal of Economic Perspectives*, 26(2), 91-118.

05c-Haskel, Jonathan, Robert Z. Lawrence, Edward E. Leamer, and Matthew J. Slaughter. (2012), "Globalization and U.S. Wages: Modifying Classic Theory to Explain Recent Facts." *Journal of Economic Perspectives* 26 (2), 119-140.

05d-Amiti, Mary, Stephen J. Redding, and David E. Weinstein (2019), "The Impact of the 2018 Tariffs on Prices and Welfare", *Journal of Economic Perspectives*, 33(4), 187-210.

Class 06 15 Sept

06a-Williamson, Oliver E (2002), "The Theory of the Firm as Governance Structure: From Choice to Contract", *Journal of Economic Perspectives* 16 (3): 171-195.

06b-Binder, Ariel J. and John Bound (2019), "The Declining Labor Market Prospects of Less-Educated Men", *Journal of Economic Perspectives*, 33(2), 163-190.

06c-Coile, Courtney C. and Mark G. Duggan (2019), "When Labor's Lost: Health, Family Life, Incarceration, and Education in a Time of Declining Economic Opportunity for Low-Skilled Men", *Journal of Economic Perspectives*, 33(2), 191-210.

06d-Elsby, Michael W. L. and Gary Solon (2019), "How Prevalent Is Downward Rigidity in Nominal Wages? International Evidence from Payroll Records and Pay Slips", *Journal of Economic Perspectives*, 33(3), 185-201.

Class 07 22 Sept

07a-Boeri, Tito, Giulia Giupponi, Alan B. Krueger, and Stephen Machin (2020), "Solo Self-Employment and Alternative Work Arrangements: A Cross-Country Perspective on the Changing Composition of Jobs", *Journal of Economic Perspectives*, 34(1), 170-195.

07b-Athey, Susan and Michael Luca (2019), "Economists (and Economics) in Tech Companies", *Journal of Economic Perspectives*, 33(1), 209-230.

07c-Goldin, Claudia, and Joshua Mitchell (2017) "The New Life Cycle of Women's Employment: Disappearing Humps, Sagging Middles, Expanding Tops", *Journal of Economic Perspectives* 31 (1), 161-182.

07d-Juhn, Chinhui, and Kristin McCue (2017), "Specialization Then and Now: Marriage, Children, and the Gender Earnings Gap across Cohorts." *Journal of Economic Perspectives* 31 (1), 183-204.

No Classes during 28 Sep to 3 Oct (no midterm for this seminar-style class)

Class 08 06 Oct

08a-Alvaredo, Facundo, Anthony B. Atkinson, Thomas Piketty, and Emmanuel Saez (2013), "The Top 1 Percent in International and Historical Perspective." *Journal of Economic Perspectives* 27 (3), 3-20.

08b-Mankiw, N. Gregory (2013), "Defending the One Percent", *Journal of Economic Perspectives* 27 (3): 21-34.

08c-Kaplan, Steven N., and Joshua Rauh (2013), "It's the Market: The Broad-Based Rise in the Return to Top Talent", *Journal of Economic Perspectives* 27 (3): 35-56.

08d-Bivens, Josh, and Lawrence Mishel (2013), "The Pay of Corporate Executives and Financial Professionals as Evidence of Rents in Top 1 Percent Incomes", *Journal of Economic Perspectives* 27 (3): 57-78.

No class 13 Oct (holiday)

### **DETAILED SCHEDULE AND READING LIST (3/4)**

Class 09 20 Oct: All students present paper outlines

### **Part 3: Imperfect Competition, Firms, Market Failures, and Economic Policy**

Class 10 27 Oct

10a-Einav, Liran, and Jonathan Levin (2010), "Empirical Industrial Organization: A Progress Report." *Journal of Economic Perspectives* 24 (2): 145-162.

10b-Basu, Susanto (2019), "Are Price-Cost Markups Rising in the United States? A Discussion of the Evidence", *Journal of Economic Perspectives*, 33(3), 3-22.

10c Berry, Steven, Martin Gaynor, and Fiona Scott Morton (2019), "Do Increasing Markups Matter? Lessons from Empirical Industrial Organization", *Journal of Economic Perspectives*, 33(3), 44-68.

10d-Shapiro, Carl (2019), "Protecting Competition in the American Economy: Merger Control, Tech Titans, Labor Markets", *Journal of Economic Perspectives*, 33(3), 69-93.

Class 11 05 Nov

- 11a-Baker, Jonathan B. (2003), "The Case for Antitrust Enforcement." *Journal of Economic Perspectives* 17 (4): 27-50.
- 11b-Lamoreaux, Naomi R. (2019), "The Problem of Bigness: From Standard Oil to Google", *Journal of Economic Perspectives*, 33(3), 94-117.
- 11c-Basker, Emek (2007), "The Causes and Consequences of Wal-Mart's Growth." *Journal of Economic Perspectives* 21 (3): 177-198.
- 11d-Lang, Kevin and Ariella Kahn-Lang Spitzer (2020), "Race Discrimination: An Economic Perspective", *Journal of Economic Perspectives*, 34(2), 68-89

Class 12 12 Nov

- 12a-Goolsbee, Austan D. and Alan B. Krueger (2015), "A Retrospective Look at Rescuing and Restructuring General Motors and Chrysler", *Journal of Economic Perspectives*, 29(2), 3-24
- 12b-Syverson, Chad (2019), "Macroeconomics and Market Power: Context, Implications, and Open Questions", *Journal of Economic Perspectives*, 33(3), 23-43.
- 12c-Hoynes, Hilary, Douglas L. Miller, and Jessamyn Schaller (2012), "Who Suffers During Recessions?", *Journal of Economic Perspectives*, 26(3), 27-48.
- 12d-Hall, Robert E. (2010), "Why Does the Economy Fall to Pieces after a Financial Crisis?", *Journal of Economic Perspectives* 24 (4): 3-20.

## DETAILED SCHEDULE AND READING LIST (4/4)

### Part 4: Externalities and Market Failures: Environment, Health, and Human Capital

Class 13 19 Nov

- 13a-Auffhammer, Maximilian (2018), "Quantifying Economic Damages from Climate Change", *Journal of Economic Perspectives*, 32(4), 33-52.
- 13b-Gillingham, Kenneth and James H. Stock (2019), "The Cost of Reducing Greenhouse Gas Emissions", *Journal of Economic Perspectives*, 32(4), 53-72
- 13c-Banzhaf, Spencer, Lala Ma, and Christopher Timmins (2019), "Environmental Justice: The Economics of Race, Place, and Pollution", *Journal of Economic Perspectives*, 33(1), 185-208.
- 13d-Allcott, Hunt, Benjamin B. Lockwood, and Dmitry Taubinsky (2019), "Should We Tax Sugar-Sweetened Beverages? An Overview of Theory and Evidence", *Journal of Economic Perspectives*, 33(3), 202-227.

Class 14 26 Nov

- 14a-Kulp, Scott A. and Benjamin H. Strauss (2019), "New elevation data triple estimates of global vulnerability to sea-level rise and coastal flooding", *Nature Communications*, (2019) 10:4844 | <https://doi.org/10.1038/s41467-019-12808-z> | [www.nature.com/naturecommunications](http://www.nature.com/naturecommunications).
- 14b-Hsiang, Solomon and Robert E. Kopp (2018), "An Economist's Guide to Climate Change Science", *Journal of Economic Perspectives*, 32(4), 3-32.
- 14c-Goulder, Lawrence H (2013), "Markets for Pollution Allowances: What Are the (New) Lessons?" *Journal of Economic Perspectives* 27 (1): 87-102.
- 14d-Kling, Catherine L., Daniel J. Phaneuf, and Jinhua Zhao (2012), "From Exxon to BP: Has Some Number Become Better Than No Number?" *Journal of Economic Perspectives* 26 (4): 3-26.

### Class 15 to be decided

- 15a-Currie, Janet and Reed Walker (2019), "What Do Economists Have to Say about the Clean Air Act 50 Years after the Establishment of the Environmental Protection Agency?", *Journal of Economic Perspectives*, 33(4), 3-26.
- 15b-Schmalensee, Richard and Robert N. Stavins (2019), "Policy Evolution under the Clean Air Act", *Journal of Economic Perspectives*, 33(4), 27-50.
- 15c-Keiser, David A. and Joseph S. Shapiro (2019), "US Water Pollution Regulation over the Past Half Century: Burning Waters to Crystal Springs?", *Journal of Economic Perspectives*, 33(4), 51-75.
- 15d-Zheng, Siqi, and Matthew E. Kahn (2017), "A New Era of Pollution Progress in Urban China?" *Journal of Economic Perspectives* 31 (1): 71-92.

**Essay Guidelines, submit to "ramstmnc [at] gmail.com",  
deadline will be announced after the date of class 15 (makeup for 13 August) is determined**

1. Topic: Please help the instructor and other students develop a list of potential topics. **In classes 7 and 8,** please identify at least 3 topics that interest you and write a proposed title and a short (3-5 sentences) paragraph describing each topic you identify. Please choose topics are sufficiently specific as to be easily discussed in about 5 pages (or about 2500 words), but not so narrow as to be irrelevant or difficult to find research references about the topic. Initially, most students tend to choose topics that are too broad to

analyze clearly, making it very difficult to write a clear, coherent essay. Correspondingly, the instructor and students will collaborate to develop a list of specific topics from which students will choose. An important goal of the class is to help students to learn research and writing techniques necessary to write longer papers or theses or eventually publish academically if that is the goal. The analytical, statistical, and writing techniques used will also be useful in non-academic careers (e.g, business or government).

2. Structure: Please write a simple review of the economics literature on the topic you choose using the following, simple structure.

- a. Introduction (1-2 paragraphs, maximum of about 1 page double-spaced, explaining the major analytical questions considered in the essay and the essay's structure)
- b. Main body of the essay (about 3 pages double-spaced, text only)
- c. Conclusion (1-2 paragraphs, maximum of about 1 page double-spaced, explaining the major conclusions of your essay.
- d. References (about 1 page single-spaced, for about 15 references)

3. Bibliography and references: Please use the author (year) reference style similar to that in the list class readings above. Please be sure to review AT LEAST 10 academic papers in your essay and include a list of references giving standard bibliographic details for each paper that allows the reader to easily find the referenced paper. Please use primarily papers that have been refereed and published in international journals, such as papers used for this class. The *Journal of Economic Literature* and the *Journal of Economic Surveys*, as well as the class materials are good journals to begin your literature search with because they contain a large number of literature surveys on a wide range of topics.

4. Citations: In the course of writing your literature review essay, you will have to refer to previous studies. It is important to cite those sources clearly so you can avoid plagiarism and so the reader can easily verify the validity of your statements. Statistical sources should be cited in a similar way as academic papers. The simplest method of citation is to the author (year) system. If paraphrasing someone, you would say something like Keynes (1936, p. 250) emphasized the volatility of investment flows and their effects on economic cycles. If making a direct quote, please be use quotation marks: Keynes (1936, p. 250) emphasized how economists often failed to understand the implications of the "animal spirits of investors" for economic cycles.

5. Essay length: 2500 words or less, including references, notes, etc.; ideally about 5 A4 pages, using Times Roman 12 point font, spacing =double (2) for the text, and spacing =single (1) tables and reference lists. Length may vary as necessary to cover your topic, but essays should be no more than 7-8 pp. including tables and references. Shorter essays are generally better essays.

6. Format: Please submit the paper in one file in Adobe Acrobat v11 or earlier format (\*.pdf) or in Word 2016 or earlier format (\*.docx, \*.doc) format.

## EE200 Data Science for Economic Analysis

**Number of credits:** 3 credits

### **Course description**

Learning to work with data. Topics include (1) data sampling and cleaning (2) data storage and management (3) exploratory data analysis (4) prediction based on statistical tools such as regression, classification and clustering (5) communication of results through visualization and summary statistics. Students learn through real--world examples using programs such as advanced MS Excel, Python or R..

**Prerequisite:** 2nd year student or above.  
*(have taken at least 34 credits)*

### **Course objective:**

In this course, students will learn to conduct data analysis and project on their topic of interest. Since this course focuses on economic issues, your topic and group project should be related to either microeconomics or macroeconomics. What the course will do is to stimulate an active-learning environment. Unlike most of the other classes you have attended, there won't be that many lectures. My role in this class will be a coach and conductor, rather than a lecturer.

This course divides into two significant parts. In the first part, I hope to introduce you to essential elements of a proper idea about the data and data science. To do this, we will discuss how to come up with meaningful linkages between business, economics, and data. We will then discuss different components of standard data (your team paper). This part includes an introduction, literature review, theoretical framework, data acquisition, data management, prediction, and visualization of findings. You will be assigned to read and practice on data science projects as well as past seminar papers. The students will work on the suggested data and coding project.

In the second part, you will gradually take more roles in class. Each of you and your time will take a turn to present your topic, related literature, theoretical framework, methodology, and findings. Other students will pay close attention to your presentation. They will then come up with constructive comments and suggestions to improve your data science project. Occasionally, we will turn the class into individual meetings and team meetings. The course is where you discuss specific questions regarding your data science project and data skill with me.

### **Textbooks:**

There is no textbook for this course. However, I will post some useful articles on Google Classroom. There is also a list of readings that will be in Google classroom

**Suggested readings by topics will be available after knowing you guys:**

#### **1. Data Science: business, computer, and statistics and mathematics**

Data Literacy, Fact, and Truth.

Talk to me.

Design Thinking:

OKRs:

Designing Your Life:

The Book of Why:

3 Dimensions of Data Science, Statistics, and Econometrics.

<https://clevertap.com/blog/data-science/>

<https://www.vox.com/the-highlight/2019/5/14/18520783/harvard-economics-chetty>

Data Science (MIT Press Essential Knowledge series)

Data for the People: How to Make Our Post-Privacy Economy Work for You

by Andreas Weigend

Everybody Lies: Big Data, New Data, and What the Internet Can Tell Us About Who We Really Are  
by Seth Stephens-Davidowitz

<https://datarockie.com/free-data-science-books/>

Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy

<https://www.businessinsider.com/netflix-facebook-cambridge-analytica-documentary-trailer-great-hack-2019-7>

## 2. Data Sampling and Cleaning

<https://towardsdatascience.com/sampling-techniques-a4e3411d808>

[http://siteresources.worldbank.org/INTPOVRES/Resources/477227-1142020443961/2311843-1142870725726/2337154-1328041661816/8405489-1342716080957/12-StataforSampling2012\(KristenHimelein\).pdf](http://siteresources.worldbank.org/INTPOVRES/Resources/477227-1142020443961/2311843-1142870725726/2337154-1328041661816/8405489-1342716080957/12-StataforSampling2012(KristenHimelein).pdf)

<https://www.tableau.com/learn/whitepapers/data-prep-best-practices>

## 3. Data Storage and Management

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.661.538&rep=rep1&type=pdf>

<https://www.bmc.com/blogs/data-lake-vs-data-warehouse-vs-database-whats-the-difference/>

## 4. Exploratory Data Analysis: Describe or Explain

- Tabulation
- Excel
- Pivot
- Power BI
- Stata®
- R
- Python

Book of Why

Causal Inference in Statistics

Angrist, Joshua D., and Jörn-Steffen Pischke. Mastering 'Metrics: The Path from Cause to Effect.  
Princeton: Princeton University Press, 2015.

## 5. Prediction

- Machine Learning basic form.

<https://bruegel.org/2018/11/machine-learning-and-economics/>

Criteria for prediction

- Is it about causation?

[http://www.equality-of-opportunity.org/bigdatacourse\\_stanford/](http://www.equality-of-opportunity.org/bigdatacourse_stanford/)

Mullainathan, Sendhil, and Jan Spiess. 2017. "Machine Learning: An Applied Econometric Approach." *Journal of Economic Perspectives* 31 (2): 87-106.

Stock, James H. and Mark W. Watson. Introduction to Econometrics. 4th Edition. Boston: Pearson, 2018. Note: earlier editions and all international editions printed in English are acceptable.

## 6. Communication and Visualization

- Storytelling with data
- Show and Tell
- Draw to Win
- Dashboard White Paper from Tableau
- Ted Talk by Han Rosling
- Ted Talk by Simon Sinek

Other teaching materials:

If there is any PowerPoint presentation, the file(s) will be on Google Classroom.

**Evaluation:**

- |   |     |
|---|-----|
| 1. Group Review of Literature AKA book review                       | 10% |
| 2. Group Presentations on software and coding comparison on Gartner | 10% |
| 3. Group presentations of project and coding requirement            | 10% |
| 4. Group work on data visualization or dashboard:                   | 20% |
| 5. Group work on Python or R replication                            | 10% |
| 6. Final data science project and Communication                     | 40% |

**Data Science Projects:** A vital element of the course will be five small data projects, and final data science project, which will give students hands-on experience in working with data. We recommend and will support using the statistical software program like Stata® and Excel® for these projects, but students are welcome to use other applications (e.g., Power BI, R, Python, Tableau, RapidMiner, Alteryx), provided that their code and workflow are clear. The group projects are designed to be more substantial than traditional problem sets and will include significant coding, reading, and writing elements that will give students a sense of how data scientists work.

**Collaboration Policy:** Discussion and the exchange of ideas and works are essential to data science work. You and your teams are encouraged to consult and discuss with your classmates on the data projects and to share resources and codes. However, you should ensure that any work you submit for evaluation is the result of your work and that it reflects your integrity. You should also understand and practice the standard citation practices, and please cite any books, articles, websites, lectures, etc. that have helped you with your work. If you received any help with your work (e.g., feedback on drafts, help with code, or programming), you must also acknowledge and give credit to this assistance.

**Your final Data Science Project**

The project should be between 20-25 pages long presentation, including graphs, tables, dashboards, and figures (excluding bibliography and appendices). The paper should be composed of 5 main parts: 1) introduction 2) literature review 3) theoretical framework and methodology, and 4) findings 5) conclusion. We will discuss each section in more detail in class.

(This schedule is subject to change. Please see Google Classroom for changes to dates, etc.)

Class	Topics
10 Aug	Introduction - Review of Course and Data Science Resource. Identification of your project and install your tools.  Conduct Group Meetings to identify your topics, relevant literature, and Data Science Tool.
17 Aug	Introduction - Review of Course and Data Science Resource. Identification of your project and install your tools.  Conduct Group Meetings to identify your topics, relevant literature, and Data Science Tool.
24 Aug	<i>Book Review presentation</i>
31 Aug	<i>Workshop on Excel or PowerBI</i>
7 Sep	<i>Group presentation of Dashboard.</i>

Class	Topics
14 Sep	<i>Workshop on Tableau or Power BI</i>
21 Sep	<i>Workshop - R or Python</i>
<b>---- Midterm Exam: Submission of Data Science Project Interim Report</b>	
5 Oct	<i>Workshop - R or Python</i>
12 Oct	<i>Workshop - R or Python</i>
19 Oct	<i>Workshop - R or Python</i>
26 Oct	<i>Orange for Machine Learning</i>
2 Nov	<i>Orange for Machine Learning</i>
9 Nov	<b><i>SAS Programming</i></b>
16 Nov	<i>SAS Programming</i>
23 Nov	<i>Presentation of SAS Project</i>
<b>---- Final Project Presentation: Wednesday, TBA</b>	

# EE301 History of Thai Economy

**Number of credits:** 3 credits

## Course description

This course focuses on developing students' critical understanding the development of the Thai economy. The course explores changes and transformation in economic, political, and societal aspects of Thailand. The major attempt of this course is to examine the divergence between the "city" and the "rural". Such an attempt is done together with the investigation of the roles of Thai politics in contributing to such a divergence. Hence, in addition to the look into economic aspects, the course also explores the political aspects. The course puts the emphasis on exploring the changes associate with 3 groups of actors; 1) the Chinese merchants; 2) the peasants; and 3) the elite. These groups are explained as the main "drivers" of changes in the Thai economy.

## Prerequisites: none

The historical period that this course focuses on is the "Rattanakosin (Bangkok) Period". Nonetheless, the late Ayutthaya and the Thonburi periods also receive some attention. The examination of the Bangkok period starts with the revival of Ayutthaya Siam, and proceeds to investigate the rise of Absolutism in Thailand. The course then investigates the fall of Thai absolutism and the causes and consequences of 2475 revolution. The exploration of modern Siam followed, starting with the look into the post 2475 conflicts that culminated in the rise of Sarit Thanarat and his long era of Thai development authoritarianism. The final parts of the course then examine the end of Sarit-Thanom authoritarian regime, the eventual liberalisation and growth of the Thai economy, and the economic crisis of 1997.

## Course objectives

To develop the critical insights into the roots of inequality in Thailand, by creating the understanding of the following aspects

1. The changing lives of Thai farmers
2. The changing lives of Thai nobles, merchants, and labour
3. The economic and political factors that had driven the above changes, including the changing relationships between actors such as the monarchy, aristocrats, military, merchants, peasants, and labour.
4. The international factors that influence the changes in Thailand.

## Main Textbook\*\*(all students must read the main textbook)

- Pasuk Phongpaichit and Chris Baker (2002). *Thailand: Economy and Politics*, KL: Oxford University Press

## Suggested readings

- Jeffery Sng and Pimpraphai Bisalputra. (2015). *A History of the Thai-Chinese*. Didier Millet, CSI.

## Lecture Notes

- Thorn Pitidol, EE301 Thai Economic History Lecture Note, Semester 1/2017

Please see additional readings for each topic from the topics

## Evaluation

Mid-term exam (Friday, October 5, 2018)	30	percent
Final exam (Thursday, December 6, 2018)	45	percent
Discussions and participation	10	percent
Essay	15	percent

The details of discussions and the essay will be announced in class.

**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.

#### 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.

### Topics

#### Topic 1: From late Ayutthaya to early Rattanakosin

- Ayutthaya: Reunderstanding the old Siam state
  - Peace and Commerce
  - An Urban and Commercial Society
  - The Fall of Ayutthaya
- Moving on to Thonburi and Bangkok
- The restoration of Ayutthaya in early Rattanakosin: basic economic and political challenges
- Chinese merchants in early Rattanakosin: birth and influence of Siam bourgeoisie
- Thai villages in the past: key arguments and debates of Thai communities

#### *Additional reading*

- Chris Baker and Pasuk Phongpaichit (2017). *A History of Ayutthaya: Siam in the Early Modern World*. Cambridge University Press.
- Chattip Nartsupha (1999) *Thai Village Economy in the Past*. Translated by Pasuk Phongpaichit and Chris Baker. Bangkok: Silkworm

#### Topic 2: The reform of Rama V

- The aftermath of Bowring Treaty and the transformed nature of the Thai farmers
  - The rise of Klongs and the birth of small independent farmers
- The tax-collectors, the Western companies, and Royal businesses
- The rise of Siam Absolute State
  - Rama V's reform
  - The building of Siam's modern state
    - Ideological apparatuses
    - Bureaucratic systems
    - Implications of Siam's fragmented and inefficient state

*Additional reading*

Kullada Kesboonchoo Mead (2004) *The rise and decline of Thai absolutism*. New York: Routledge Curzon, 2004.

**Topic 3: The fall of absolutism and the 2475 revolution**

- The persisting problems of Thai farmers
- The new group of Chinese merchants
- 22 years from the height of absolute monarchy to 1932 revolution.
  - What exactly was 1932 revolution?

**Topic 4: The rise of Sarit Thanarat and his authoritarian developmental state**

- Post 2475 conflicts
  - Phibul’s military nationalism and the Pridi’s socialism
  - The rise of bureaucratic capitalism
- Cold war and the rise of Sarit Thanarat
- From Phibul's nationalist economic policies to Sarit's development plans
  - The rise of Bankers' Capitalism and the rent-allocating economy
  - Import-substitution and foreign direct investment
- Thai farmers under development plans
  - Disintegrating farmers' societies
  - The expansion of upland farmers

*Additional reading*

- Suehiro, Akira (1996) *Capital Accumulation in Thailand 1855–1985*. Bangkok: Silkworm Books

**Topic 5: From October events to the 1997 economic crisis**

- The two Octobers: The uprising of farmers and students movements
- The export-oriented growth and economic liberalisation
- 1997 economic crisis: causes and consequences

*Additional reading*

- Hewison, Kevin (1999). *Thailand Capitalism: The Impact of the Economic Crisis*. UNEAC Asia Paper, No.1 1999.
- Hewison, K. (2001). Resisting globalization: A study of localism in Thailand. *The Pacific Review*, 13(2), pp. 279-96.
- McCargo, Duncan. (2001). Populism and reformism in contemporary Thailand, *South East Asia Research*, 9, 1, pp. 89–107.

**Teaching schedule**

Week	Content	
Week 1	Introduction to the course	Ayutthaya: Peace and Commerce
Week 2	Ayutthaya: Society	Fall of Ayutthaya and Thonburi
Week 3	Early Rattanakosin : restoration of Ayutthaya	Early Rattanakosin Chinese Merchants
Week 4	Thai village in the past	Thai village in the past
Week 5	Bowring treaty	Klongs and rice farmers
Week 6	Tax-collectors and foreign businesses	Building the Absolutist Modern State
Week 7	Building the Absolutist Modern State	The fall of Thai Absolutism
Week 8	Mid-term exam	
Week 9	2475 Revolution	Post 2475 Conflict

Week 10	Phibul's Nationalism	Phibul's Economic Nationalism
Week 11	Cold War and the rise of Sarit	The rise of Bankers' Capitalism
Week 12	Import-substitution	Import-substitution
Week 13	Peasants during National Development Plan	Peasants during National Development Plan
Week 14	From 1976-1979 October	Export-Oriented: Miracle
Week 15	Export-Oriented: New capitals	1997 economic crisis
Week 16	Onward from 1997 economic crisis	Conclusion to the course

# EE403 Law and Economics

**Number of credits:** 3 credits

## Course Description

Thailand's Legal System. The relationship between law, economy, and politics. Applying economic theory to analyze reasons for the existence of property rights, civil, and commercial law. The effects of law on economic behavior and on economic outcomes.

**Prerequisites:** a) EE210 or  
b) EE211 and EE212 or  
c) EE213 and EE214

## Evaluation

Mid-term examination	40	points
Final examination	60	points

## Textbook

Robert B. Cooter, T. 2011. . *Law and Economics, 6th Edition* . Prentice Hall.

## Topics

### 1. An Introduction to Law and Economics

- I. What Is the Economic Analysis of Law?
- III. The Primacy of Efficiency Over Distribution in Analyzing Private Law
- IV. Why Should Lawyers Study Economics? Why Should Economists Study Law?

*Reading: Chapter 1.*

### 2. A Brief Review of Microeconomic Theory

- I. Overview: The Structure of Microeconomic Theory
- II. Some Fundamental Concepts: Maximization, Equilibrium, and Efficiency
- III. The Theory of Consumer Choice and Demand
- V. Game Theory
- VI. General Equilibrium and Welfare Economics
- VII. Decision Making Under Uncertainty: Risk and Insurance
- VIII. Behavioral Economics

*Reading: Chapter 2.*

### 3. A Brief Introduction to Law and Legal Institutions

- I. The Civil Law and the Common Law Traditions
- II. The Institutions of the Federal and the State Court Systems in the United States
- III. The Nature of a Legal Dispute
- IV. How Legal Rules Evolve

*Reading: Chapter 3.*

### 4. An Economic Theory of Property

- I. The Legal Concept of Property
- II. Bargaining Theory
- III. The Origins of the Institution of Property: A Thought Experiment
- IV. An Economic Theory of Property

- V. How are Property Rights Protected?
  - VI. What Can be Privately Owned?—Public and Private Goods
  - VII. What May Owners Do with Their Property?
  - VIII. On Distribution
- Reading: Chapter 4.*

**5. Topics in The Economics of Property Law**

- I. What can be Privately Owned?
  - II. How are Property Rights Established and Verified?
  - III. What May Owners Do with Their Property?
  - IV. What are the Remedies for the Violation of Property Rights?
- Reading: Chapter 5.*

**6. An Economic Theory of Tort Law**

- I. Defining Tort Law
- II. An Economic Theory of Tort Liability

*Reading: Chapter 6.*

**7. An Economic Theory of Contract Law**

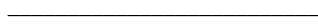
- I. Bargain Theory: An Introduction to Contracts
- II. An Economic Theory of Contract Enforcement
- III. An Economic Theory of Contract Remedies
- IV. Economic Interpretation of Contracts
- V. Relational Contracts: The Economics of the Long-Run

*Reading: Chapter 8.*

**8. An Economic Theory of Crime and Punishment**

- I. The Traditional Theory of Criminal Law
- II. An Economic Theory of Crime and Punishment

*Reading: Chapter 12.*



# EE404 History of Economic Thought

**Number of credits:** 3 credits

## Course Content

*Development of economic thought from the mercantilist period up to mid twentieth century, emphasis on the influences of economic problems in each period on the development of economic thought.*

## Course Description

Development of economic thinking, from the pre-classical period up to the twentieth century. Examples are agricultural doctrine, mercantilism, classical, neoclassical, Keynesian, socialism, post-Keynesian, and Institutional Economics. Emphasis is given to the underlying philosophies, essential concepts, and the influence of economic problems on formulating economic thought in every period.

## Prerequisites:

a) EE210 or b) EE211 and EE212 or c) EE213 and EE214

## Course Objectives:

This course is designed to expose the students to the history of economic thought. Students will learn about the intellectual thought patterns and assumptions of various periods of history, and how those patterns influenced, and were influenced by, economic thought. Numerous previous theories, some forerunners of modern theories, others dead-end theories that have since been abandoned, will be studied - including Mercantilism, the Physiocrats, Marxism, Marginalists, Neoclassical, Keynesians, Chicago, Institutionalists, Welfare Economics, Public Choice, the New Institutionalists, and Austrians. By the end of the semester students will know where the theories they are learning in other classes came from, and something about the many other approaches that have been tried throughout history.

The course seeks to make sure students can:

- 1) Detect and identify the main differences between differing schools of thought.
- 2) Understand the historic debates that occurred throughout history, debates that shaped and were shaped by the theories.
- 3) Understand the historic periods that served as a background for the debates, often shaping the debates in ways outside of pure "theory".
- 4) Use the knowledge gained to better understand contemporary debates and issues.

## Text:

The History of Economic Thought (8th Edition), Stanley L. Brue and Randy R. Grant

## Notes, Note taking, and Attendance

I DO NOT use power point, I lecture and use the board. I give each lecture off of prepared notes, which will be available the day before class on google classroom or through moodle. I would recommend that you print out a copy of them for yourselves, many students find they help to follow the lecture. DO NOT assume that the notes are a substitute for the lecture, I use the notes to remind myself of what points I want to cover, in what order. But parts of the notes are not understandable without the lecture to explain them.

## Moodle and Google Classroom:

The moodle code for the course is **2589**. The Google Classroom Code is **trgnym7**

I don't typically use moodle all that much, but I do use google classroom for the notes and to contact students via email the class when there is a schedule change or an announcement. In the event that the Wuhan Flu returns, and the University shuts down again, class will then be maintained via zoom, and

**Cheating:**

Don't. If you do, and I catch you, you will be reported to the program director for appropriate punishment. At a minimum, you will receive a zero on the assignment you are caught cheating on, other punishments include automatically failing the course, and being suspended for one (or more) semesters.

**Evaluation:**

The class evaluations will be based on two exams, a midterm and a final. The midterm will be 1½ hours in length, the final will be 3 hours in length. Students will have a choice of what questions to answer. A sample exam will be passed out before the first exam.

Each exam is worth a percentage of your grade as given below. The Midterm exam will cover material from the first half of class, the Final exam will be comprehensive, though weighted towards materials studied in the second half of the semester. The exam schedule is given below:

Midterm Exam: 40%

Final Exam: 60%

**Topics and Class Schedule: (This may change as the semester progresses; I will keep it up to date online)**

**Expected Learning Outcomes:**

**2. Morality and Ethics**

Applicability	Learning Goals	Expected Learning Outcomes
○	1.6 Students demonstrate integrity.	Do so
○	1.7 Students prioritize social and public benefits over personal ones.	Will be able to recognize all the problems with this goal
○	1.8 Students are punctual and comply with the code of conduct of the institution and society at large.	Become a Man
○	1.9 Students are responsible and accountable to society, the nation, and the subject of economics.	Learn your stuff
○	1.10 Students realize the cultural and environmental value of the sustainable society.	To understand why Sustainable, and Profitable, are the same

### 3. Knowledge

Applicability	Learning Goals	Expected Learning Outcomes
○	2.6 Students know and understand modern economics principles and theories, and are up to date with new developments.	
●	2.7 Students know and understand Thai and global economic structure, and the importance of major international economic events.	Understand the importance of the History of Economic Thought on Thai economic development
●	2.8 Students know and understand instruments of economic analysis.	Know how we got to where we are.
○	2.9 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.	
○	2.10 Students are informed about related fields including sociology, business administration, education, law policy, and science.	

### 4. Intellectual Development

Applicability	Learning Goals	Expected Learning Outcomes
●	3.4 Students have developed individual critical thinking.	Per Exams
●	3.5 Students are sufficiently trained in research skills.	N/A
●	3.6 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.	Per Exams

## 5. Interpersonal Skills and Responsibilities

Applicability	Learning Goals	Expected Learning Outcomes
○	6.1 Students are responsible for assigned tasks and work in groups effectively.	
○	6.2 Students have problem-solving skills.	
○	6.3 Students show leadership skills and team spirit.	
●	6.4 Students are always improving themselves.	Do so
○	6.5 Students have good interpersonal skills, adapting and working under different conditions.	

## 6. Quantitative Analysis, Communication and Information Technology

Applicability	Learning Goals	Expected Learning Outcomes
○	8.1 Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	
●	8.2 Students communicate effectively and select appropriate presentation methods.	No presentations required, but participate in class discussions
●	8.3 Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	Do so.

## Teaching Plan and Class Schedule

Date	Topic	Readings
Week 1	Class 1: Introduction, The Greeks, Romans, the Middle Ages  Class 2: The Mercantilists	<b>Online Readings (Not Required), Chapter 1</b>

		<b>Chapter 2</b>
Week 2	Class 3: The Physiocrats Special Topics: Economic History vs. History of Economic Thought  Class 4: The Classical School I - Adam Smith	<b>Chapter 3</b>  <b>Chapter 4</b>
Week 3	Class 5: The Classical School II - Adam Smith  Class 6: The Classical School III - Malthus, Say	<b>Chapter 5</b>  <b>Chapter 6</b>
Week 4	Class 7: The Classical School IV - David Ricardo  Class 8: The Classical School V - David Ricardo	<b>Chapter 8</b>
Week 5	Class 9: The Classical School VI – Bentham  Class 10: The Classical School VII Senior, Mill	<b>Chapter 7</b>
Week 6	Class 11: The Socialists  Class 12: The Socialists II	<b>Chapter 9</b>
Week 7	Class 13: The Marxists I  Class 14: The Marxists II	<b>Chapter 10</b>  <b>Supplemental Handout</b>
<b>October 1</b>	<b>Midterm, 12.00 – 14.00 hrs.</b>	
Week 9	Class 15: German Historical School  Class 16: The Institutionalists, the Austrians	<b>Chapter 11</b>  <b>Chapter 19</b>
Week 10	Class 17 -18: The Marginal Revolution I The Marginal Revolution II	<b>Chapter 12 (optional)</b> <b>Chapter 13</b> <b>Chapter 14</b>
Week 11	Class 19 - 20: The Neoclassical School I (Marshall) The Neoclassical School II (Monetary)	<b>Chapter 15</b>  <b>Chapter 16</b>
Week 12	Class 21: The Neoclassical School III (Imperfect competition)	<b>Chapter 17</b>

	Class 22: Game Theory	Supplemental Readings – we may skip this depending on time
Week 13	Class 23-24: Welfare Economics I Welfare Economics II (Public Choice)	Chapter 20 Supplemental Readings
Week 14	Class 25-26: The Keynesian Revolution The Keynesian Revolution II	Chapter 21, 22
Week 15	Class 28-30 Chicago I Chicago II	Chapter 24
Week 16	TBA, Review for Final Exam	
	Final Exam	

# EE406 Contemporary Economic Issues

**Number of credits:** 3 credits (3-0-6)

## Course Description:

EE406 is a general introduction to the subject matter and methods of economics, through the investigation of specific contemporary economic issues such as economic growth, inequality, poverty, and environmental deterioration.

The course's teaching assistants are Annop Jaewisorn, Parinya Mingsakul, and Halit Sriputkeat.

## Course Objectives:

This course aims to provide students with a general knowledge about "contemporary" economic issues such as that of inequality, poverty, labour market institutions, social welfare, and environmental deterioration. To do so, the course will spend its focus on epidemics, and the significance of its relationship to the economy, politics, as well as historical changes.

The course is therefore naturally quite a departure from orthodox economics – and offer a more interdisciplinary approach to economic analyses. By doing so, we aim to

1. Equip students with tools to understand economic issues using definitions, principles, measurement, and observation;
2. Make students acquainted with economic data such as poverty rate, inequality indicators, labor market statistics, and budgetary statistics, and other indicators concerning public health;
3. Train students on academic writing and presentation through class assignments and guide the development of research methods.

**Prerequisites:** *EE211 and EE212*

## Evaluation:

Midterm examination 30%

Group assignment 20%

- progress report I
- progress report II
- final paper

Presentation 10%

Final examination 40%

Mid-Term Examination Wednesday 30 September 2020  
Time: 9-11 am

Final Examination Saturday 12 December 2020  
Time: 9-12 am

## Main Text:

Class slides and references

Snowden, Frank M. (2019). *Epidemics and Society: From the Black Death to the Present*, Yale University Press. ProQuest Ebook Central, retrieved from <https://ebookcentral.proquest.com/lib/thammasat-ebooks/detail.action?docID=5910244>.

## Recommended Text

Diamond, Jared. (1997). *Gun, Germs, and Steel: the Fates of Human Societies*. W. W. Norton & Company. *Additional mandatory and suggested reading lists under each chapter will be provided via be-moodle.*

## Class Policies:

Attendance is strongly encouraged. It is the responsibility of the students to obtain any information announced in the class. Ignorance of such information due to absence of class is not a valid defence.

If a student has any question about the lecture, it is highly encouraged to raise them in class. For section 046402-03, please do not hesitate to consult the lecturer during office hours which is on Monday 9-11 am. For office hour visits, appointments must be made the Friday before, at the latest.

Exam materials are cumulative – meaning that in order to perform well in the finals, students must have good understanding of the materials covered throughout the course. Make-up examinations are not permitted unless; (i) in case of illness – you need to provide the faculty with the doctor’s medical note; (ii) family emergency – case-by-case basis.

Students are encouraged to work together and exchange ideas outside of class. However, plagiarism and cheating will be treated seriously with disciplinary actions. Thammasat University and our faculty take academic integrity extremely seriously, and there will be academic consequences if you are found possibly guilty of misconducts. Please refer to the university guidelines if you have any questions.

Any changes to the course outline (if any) will be announced in the class or uploaded on BE-moodle.

**Expected Learning Outcomes:**

**7. Morality and Ethics**

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

**8. Knowledge**

Applicability	Expected Learning Outcomes
●	2.11 Students know and understand modern economics principles and theories, and are up to date with new developments.
●	2.12 Students know and understand Thai and global economic structure, and the importance of major international economic events.
●	2.13 Students know and understand instruments of economic analysis.
●	2.14 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.
○	2.15 Students are informed about related fields including sociology, business administration, education, law policy, and science.

**9. Intellectual Development**

Applicability	Expected Learning Outcomes
●	3.7 Students have developed individual critical thinking.
●	3.8 Students are sufficiently trained in research skills.
●	3.9 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
●	8.1 Students are responsible for assigned tasks and work in groups effectively.
○	8.2 Students have problem-solving skills.
○	8.3 Students show leadership skills and team spirit.
●	8.4 Students are always improving themselves.
●	8.5 Students have good interpersonal skills, adapting and working under different conditions.

#### 5. Quantitative Analysis, Communication and Information Technology

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

#### Teaching Plans

Date*	Topic	Reading
12 Aug	<b>1. Introduction: Epidemics &amp; Society (1.5 hours)</b> 1.1) Why the focus on epidemics? 1.1.1) Epidemics as economic phenomena; 1.1.2) Economic consequences of epidemics; 1.2) General course outline & evaluation	
2, 4, 9, 11, 16 Sep	<b>2. Labour &amp; Epidemics (7.5 hours)</b> 2.1) Working condition as a cause of COVID-19 2.2) The Yellow Fever and working conditions of Slavery in Haiti 2.3) How the COVID-19 impact working conditions & labour market	
18, 23, 25 Sep, 7, 9 Oct	<b>3. Poverty, Inequality, and Epidemics (7.5 hours)</b> 3.1) Poverty as a cause of COVID-19 3.2) Cholera as a disease of the poor 3.3) Poverty & inequality after COVID-19	
14, 16, 21, 23 Oct	<b>4. Environment &amp; COVID-19 (6 hours)</b> 4.1) How the misdirected relationship between human & nature causes COVID-19 4.2) Deforestation & Ebola 4.3) How the relationship between human and nature should be after COVID-19	
28, 30 Oct, 4, 6, 11 Nov	<b>5. Government mismanagement &amp; Epidemics (7.5 hours)</b> 5.1) How government mismanagements caused COVID-19 5.2) Bubonic Plague in Bombay 5.3) SARS in China and the Chinese Government 5.4) Policies and measures after COVID-19	

Date*	Topic	Reading
13, 18, 20, 25, 27 Nov	<b>6. World Order &amp; COVID-19 (7.5 hours)</b> 6.1) Smallpox & the Invasion of America 6.2) World Order after COVID-19	

*\*Dates are based on section 1 & 2*

# EE211 Principles of Microeconomics

Number of credits: 3 credits (3-0-6)

## Course Description:

Principles of microeconomics such as value, price, resource allocation, introduction to theories of consumption and production with an emphasis on factors determining supply and demand of goods and services, determination of price and efficiency of resource allocation in perfect and monopoly markets; competitive factor market and introductory concepts of market failures.

**Prerequisites:** *For economics major students or students aimed to transfer to economics major only*

## Course Objectives:

After completing this course, students should have developed a range of skills enabling them to understand economic concepts and use those concepts to analyze specific questions.

By the end of this course, students should be able to:

- Understand the concept of opportunity cost
- Understand market forces of supply and demand
- Understand the concept of elasticities
- Understand the concept of consumer and producer surpluses
- Understand consumer behavior.
- Understand firm behavior in perfectly competitive and in monopoly structure.
- Analyze different types of market structures (a competitive market Vs. Monopoly).
- Understand how to apply economic principles to a range of policy questions.

Students should also have the skills needed to:

- Use supply and demand diagrams to analyze the impact of overall changes in supply and demand on price and quantity.
- Calculate producer and consumer surplus.
- Solve a consumer's utility maximization problem mathematically and graphically; analyze the impact of changes in price and income on a consumer's decision via shifting income and substitution effects.
- Solve a firm's cost minimization problem mathematically and graphically.
- Analyze the behavior of firms in a perfectly competitive market in the short-run and the long-run.
- Analyze the behavior of firm in a monopoly and calculate the resulting changes in producer or consumer surplus.
- Use economic tools to analyze economic policies.

## Expected Learning Outcomes:

### 1. Morality and Ethics

Applicability	Expected Learning Outcomes
●	1.16 Students demonstrate integrity.
○	1.17 Students prioritize social and public benefits over personal ones.
●	1.18 Students are punctual and comply with the code of conduct of the institution and society at large.
○	1.19 Students are responsible and accountable to society, the nation, and the subject of economics.

○	1.20 Students realize the cultural and environmental value of the sustainable society.
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## 2. Knowledge

Applicability	Expected Learning Outcomes
●	2.16 Students know and understand modern economics principles and theories, and are up to date with new developments.
●	2.17 Students know and understand Thai and global economic structure, and the importance of major international economic events.
●	2.18 Students know and understand instruments of economic analysis.
●	2.19 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.
○	2.20 Students are informed about related fields including sociology, business administration, education, law policy, and science.

## 3. Intellectual Development

Applicability	Expected Learning Outcomes
●	3.10 Students have developed individual critical thinking.
●	3.11 Students are sufficiently trained in research skills.
●	3.12 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
●	10.1 Students are responsible for assigned tasks and work in groups effectively.
○	10.2 Students have problem-solving skills.
○	10.3 Students show leadership skills and team spirit.
●	10.4 Students are always improving themselves.
○	10.5 Students have good interpersonal skills, adapting and working under different conditions.

## 5. Quantitative Analysis, communication and information technology

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

Remark: ● Primary expected outcome ○ Secondary expected outcome

### Textbooks:

Mankiw, N.G. Principles of Microeconomics, 9th ed., Cengage, 2020 (ISBN-13: 9789814915359 ISBN-10: 9814915351) \*\*\*with MINDTAP\*\*\*

Krugman, P. and Robin Wells, *Microeconomics*. 3<sup>rd</sup> ed. Macmillan Education, 2012. (Hereafter, KW)—*Earlier editions are applicable.*

### Student Resources:

#### Mankiw's Text:

[http://www.cengage.com/cgi-wadsworth/course\\_products\\_wp.pl?fid=M20b&product\\_isbn\\_issn=9780324589986&discipline\\_number=414](http://www.cengage.com/cgi-wadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=9780324589986&discipline_number=414)

[http://websites.swlearning.com/cgi-wadsworth/course\\_products\\_wp.pl?fid=M20b&product\\_isbn\\_issn=9780324589986&discipline\\_number=414](http://websites.swlearning.com/cgi-wadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=9780324589986&discipline_number=414)

#### Other Texts & Material:

Lipsey, R.G., C.T.S. Ragan, and P.A. Storer. *Economics*, 13th ed. Pearson Addison Wesley, 2008

Frank, R.H. Microeconomics and Behavior. 8th ed. McGraw-Hill, 2010.

#### Student Resources for Frank's text:

[http://highered.mheducation.com/sites/0073375942/student\\_view0/student\\_study\\_resources.html](http://highered.mheducation.com/sites/0073375942/student_view0/student_study_resources.html)

Karl E. Case, Ray C. Fair, and Sharon E. Oster. Principles of Microeconomics plus MyEconLab with Pearson eText, Global Edition, 12/E, 2017, Pearson. -*Earlier editions are applicable.*

Pindyck, Robert S. and Rubinfeld, Daniel L., Microeconomics, (8th Ed.) New Jersey: Pearson Education, Inc., 2013.

#### 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:

Nobel Prize in Economic Sciences: [http://nobelprize.org/nobel\\_prizes/economics/shortfacts.html](http://nobelprize.org/nobel_prizes/economics/shortfacts.html)

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>

**Evaluation:**

Midterm Examination	35 %
Final Examination	45 %
Quizzes	20 %
<b>Total</b>	<b>100%</b>

**Study Plan:**

Remark: The class schedule shown above may be adjusted during the semester as needed.

Sessions	Date	Topics	Activities/Text & Materials/ Media
#1: Economics: The Study of Choice	11-14 Aug (2 lectures)	<ul style="list-style-type: none"> <li>o <b>What is Economics all about?</b></li> <li>o <b>The Basic Economic Problems</b></li> <li>o <b>Circular Flow</b></li> <li>o <b>Microeconomics Vs. Macroeconomics</b></li> <li>o <b>Confronting Scarcity: Production Possibilities Curve (PPC)</b> <ul style="list-style-type: none"> <li>▪ Assumptions</li> <li>▪ An Illustration of Scarcity, Choice and Opportunity Costs Using the PPC</li> <li>▪ Economic Growth and Changes in the PPC</li> </ul> </li> <li>o <b>Economists' Tool Kit</b> <ul style="list-style-type: none"> <li>▪ Equilibrium Analysis</li> <li>▪ Comparative Static Analysis</li> <li>▪ Constrained Optimization</li> </ul> </li> </ul>	Read: Mankiw, chs.1-2; KW, chs.1-2
#2-#3: Demand, Supply, and Equilibrium	18-28 Aug (4 lectures)	<ul style="list-style-type: none"> <li>o <b>Market: Meaning and Components</b></li> <li>o <b>Demand: Buyers' Behavior</b> <ul style="list-style-type: none"> <li>• Meaning</li> <li>• Law of Demand</li> <li>• Individual and Market Demands</li> <li>• The Determinants of Demand (or Demand Shifters)</li> <li>• The Distinction of "Change in Quantity Demanded" and "Change in Demand"</li> </ul> </li> <li>o <b>Supply: Sellers' Behavior</b> <ul style="list-style-type: none"> <li>• Meaning</li> <li>• Law of Supply</li> </ul> </li> </ul>	Read: Mankiw, ch.4; KW, ch.3

		<ul style="list-style-type: none"> <li>• Firm and Market Supplies</li> <li>• The Determinants of Supply (or Supply Shifters)</li> <li>• The Distinction of “Change in Quantity Supplied” and “Change in Supply”</li> <li>○ <b>Market Equilibrium: When Demand and Supply Meet</b> <ul style="list-style-type: none"> <li>• Meaning and How to Determine the Equilibrium</li> <li>• What Will Happen if Market is Not Yet in an Equilibrium? (<a href="#">Adam Smith's Invisible Hand or Market Clearing Process</a>)</li> </ul> </li> <li>○ <b>Shocking an Equilibrium</b> <ul style="list-style-type: none"> <li>• When demand curve shifts</li> <li>• When supply curve shifts</li> <li>• When both demand and supply curve simultaneously shift</li> </ul> </li> </ul>	
#4: Elasticity: A Measure of Response	1-4 Sep (2 lectures)	<ul style="list-style-type: none"> <li>○ <b>Elasticity</b> <ul style="list-style-type: none"> <li>▪ Meaning</li> <li>▪ Measurement</li> <li>▪ Why Elasticity? :Absolute Change, Relative Change, and Percentage Change</li> </ul> </li> <li>○ <b>Price Elasticity of Demand: Defined</b> <ul style="list-style-type: none"> <li>▪ Computing Price Elasticity of Demand</li> <li>• Point-Price Elasticity of Demand</li> <li>• Arc-Price Elasticity of Demand</li> <li>• Determinants of Price Elasticity of Demand</li> <li>• Total Revenue and Price Elasticity of Demand</li> </ul> </li> <li>○ <b>Other Demand Elasticities</b> <ul style="list-style-type: none"> <li>• Income Elasticity of Demand</li> <li>• Cross Price Elasticity of Demand</li> </ul> </li> <li>○ <b>Elasticity of Supply: Meaning, Measurement and Determinants</b></li> </ul>	<p><b>Read:</b> Mankiw, ch.5; KW, ch.6</p>
#5: Consumers, Producers, and the Efficiency of Markets	8-9 Sep (1 lecture)	<ul style="list-style-type: none"> <li>○ <b>Consumer Surplus</b> <ul style="list-style-type: none"> <li>▪ Willingness to Pay (WTP)</li> <li>▪ Using the Demand Curve to Measure Consumer Surplus</li> <li>▪ Effect of a Price Change on Consumer Surplus</li> <li>▪ What Does Consumer Surplus Measure?</li> </ul> </li> <li>○ <b>Producer Surplus</b> <ul style="list-style-type: none"> <li>▪ Cost and the Willingness to Sell</li> <li>▪ Using the Supply Curve to Measure Producer Surplus</li> <li>▪ Effect of a Price Change on Producer Surplus</li> <li>▪ What Does Producer Surplus Measure?</li> </ul> </li> <li>○ <b>Market Efficiency</b></li> </ul>	<p><b>Read:</b> Mankiw, ch.7; KW, ch.4</p>

<p>#6 Applications on Demand, Supply, and Government Policies</p>	<p>10-11 Sep (1 lecture)</p>	<ul style="list-style-type: none"> <li>o <b>Government Intervention in Market Prices</b> <ul style="list-style-type: none"> <li>▪ Price Ceilings <ul style="list-style-type: none"> <li>▪ Its effect on price and quantity</li> <li>▪ Its inefficiency in resource allocation</li> <li>▪ Welfare Analysis of Price Ceilings (Who gain and lose from the policy?)</li> </ul> </li> <li>▪ Price Floors <ul style="list-style-type: none"> <li>▪ Its effect on price and quantity (Case study: Agricultural commodities)</li> <li>▪ Its inefficiency in resource allocation</li> <li>▪ Welfare Analysis of Price Ceilings (Who gain and lose from the policy?)</li> </ul> </li> <li>▪ Effects of Taxes <ul style="list-style-type: none"> <li>• A Unit Tax Vs. Ad Valorem Tax</li> <li>• Meaning and Effect of a Unit Tax on Supply and Demand Curves</li> <li>• A Unit Tax Imposed on Producers Vs. A Unit Tax Imposed on Consumers <ul style="list-style-type: none"> <li>• Its effect on price consumers paid, price producers received, consumes' tax burden, producers' tax burden, government tax revenue, consumer and producer surplus, and total surplus</li> <li>• Demand and Supply Elasticities: Implications on tax burdens incurred by consumers and producers</li> <li>• The differences between Unit Tax imposed on producers and on consumers</li> </ul> </li> </ul> </li> <li>▪ Effects of Subsidy Given to Producers</li> </ul> </li> </ul>	<p><b>Read:</b> Mankiw, ch. 6; KW, chs.5 and 7</p>
<p>#7-#9: The Theory of Consumer Choice</p>	<p>15-25 Sep (4 lectures)</p>	<ul style="list-style-type: none"> <li>o <b>Utility Theory (or Cardinal Approach)</b> <ul style="list-style-type: none"> <li>• The Meaning of Utility</li> <li>• Relationship between Total Utility and Marginal Utility</li> <li>• Law of Diminishing Marginal Utility</li> <li>• Consumers' Equilibrium (or Rational Spending Rule) and Change in Equilibrium</li> </ul> </li> </ul>	<p><b>Read:</b> Mankiw, ch.21; KW, chs.10-11; Frank, chs.3-4;; Lipsey, ch. 6 (&amp; appendix);</p>

		<ul style="list-style-type: none"> <li>○ <b>Indifference Curves Theory (or Ordinal Approach)</b></li> <li>○ What a Consumer Wants <ul style="list-style-type: none"> <li>• The Meaning of Indifference Curve</li> <li>• Properties of Indifference Curve</li> <li>• Slope of Indifference Curve and Marginal Rate of Substitution (MRS)</li> </ul> </li> <li>○ What the Consumer Can Afford <ul style="list-style-type: none"> <li>• Budget Line: Meaning, Slope, and Change in Budget Line</li> </ul> </li> <li>○ How the Consumer Optimally Chooses</li> <li>○ Consumer Equilibrium and Change in Equilibrium</li> <li>○ Derivation of an Individual Demand Curve Using Indifference Curves and Budget Lines</li> <li>○ How a Consumer Responds to Change in Price: Substitution and Income Effects (Hicksian Approach)</li> </ul>	
<p>#10-#12: <b>Production and Cost in the Short-Run and in the Long-Run</b></p>	<p>6-28 Oct (7 lectures)</p>	<ul style="list-style-type: none"> <li>○ <b>Firm and the Objectives of Production</b></li> <li>○ <b>Production Functions</b></li> <li>○ <b>The Meaning of Cost</b> <ul style="list-style-type: none"> <li>▪ Economic and accounting costs</li> <li>▪ Sunk costs</li> <li>▪ Private cost and social cost</li> </ul> </li> <li>○ <b>Distinction between Short-run and Long-run</b></li> <li>○ <b>Production and Costs in the Short-run</b> <ul style="list-style-type: none"> <li>▪ Total Product (TP), Average Product (AP), Marginal Product (MP)</li> <li>▪ Relationship of TP, AP, and MP</li> <li>▪ Law of Diminishing Returns</li> <li>▪ Stage of Production</li> </ul> </li> <li>○ <b>Relationship between Costs and Production</b></li> <li>○ <b>Short-run Costs of Production: TFC, TVC, TC, AFC, AVC, ATC, MC</b></li> <li>○ <b>Production and Costs in the Long-run</b></li> <li><b>Isoquant</b> <ul style="list-style-type: none"> <li>○ Isocost</li> <li>○ Least Cost Combination</li> <li>○ Expansion Path</li> <li>○ The Meaning of Returns to Scale</li> <li>○ Long-run Costs of Production: LTC, LAC, LMC</li> <li>○ Relationship between Expansion Path and LTC</li> <li>○ Relationship between Long-run and Short-run Costs</li> <li>○ Economies and Diseconomies of Scale</li> </ul> </li> </ul>	<p><b>Production in the Short-Run</b></p> <p><b>Read:</b> Mankiw, ch.13; KW, ch.12; Frank, chs.9-10; Supplement Note provided in our class,</p> <p><b>Production in the Long-Run</b></p> <p><b>Read:</b> Supplement Note provided in our class; Frank, chs. 9-10; KW, ch. 12</p>

<p>#11-#13: <b>Market Structure</b></p>	<p>29 Oct – 18 Nov (6 lectures)</p>	<ul style="list-style-type: none"> <li>○ <b>Meaning</b></li> <li>○ <b>Structure of Perfect and Imperfect Markets</b></li> <li>○ <b>Producer's Objectives</b></li> <li>○ <b>The Meanings of Profits and Loss</b></li> <li>○ <b>Profit Maximization</b> <ul style="list-style-type: none"> <li>▪ TR-TC Approach</li> <li>▪ MR-MC Approach</li> </ul> </li> <li>○ <b>Perfectly Competitive Market</b> <ul style="list-style-type: none"> <li>▪ The Nature of Demand, TR, MR, AR and Their Relationships</li> <li>▪ Short-run Equilibrium</li> <li>▪ Derivation of Firm's and Market's Short-run Supply Curves</li> <li>▪ Long-run Equilibrium</li> </ul> </li> <li>○ <b>Monopoly</b> <ul style="list-style-type: none"> <li>▪ Causes of Monopoly</li> <li>▪ The Nature of Demand, TR, MR, AR and Their Relationships</li> <li>▪ Short-run Equilibrium</li> <li>▪ Economic Effects of Monopoly</li> </ul> </li> <li>○ <b>Comparison between Perfect Competition and Monopoly</b></li> </ul>	<p><b>Read:</b> Mankiw, chs.14-15; KW, chs. 13-14</p>
<p>#14: <b>Factor Markets</b></p>	<p>19-25 Nov (2 lectures)</p>	<ul style="list-style-type: none"> <li>○ <b>Demand for factor as a derived demand</b></li> <li>○ <b>The firm's demand for a factor</b></li> <li>○ <b>The supply of a factor</b></li> <li>○ <b>Determination of factor prices</b> Under the two scenarios: <ul style="list-style-type: none"> <li>1) Both factor market and output market are perfectly competitive.</li> <li>2) Factor market is perfectly competitive but output market is under monopoly</li> </ul> </li> </ul>	<p><b>Read:</b> Mankiw, ch.18; KW, ch. 20; Perloff, ch. 15.1-15.3</p>
<p>#15: <b>Market Failure</b></p>	<p>26-27 Nov (1 lecture)</p>	<ul style="list-style-type: none"> <li>○ <b>Meaning and Characteristics</b></li> <li>○ <b>Origins of Market Failure</b> <ul style="list-style-type: none"> <li>▪ Monopoly Power</li> <li>▪ Public Goods</li> <li>▪ Externalities</li> <li>▪ Asymmetric Information</li> </ul> </li> <li>○ <b>Consequences of Market Failure</b></li> <li>○ <b>Correction of Failure and Imperfections: Government or Private sector</b></li> </ul>	<p><b>Read:</b> Mankiw, chs.10-11, 15 and 22; KW, chs. 17-18</p> <p><b>Watch:</b> "Erin Brockovich", "Day After Tomorrow".</p>

# EE 212 Principles of Macroeconomics

**Number of credits:** 3 credits (3-0-6)

## **Course Description:**

Indicators, goals and problems in macroeconomics. Determination of national income, theories of aggregate consumption and aggregate investment, accelerator principle, money market, theory of demand for and supply of money, the joint equilibrium model of product and money markets (IS-LM model), balance of payments, and fiscal and monetary policies as means to stabilize an economy, as well as applications of macroeconomic theory to analyze Thai economic conditions.

## **Course Objectives**

Student shall be equipped with knowledge of principle of macroeconomics. By the end of the semester student should understand macroeconomic news and be able to analyze cause and effects of key macroeconomic varia

## Evaluation:

Homework and other individual or group assignments/quizzes	10%
Midterm exam (Tuesday 29 September 2020, 09.00 a.m. – 11.00 a.m.)	35%
Final exam (Thursday 3 December 2020, 09.00 a.m. – 12.00 p.m.)	55%

## Main Text (Choose one of these textbooks, then choose the latest edition available for that textbook):

Case, Karl E., Ray C. Fair and Sharon M. Oster (2017), *Principles of Macroeconomics* (13<sup>th</sup> ed.): Pearson International Edition.

Froyen, Richard T. (2009), *Macroeconomics, Theories and Policies* (9<sup>th</sup> ed.): Prentice Hall.

## Recommended Text

Lipsey, R.G., Ragan, C.T.S. and Storer, P.A. (2008), *Economics* (13<sup>th</sup> ed.): Pearson Addison- Wesley

Mankiw, N.G., *Principles of Macroeconomics* (2009): South-Western Cengage Learning

## Course Policy

- Use of cellphone or electronic device is not allowed in class unless specify in class or for reasonable purposes
- Dress properly to class
- No make up exam

## Topics:

### 1. Introduction to Macroeconomics (4.5 hours)

- 1.1 Introduction to Economics
- 1.2 Macroeconomic objectives and macroeconomic policy
- 1.3 Types of macroeconomics variables
  - 1.3.1 Stock vs flow variables
  - 1.3.2 Real vs nominal variables
- 1.4 Key Macroeconomic variables
  - 1.4.1 Output/Input
  - 1.4.2 Employment/Unemployment
  - 1.4.3 Price level/Inflation
  - 1.4.4 Interest rate
  - 1.4.5 Exchange rate
- 1.5 Brief history of macroeconomics

Read: Case, Fair & Oster, ch. 5, 7; LRS, ch. 1, 2, 19, 31; Mankiw ch. 1, 2, 23

## **2. National Income and National Product (4.5 hours)**

- 2.1 The component of macro economy
- 2.2 Circular flow diagram
- 2.3 National income and product account
- 2.4 GDP vs GNP
- 2.5 Measurement of GDP
  - 2.5.1 Product approach
  - 2.5.2 Expenditure approach
  - 2.5.3 Income approach
- 2.6 Nominal GDP vs. Real GDP and GDP deflator
- 2.7 Limitation of GDP concept

Read: Case, Fair & Oster, ch. 6; LRS, ch.20, Mankiw ch. 10, 11

## **3. National Income and Equilibrium Determination (9 hours)**

- 3.1 Introduction
- 3.2 Composition of desired aggregate expenditure (DAE)
  - 3.2.1 Desired aggregate consumption expenditure and consumption theories
    - 3.2.1.1 Absolute income hypothesis
    - 3.2.1.2 Permanent income hypothesis
    - 3.2.1.3 Life cycle hypothesis
  - 3.2.2 Desired aggregate investment expenditure
    - 3.2.2.1 Determination of aggregate investment
    - 3.2.2.2 Present Value (PV) and net present value (NPV) concept
    - 3.2.2.3 MEC and MEI
    - 3.2.2.4 The accelerator principle
  - 3.2.3 Desired aggregate government expenditure
  - 3.2.4 Desired aggregate net exports
- 3.3 Equilibrium national income
  - 3.3.1 Definition
  - 3.3.2 Determination of equilibrium national income
    - 3.3.2.1  $Y = DAE$  approach
    - 3.3.2.2 Leakage = Injection approach
  - 3.3.3 Changes in equilibrium national income and adjustment to new equilibrium
- 3.4 Paradox of Thrift
- 3.5 Inflationary and deflationary gap
- 3.6 Keynesian, Classical and Non-Keynes non-classical concept

Read: Case, Fair & Oster, ch. 8; LCR, ch.21, 22

## **4. Fiscal Policy at work (3 hours)**

- 4.1 Meaning of fiscal policy
- 4.2 Objectives of fiscal policy
- 4.3 Fiscal policy tools
  - 4.3.1 Government expenditure
  - 4.3.2 Government transfer payment

- 4.3.3 Government revenue
- 4.3.4 Public debt
- 4.4 Types of government policy

Read: Case, Fair & Oster, ch. 9; LCR, ch. 32, Froyen Ch. 18, Mankiw ch. 21

## 5. The Money Market and Monetary Policy (3 hours)

- 5.1 Money creation and money multiplier
- 5.2 Money and money market
- 5.3 Money supply and Central bank roles
  - 5.3.1 Money supply
  - 5.3.2 Central bank roles
- 5.4 Demand for money
- 5.5 Equilibrium in money market
- 5.6 Changes in equilibrium money market

Read: Case, Fair & Oster, ch. 10; LRS, ch. 27, 28, 29, Froyen ch. 16, Mankiw ch. 16

## 6. The IS-LM Model (9 hours)

- 6.1 Product market and IS curve
  - 6.1.1 Investment, interest rate and product market equilibrium
  - 6.1.2 The derivation of IS curve
  - 6.1.3 Factors determining slope of IS curve
  - 6.1.4 Shifts in IS curve
- 6.2 Money market and LM curve
  - 6.2.1 The derivation of LM curve
  - 6.2.2 Factors determining slope of LM curve
  - 6.2.3 Shifts of LM curve
- 6.3 IS-LM in terms of equation
- 6.4 The IS-LM combined
- 6.5 Changes in equilibrium of product and money market

Read Froyen, ch. 7

## 7. Policy effectiveness (3 hours)

- 7.1 Fiscal policy effectiveness
  - 7.1.1 Fiscal policy effectiveness and slope of IS curve
  - 7.1.2 Fiscal policy effectiveness and slope of LM curve
- 7.2 Monetary policy effectiveness
  - 7.2.1 Monetary policy effectiveness and slope of IS curve
  - 7.2.2 Monetary policy effectiveness and slope of LM curve

Read Froyen, ch. 7

## 8. The AD-AS Model and Inflation (6 hours)

- 8.1 Aggregate Demand (AD)
  - 8.1.1 The derivation of AD curve from IS-LM model
  - 8.1.2 Move along AD curve
  - 8.1.3 Shift of AD curve
- 8.2 Aggregate Supply (AS)
  - 8.2.1 Short-run AS
  - 8.2.2 Long-run AS
  - 8.2.3 Move along AS and shift of AS
- 8.3 Equilibrium and changes in equilibrium
  - 8.3.1 Equilibrium in AD-AS model
  - 8.3.2 Changes in equilibrium in AD-AS model
- 8.4 The analysis of fiscal policy and monetary policy using AD-AS model
- 8.5 Inflation
  - 8.5.1 Definition
  - 8.5.2 Causes of inflation
    - 8.5.2.1 Demand-pull inflation
    - 8.5.2.2 Cost-push inflation
  - 8.5.3 Phillips Curve

Read: Case, Fair & Oster, ch. 12, 13; Froyen, ch. 8, ch. 10; LRS, ch. 23, 24, 25, 30; Mankiw ch. 20, 21, 22

## 9. International Economics (3 hours)

- 9.1 Introduction to international trade
- 9.2 The Balance of Payment
- 9.3 Relationship between difference in saving and investment and current account
- 9.4 The market for foreign exchanges
  - 9.4.1 Meaning and importance of foreign exchange rate
  - 9.4.2 Demand for foreign exchanges
  - 9.4.3 Supply of foreign exchanges
  - 9.4.4 Exchange rate system

Read: Case, Fair & Oster, ch. 19; LRS, ch. 34, 35; Froyen ch. 14; Mankiw ch. 18

# EE 311 Microeconomics Theory

## Course Description:

*Prerequisites:* EE 211 and MA 216

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.

## 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.

## Student Evaluation:

Group work	10%
Quizzes	5%
Book Summary	5%
On-line exercises	5%
Mid-term examination	30%
Final examination	45%

## Main Textbooks

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 realise, 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: Peason, 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.

Note: additional readings will be assigned during the semester, and readings on specific topics are given in the “boxes” under “Teaching Plan”.

### Supplementary Reading (Choose ONE for Book Summary)

Acemoglu, Daron, and James A Robinson (2012). [\*Why Nations Fail: The Origins of Power, Prosperity and Poverty\*](#) New York: Crown.

Banerjee, A. V., & Duflo, E. (2012). *Poor economics: a radical rethinking of the way to fight global poverty*. Paperback edition. New York: PublicAffairs.

Wheelan, Charles J. (2002) *Naked economics: undressing the dismal science* New York : Norton

### 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](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>

**Expected Learning Outcomes:**

**10. Morality and Ethics**

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

## 2. Knowledge

Applicability	Expected Learning Outcomes
●	2.21 Students know and understand modern economics principles and theories, and are up to date with new developments.
●	2.22 Students know and understand Thai and global economic structure, and the importance of major international economic events.
●	2.23 Students know and understand instruments of economic analysis.
●	2.24 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.
○	2.25 Students are informed about related fields including sociology, business administration, education, law policy, and science.

## 3. Intellectual Development

Applicability	Expected Learning Outcomes
●	3.13 Students have developed individual critical thinking.
●	3.14 Students are sufficiently trained in research skills.
●	3.15 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
●	12.1 Students are responsible for assigned tasks and work in groups effectively.
●	12.2 Students have problem-solving skills
○	12.3 Students show leadership skills and team spirit.
●	12.4 Students are always improving themselves.
○	12.5 Students have good interpersonal skills, adapting and working under different conditions.

## 5. Quantitative Analysis, Communication and Information Technology

Applicability	Expected Learning Outcomes
○	17.1 Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.

●	17.2 Students communicate effectively and select appropriate presentation methods.
○	17.3 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

### 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 & Fische Ch.5,

#### 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 & Fische 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,

## 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 transactions 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.

5.1 **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

- 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,

### 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 & Fische 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 & Fische 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 & Fische 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 & Fische 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 & Fische 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 & Fische Ch.16, Salvatore Ch.17, Frank Ch.16,

## 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 & Fishe Ch.17,Salvatore Chs.18-19, Frank Chs.17-18, Griffiths & Wall Ch.9 (pp.433-437) & Ch.11.

### Teaching Plan:

No.		Date	Topics
1	F	14 Aug	Application of Demand and Supply concepts: government intervention
2	W	19 Aug	Application of Demand and Supply concepts: government intervention
3	F	21 Aug	Consumer Behavior and Demand Theory: Indifference Curve Analysis
4	W	26 Aug	Consumption equilibrium and Changes in equilibrium
5	F	28 Aug	Applications: vouchers vs. income transfers, Revealed preferences, index numbers
6	M* (substitute for 12 Aug)		Intertemporal consumption/
7	W	2 Sep	Intertemporal consumption
8	F	4 Sep	Consumption under uncertainty
9	W	9 Sep	Consumption under uncertainty
10	F	11 Sep	Production and Costs
11	W	16 Sep	Production and Costs
12	F	18 Sep	Perfectly competitive markets/
13	W	23 Sep	Monopoly
14	F	25 Sep	Monopoly
<b>Midterm exam</b>			
15	W	7 Oct	Pricing strategies
16	F	9 Oct	Pricing strategies

No.		Date	Topics
17	W	14 Oct	Monopolistic competition and Oligopoly
18	F	16 Oct	Various models of oligopoly/
19	W	21 Oct	Various models of oligopoly
20	M* (substitute for 23 Oct)		Game theory and its application
21	W	28 Oct	Game theory and its application
22	F	30 Oct	Factor Markets
23	W	4 Nov	Factor Markets
24	F	6 Nov	Factor Markets/
25	W	11 Nov	General Equilibrium Analysis
26	F	13 Nov	General Equilibrium Analysis
27	W	18 Nov	General Equilibrium Analysis
28	F	20 Nov	Market Failure and Imperfections
29	W	25 Nov	Market Failure and Imperfections
30	F	27 Nov	Market Failure and Imperfections/
<b>Final Examination</b>			

## EE 312 MACROECONOMIC THEORY

**1. Number of credits:** 4 credits (4-0-8)

**2. Course Description**

The model of joint equilibrium in product markets, money markets, and foreign exchange markets (the IS-LM-BP model); changes in equilibrium; product markets and labor markets; the model of aggregate supply and demand in closed and open economies; inflation, unemployment, and the Phillips curve; economic stabilization policies; growth theory, new Keynesian economic theory; the real business cycle theory; applications of Macroeconomic theory to analyze economic situations.

**3. Prerequisites:** a) EE211 and EE212 or b) EE213 and EE214

**4. Objective of the Course**

To provide students with an understanding of macroeconomic theory and its analytical approach to economic system, as well as an ability to apply macroeconomic theory to economic problems and policies.

**5. Evaluation:**

Quiz/Assignment	20	points
Mid-term exam	35	points
Final exam	45	points
Total	<b><u>100</u></b>	points

**6. Textbooks:**

- Mankiw Gregory “Macroeconomics. Pearson Education, 2016 (M.)
- Froyen Richard. Macroeconomics: Theories and Policies. 10th edition. Pearson Education Limited, 2013. (F.)
- Williamson Stephen D. Williamson. Macroeconomics. 5th edition. Pearson Education Limited, 2018. (W.)

Supplement readings will be posted on the *BE moodle* and *Google classroom*.

**7. Expected Learning Outcomes:**

**a. Morality and Ethics**

Applicability	Expected Learning Outcomes
●	1.26 Students demonstrate integrity.

<input type="radio"/>	1.27 Students prioritize social and public benefits over personal ones.
<input checked="" type="radio"/>	1.28 Students are punctual and comply with the code of conduct of the institution and society at large.
<input type="radio"/>	1.29 Students are responsible and accountable to society, the nation, and the subject of economics.
<input type="radio"/>	1.30 Students realize the cultural and environmental value of the sustainable society.

**b. Knowledge**

Applicability	Expected Learning Outcomes
<input checked="" type="radio"/>	2.26 Students know and understand modern economics principles and theories, and are up to date with new developments.
<input checked="" type="radio"/>	2.27 Students know and understand Thai and global economic structure, and the importance of major international economic events.
<input checked="" type="radio"/>	2.28 Students know and understand instruments of economic analysis.
<input checked="" type="radio"/>	2.29 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.
<input type="radio"/>	2.30 Students are informed about related fields including sociology, business administration, education, law policy, and science.

**c. Intellectual Development**

Applicability	Expected Learning Outcomes
<input checked="" type="radio"/>	3.16 Students have developed individual critical thinking.
<input checked="" type="radio"/>	3.17 Students are sufficiently trained in research skills.
<input checked="" type="radio"/>	3.18 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.

**d. Interpersonal Skills and Responsibilities**

Applicability	Expected Learning Outcomes
<input checked="" type="radio"/>	14.1 Students are responsible for assigned tasks and work in groups effectively.
<input checked="" type="radio"/>	14.2 Students have problem-solving skills.

<input type="radio"/>	14.3 Students show leadership skills and team spirit.
<input checked="" type="radio"/>	14.4 Students are always improving themselves.
<input type="radio"/>	14.5 Students have good interpersonal skills, adapting and working under different conditions.

**e. Quantitative Analysis, Communication and Information Technology**

Applicability	Expected Learning Outcomes
<input type="radio"/>	20.1 Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.
<input type="radio"/>	20.2 Students communicate effectively and select appropriate presentation methods.
<input type="radio"/>	20.3 Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.



Topics	Reading
<ul style="list-style-type: none"> <li>a) <i>Swift adjustment process</i></li> <li>b) <i>Gradual adjustment process</i></li> <li>c) <i>Staggered adjustment process</i></li> </ul>	
3.4.3) How well does the AD-AS framework fit the data?	

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#### 4. Inflation and business cycles (2 lectures)

- 4.1) Some stylized facts of inflation
- 4.2) Long-run theory of inflation
  - 4.2.1) Quantity theory of money
  - 4.2.2) Cost and benefit of inflation
- 4.3) Business cycles perspectives of inflation
  - 4.3.1) The Phillips curve and its derivation
  - 4.3.2) Short-run *and* Long-run Phillips curve
- 4.4) Macroeconomic policy design

*M. Ch. 5*

*M. Ch. 14*

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### Part II Open-economy business cycle fluctuations

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#### 5. International financial markets (2 lectures)

- 5.1) Keep tracking in the globally connected economy: *international accounts*
  - 5.1.1) Current account
  - 5.1.2) Capital account
  - 5.1.3) Balance of payments account
- 5.2) Foreign exchange market
  - 5.2.1) Exchange rate determination: *Long-run PPP approach*
  - 5.2.2) Exchange rate determination: *Short-run approach*
    - a) *Demand and Supply for foreign currency*
    - b) *Equilibrium exchange rate and Balance of payments*
  - 5.2.3) Exchange rate regimes
    - a) *Flexible exchange rate*
    - b) *Fixed exchange rate and Interventions*

*F. Ch 14*

*c) Exchange rate policies and sterilizations*

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#### 6. Framework for open-economy business cycle analysis (3 lectures)

- 6.1) An open-economy macroeconomics model: *IS-LM-BP framework*
  - 6.1.1) Open-economy IS curve

*F. Ch 15*

Topics	Reading
6.1.2) Open-economy LM curve	
6.1.3) The balance of payment curve (BP curve)	
6.2) Disequilibrium and adjustments towards equilibrium	
6.2.1) Adjustments under flexible exchange rate	
6.2.2) Adjustments under fixed exchange rate	
6.3) Macroeconomic shocks and open-economy propagation mechanism	
6.3.1) Origin of the fluctuations	
6.3.2) Spill-over effect and international transmission of shocks	
6.3.3) Equilibrium adjustment under different exchange rate regimes	
6.3.4) The case of flexible exchange rate regime	
6.4) Macroeconomic policies under a small opened economy	
6.4.1) Macroeconomic imbalances and policy corrections	
6.4.2) Issues on policy effectiveness	
6.4.3) The impossibility trinity theorem	

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**Midterm exam**

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**Part III: Micro-foundation approach to macroeconomics**

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<b>7. A Closed-Economy One-Period Macroeconomic Model (2.5 lectures)</b>	
7.1) General equilibrium macroeconomy and Circular flow of macroeconomy	
7.2) Optimizing-agent decision	<i>W. Ch 4</i>
7.2.1) Households	
<i>a) Preferences over consumption and leisure</i>	
<i>b) Choice set and constraint</i>	
<i>c) Work-leisure decision and labor supply</i>	
7.2.2) Firms	
<i>a) Production and technology</i>	
<i>b) Profit maximization problem and labour demand</i>	
7.3) Competitive equilibrium and Pareto optimality	
7.3.1) Government and tax	
7.3.2) Equilibrium	
7.3.3) Pareto optimality	<i>W. Ch 5</i>
7.4) Model applications	
7.4.1) Changes in government spending	
7.4.2) Changes in total factor productivity	
7.5) How well does the model fit the data?	
<b>8. Two-Period model: the consumption-savings decision (3 lectures)</b>	
8.1) Credit market and allocation over time	<i>W. Ch. 9</i>
8.2) Preference over life-time consumption	
8.2.1) Intertemporal life-time consumption problem	
8.2.2) Behaviour of current consumption and its determinants	
<i>a) Effect of interest rate on consumption and saving behaviour</i>	

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Topics	Reading
<i>b) Effect of permanent and temporary increases in income</i>	
8.3) Government sector and Competitive equilibrium	
8.4) The Ricardian equivalence theorem	
<b>9. A Real Intertemporal Model with Investment (4 lectures)</b>	
9.1) Circular flow of a production economy over time	
9.2) Optimizing-agent decision under intertemporal environment	
9.2.1) Consumer's problem	
<i>a) Current labour supply</i>	
<i>b) Demand for consumption goods</i>	W. Ch.11
9.2.2) Consumer's problem	
<i>a) Current labour demand</i>	
<i>b) Investment decision</i>	
9.3) Competitive equilibrium	
9.4) Model applications	
9.4.1) Changes in government spending	
9.4.2) Change in capital stock	
9.4.3) Change in total factor productivity	
<b>10. Long-term Economic Growth (25 lectures)</b>	
10.1) Long-term growth stylized-facts	
10.2) Growth accounting	W. Ch.7
10.3) Solow growth model	
10.4) Theory confronts with data	
10.5) Income disparities	W. Ch.8
10.6) Growth policies	

# EE 320 Introductory Mathematical Economics

**Number of credits:** 3 credits

**Course description:**

Study of mathematical concepts and tools such as functions, matrices and higher-order derivatives in cases of single and multiple independent variables. Emphasis is on the application of optimization, both with and without constraints, and introductory integral, for understanding relationships of various economic variables and concepts, such as the relationship of aggregate, average and marginal functions. Other topic covered analyses of elasticities, market equilibrium, impacts of taxation and input-output models.

**Prerequisites:** a) EE 211, EE 212 and MA 216 (or MA211)  
or b) EE 213, EE 214 and MA216 (or MA 211)

**Course objectives:**

1. To equip students with essential mathematical concepts and tools in studying economics.
2. To expose students to the application of mathematical concepts in analyzing economic problems.

**Main Text:**

Chiang, A. C. and Wainwright, K. (2005) *Fundamental Methods of Mathematical Economics*, 4<sup>th</sup> edition, McGraw-Hill, Inc., Singapore. (CW)

Saelee, Kittichai (2019) *Lecture on introductory mathematical economics* (KS)

**Expected Learning Outcomes:**

**11. Morality and Ethics**

Applicability	Learning Goals
●	1.31 Students demonstrate integrity.
○	1.32 Students prioritize social and public benefits over personal ones.
●	1.33 Students are punctual and comply with the code of conduct of the institution and society at large.

○	1.34 Students are responsible and accountable to society, the nation, and the subject of economics.
○	1.35 Students realize the cultural and environmental value of the sustainable society.

## 12. Knowledge

Applicability	Learning Goals
●	2.31 Students know and understand modern economics principles and theories, and are up to date with new developments.
●	2.32 Students know and understand Thai and global economic structure, and the importance of major international economic events.
●	2.33 Students know and understand instruments of economic analysis.
●	2.34 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.
○	2.35 Students are informed about related fields including sociology, business administration, education, law policy, and science.

## 13. Intellectual Development

Applicability	Learning Goals
●	3.19 Students have developed individual critical thinking.
●	3.20 Students are sufficiently trained in research skills.
●	3.21 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.

#### 14. Interpersonal Skills and Responsibilities

Applicability	Learning Goals
●	16.1 Students are responsible for assigned tasks and work in groups effectively.
●	16.2 Students have problem-solving skills.
○	16.3 Students show leadership skills and team spirit.
●	16.4 Students are always improving themselves.
○	16.5 Students have good interpersonal skills, adapting and working under different conditions.

#### 15. Quantitative Analysis, Communication and Information Technology

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

**Course Outline:**

<b>Topics</b>	
<b>1. Introduction</b> <ul style="list-style-type: none"><li>- Importance and needs to use mathematics in economics.</li><li>- The nature of theory, economic model and mathematics.</li></ul>	CW. Ch. 1
<b>2. Mathematics and Economic Relations</b> <ul style="list-style-type: none"><li>- Relations and functions</li><li>- Types of functions</li></ul>	CW. Ch.2
<b>3. Static and Comparative Static Equilibrium Analysis</b> <ul style="list-style-type: none"><li>- Linear models in economics</li><li>- Simultaneous system of equations</li><li>- Linear equation and graph</li><li>- Breakeven analysis</li><li>- Individual and market demand</li><li>- Individual and market supply</li><li>- Partial market equilibrium</li><li>- Excise tax and market equilibrium</li><li>- Elasticity concept</li><li>- Simple macroeconomic model</li><li>- IS-LM model</li></ul>	CW. Ch. 3

Topics	
<p><b>4. Linear Model, Basic Matrix Algebra and Applications</b></p> <ul style="list-style-type: none"> <li>- Terminology (Type of matrix)</li> <li>- Matrix operations (add, subtract, multiply)</li> <li>- Representation of system of equation by matrix notation</li> <li>- Matrix inversion by determinants</li> <li>- Determinant and singularity of matrix</li> <li>- Cramer's rule</li> <li>- Matrix applications in: <ul style="list-style-type: none"> <li>- Partial market equilibrium</li> <li>- Excise tax and market equilibrium</li> <li>- Simple macroeconomic model</li> <li>- IS-LM model</li> </ul> </li> </ul>	<p>CW.</p> <p>Ch. 4, 5</p>
<p><b>5. Nonlinear Model and Differential Calculus in Economic</b></p> <p><b>Theory</b></p> <ul style="list-style-type: none"> <li>- Quadratic theory</li> <li>- Other nonlinear functions</li> <li>- Slope and derivatives of a function</li> <li>- Rule of differentiation</li> <li>- Non differentiable functions</li> <li>- Examples in Economics <ul style="list-style-type: none"> <li>- Derivative and marginality</li> <li>- Relations among the total, the average and the marginal functions</li> <li>- Elasticity, total revenue and marginal revenue</li> </ul> </li> </ul>	<p>CW. Ch. 6, 7, 8</p>

Topics	
<p><b>6. Optimization without Constraints: One Independent Variable Case</b></p> <ul style="list-style-type: none"> <li>- Maxima, minima and inflection point</li> <li>- Convexity and concavity</li> <li>- Maximize profits <ul style="list-style-type: none"> <li>- Competitive market case</li> <li>- Monopoly case</li> </ul> </li> <li>- Effects of taxes <ul style="list-style-type: none"> <li>- Lump-sum tax</li> <li>- Profit tax</li> <li>- Excise tax</li> </ul> </li> <li>- Maximization of tax revenue</li> </ul>	<p>CW. Ch. 9</p>
<b>MIDTERM</b>	
<p><b>7. Derivatives of More-Than-One Independent Variable</b></p> <p><b>Function</b></p> <ul style="list-style-type: none"> <li>- First-order partial derivatives</li> <li>- Second-order partial derivatives</li> <li>- Differential</li> <li>- Total differential</li> <li>- Total derivatives</li> <li>- Implicit function and its derivative</li> <li>- Examples in economics <ul style="list-style-type: none"> <li>- Partial market equilibrium</li> <li>- Multipliers in macroeconomic models</li> <li>- Utility function</li> <li>- Production function</li> <li>- Etc.</li> </ul> </li> </ul>	<p>CW. Ch. 7, 8</p>

Topics	
<p><b>8. Optimization without Constraint: More-Than-One Independent Variable Cases</b></p> <ul style="list-style-type: none"> <li>- Conditions for maximum or minimum</li> <li>- Third degree price discrimination</li> <li>- Multiplant-firm</li> <li>- Multiproduct-firm</li> </ul>	<p>CW. Ch. 11</p>
<p><b>9. Optimization under Equality Constraint</b></p> <ul style="list-style-type: none"> <li>- Lagrange multiplier</li> <li>- Conditions for optimization</li> <li>- Maximize output level subject to cost constraint</li> <li>- Minimize cost subject to output constraint</li> <li>- Minimize utility subject to fixed budget</li> </ul>	<p>CW. Ch. 12</p>
<p><b>10. Integration and Its Application</b></p> <ul style="list-style-type: none"> <li>- Terminology in Integration</li> <li>- Rules of Integration</li> <li>- Definite Integration</li> <li>- Applications: <ul style="list-style-type: none"> <li>- Total revenue function from marginal revenue function</li> <li>- Total cost function from marginal cost function</li> <li>- Profit function from MR-MC</li> <li>- Utility function from marginal utility function</li> <li>- Consumption and saving functions from marginal propensity functions</li> <li>- Capital formation and investment functions</li> <li>- Consumer surplus, producer surplus and total surplus</li> <li>- First degree price discrimination</li> <li>- Differential equation (if time allows)</li> </ul> </li> </ul>	<p>CW. Ch. 14</p>

<b>Topics</b>	
<b>Final Examination</b>	

Note: The class schedule shown above may be adjusted during the semester as needed.

**Assessments:**

- |                      |                                       |
|----------------------|---------------------------------------|
| 1. Quizzes           | 15 % (6 quizzes, drop the lowest one) |
| 2. Group assignments | 10 % (maximum 4 persons)              |
| 3. Midterm Exam      | 30 %                                  |
| 4. Final Exam        | 45 %                                  |

# EE 325 Introductory Econometrics

**Number of credits:** 3 credits (3-0-6)

**Course Description:**

Application of statistical and economic theories in analyzing economic data, with emphases on parameter estimation techniques and applications of simple and multiple regression models to economic analyses. Use of computer application in practice is also covered.

**Prerequisites:** EE211, EE212, MA216 (or MA211), and ST216 (or ST211).  
(Credits will not be awarded to students who are taking or have completed EE 425)

**Aims and Objectives:**

This course provides an introduction to basic results and techniques of econometric theory. The emphasis will be on principles of econometrics and the application of econometric techniques rather than the derivation of theoretical statements. It is expected that at the completion of the course, students will be able to employ econometric investigation in their preparation for writing a seminar paper and to read critically empirical literature.

**Instructor's Note:**

This is an introductory course for econometric analysis. To understand and be able to apply it effectively, you need to learn some basic theories and the reasoning underlying an estimated equation. Some applied examples will be discussed in class but exercises in homework will provide various examples of econometric application for students. Students are expected to use an econometrics computer package to do the homework. We will primarily use Stata statistical and econometrics software package for computer work in this course. There will be 2-3 STATA workshops in the student computer lab. Each of these workshops will last 1.5 hours. The dates and times will be announced in class accordingly.

Homework will be assigned on a regular schedule. An assortment of assignments based on theory and some computer applications that involve programming. Homework assignments are expected to be handed on time. There will be both online- and paper-based homework. Late submission will be graded on the basis of 50% of the total scores of that assignment. More than two-day late homework will not be accepted. There will be occasional, possibly unannounced, quizzes during the semester. Missed quizzes may not be made up (unless this is the result of an officially excused absence)

**Assessment:**

Homework Assignments, Quizzes and Class Attendances	20 points
Midterm Exam	35 points
Final Exam	45 points

**Academic Honesty**

You are expected to be honest in all of your academic work. Copying is plagiarism and will be treated as an honor code violation. Potential sanctions include failure in the course and suspension from the university.

**Required Textbooks:**

1. \*\* Gujarati, D.N., and D.C. Porter, *Basic Econometrics*. 5<sup>th</sup> ed., N.Y., McGraw-Hill, 2009.
2. \*\*Wooldridge, J. M. *Introductory Econometrics: A Modern Approach*. 6<sup>th</sup> ed. Thompson: South-Western, 2016.

\*\*Main Text

**Recommended Texts for Further Study**

- Jame H. Stock and Mark W. Watson, *Introduction to Econometrics*, 2<sup>nd</sup> Edition, Boston: Pearson Addison Wesley (2007)
- William E. Griffiths, R. Carter Hill and George G. Judge, *Learning and Practicing Econometrics*, John Wiley & Sons (1993 or latest edition)
- Joshua D. Angrist and Jörn-Steffen Pischke, *Mostly Harmless Econometrics: An Empiricist's Companion*, Princeton University Press (2009)  
ISBN-13: 978-0-691-12035-5

**Other teaching materials:**

Teaching notes will be uploaded on Moodle at least 1 days prior to class.

**Expected Learning Outcomes:**

**16. Morality and Ethics**

Applicability	Learning Goals
●	1.36 Students demonstrate integrity.
○	1.37 Students prioritize social and public benefits over personal ones.
●	1.38 Students are punctual and comply with the code of conduct of the institution and society at large.
○	1.39 Students are responsible and accountable to society, the nation, and the subject of economics.
○	1.40 Students realize the cultural and environmental value of the sustainable society.

**17. Knowledge**

Applicability	Learning Goals
●	2.36 Students know and understand modern economics principles and theories, and are up to date with new developments.
●	2.37 Students know and understand Thai and global economic structure, and the importance of major international economic events.
●	2.38 Students know and understand instruments of economic analysis.
●	2.39 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.
○	2.40 Students are informed about related fields including sociology, business administration, education, law policy, and science.

### 18. Intellectual Development

Applicability	Learning Goals
●	3.22 Students have developed individual critical thinking.
●	3.23 Students are sufficiently trained in research skills.
●	3.24 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.

### 19. Interpersonal Skills and Responsibilities

Applicability	Learning Goals
●	18.1 Students are responsible for assigned tasks and work in groups effectively.
●	18.2 Students have problem-solving skills.
○	18.3 Students show leadership skills and team spirit.
●	18.4 Students are always improving themselves.
○	18.5 Students have good interpersonal skills, adapting and working under different conditions.

### 20. Quantitative Analysis, Communication and Information Technology

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

#### Course Outline

##### Introduction

- What is econometrics?
- Methodology of econometrics
- Types of economic data  
(Wooldridge, ch.1 or Gujarati, ch. 1)

##### Review of Some Statistical Concepts

- Random variables and distributions
- Expectation, variance, covariance and correlation

- Estimators and desirable properties of estimators (Wooldridge, Appendix B or Gujarati, Appendix A, pp.869-912)

### Simple Regression Models

- Principle, assumptions and derivation of ordinary least squares (OLS) estimators
- Properties of OLS estimators
- Statistical inference
- Prediction
- Test on individual regression coefficients
- Regression Through the Origin
- Data scaling on OLS statistics
- More on functional forms (Wooldridge, ch. 2, ch. 6 (6.1 and 6.2)) or Gujarati, chs. 2-6)

=====MIDTERM EXAM: September 29, 2020, 12.00 - 14.00 hrs.=====

### Multiple Regression Analysis (Estimation)

- Motivation
- Model and assumptions
- Estimation of parameters and properties of estimators
- Meaning of partial regression coefficients
- Measuring goodness of fit:  $R^2$  and adjusted  $R^2$
- The matrix approach to linear regression model (Wooldridge, ch. 3 or Gujarati: ch. 7, Appendix B, C)

### Multiple Regression Analysis (Inference)

- Sampling Distribution of the OLS estimators
- Test on individual regression coefficients
- Testing the multiple linear restrictions
- Testing the equality of two regression coefficients
- Testing for equality or stability of parameters (Chow test)
- Prediction with general linear model (Wooldridge, ch. 4 or Gujarati: ch. 8)

### Dummy Variable Regression Models

- Describing Qualitative Information
- Models with a single dummy independent variable
- Using dummy variables for multiple categories
- Interactions involving dummy variables (Wooldridge, ch. 7 or Gujarati: ch. 9)

### Multicollinearity Problem

- Nature and Consequences of Multicollinearity
- Detecting Multicollinearity (Wooldridge, ch. 3 (3.4) or Gujarati, ch. 10)

### Heteroscedasticity Problem

- Nature and Consequences of heteroscedasticity for OLS
- Testing for heteroscedasticity
- Remedial measures (weighted least squares estimation) (Wooldridge, ch. 8 or Gujarati, ch. 11)

### **Autocorrelation Problem**

- Nature and Consequences of Autocorrelation, Serial Correlation
- Testing for Autocorrelation
- Remedial measures  
(Wooldridge, ch. 12 (12.1-12.3) or Gujarati, ch. 12)

### **Specification Errors and Data Problems**

- Type of specification errors
- Consequences of specification error
- Tests of specification error
- Errors of measurement  
(Wooldridge ch. 9 or Gujarati: ch. 13)

# EE361 ECONOMICS OF CLMV COUNTRIES

**Number of Credits** 3 credits (3-0-6)

**Prerequisites** a) EE210 or b) EE211 and EE212 or c) EE213 and EE214

## Course Description

Four Southeast Asian countries namely Cambodia, Laos, Myanmar and Viet Nam (CLMV) have experienced phenomenal growth, averaging between 4-6% per year since year 2000, making the region currently one of the world's best performers in terms of economic growth. In understanding the development progress of these countries, it is imperative to provide an overview of their historical contexts i.e., shared experiences of colonialism, social/political conflicts following independence, and the post-conflict era of the 1990s and understand the various reforms undertaken by the governments of these countries. The opening up of the economy and the establishment of the Greater Mekong Subregion (GMS) Programme in 1992 enabled the gradual presence of official development assistance (ODA) channelled through, among others, the United Nations, World Bank, Asian Development Bank and various bilateral donors. These important milestones have contributed to the transformation of the socio-economic development of CLMV which we see today.

The course will further discuss commonalities and differences in their development trajectories and relationships with the outside world as well as issues and challenges in developing and implementing policies and programs in key development sectors, such as agriculture and rural development; education and health; transportation; trade and tourism; and urban development, as well as in cross-cutting areas such as the environment, gender, governance and climate change. The relationships between CLMV and Thailand as well as the rest of the world will also be discussed. Important lessons can be drawn from the successes and failures of development approaches, policies and programs as well as actual projects in these countries, which will be discussed in detail throughout the course. In order to hone students' understanding of the issues, case studies will be provided and students will form groups and present their understanding of the issues discussed during the course.

Aside from the required reading, additional materials will be drawn mostly from World Bank and Asian Development publications, which are based on their experience and involvement in various key development sectors in CLMV. Most of these materials are for the public and can be downloaded freely from the internet.

## Class Policy

Following the most recent Thammasat University announcements (issued on 4 January 2021) and Faculty of Economics remote learning guidelines (issued on 7 January 2021), all BE classes for semester 2/2020 will be conducted by remote learning. Google Hangout will be used as the online meeting platform. At the beginning of each class some time will be spent using the lecture format highlighting the key issue, but students will spend most of the time engaging in discussions that support or confront the materials extracted from the required reading, for which students are expected to read ahead and be prepared. For any further clarifications and/or queries, students may either e-mail or set up an appointment with the lecturer.

## Evaluation

The final grade will not rest on one or two activities, but rather, on how many points will be accumulated throughout the semester. Course requirements include participation, midterm and final exams and a group presentation. Late submission of assignments/exam: up to 30 minutes a penalty of 10%, up to 60 minutes a penalty of 25%. A 5% bonus will be rewarded to students who can provide a copy of a recent article (e.g., journal, magazine, editorial) relevant to a course topic with a brief one-page explanation of:

(i) the main ideas, (ii) how the article relates to the course, and (ii) a critique on the merits and shortcomings of the article. The weights assigned to these activities are as follows:

- Participation and quizzes 10%
- Group presentation 15%
- Midterm exam 30%
- Final exam 45%

## EE 376 Economics of Climate Change

**Number of credits:** 3 credits  
**Prerequisites:** EE 210 or EE 211 or EE 213  
 (Credits will not be awarded to students who are taking or have completed any 400-level courses in this subfield.)

**Course Description:**

Basic concepts of climate change relating to environmental economics, efficiency, externalities, and policy instruments. The role of economics in the formation of climate policy. Economic problems of climate change, such as intertemporal decisions, impacts of climate change, cost of mitigation, and adaptation. Thailand and international cooperation and debate in climate policy.

### Lecture Schedule

Date	Topics
1-2	<b>1. Introduction to Climate Change Science</b> <ul style="list-style-type: none"> <li>• The Earth's climate system</li> <li>• Greenhouse gas (GHGs), global energy balance, and the greenhouse effect</li> <li>• Important GHGs: CO<sub>2</sub> and carbon cycles, other GHGs</li> <li>• Dissenting opinions: the great hoax?</li> </ul> <b>Reading:</b> H Ch. 1-4, T Ch. 1, Nordhaus Ch.5, 13-14, 24-25, Incropera Ch. 2-6, 9.
Aug 14-19, 2020	
3-4	<b>2. Anthropogenic global warming and consequences</b> <ul style="list-style-type: none"> <li>• GHGs concentration and global temperature</li> <li>• Impacts, damages and losses of CC</li> <li>• GHGs data and information</li> <li>• GHGs emission by countries</li> <li>• Share of mitigation responsibility for climate stability</li> </ul> <b>Reading:</b> H Ch. 6-7, Incropera Ch. 5, T Ch. 2, IPCC (2013a), Stern Ch. 3-6
Aug 21-26, 2020	
5-6	<b>3. Climate Change and Market Failure</b> <ul style="list-style-type: none"> <li>• Externalities and carbon pricing</li> <li>• Global commons and Tragedy of Commons</li> <li>• The under provisioning of Public Goods</li> </ul> <b>Reading:</b> HR Ch. 3-4, T Ch. 3
Aug 28, 2020 - Sep 2, 2020	

Date	Topics
7-9	<p><b>4. Carbon Taxes</b></p> <ul style="list-style-type: none"> <li>• Optimum emission</li> <li>• Correction market failure with carbon <ul style="list-style-type: none"> <li>◦ Single source</li> <li>◦ Multiple sources</li> </ul> </li> <li>• Pros and cons of carbon taxes</li> <li>• Carbon tax research</li> </ul> <p><b>Reading:</b> HR Ch. 16, T Ch. 4, Pearce, David (1991) pp. 938-948.</p>
Sep 4-11, 2020	
10 - 12	<p><b>5. Carbon Market or Cap-and-Trade</b></p> <ul style="list-style-type: none"> <li>• Definition and concept of Carbon market</li> <li>• Demand and supply of carbon credits <ul style="list-style-type: none"> <li>◦ Deriving the demand and supply for carbon credits</li> <li>◦ Factors influencing the demand and supply</li> <li>◦ Carbon market equilibrium</li> </ul> </li> <li>• Choices of carbon credits allocation and efficiency</li> <li>• Comparison of carbon market and carbon tax</li> <li>• Carbon market research</li> </ul> <p><b>Reading:</b> HR Ch. 16, T Ch. 5</p>
Sep 16-23, 2020	
13-14	<p><b>6. Technological Development Policy and mitigation</b></p> <ul style="list-style-type: none"> <li>• Why do mitigation technology grow so slow?</li> <li>• Technology-push vs. Demand-pull debate</li> <li>• Policy for inducing technological change</li> <li>• Costs of low carbon technology and mitigations</li> </ul> <p><b>Reading:</b> Grubb, M. (2004), Goulder and Schneider (1999), T Ch. 5</p>
Sep 25, 2020	
Oct 7, 2020	
15-16	<p><b>7. Global Institutions: Kyoto Protocol and Post-Kyoto</b></p> <ul style="list-style-type: none"> <li>• The Intergovernmental Panel on Climate Change (IPCC)</li> <li>• The United Nations Framework Convention on Climate Change (UNFCCC)</li> <li>• Kyoto Protocol</li> <li>• 'Annex-I' vs. 'Non-Annex-I' countries</li> <li>• Emissions Trading Scheme (ETS), Joint Implementation (JI), and Clean Development Mechanism (CDM)</li> <li>• Cooperation failure?</li> <li>• Paris Agreement</li> </ul> <p><b>Reading:</b> Incropera Ch. 8, T Ch. 5</p>
Oct 9-14, 2020	

Date	Topics
17-20	<p><b>9. International Trade and Climate Change</b></p> <ul style="list-style-type: none"> <li>• Mitigation &amp; competitiveness</li> <li>• Carbon offshoring and Carbon leakages</li> <li>• Concepts about GHGs responsibility               <ul style="list-style-type: none"> <li>◦ Production-based and consumption-based responsibility</li> </ul> </li> <li>• Carbon leakages and Border-Carbon Adjustment (BCAs)               <ul style="list-style-type: none"> <li>◦ Pros and cons of BCAs</li> </ul> </li> <li>• World Trade Organization (WTO) and Climate Change</li> </ul> <p><b>Reading:</b> Incropera Ch. 8, T Ch. 8-9</p>
Oct 16-28, 2020	
20-22	<p><b>7. Economic Concepts (III): Social Costs of Climate Change</b></p> <ul style="list-style-type: none"> <li>• Cost-Benefit Analysis (CBA) concept</li> <li>• Social discount rates</li> <li>• Economic assessment of the damages caused by global warming</li> <li>• The Stern's Review</li> <li>• The Nordhaus DICE model</li> <li>• Stern vs. Nordhaus debates</li> </ul> <p><b>Reading:</b> FF Ch.6, Stern Ch.6, 9, 12, Nordhaus Ch.15-16, 18</p>
Oct 30, 2020 – Nov 6, 2020	
22-23	<p><b>8. Economics of Climate Change Adaptation</b></p> <ul style="list-style-type: none"> <li>• Climate risks</li> <li>• Climate change adaptation</li> <li>• Economics of technology &amp; adaptation</li> </ul> <p><b>Reading:</b> Stern Ch.5, 18-20, OECD (2015)</p>
Nov 11-13, 2020	
24 -25	<p><b>10. Climate Change and Economic Sectors</b></p> <ul style="list-style-type: none"> <li>• Fossil fuel vs. renewable energy</li> <li>• Carbon sink</li> <li>• Carbon offsets</li> <li>• REDD+</li> <li>• Demand management</li> </ul>
Nov 18-20, 2020	
26-27	<p><b>14. Group project presentation</b></p>
Nov 25-27, 2020	

Field trip: (tentatively)

**Evaluation**

Midterm Examination	35%
Final Examination	35%
Group project or reports	15%
Assignment and participation	15%

**Group project (15 points):**

• Design and print **an A0-sized academic poster** linking climate change issue with a selected topic from the following list. A poster may have a free-style title, but must be informative and comprehensive in its content, and contain some constructive arguments in the analytical part.

**Topic lists:**

Electrical vehicle	Agriculture	Public Transportation	Biotechnology
Solar energy	Fishery	Financial sector	Gender
Hydropower	Livestock	Biodiversity	Poverty
Bio fuel	Energy-intensive industry	Coastal adaptation	Youth
Nuclear power	Real estate	Draught management	Disaster
Wind energy	Aviation	Waste management	Arts and Culture
Risk management	Tourism related services	Disaster management	IT and AI

Evaluation will be based on the ability to arrange data and information with proper visualization and citation, presenting sharp arguments (concise and interesting leading questions and the existing conflicts of viewpoint relevant to the chosen topic) linking the topic with **the economics of climate change mitigation and/or adaptation**, attractive and reader-friendly poster design. The total mark will come from peer evaluation (7 marks) and instructor evaluation (8 marks)

Your oral presentation would take 15 minutes (without any note!) and 5 minutes of Q&A.

**Submission date of selected topic:** October 2, 2020

**Presentation dates:** November 2020 (to be announced)

**Note:** Please be strictly aware of '*plagiarism rule*' which could bring a zero score for violators.

## Reading lists

- [T] Tantasakarn, Chayun (2019) Economics of Climate Change (in Thai), Thammasat University Press.
- [FF] Field, B., & Field, M. (2017). *Environmental economics: An introduction* (Seventh ed.). New York, NY: McGraw-Hill Education.
- Grubb, M. (2004). "Technology Innovation and Climate Change Policy: an overview of issues and options." *Keio Economic Studies*, 41(2): 103-132.
- Goulder, L.H., and S.H. Schneider (1999) 'Induced Technological Change and the Attractiveness of CO<sub>2</sub> Abatement Policies,' *Resource and Energy Economics*, Vol. 21, pp. 211-53.
- [HR] Harris, J. M., & Roach, B. (2017). *Environmental and natural resource economics: A contemporary approach*. Routledge.
- [H] Houghton, John (2004) *Global Warming: The Complete Briefing*, 3rd edition, Cambridge University Press.
- <http://www.gci.org.uk/Documents/Global-Warming-the-Complete-Briefing.pdf>
- [Incropera] Incropera, F. P. (2016). *Climate change: a wicked problem: complexity and uncertainty at the intersection of science, economics, politics, and human behavior*. Cambridge University Press.  
(ห้องสมุดปริทัศน์)
- IPCC (2013a) Summary for Policymakers. In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)].
- Milton, E.J., and Euston Quah (2021) *Cost-Benefit Analysis*, Routledge.
- Nordhaus, W. D. (2007). A review of the Stern review on the economics of climate change. *Journal of economic literature*, 45(3), 686-702.
- [Nordhaus] Nordhaus, W. D. (2013). *The climate casino: Risk, uncertainty, and economics for a warming world*. Yale University Press.
- Pearce, David (1991), "The Role of Carbon Taxes in Adjusting to Global Warming," *The Economic Journal*, Vol. 101, No. 407, (Jul., 1991), pp. 938-948.
- [Stern] Stern, N., & Stern, N. H. (2007). *The economics of climate change: the Stern review*. Cambridge University press.
- [TT] Tietenberg, T. H., & Lewis, L. (2016). *Environmental and natural resource economics*. Routledge.

## EE382 Economics of Services Sector

**Prerequisites:** a) EE 210 or b) EE 211 and EE 212 or c) EE 213 and EE 214

**Course Description:** Organization and components of the services sector in an economy. Importance of the services sector. Applying economic and management aspects to selected service sectors, for example telecommunication and broadcasting, tourism, transportation, health and wellness, wholesale and retail trades. Case studies in the services sector relating to development and inclusive growth.

**Course Objectives:** Student can apply microeconomics and macroeconomic theories to analyze service sector in various aspects such as development in service sector, contribution of service sector to economy, trade and investment in service sector, measurement in service sector and the analysis of selected service sectors markets, etc.

### Evaluation:

Group project/group assignments	45%
Peer evaluation for group assignment contribution	5%
Individual assignment/participation	10%
Final exam	40%

### Recommended Text

Fitzsimmons, J. A., Fitzsimmons M. J. and Bordoloi, S., *Service Management Operations, Strategy, Information Technology*, 8th Edition, McGraw-Hill, 2014

Jansson, J. O., *The Economics of Services: Microfoundations, Development and Policy*, 2nd Edition, Edward Elgar, 2013

Zhou, Z., *The Development of Service Economy: A General Trend of the Changing Economy in China*. Truth & Wisdom Press and Springer Science+Business Media Singapore, 2016

### Course Policy

- Use of cellphone or electronic device is not allowed in class unless specify in class or for reasonable purposes
- Dress properly to class
- No make-up exam

### Topics:

#### 1. Introduction 1.1 Overview

1.2 Relevant definitions

1.3 General characteristics of service

1.4 Classification of service and service industry

1.5 Measurement of service Economy

1.6 Service sector in Thailand

### Reading

Text: Fitzsimmons, Fitzsimmons and Bordoloi (2014), Ch. 1; Zhou (2016), Ch. 3

Paper: OECD (2000), Park and Shin (2012), World Trade Organization (1991)

#### 2. Economic Impact of Service Sector

2.1 Service in National Accounts

2.2 Economic impact of service sector: the case study of travel and tourism industry

2.3 Service sector and economic growth

Reading

Text: Fitzsimmons, Fitzsimmons and Bordoloi (2014), Ch. 1

Paper: OECD (2000); World Travel & Tourism Council (2015); World Travel & Tourism Council (2017); Park and Shin (2012); United Nations (2008a), United Nations (2008b)

### **3. Development of Service Industry and Service Economy**

3.1 Service industry evolution mechanism and track characteristics

3.2 Basic features of service economy development trend

3.3 Factors affecting service sector growth and service economy development

Reading

Text: Fitzsimmons, Fitzsimmons and Bordoloi (2014); Ch. 1, Ch. 3; Zhou (2016); Ch. 3, Ch. 4, Ch. 5, Ch. 6

Paper: OECD (2000); Park and Shin (2012)

### **4. Service Supply, Demand and Market equilibrium**

4.1 Service costs

4.2 Service supply and demand at system level and market equilibrium

4.3 Demand for service (macro perspective)

Reading

Text: Jansson (2013), Part II, Fitzsimmons, Fitzsimmons and Bordoloi (2014), Ch. 1, Zhou (2016), Ch. 4

Paper: TBA

### **5. Service Market Analysis (Structure Conduct and Performance)**

Reading

Text: Fitzsimmons, Fitzsimmons and Bordoloi (2014), Ch. 2, Zhou (2016), Ch. 4, any standard textbook in Industrial Organization

Paper: TBA

### **6. Service Quality and Measurement**

6.1 Dimension of service quality

6.2 Service quality GAP model

6.3 Measuring service quality

6.4 Quality service by design

6.5 Achieving service quality

6.6 Service recovery framework

Reading:

Text: Fitzsimmons, Fitzsimmons and Bordoloi (2014), Ch. 6

### **7. Service Innovation**

7.1 Service innovation categories

7.2 Service innovation model

7.3 Innovation strategy

Reading:

Paper: Edvardsson and Olsson (1996)

### **8. International Trade in Service**

Reading

Paper: Goff (2015); OECD (2000); others TBA

4

**Reference** (other than earlier specified recommended text)

Edvardsson, B. and Olsson, J. (1996). Key concepts for new service development. *The Service Industries Journal*; Apr 1996; 16, 2; ABI/INFORM Global, PP. 140-164.

Fitzsimmons, J. A., Fitzsimmons M. J. and Bordoloi, S., *Service Management Operations, Strategy, Information Technology*, 8th Edition, McGraw-Hill, 2014

Goff, P.M. (2015). The Trade in Services Agreement Plurilateral Progress or Game-Changing Gamble? *CIGI Papers, No. 53*.

Jansson, J. O., *The Economics of Services: Microfoundations, Development and Policy*, 2nd Edition, Edward Elgar, 2013

Navarro, T. M. and Roura, D. R. (2010). Growth and Productivity in the Service Sector: The State of the Art. *Working Papers, the Institute of Social and Economic Analysis*.

OECD (2000). The Service Economy. *Science Technology Industry: Business and Industry Policy Forums*.

Park, D. and Shin, K. (2012). The Service Sector in Asia: Is it an Engine of Growth. *ADB Economics Working Paper Series, No. 332*.

World Travel & Tourism Council (2015). How Does Travel & Tourism Compare to Other Sectors, *Benchmark Report*.

World Travel & Tourism Council (2017). *Travel & Tourism Economic Impact 2017 Thailand*.

United Nations (2008a). *Tourism Satellite Account: Recommended Methodological Framework 2008*.

United Nations (2008b). *International Recommendations for Tourism Statistics 2008*.

Zhou, Z., *The Development of Service Economy: A General Trend of the Changing Economy in China*. Truth & Wisdom Press and Springer Science+Business Media Singapore, 2016

**Note**

Content in outline is subjected to change and update

# EE 411 Microeconomic Analysis

**Number of credits:** 3 credits (3-0-6)

**Prerequisites:** EE311 and EE320 (or EE421)

## I. Course Description

Study of microeconomic theory with an emphasis on utilizing mathematical tools to analyze various economic issues, such as consumer behavior, revealed preferences, intertemporal consumption, consumption and risk, and theory of production and cost. Topics covered also include market structures and behavior, game theory, factor markets, general equilibrium and welfare economics, and impacts of externalities, public goods, and asymmetric information on level of welfare.

## II. Course Objectives

This course provides an introduction to advanced microeconomic theory. The course is designed to teach classical materials and to introduce some methodologies used by economists. Topics include: theories of individual choice (under certainty and uncertainty); theory of production; markets and welfares under different market structures. tools of comparative statics and their application to price theory; a noncooperative game theory which analyze agent's behaviors under strategic decision making.

## III. Evaluation

Homework Assignment 10%, Midterm Exam 40%, and Final Exam 50%.

Midterm Exam Date: September 30, 2020 at 9.00-11.00 hrs.

Final Exam Date: December 12, 2020 at 9.00-12.00 hrs.

## IV. Textbook

### Main Texts:

- Mas-Colell, Andreu, Michael D. Whinston, and Jerry G. Green (MWG), *Microeconomics Theory*, Oxford University Press.
- Gibbons, Robert (G), *Game Theory for Applied Economist*, Princeton University Press.

### Supplementary Texts:

- Jehle, Geoffrey A. and Philip J. Reny (JR), *Advanced Microeconomic Theory*, 3<sup>rd</sup> Edition, Pearson Addison Wesley.
- Varian, Hal R. (V), *Microeconomics Analysis*, 3<sup>rd</sup> Edition, W.W. Norton & Company.
- Silberberg, Eugene and Wing Suen (SS), *The Structure of*

**Expected Learning Outcomes:**

**1. Morality and Ethics**

Applicability	Learning Goals	Expected Learning Outcomes
●	1.1 Students demonstrate integrity.	Students do not cheat on exams
○	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.	Students come to class on time.
○	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	Learning Goals	Expected Learning Outcomes
●	2.1 Students know and understand modern economics principles and theories, and are up to date with new developments.	Students understand core concepts in each topic.
○	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.	Students learn how to use optimization techniques in solving economic problems.
○	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	Learning Goals	Expected Learning Outcomes
●	3.1 Students have developed individual critical thinking.	Students can criticize the importance of assumption in various economic models.
○	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.	Students know how to apply microeconomic theories with daily economic-related decisions.

### 4. Interpersonal Skills and Responsibilities

Applicability	Learning Goals	Expected Learning Outcomes
●	4.1 Students are responsible for assigned tasks and work in groups effectively.	Students submit their work assignments on time.
●	4.2 Students have problem-solving skills.	Students receive assigned problems in each topic.
○	4.3 Students show leadership skills and team spirit.	
●	4.4 Students are always improving themselves.	Students are evaluated on their works and received feedback from their works.
○	4.5 Students have good interpersonal skills, adapting and working under different conditions.	

### 5. Quantitative Analysis, Communication and Information Technology

Applicability	Learning Goals	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.	

### V. Tentative Outline

Week	Topic	Book Chapter
1	Mathematics for Microeconomic Analysis	(MWG) Appendix
2	Mathematics for Microeconomic Analysis	(MWG) Appendix
3	Consumer Theory	(MWG) 1, 2, 3
4	Consumer Theory	(MWG) 1, 2, 3
5	Consumer Theory	(MWG) 1, 2, 3
6	Producer Theory	(MWG) 5
7	Risk and Uncertainty	(MWG) 6
	<b>Midterm Examination</b>	
8	Static Game	(G) 1, 3
9	Dynamic Game	(G) 2, 4
10	Partial Equilibrium	(MWG) 10
11	Market Failure	(MWG) 11, 12
12	Market Failure	(MWG) 11, 12
13	General Equilibrium	(MWG) 15, 16
14	General Equilibrium	(MWG) 15, 16
15	Information Economics	(MWG) 13, 14
	<b>Final Examination</b>	

## EE422 Mathematical Economics 2

**Number of credits:** 3 credits (3-0-6)

**Prerequisites:** EE421 and having completed or currently taking EE312

### Course Description:

The application of mathematical tools including integral calculus, differential equations, difference equations, phase diagram and dynamic optimization such as optimal control theory and dynamic programming for explaining dynamic economic phenomena as well as for locating time path and stability of variables in the context of both microeconomics and macroeconomics.

### Useful Materials:

[SHSS] Knut Sydsæter, Peter Hammond, Atle Seierstad and Arne Strøm, *Further Mathematics for Economic Analysis*, 2nd ed., Prentice Hall.

[SB] Carl P. Simon and Lawrence Blume, *Mathematics for Economists*, W. W. Norton & Company, Inc.

[C] Alpha C. Chiang, *Elements of Dynamic Optimization*, Waveland Press, Inc.

### Evaluation:

Your grade will be based on exams (80%), problem sets (20%).

Midterm exam (30%)

Final exam (50%)

### Things to cover:

Week	Topic	Read
1-3	Integral Calculus	SHSS (ch.4)
4-5	Differential Equations	SHSS (ch.5-7), SB (ch.24)
6	Difference Equations	SHSS (ch.11)
7-9	System of Simultaneous Differential Equations and System of Simultaneous Difference Equations	SHSS (ch.6-7), SB (ch.23, 25)
10-11	Calculus of Variations	SHSS (ch.8), C (ch.1-6)
12-13	Optimal Control Theory	SHSS (ch.9-10), C (ch.7-10)
14-15	Dynamic Programming	SHSS (ch.12)

### Remarks:

1) The instructor retains his right to give a final grade basing on his criteria.

2) There are many mathematical economics textbooks available, feel free to substitute another book if it suits you more.

3) There will not be any supplementary exams.

# EE425 Econometrics 1

**Number of credits:** 3 credits (3-0-6)

**MindTap website:** <https://login.cengagebrain.com/course/MTPPQD9PVKDB>

**Prerequisites:** EE211 (or EE213), EE212 (or EE214),  
MA216 (or MA211), and ST216 (or ST211)

## Course Objective:

The objective of this course is to provide students with statistical tools and econometric analysis so that students can understand the foundations of econometric theory and its applications. Economic theory makes statements and hypotheses that are mostly qualitative in nature and econometric analysis uses mathematics and statistical tools to give quantitative or empirical content to economic theory. With understanding in econometric methods, students can properly use them in his/her research work.

## Course Description:

Applying statistical methods and economic theories to analyze economic data, including simple and multiple regressions; estimation using the ordinary least squares (OLS) hypothesis testing; and dummy variable. This course also examines various problems in regression models, including Multicollinearity, Heteroscedasticity, Autocorrelation, Specification Error, Stochastic Regressors; and some advanced topics in regression method such as Generalized Least Squares (GLS) estimation, System of regressions and Seemingly Unrelated Regression (SUR), Simultaneous Equation System and solving Endogeneity problem with instrumental variables. Trainings in econometrics softwares.

**Note:** Since the analysis of the multiple regression model (or general linear model) will involve matrix algebra, students should have taken MA217 or have some basic knowledge about matrix algebra.

## Main Textbook:

Wooldridge, J. M., **Introductory Econometrics: A Modern Approach**, 7th ed., Cengage Learning, 2019.

## Other references for further reading:

Gujarati, D.N., D.C. Porter, and S. Gunasekar, **Basic Econometrics**, 5th ed., Mcgraw, 2017.

## Main econometrics software:

**Stata.** Available in the computer lab free of charge. To purchase private license online, visit

<https://www.stata.com/order/new/edu/gradplans/student-pricing/>

## Optional econometrics software:

R and RStudio. Free download at <https://www.r-project.org/> and at <https://rstudio.com/products/rstudio/download/>

**Tentative Schedule:**

Week	Topic	Book Chapter
1	Introduction to Econometrics	1
	Probability Theory	B
2	Mathematical Statistics	C
3	Simple Linear Regression	2
4	Simple Linear Regression	2
5	Multiple Linear Regression	3
6	Multiple Linear Regression	3
7	Hypothesis Testings and Confidence Intervals	4
	OLS Asymptotics	5
	<b>Midterm Examination</b>	
8	Models with Quadratics and Interaction Terms	6
9	Qualitative Variables	7
	Multicollinearity	3
10	Heteroskedasticity	8
11	Time Series and Serial Correlation	10, 12
12	Seemingly Unrelated Regression	
13	Misspecification	9
14	Endogeneity and Instrumental Variables	15
15	Simultaneous Equations Models	16
	<b>Final Examination</b>	

**Course Evaluation:**

	<b>Evaluation Method</b>	<b>Percentage</b>	<b>Evaluation Date</b>
1.	Homework	20	Every 2 weeks
2.	Midterm Examination	30	Thursday, October 1, 2020 (12.00-14.00)
3.	Final Examination	50	Tuesday, December 1, 2020 (9.00 – 12.00)

# EE431 Economics of Financial Markets and Institutions Financial Institutions

**Number of credits:** 3 credits (3-0-6)

**Prerequisites** EE311

## Course description:

Money and capital markets at the micro level; Financial assets; financial risks and financial risks bearing; Theory of equilibrium pricing of financial assets; the CAPM and APT models; Interest rate structure; bond and equity instruments; Financial derivatives; Asymmetric information in financial market; The study of financial institutions with the emphases on theories regarding the roles and functions of commercial banks; Risk management of financial institutions; Monitoring and controlling of financial institutions; The deposit insurance system and financial institution business from the perspective of industrial economics.

## Objective of the course:

- (1) To provide students with understanding of financial asset characteristics; risk, return and liquidity
- (2) To provide students with understanding of debt market and interest rate at microeconomic level.
- (3) To provide students with understanding of decision process for investment in financial assets at microeconomic level, where investors seek to maximize their expected utility under constraint (combination of risk and returns available in the financial market)
- (4) To provide students with understanding of diversification, degree of risk aversion, risk premium, which are important determinants of the equilibrium price of financial assets in the financial market.
- (5) To provide students with how to derive of equilibrium in the financial market
- (6) To provide students with understanding of asymmetric information problem in the financial market and the role of financial intermediaries
- (7) To provide students with understanding of risk management of financial institutions
- (8) To provide students of understanding of agency problem and excessive risk-taking in the financial market and how to mitigate the situation
- (9) To provide students with understanding of bank's liquidity creation, bank's liquidity problem, bank runs and deposit insurance

## Evaluation

Mid-term exam 30% (Topic 1 – Topic 4)  
Final exam 45% (Topic 4 – Topic 8)  
Homework 10%  
Quiz 15%

**Remarks:** In some cases, we may need to change the evaluation method. Please keep updating information on the BE moodle.

## Teaching Materials and Resources

### Required Text:

Frederic Mishkin, The Economics of Money, Banking and Financial Markets 9th Edition (Pearson, 2009)  
Peter D Spencer, The Structure and Regulation of Financial Market (Oxford University Press, 2000)  
Copeland, Thomas E. and J. Fred Weston, Financial Theory and Corporate Policy, 4th edition, (Addison-Wesley, 2005)

Diamond(2007), Bank and Liquidity Creation: A Simple Exposition of the Diamond-Dybvig Model, Federal Reserve Bank of Richmond Economic Quarterly.  
Diamond(1996) Financial Intermediation and Delegated Monitoring: A Simple Example, Federal Reserve Bank of Richmond Economic Quarterly.  
Kent Mathews and John Thompson, The Economics of Banking 2nd Edition (John Wiley & Son, 2008)

Remarks : Supplement handouts or reading will be posted on *BE moodle* and *Google Classroom*.

**Lecture presentation will be provided by the lecturer.**

· The lecture presentation is designed to support learning in the class. Therefore, it is not

### **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.

#### **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. 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 commun

## 11. Lecture/Schedule

### Part I : Economic Analysis of Asset Prices

Topic 1. Financial assets and the overview of financial market (1 time)

- 1.1 Money and functions of money
  - 1.2 Money, Wealth and Income
  - 1.3 Financial Market and Financial Assets
  - 1.4 Financial Assets Classified by Information Theory
  - 1.5 Flows of Funds in The Financial Market
  - 1.6 Structure of Financial Market
- FM2009  
Ch. 1-3

Topic 2. Debt Market and Structure of interest

- 2.1 Measuring Interest Rates
- 2.2 Nominal Interest Rates and Real Interest Rates
- 2.3 The Behavior of Interest Rates
- 2.4 Risk and Term Structure of Interest Rates

Topic 3. Mean-Variance Analysis  
(3 times)

- 3.1 Measuring Risk and Returns for a Single Asset
- 3.2. Measuring Portfolio Risk and Returns
- 3.3. Efficient Frontier with Two Risky Assets
- 3.4. Efficient Frontier with One Risky and One Risk Free Asset
- 3.5. Optimal Portfolio Choice N Risky asset
- 3.6. Optimal Portfolio Choice N Risky asset and One Risk Free Asset

Topic 4: Capital asset pricing model (CAPM) and Arbitrage Pricing Theory (APT) (4 times)

- 4.1 Capital Asset Pricing Model
  - Portfolio Diversification and Individual Asset Risk
  - Assumptions
  - The Efficiency of Market Portfolio
  - Derivation of CAPM
  - Properties of CAPM
- 4.2 Arbitrage Pricing Theory
  - Arbitrage Opportunity
  - Replicating Portfolio
  - Derivation of Arbitrage Pricing Theory

### Part II : Financial Institution, Financial Market and Asymmetric Information

Topic 5. Financial institutions (2 times)

- 5.1 Introduction
- 5.2 Major risks faced by banks
- 5.3 Liquidity Management and The Role of Reserve
- 5.4 Interest Rate Risk Management
- 5.5 Credit Risk Management
- 5.6 Capital Adequacy Management

Topic 6. Theory of financial intermediation (5 times)

6.1 Introduction

6.2 Shortcomings of direct finance

6.3 How banks help to resolve the problem?

(a) Confidentiality and The Banking Relationship

(b) Economies of Scale and Role of Diversification in Banking:

Financial Intermediation as Delegated Monitoring

Topic 7. Convexity, excessive risk, and bank regulation (5 times)

7.1 Decision Under Uncertainty

7.2 Agency Cost of Debt Finance: Conflict between a firm's bondholders and stockholders

7.3 Asset Substitutions Problem

7.4 How to solve asset substitution problem?

7.5 Adverse Selection and Credit Rationing

Topic 8. Bank runs, systemic risk and deposit insurance (4 times)

8.1 Introduction

8.2 Demand for Liquidity

8.3 Bank Liquidity Creation

8.4 Bank Runs

8.5 Suspension of Convertibility and Deposit Insurance

8.6. Note on the optimal level of liquidity

**Class Policies:**

**Any changes** to the course outline (if any) **will be announced in the class or uploaded on BE**

**moodle**. It is the responsibility of the students to obtain any information announced in the class.

Ignorance of such information due to absence of class is not a valid defense. If a student has any question about the lecture, please do not hesitate to consult the lecturer during office hours. The lecturer would be pleased to assist. Please make an appointment in advance via email. Please allow enough time (at least 2 working days) for the lecturer to confirm the appointment. I will be available for you only if you confirm such an appointment by emailing back.

Attendance is highly encouraged

Proper manner and courtesy are expected

A student may contact me by sending email. On the night before a text/an exam the cut off for any question is 7.00 pm. via email, I can provide only short answer. If you prefer long answer, please come to visit me by making an appointment.

## EE432 Monetary Theory and Policy

**Number of credits:** 3 credits (3-0-6)

**Prerequisites:** EE312

### Course Description:

This course aims to provide the student with an introduction to the role of money, financial markets, financial institutions and monetary policy in the economy, thus providing a solid foundation for further study and enhance professional capability in the financial services industry.

This course will investigate the origins and role of money, theories regarding the supply of and demand for money and the relationship between money, credit and debt will also be emphasized. The course will then study the role of financial markets in the economy with a particular emphasis on bond markets and interest rate determination. Besides, this course will further analyze the evolving roles of central banks and their views regarding the execution monetary policy; including recent and historical international policy actions, the transmission of that policy in the economy, and the impact of monetary policy on economic growth and inflation. It will also cover the formulation of unconventional monetary policy, so called quantitative easing, when interest rates approach the zero lower bound. Another area of study in this course is the consideration of modern monetary theories, particularly, in the context of real business cycle model and the New Keynesian model.

### Course Objectives:

1. To develop knowledge and analytic skill to anticipate the central bank's monetary policy reaction on different economic situations.
2. To enhance capability to make a preliminary analysis of novel monetary policy execution together with its associated impacts and determine the appropriate choice of monetary stance.
3. To encourage students to take an active learning approach by reading lecture notes and participating individual assignment, in-class discussion and peer-to-peer learning.

### Course Evaluation

The course will be assessed by pre-class reading, after-class quiz assignment, individual report assignment, mid-term examination and final examination. The pre-class reading will be given prior to the beginning of lectures. By doing so, students are responsible for knowing any relevant materials and having some clue about what is going to be discussed in class. Such pre-class reading and after-class quiz assignments will essentially be grading student learning performance. Students are not expected to miss any assignments. Therefore, any absences or overdue submission will be counted as a missed quiz or assignment. All homework pre-class reading and after-class quiz assignments will be accessed using a web-based platform provided by Mc-Graw Hill Connect <https://connect.mheducation.com>, which linked to our BE-moodle. The assessment criteria are detailed as follow.

1. Individual pre-class reading 10%  
*10 times throughout semester as details shown in the class schedule below*
2. Individual after-class quiz assignments (multiple choices) 10%  
*2 times throughout semester, each worth 5%.*
  - *Quiz assignment 1 (covering chapter 11, 12, 14): due 26 September*
  - *Quiz assignment 2 (covering chapter 17, 18, 19): due 31 October*
3. Individual report assignment 10%  
*Submission due date: 21 November*
4. Mid-term Examination 30%
5. Final Examination 40%

### Readings

EE432 is textbook-based. Students are required to read all lecture notes and should have access to this online textbook. The primary text book will be:

Cecchetti, Stephen and Schoenholtz, Kermit. (2017) **Money, banking, and financial markets.**  
McGraw-Hill.

### Expected Learning Outcomes:

#### Morality and Ethics

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

#### Knowledge

Applicability	Expected Learning Outcomes
●	2.41 Students know and understand modern economics principles and theories, and are up to date with new developments.
●	2.42 Students know and understand Thai and global economic structure, and the importance of major international economic events.

○	2.43	Students know and understand instruments of economic analysis.
●	2.44	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.
○	2.45	Students are informed about related fields including sociology, business administration, education, law policy, and science.

### Intellectual Development

Applicability	Expected Learning Outcomes	
●	3.25	Students have developed individual critical thinking.
●	3.26	Students are sufficiently trained in research skills.
●	3.27	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.

### Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes	
●	20.1	Students are responsible for assigned tasks and work in groups effectively.
●	20.2	Students have problem-solving skills.
○	20.3	Students show leadership skills and team spirit.
●	20.4	Students are always improving themselves.
○	20.5	Students have good interpersonal skills, adapting and working under different conditions.

### Quantitative Analysis, Communication and Information Technology

Applicability	Expected Learning Outcomes	
○	29.1	Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.
○	29.2	Students communicate effectively and select appropriate presentation methods.

Applicability	Expected Learning Outcomes
○	29.3 Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.

### Attendance at Lectures

Lectures provide opportunities to better understanding of materials in the course. So that *attendance and active participation in lectures is required and monitored.*

### Class Schedule

Week	Topic
1.	Financial instruments, financial markets, and financial institutions (Cecchetti & Schoenholtz Textbook Chapter 3)
2.	Understanding risk (Cecchetti & Schoenholtz Textbook Chapter 5) <i># Pre-class reading 1 for Chapter 5, worth 1%</i>
3.	The risk and term structure of interest rates (Cecchetti & Schoenholtz Textbook Chapter 7) <i># Pre-class reading 2 for Chapter 7, worth 1%</i>
4.	The economics of financial intermediation (Cecchetti & Schoenholtz Textbook Chapter 11) <i># Pre-class reading 4 for Chapter 11, worth 1%</i>
5.	Depository institutions: banks and bank management (Cecchetti & Schoenholtz Textbook Chapter 12) <i># Pre-class reading 5 for Chapter 12, worth 1%</i>
6.	Regulating the financial system (Cecchetti & Schoenholtz Textbook Chapter 14) <i># Pre-class reading 5 for Chapter 14, worth 1%</i>
7.	Central banks in the world today (Cecchetti & Schoenholtz Textbook Chapter 15) <u>&amp; Mid-semester Exam Revision</u>
	<b>Mid-term examination</b>
8.	The central bank balance sheet and the money supply process (Cecchetti & Schoenholtz Textbook Chapter 17)
9.	Monetary policy: stabilizing the domestic economy

Week	Topic
	(Cecchetti & Schoenholtz Textbook Chapter 18) <i># Pre-class reading 6 for Chapter 18, worth 1%,</i>
10.	Exchange rate policy (Cecchetti & Schoenholtz Textbook Chapter 19) <i># Pre-class reading 7 for Chapter 19, worth 1%</i>
11.	Money growth and money demand (Cecchetti & Schoenholtz Textbook Chapter 20) <i># Pre-class reading 8 for Chapter 20, worth 1%</i>
12.	Output, inflation, and monetary policy (Cecchetti & Schoenholtz Textbook Chapter 21) <i># Pre-class reading 9 for Chapter 21, worth 1%</i>
13.	Understanding business cycle fluctuations (Cecchetti & Schoenholtz Textbook Chapter 22) <i># Pre-class reading 10 for Chapter 22, worth 1%</i>
14.	Modern monetary policy and the challenges (Cecchetti & Schoenholtz Textbook Chapter 23)
15.	Special topic: New Keynesian monetary economics & <u>Final Exam Revision</u>
	<b>Final examination</b>

## EE434 Behavioral Finance

**Number of credits:** 3 credits (3-0-6)

**Course description:**

Study concepts and frameworks of behavioral economics that are used to explain observations in the financial sector. Topics of the subject include the Prospect Theory and its implications for investment behaviors, empirical evidence in the financial sector that support the idea of behavioral economics, models that incorporate psychological and sociological factors in explaining asset returns, or other related topics that the lecturer finds suitable.

**Prerequisite:** EE311

**Course Objective:**

1. To provide students with an introduction to the field of behavioral finance.
2. To provide students with an introduction to the Prospect Theory.
3. To compare Prospect Theory, in the field of behavioral finance, with Expected Utility Theory, in the field of mainstream economics.
4. To provide students with an introduction to main anomalies in the field of finance.
5. To provide students with some main factors influencing decision making of human beings, including:
  - 5.1 Heuristics
  - 5.2 Emotion
  - 5.3 Social influence

Students are also encouraged to practice collaborative problem-solving and presentation skills in this class.

**Teaching Materials and Resources:**

*Main textbook:*

[A&D] Ackert, L. F. and R. Deaves (2010). **Behavioral finance: Psychology, decision-making, and markets.** Mason, OH: South-Western Cengage Learning.

*Required Readings:*

[B&T] Benartzi, S. and R. Thaler (2007). Heuristics and Biases in Retirement Savings Behavior. **Journal of Economic Perspectives** 21(3), pp. 81-104.

[BHW] Bikhchandani, S., D. Hirshleifer and I. Welch (1998). Learning from the Behavior of Others: Conformity, Fads, and Informational Cascades. **Journal of Economic Perspectives** 12(3), pp. 151-170.

[D&H] Daniel, K. and Hirshleifer, D. (2015). Overconfident Investors, Predictable Returns, and Excessive Trading. **Journal of Economic Perspectives** 29(4), pp. 61-88.

[D&T] DeBondt, W. F. and R. Thaler (1985). Does the Stock Market Overreact? **The Journal of Finance** 40(3), pp. 793-805.

[S&T] Siegel, J.J. and R. Thaler (1997). Anomalies: the equity premium puzzle. **Journal of Economic Perspectives** 11(1), pp. 191 – 200.

*Supplementary Readings:*

Mishkin, F. S. (2009). **The Economics of Money, Banking, and Financial Markets**, 9th Ed. Pearson/Addison Wesley.

Statman, M. (2019). **Behavioral Finance: The Second Generation**. CFA Institute Research Foundation.

**Handouts or related materials:** (if any) will be uploaded on BE moodle at least two days before each lecture.

**Class Talks:**

Students should arrange into 8 groups. There will be two talks on issues related to JEP articles and content in class. At each talk, each group summarizes related JEP articles, one page for each article, and submit to the lecturer. At each talk, each group present your own idea about the topic of the talk with Powerpoint (or something similar) not exceeding ten pages. The presentation can cover anything related to the topic. At each talk, four groups will be selected to present their own idea about the topic of the talk. After that, class will discuss about current development.

**Evaluation:**

Class Talks	20%
Mid-term examination	32%
Final examination	48%

**Expected Learning Outcomes:**

**1. Morality and Ethics**

Applicability	Expected Learning Outcomes
●	1.46 Students demonstrate integrity.
●	1.47 Students prioritize social and public benefits over personal ones.
●	1.48 Students are punctual and comply with the code of conduct of the institution and society at large.

●	1.49 Students are responsible and accountable to society, the nation, and the subject of economics.
○	1.50 Students realize the cultural and environmental value of the sustainable society.

## 2. Knowledge

Applicability	Expected Learning Outcomes
●	2.46 Students know and understand modern economics principles and theories, and are up to date with new developments.
●	2.47 Students know and understand Thai and global economic structure, and the importance of major international economic events.
○	2.48 Students know and understand instruments of economic analysis.
●	2.49 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.
●	2.50 Students are informed about related fields including sociology, business administration, education, law policy, and science.

## 3. Intellectual Development

Applicability	Expected Learning Outcomes
●	3.28 Students have developed individual critical thinking.
●	3.29 Students are sufficiently trained in research skills.
●	3.30 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
●	22.1 Students are responsible for assigned tasks and work in groups effectively.
●	22.2 Students have problem-solving skills.
○	22.3 Students show leadership skills and team spirit.

●	22.4 Students are always improving themselves.
○	22.5 Students have good interpersonal skills, adapting and working under different conditions.

**5. Quantitative Analysis, Communication and Information Technology**

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

## EE435 Introductory Financial Econometrics

### Course Description:

The estimation methods of financial econometrics models, such as least square method and maximum likelihood, with the emphasis on time-series model including univariate time-series model, high frequency time-series model, multivariate timeseries model; financial forecasting; The regression estimation of variables with long run relationship and short run dynamics; The application of model to analyze financial economics issues.

**Prerequisites:** EE325 (or EE425) and EE431 (or EE432)

### Course Objectives:

This course aims to apply econometric methodology with the economic and financial theory in explaining empirical data, and introduce a more advanced econometrics methodology beyond basic econometrics, especially time series econometrics. The objective is to train students for empirical research. The course focuses mainly on model formulation, parametric estimation method, and applications of the model. Emphasize of the course will be on empirical examples rather than theoretical proof. However, students are all expected to have a good understanding of basic statistics, calculus, and matrix algebra. Thus, students are all responsible for all pre-requisites of the course. This course also aims to have students

learn how to use computer software in estimating the econometric models by letting students work on empirical assignments concerning on each topic.

### Required Text:

\*Tsay , R. (T) (2010). *Analysis of Financial Time Series. 3rd Ed.*, Hoboken, NJ: John Wiley & Sons.

\*Jonathan D. Cryer and Kung-Sik Chan (CC). *Times Series Analysis with Applications in R*, 2nd Ed., Springer.

### Supported Text:

Baltagi, B.H. (2008). *Econometric Analysis of Panel Data*. 4th ed. West Sussex, UK: John Wiley & Sons.

Berndt, E.R. (1991). *The Practice of Econometrics: Classic and Contemporary*. New York: Addison-Wesley Publishing. (Chapter 2)

Brooks, C. (2008). *Introductory Econometrics for Finance*. 2nd ed. New York, NY: Cambridge University Press.

Heij, C., de Boer, P., Franses, H.P., Kloek, T., & van Dijk, K.H. (2004).

*Econometric Methods with Applications in Business and Economics*. New York, NY: Oxford University Press. (Chapter 4)

Enders, W. (2003). *Applied Econometric Time Series*. 2nd ed. New York: John Wiley & Sons.

Greene, W.H. (2008). *Econometric Analysis*. 6th ed. Upper Saddle River, NJ: Prentice Hall.

Hamilton, J.D. (1994). *Time Series Analysis*. Princeton, NJ: Princeton University Press.

Johnston, J., & DiNardo, J. (1997). *Econometric Methods*. 4th ed. Singapore: McGraw-Hill.

Ruud, P.A. (2000). *An Introduction to Classical Econometric Theory*. New York: Oxford University Press.

## **Expected Learning Outcomes:**

### **1. Morality and Ethics**

#### Applicability Learning Goals

- . 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 Learning Goals

- . 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 Learning Goals

- . 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.

### **4. Interpersonal Skills and Responsibilities**

#### Applicability Learning Goals

- . 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 Learning Goals

- . 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.

## Assessment

1. Assignments 20%
  2. Midterm Exam 35%
  3. Final Exam 45%
- 100%

## Academic Honesty

You are expected to be honest in all of your academic work. Copying is plagiarism and will be treated as an honor code violation. Potential sanctions include failure in the course and suspension from the university.

## Conduct and Manner

Ethics is all above everything, far more valuable than merely subject knowledge. Accordingly, plagiarism and cheating, including any possible plagiarism and cheating, will be subject to penalties as stated in the University Regulations. More importantly, to achieve overall objectives of learning, it is strongly advised that all students of EE435 classes behave in proper manner with socially acceptable and right conduct.

Below is advised code of conduct to be performed in EE435 class. Achieving and maintaining the code of conduct throughout the course will surely be awarded.

1. No mobile phones used. This includes silent mode, message sending, LINE, and all social network communication that would interfere teaching and learning. Should any mobile phone ring, a pop-up closed-book quiz will be given to all students in the group. Score earned from the quiz will be counted toward the course evaluation.

2. Be punctual. Class starts at 08:00 am. Yet it is understood that students may have continuing classes that cause delay. It is acceptable if it is a few minutes late. But unnecessary delay should be avoided. Even if students are on time, they are advised not to leave the room without unnecessary purposes.

3. Behave. Everyone is expected to behave with basic politeness, civility, and respect for others. In particular, talking in class is allowed if it's part of a class discussion. Private communications are not, especially during quizzes. Neither are reading extraneous materials, using electronic equipment/s or sleeping. Other socially acceptable manner should be practiced here. For example, this is a classroom whereby food and drink is not allowed. This is the university whereby students wear proper dress.

## Course Outline:

### 1: Introduction

- 3-4
1. Time Series and Stochastic Processes
  2. Means Variances and Covariances
  3. Fundamental Distributions (Normal, Chi, and F)
  4. Stationarity
  5. Unit Root and Stationary
  6. Correlation and Autocorrelation Functions
  7. White noise process
  8. Estimation ( OLS and MLE)
  9. Trends
  10. Seasonal Models

Readings CC. Ch 2 , 3.1 T. Ch1, Ch 2.1, 2.2, 2.3, 2.7, 2.8

### Univariate Time Series Models

## **2 : Autoregressive Models**

- 3-4 Autoregressive (AR) Models
    - Specification
    - Properties
    - Estimation
    - Forecast and Forecast Error
- Readings CC. Ch 4 T. Ch 2.4

## **3 : Moving Average Models**

- 3-4 Moving Average (MA)
    - Specification
    - Properties
    - Estimation
    - Forecast and Forecast Error
- Readings CC. Ch 4 T. Ch 2.5

## **Volatility Models**

### **4 : Autoregressive Conditional Heteroskedastic Model**

- 3-4 Autoregressive Conditional Heteroskedastic (ARCH) Model
    - Specification
    - Properties
    - Estimation
    - Forecast and Forecast Error
- Readings CC. Ch 12.1 12.2 T. Ch 3.1, 3.2, 3.3, 3.4

### **5 : Generalized Autoregressive Conditional Heteroskedastic Model**

- 2-3 Generalized Autoregressive Conditional Heteroskedastic (GARCH) Model
    - Specification
    - Properties
    - Estimation
    - Forecast and Forecast Error
- Readings CC. Ch 12.3 T. Ch 3.5

## **Multivariate Time Series Models**

### **6: Vector Autoregressive Model**

- 4-5 Vector Autoregressive (VAR) Model
    - Specification
    - Properties
    - Estimation
    - Forecast and Forecast Error
    - Cointegration and Error Correction Model
    - Impulse Response Functions
    - Variance Decomposition  
( Extension to VMA)
- Readings T. Ch 8.1, 8.2, 8.5, 8.6

## EE441 Economics of Public Expenditure

### Course Description :

The role of government in economic activities; Government Outlay; Welfare Economics; Theory of Public Goods, Theory of Externalities, Public Choice, Public Pricing and Policies, fiscal decentralization; The analysis of the effects of government spending on the macroeconomic goals, such as price stability, economic growth, distribution of income, and employment conditions, as well as the effects of government spending on important economic sectors.

**Prerequisites:** EE212 (or EE214) and EE311. The course will require basic and intermediate micro-economics.

### Main Textbook:

The course will require one main textbook

Rosen, Harvey, and Gayer, Ted, *Public Finance*, 9th edition, 2010 (or the later edition if that is what the bookstore has).

Additionally, there will be supplemental reading throughout the semester, drawn from current literature, which will be used to illustrate the principles taught in class. These readings will be posted to moodle, and will be available on my website.

### Other Recommended Books:

Gruber, J., *Public Finance and Public Policy*, Worth Publishers 2nd ed. 2007.

Parthasarathi Shome, Ed, *IMF Tax Policy Handbook*, Fiscal Affairs Department, IMF, Washington D.C., 1995.

Stiglitz, J., *Economics of the Public Sector*, W.W. Norton & Company 3rd ed., 1999.

**Moodle:** The moodle code for this class is 1457. The Google Classroom code is **wwp635q**

I use Google Classroom for most functions. The notes for the class are available there. If the university shuts down during the semester due to the Wuhan Flu, Classes will continue via Zoom, and all classes will be archived on Google Classroom.

### Evaluation:

The class evaluations will be based on two exams, a midterm and a final. The midterm will be 2 hours in length, the final will be 3 hours in length. Students will have a choice of what questions to answer. A sample exam will be passed out before the first exam.

Each exam is worth a percentage of your grade as given below. The Midterm exam will cover material from the first half of class, the Final exam will be comprehensive, though weighted towards materials studied in the second half of the semester. The exam schedule is given below:

Midterm Exam: 40%

Final Exam: 60%

**Expected Learning Outcomes:**

**Morality and Ethics**

Applicability	Learning Goals	Expected Learning Outcomes
●	5.1 Students demonstrate integrity.	Don't Cheat
●	5.2 Students prioritize social and public benefits over personal ones.	Be Good
●	5.3 Students are punctual and comply with the code of conduct of the institution and society at large.	Be a Man
●	5.4 Students are responsible and accountable to society, the nation, and the subject of economics.	N/A
○	5.5 Students realize the cultural and environmental value of the sustainable society.	

**Knowledge**

Applicability	Learning Goals	Expected Learning Outcomes
●	2.51 Students know and understand modern economics principles and theories, and are up to date with new developments.	Master all knowledge taught in class.
●	2.52 Students know and understand Thai and global economic structure, and the importance of major international economic events.	Be able to apply the general knowledge taught in class to Thailand
○	2.53 Students know and understand instruments of economic analysis.	
●	2.54 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.	Know Public Finance and Public Choice Economics

○	2.55 Students are informed about related fields including sociology, business administration, education, law policy, and science.	
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**Intellectual Development**

Applicability	Learning Goals	Expected Learning Outcomes
●	3.31 Students have developed individual critical thinking.	Per Exams
●	3.32 Students are sufficiently trained in research skills.	Per Exams
●	3.33 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.	Per Exams

**Interpersonal Skills and Responsibilities**

Applicability	Learning Goals	Expected Learning Outcomes
●	24.1 Students are responsible for assigned tasks and work in groups effectively.	N/A
●	24.2 Students have problem-solving skills.	Fulfil all class requirements
○	24.3 Students show leadership skills and team spirit.	
●	24.4 Students are always improving themselves.	Do so.

○	24.5 Students have good interpersonal skills, adapting and working under different conditions.	
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### Quantitative Analysis, Communication and Information Technology

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

### Teaching Plan and Class Schedule

Topic	Readings
Section 1	Rosen and Gayer, chapter 1
Section 2 (Tools of Positive and Normative Analysis)	Rosen and Gayer, chapter 2-3
Section 3 (Public Goods)	Rosen and Gayer, chapter 4
Section 4 (Externalities)	Rosen and Gayer, chapter 5
Special Topic: Pollution, Global Warming, the garbage imbalance	Summers, World Bank Memo TBD
Section 5 (Political Economy)	Rosen and Gayer, chapter 6 Stiglitz, chapter 12 (optional)
Section 7 (Education)	Rosen and Gayer, chapter 7
<b>Midterm Exam</b>	

Section 8 (Cost-Benefit Analysis)	Rosen and Gayer, chapter 8
Section 9 (The Health-care market)	Rosen and Gayer, chapter 9
Section 10 (Government and the market for Health Care)	Rosen and Gayer, chapter 10
Section 11 (Social Security)	Rosen and Gayer, chapter 11
Section 12 (Income Redistribution – theoretical concepts)	Rosen and Gayer, chapter 12
Section 13 (Income Redistribution – practice)	Rosen and Gayer, chapter 13 Stiglitz, chapter 25
Section 14: U.S., EU and Thai issues of Income distribution	TBA
Section 15: Public Choice and Public Finance	Public Choice, Chapter 1 and 6
<b>Final Exam</b>	

# EE446 Economic Analysis of Corruption

**Prerequisites:** EE311

## **Course description:**

A study of corruption using economic analytical frameworks employing both theoretical and empirical methodologies. The topics covered include the definition and coverage of corruption, the causes of corruption, the economic consequences of corruption - both at the micro and macro levels, together with the public policies and measures used in combating corruption. In addition, the roles the private sector, civic society, and international organizations play in tackling corruption will also be discussed with reference to relative case studies.

## **Course highlights:**

- Developing an understanding of the concepts and principles at play within the field of the economics of corruption
- Studying the economic framework through the experimental, behavioural and institutional tools developed to allow the critical analysis of corruption behaviour
- Providing a wide variety of games and activities that can help participants understand the topics and concepts behind corruption motivation and behaviour
- Analysing, evaluating and presenting the corruption research findings available from academic research papers
- Designing your own study project (employing theoretical and experimental methods) and applying some of the resulting findings and ideas to public policy

## **Learning objectives:**

- To obtain an understanding of the key concepts and insights within the economics of corruption
- To learn how to evaluate economic research on corruption
- To further your ability to discuss and analyse policy and its impact on society
- To debate and express the findings of your own study research with clarity and precision

## **Teaching Sessions:**

### **1) Corruption: concepts, types, causes and consequences**

- What is corruption?
- Classifications of corruption  
Causes and consequences of corruption

### **2) Measuring corruption**

- Official statistics
- Perceptual and attitudinal surveys

- Experiential and tracking surveys
- Other methods

### 3) A theoretical analysis of corruption

- The microeconomics of corruption: the classical approach
- The industrial organisation of corruption
- The institutional economics of corruption

### 4) Experimental and behavioural approaches to understanding immoral and corrupt behaviour

- Laboratory, online and field experiments on dishonesty
- A Cheap Talk Sender-Receiver Game
- Bribery game and experiment
- Experiment on the industrial organization of corruption

### 5) Choice architecture for tackling corruption

- Designing anti-corruption policies
- Behavioural interventions
- The costs of fighting corruption

### 6) Legal and private enforcement of corruption

- Legal enforcement and intermediaries
- Private enforcement of corrupt deals
- A comparative study of anti-corruption systems

### 7) Designing research on corruption: the experimental economics approach

- Designing research and brain-storming ideas
- Designing an experiment: treatments, samples, and payoffs
- Running the experiment and organising a sample
- Research presentation

### 8) Case studies and lessons learned

#### Assessment:

- |                    |   |
|--------------------|---|
| • Examination      | 50% (Midterm exam: 20% and final exam: 30%) |
| • Paper summary    | 5%  |
| • Presentation     | 15%   |
| • Research project | 25%   |
| • Participation    | 5%  |

# EE451 International Trade Theory and Policy

## Course Description:

*Prerequisite EE311*

Study on international trade and specialisation based on the principles of comparative cost, relative factor endowment, market structure, and returns to factor. Also covered are international trade policies and measures, international economic integration, theory and policy of international investment, international trade and economic development. An examination of problems, policies and strategies on international trade of developing countries and Thailand.

## Evaluation:

Quiz	10%
Group work	10%
Term Paper	10%
Midterm Exam	30%
Final Exam	40%

## Readings:

(AF) Appleyard, D.R. and A.J. Field, Jr. (2017) *International Economics*. 9<sup>th</sup> ed. McGraw-Hill: Singapore.

World Trade Organization. World Trade Statistics Review 2018

[https://www.wto.org/english/res\\_e/statis\\_e/wts2018\\_e/wts2018\\_e.pdf](https://www.wto.org/english/res_e/statis_e/wts2018_e/wts2018_e.pdf)

## COURSE OUTLINE

1. Introduction 14 Aug
  - 1.1. What is international trade about?
  - 1.2. General figures of world tradeRead: AF ch. 1,
  
2. Explanations of Trade: Classical Theory 19, 21 Aug
  - 2.1. Mercantilism
  - 2.2. Adam Smith's Absolute Advantage
  - 2.3. David Ricardo's Comparative Advantage
    - (a) Assumptions
    - (b) Production Possibility Frontiers
    - (c) Gains from Trade
  - 2.4. Measuring trade advantage: The Balassa Index
  - 2.5. Extensions and Tests of the Classical Trade ModelRead: AF ch. 2-4
  
3. Neoclassical Trade Theory 26, 28 Aug, 2 Sept
  - 3.1. Basic Tools
    - (a) The Theory of Consumer Behaviour
    - (b) The Production Theory

- (c) The Edgeworth Box Diagram and The Production Possibility Frontier
- 3.2. Gains from Trade in Neoclassical Theory
  - (a) Autarky Equilibrium
  - (b) Production and Consumption Gains from Trade
  - (c) Some Important Assumptions
- 3.3. Offer Curves and Terms of Trade  
Read: AF ch. 5-7
  
- 4. Factor Endowments and the Heckscher-Ohlin Model 4, 9, 10, 16, 18 Sept
  - 4.1. Assumptions
  - 4.2. Factor Abundance
  - 4.3. Commodity Factor Intensity
  - 4.4. The Heckscher-Olin Theorem
  - 4.5. The Factor Price Equalization Theorem
  - 4.6. Specific-Factors Model
  - 4.7. Empirical Tests of the Heckscher-Olin Theorem
    - (a) The Leontief Paradox
    - (b) Suggested Explanations for The Leontief Paradox
 Read: AF ch. 8-9
  
- 5. Economic Growth and International Trade 23, 25 Sept, M\*
  - 5.1. Classifying the Trade Effects of Economic Growth
  - 5.2. Sources of Growth and the Production-Possibilities Frontier
  - 5.3. Factor Growth, Trade and Welfare
    - (a) The Small-Country Case and the Rybczynski Theorem
    - (b) The Large-Country Case
 Read: AF ch. 11
  
- 6. International Factor Movement 7, 9 Oct
  - 6.1. Capital Movement
  - 6.2. Labour Movement
 Read: AF ch. 12
  
- 7. Alternative Theories and Intra-Industry Trade 14, 16, 21 Oct
  - 7.1. Intra-Industry Trade
  - 7.2. The Imitation Lag Hypothesis and The Product Cycle Theory
  - 7.3. The Linder Theory
  - 7.4. The Kemp Model and External Economies of Scale
  - 7.5. The Krugman Model and Internal Economies of Scale with Monopolistic Competition
 Read: AF ch. 10
  
- 8. Trade Policy 28, 30 Oct, 4, 6 Nov
  - 8.1. Import Tariffs
    - (a) Measurement of Tariffs and Effective rate of protection
    - (b) The impact of an import tariff
    - (c) Stolper-Samuelson Theorem and distribution of income
    - (d) The large country case
  - 8.2. Production Subsidy
  - 8.3. Export Taxes and Subsidies
  - 8.4. Nontariff Barriers
    - (a) Import quotas
    - (b) Voluntary export restraint
  - 8.5. Arguments for Protection
 Read: AF ch. 13-16

- 9. Economic Integration 11, 13, 18, 20 Nov
  - 9.1. Types of Economic Integration
  - 9.2. The Static Effects
    - (a) Trade Creation and Trade Diversion
    - (b) The Second Best Theory
  - 9.3. The Dynamic Effect

Read: AF ch. 17
  
- 10. Current Issues in International Trade 25, 27 Nov
  - 10.1. Trade Institutions: WTO
  - 10.2. Thailand and ASEAN
  - 10.3. Other current issues

Read: AF ch. 18

## EE452 International Monetary Economics

**Number of credits:** 3 credits (3-0-6)

**Prerequisites** EE312

### Course Description:

This course provides fundamental basis for understanding international financial economics and its application to the real world analysis. Major topics include the balance of payments and its adjustment mechanism; foreign exchange markets; exchange rate determinations, aggregate demand and aggregate supply, price levels and output and exchange rates in the short-run and the long-run; international capital flows; evolution of international monetary system; international monetary problems and financial crises encountered by developing countries, Thailand and the rest of the world. In addition, other special topics such as the roles of the central bank, current financial crises and up-to-date international macroeconomic issues will also be discussed.

Students are strongly encouraged to make use of modern-day internet facilities to enhance their analytical skills.

### Course Objectives:

The course aims at laying down the basic concepts of international monetary economics so that students can understand and analyze the complexities of worldwide international finance and economic issues. It first portrays the components of the balance of payments and then goes on to explain the how it is interconnected with rest of the economy. There will be theoretical applications to the real-world scenarios for all topics.

### Main Textbook:

Krugman, Paul. R, Maurice Obstfeld and Marc J. Melitz. *International economics: Theory & Policy*. 11th edition. Essex: Pearson Education Limited, 2015.

Pugel, T. A. (2012). *International Economics*. 15th Edition, New York: McGraw-Hill (Alternatively: Pugel, T. A (2016). *International Economics*. 16th Edition, New York: McGraw-Hill or newer edition)

Daniels, J. P. and D. D. Van Hoose (2014). *International Monetary and Financial Economics*. New Jersey: Pearson Education

Feenstra, R. and A. Taylor (2008). *International Economics*. 1st Edition, New York: Worth Publishers

**Method of Instruction:** Class activities include lectures, discussions and presentations. Students are expected to read before the class, work on group presentations, and participate in class discussions.

### Evaluation:

Mid-term exam	30%
Final Exam	30%
Group Report/Presentation	20%
Individual assignment/Class Attendance/Homework	20%
Total	100%

## Grading

Grading will be based on each student's total scores as well as relative scores within the class. The minimum score to pass the course is 40 (out of 100) whereas grade A will be given to students who obtain a score of at least 85 (out of 100).

Grade	A	}	85 and over
	B+		
	B	}	Based on the distribution of students' scores
	C+		
	D+		
	D		
	F		
			less than 40

## Class Schedule

Week	Date	Topic
1		Introduction
2		National Income Accounting and the Balance of Payments <ul style="list-style-type: none"> <li>- National Income</li> <li>- Saving and current account</li> <li>- Balance of Payments</li> </ul>
3		Exchange rate and Foreign Exchange Market <ul style="list-style-type: none"> <li>- Appreciation / Depreciation</li> <li>- Foreign Exchange Market</li> </ul>
4		Exchange rate and Foreign Exchange Market <ul style="list-style-type: none"> <li>- Spot rate /Forward rate</li> <li>- Arbitrage</li> </ul>
5		Exchange Rate Determination
6		Exchange Rate Determination (cont'd)
7		Interest Parity Condition

Mid Term Examination		
8		Guest speaker
9		Guest speaker
10		Macro economy, Internal Balance and External Balance under Fixed Exchange Regime
11		Macro economy, Internal Balance and External Balance under Fixed Exchange Regime
12		Floating Exchange Rates and Internal Balance
13		Group Presentation
14		Group Presentation
15		Group Presentation
Final Examination		

## EE459 Seminar in International Trade Theory and Policy

**Number of credits:** 3 credits (3-0-6)

### Course Descriptions

More globalized world implies more unstable and volatile markets. As a result, the probability of experiencing fluctuation in both global trade and international financial markets gets higher. This course is aimed at broadening students' insight of international economics through various approaches, including lecture, class discussion, term paper, and seminars with guest speakers. Particularly, practices of applying analytical frameworks to the current issues and data of both global trade and international finance would enhance students' in-depth analytical skills towards more understanding of the global volatilities.

**Prerequisite:** EE451 and EE452

### Objectives

This seminar course examines current issues in international economics. The goal of the course is to enhance students' research capability via the application of economic theories to real-world problems. It is expected that students will systematically employ quantitative methods to investigate current topics in international economics. Solid theoretical underpinning and research skills would help students in the future.

#### (A) Seminar on International Economics: Modus Operandi

There are three major components in this seminar course.

(1) Students will be assigned to discuss news articles on current international trade issues reported in journals and newspapers. Students should be aware of the theoretical framework employed in their analysis.

(2) Each student will be assigned a role of a discussant of their peers' presentation of work progress. The revolving door process continues until everyone comes up with a sensible research proposal, investigating the research question, and successfully presenting the first draft of the research finding.

(3) Each student is expected to learn from other seminar participants. Hence no one should miss a single class.

## (B) Research paper

Each student is required to write a research paper by employing an appropriate method of economic investigation. Each article will be reviewed by a designated discussant. Each student will present a research proposal by February, a progress report containing empirical study by March, and the final presentation in mid-April. The final draft of the paper is due in early May. Evaluation of the article is mainly based on originality, effort, and analytical ability. The final draft must be submitted by May 15, 2020.

### Mode of communication

Homework, proposal, work progress, and final draft in words, excel, and PowerPoints files can be submitted to my email address: [bhanupong.459@gmail.com](mailto:bhanupong.459@gmail.com)

### Grading

<b>1. Seminar Participation</b>	<b>30%</b>
News Analysis	15
Discussant	15
<b>2. Research Paper</b>	<b>70%</b>
Proposal	10
Progress report 1	10
Progress report 2	10
Final draft	40

**Dress Code:** Dress Respectfully

### Suggested Readings:

"Commodity prices cycles, the agricultural trap, and Thailand's incessant subsidies" *Asian Economic Papers* 18(1), 2019.

"The Rise and Fall of Thailand's Export-Oriented Industries." *Asian Economic Papers* 16(3): 128-150. 2017

"The impacts of the US-China trade war" *Asian Economic Papers, 2019*

"The ASEAN business cycle and China's slowdown" The *Philippine Review of Economics*, Vol. LII (2) 203-221. 2015.

Nidhiprabha (2019) *Macroeconomic Policy for Emerging Economies: Lessons from Thailand* Routledge: London and New York, Chapter 7: *Exchange rate policy*

## Websites

Aside from the economics faculty's abundant sources of data, various sites provide useful information, news development, analysis, and statistical data.

Mundiindex

FRED (Federal Reserve Economic Data)

EconTrends

<http://aric.adb.org> (Asian Regional Integration Center)

<http://asianbondsonline.adb.org>,

<http://trade.gov/index.asp>,

<http://ita.doc.gov>

<http://faostat.fao.org>

<http://epp.eurostat.ec.europa.eu/porta>

<http://www.moc.go.th>

<http://www.bot.or.th>

<http://www.trademap.org>

<http://www.intracen.org>

## Suggested Research Topics

Students may choose any topic from the following areas or develop topics from news analysis assignments.

1. Trade barriers and the business cycle
2. Issues in agricultural trade
3. Oil price fluctuations and trade impacts
4. Impacts of trade wars
5. The Fed, ECB, and the BoT
6. China, India, and the world trade
7. Trade and income distribution
8. East Asian financial integration
9. FDI and trade fragmentation
10. Service sector and the tourism industry

## EE 462 Development Macroeconomics

**Number of credits:** 3 credits

### Course Description

The analysis of development economics issues that are important and related to the macro economy of developing countries, such as concepts explaining economic growth, development policies of various countries, the analysis of monetary policies, exchange rates, balance of payments, flow of capital, financial crisis, international aids affecting economic growth, the effects of international trade and foreign direct investments on economic development, the relationship between economic growth and the level of poverty and income distribution, etc.

### Course Objectives

- (a) Students will learn about macroeconomic development concepts and theories.
- (b) Students will be able to apply the theoretical concepts to understand the process of economic growth and the developmental policies of developing countries.

**Prerequisite:** EE312

### Required Textbooks and Readings

- Perkin, D. H., Radelet, S., Lindauer, D. L., & Block, S. A. (2013). *Economics of Development*. Seventh Edition. W.W. Norton & Company. (The book is on reserve in the library.)
- Jones, C. I. (2002). *Introduction to Economic Growth*. Second Edition. W. W. Norton & Company.
- Todaro, M., & Smith, S. (2011). *Economic Development*. Eleventh Edition. Prentice Hall.
- Journal articles as specified in the lecture schedule.

### Complementary Textbooks:

- de Janvry, A., & Sadoulet, E. (2016). *Development Economics: Theory and Practice*. Routledge.
- Van den Berg, H. (2001). *Economic Growth and Development: An Analysis of Our Greatest Economic Achievements and Our Most Exciting Challenges*. Boston: McGraw-Hill.
- Ray, Debraj. (1998). *Development Economics*. Princeton University Press.
- Agenor, Pierre-Richard and Montiel, Perter J. (2012). *Development Macroeconomics*. Second Edition. Princeton University Press.

**Expected Learning Outcomes:**

**Morality and Ethics**

Applicability	Learning Goals	Expected Learning Outcomes
●	5.6 Students demonstrate integrity.	Students do not cheat on exams or engage in plagiarism.
●	5.7 Students prioritize social and public benefits over personal ones.	Students study hard and seek good jobs.
●	5.8 Students are punctual and comply with the code of conduct of the institution and society at large.	Students come to class on time.
●	5.9 Students are responsible and accountable to society, the nation, and the subject of economics.	Students study hard and know that they should be responsible.
○	5.10 Students realize the cultural and environmental value of the sustainable society.	

**Knowledge**

Applicability	Learning Goals	Expected Learning Outcomes
●	2.56 Students know and understand modern economics principles and theories, and are up to date with new developments.	Students know about the process of economic development.
●	2.57 Students know and understand Thai and global economic structure, and the importance of major international economic events.	Students know about macroeconomic development processes in Thailand and its relation to the global environment.
○	2.58 Students know and understand instruments of economic analysis.	
●	2.59 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.	Students know about applied macroeconomics related to developing countries such as Thailand.
○	2.60 Students are informed about related fields including sociology, business administration, education, law policy, and science.	

### Intellectual Development

Applicability	Learning Goals	Expected Learning Outcomes
●	3.34 Students have developed individual critical thinking.	Student can think critically as developed through their course work.
●	3.35 Students are sufficiently trained in research skills.	Students research their research papers.
●	3.36 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.	Through their essay assignment and exams students know how to analyze data and apply concepts of macroeconomics.

### Interpersonal Skills and Responsibilities

Applicability	Learning Goals	Expected Learning Outcomes
●	26.1 Students are responsible for assigned tasks and work in groups effectively.	Students work in groups each week and undertake a joint essay project.
●	26.2 Students have problem-solving skills.	Students do problem solving in the course.
○	26.3 Students show leadership skills and team spirit.	
●	26.4 Students are always improving themselves.	Students are evaluated on their course work and can use that as a benchmark to improve themselves.
○	26.5 Students have good interpersonal skills, adapting and working under different conditions.	

### Quantitative Analysis, Communication and Information Technology

Applicability	Learning Goals	Expected Learning Outcomes

○	38.1 Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	
○	38.2 Students communicate effectively and select appropriate presentation methods.	
○	38.3 Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	

Note: ● Primary expected outcome ○ Secondary expected outcome

#### Data/Information Sources:

##### Websites

- World Bank <http://www.worldbank.org/>
- International Monetary Fund <http://www.imf.org/>
- Center for Global Development <http://www.cgdev.org/>
- Center for Economic Policy Research <http://www.cepr.net/>
- Peterson Institute for International Economics <http://www.iie.com/>
- Asian Development Bank [www.adb.org](http://www.adb.org)
- World Trade Organization [www.wto.org](http://www.wto.org)
- National Bureau of Economic Research <http://www.nber.org/>

##### Data and Reports

- World Development Indicators <http://data.worldbank.org/data-catalog/world-development-indicators>
- [World Development Reports](#)
- World Factbook <https://www.cia.gov/library/publications/the-world-factbook/>
- International Financial Statistics <http://elibrary-data.imf.org/finddatareports.aspx?d=33061&e=169393>
- Penn World Tables <http://www.ggdnc.net/pwt>

##### Lecture Schedule

Week	Topics and Readings	Discussion Session
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1	<p><b>Introduction to Economic Development</b></p> <p>*Perkins et al., chapters 1-2</p> <p>Schrager, A. 2015. Why India keep growing faster than China? Bloomberg</p> <p>Deaton, A. (2008). Income, health and well-being around the world: Evidence from the Gallup World Poll. <i>Journal of Economic Perspectives</i>, 22(2), 53-72.</p>	
2	<p><b>Patterns and Concepts of Growth and Development</b></p> <p>*Perkins et al., chapter 3</p> <p>*Bosworth, B., &amp; Collins, S. M. (2008). Accounting for growth: Comparing China and India. <i>Journal of Economic Perspectives</i>, 22(1), 45-66.</p>	Bosworth & Collins (2008), pp. 45-66
3	<p><b>Growth Theory: Basic Growth Model and Neoclassical (Solow) Growth Model</b></p> <p>*Perkins et al., ch. 4</p> <p>Jones, chapter 2</p> <p>*Mankiw, N. G., Romer, D., &amp; Weil, D. N. (1992). A contribution to the empirics of economic growth. <i>The Quarterly Journal of Economics</i>, 107(2), 407-437.</p> <p>Lee, J.-W. and K. Hong. 2012. Economic growth in Asia: Determinants and Prospects. <i>Japan and the World Economy</i>, vol. 24, pp. 101-113</p>	<p>*Mankiw, Romer, &amp; Weil (1992)</p> <p>pp. 407-437</p>
4	<p><b>Endogenous Growth Models</b></p> <p>*Jones, chapter 5, 8</p> <p>*Balart, P., M. Oosterveen and N. Webbink. 2018. Test scores, noncognitive skills and economic growth. <i>Economics of Education Review</i>, vol. 63, pp. 134-153</p>	<p>Balart et al. (2018)</p> <p>pp. 134-153</p>
5	<p><b>Human Capital and Growth</b></p> <p>*Perkins et al, chapters 7, 8, 9</p> <p>*Cruz, M. and S.A. Ahmed. 2018. On the impact of demographic change on economic growth and poverty. <i>World Development</i>, 105. Pp. 95-106</p>	<p>Cruz &amp; Ahmed (2018)</p> <p>pp. 95-106</p>
6	<p><b>Inequality and Poverty</b></p> <p>*Perkins et al., chapter 6</p>	TBA
7	<b>Big Push and Middle-Income Trap</b>	

	<p>*Todaro M. and S. Smith, <i>Economic Development</i>, 12<sup>th</sup> ed. ch. 4 (read sections on big push and growth diagnostic)</p> <p>*Ito, T. (2017). Growth convergence and the middle-income trap. <i>Asian Development Review</i>, 34(1), 1-27.</p> <p>ADB (2014). <i>Cambodia: Diversifying Beyond Garments and Tourism</i> Country Diagnostic Study</p>	Ito (2017) pp. 1-27
8	<p><b>MIDTERM:</b></p> <p><b>Tuesday, September 29, 2020, 12.00 - 14.00 hrs.</b></p>	
9	<p><b>Investment and Savings</b></p> <p>*Perkins et al., ch. 10</p> <p>*P-C. Athukorala and S. Wagle. 2011. Foreign direct investment in Southeast Asia: Is Malaysia falling behind? <i>ASEAN Economic Bulletin</i> 28.2, pp. 115-133</p>	Athukorala & Wagle (2011) pp. 115-131
10	<p><b>Financial Development and Inflation</b></p> <p>*Perkins et al., ch. 12</p> <p>*Jongwanich, J. and D. Park. 2011. Inflation in developing Asia: pass-through from global food and oil price shocks. <i>Asian-Pacific Economic Literature</i>, pp. 79-92</p>	Jongwanich & Park (2011) pp. 79-92
11	<p><b>Foreign Debt and Financial Crises</b></p> <p>*Perkins et al., ch.13</p> <p>*J. Charoenseang and P. Manakit. 2002. Financial crisis and restructuring in Thailand. <i>Journal of Asian Economics</i>. vol. 13, pp. 597-613</p> <p>Radelet, D., &amp; Sachs, J. (1998). The East Asian financial crisis: Diagnosis, remedies, prospects. <i>Brookings Papers on Economic Activity</i> 1, 1-90. (Downloadable from <a href="http://www.brookings.edu/~media/Projects/BPEA/1998%201/1998a_bpea_radelet_sachs_cooper_bosworth.PDF">http://www.brookings.edu/~media/Projects/BPEA/1998%201/1998a_bpea_radelet_sachs_cooper_bosworth.PDF</a>)</p>	Charonenseang & Manakit (2002), pp. 597-613
12	<p><b>Foreign aid</b></p> <p>*Perkins et al., ch. 14</p> <p>*Young, A. and L. Sheehan. 2014. Foreign aid, institutional quality and growth. <i>European Journal of Political Economy</i>, no. 36, pp. 195-208</p>	Young & Sheehan (2014) pp. 195-208

	Clemens, M. A., Radelet, S., Bhavnani, R. R., & Bazzi, S. (2012). Counting Chickens when they Hatch: Timing and the Effects of Aid on Growth. <i>The Economic Journal</i> , 122(561), 590-617.	
13	<b>Trade and Development</b> *Perkins et al., chapter 18 *Chang, H. J. (2003). Kicking away the ladder: Infant industry promotion in historical perspective. <i>Oxford Development Studies</i> , 37(1), 21-32.	Chang (2003), 21-32
14	<b>Managing Short-Run Crisis in an Open Economy</b> *Perkins et al. ch. 15 * Sangsubhan, K. and M. C. Basri. 2012. Global financial crisis and ASEAN: Fiscal policy response in the case of Thailand and Indonesia. <i>Asian Economic Policy Review</i> . 7, pp. 248-269. Wiboonchutikula, P. et al. 2011. An analysis of Thailand's net capital inflows surges after the 1997 crises. <i>ASEAN Economic Bulletin</i> 28(3), pp 281-314.	Sangsubhan & Basri (2012). pp. 248-269
15	<b>Student Presentations</b>	None
	<b>FINAL EXAM:</b>	

\*Remark: Class schedule and required readings may be adjusted during the course as needed.

### Assessment

Class participation (and attendance)	10 %
Joint paper and presentation	20 %
Mid-term exam	30 %
Final exam	40 %

### Class Participation (and attendance)

Friday will be a discussion class based on assigned readings. Students should read before class and should bring a copy of the reading to the class. Students are encouraged to actively participate in the discussion by contributing answers, comments and questions. Attendance will be taken on Friday, but not on Wednesday. No marks are given for attendance but if a student is absent from 4 or more Friday classes, marks will be deducted from her or his participation mark.

### Joint Paper and Presentation

Each group will consist of 2 students. Each group will research a topic and give a presentation of findings in November. After receiving comments from the instructor and classmates, the group will revise and finalize the paper and submit it 2 weeks after your presentation. Details about the topics and the format of the paper will be provided.

# EE463 Globalization and International Development

**Prerequisites** a) EE211 and EE212; or b) EE213 and EE214

## Course Description

This course discusses concepts and development of globalization in the context of post-World War II and the formation of the New International Economic Order. As countries move along their development trajectories, activities and linkages intensify, spurring complex interrelationships and interdependencies, thereby leading to a globalized world. These processes create not only new opportunities but challenges as well. The objective of this course, therefore is to understand the relationship between economic development and globalization along with the processes, issues and challenges that arise.

The course will be divided in three sections. The first section will provide an overview of economic development theories, how globalization and international economic development are linked together and compare economic development trends across low-, middle- and high-income countries. Thereafter it will look at the role of the state, market and civil society in economic development and how international organizations and cooperation agencies interact with domestic institutions in determining the economic outcome. It will further look at demographic trends and discusses poverty and inequality and their causes. The second section will highlight issues in various key development sectors such as agriculture; education and health; urban and rural development; trade; as well as cross-cutting areas such as environment, governance, trade and gender. The roles of international development organizations e.g. the United Nations, World Bank, International Monetary Fund (IMF), in bridging the divide between the “north” and “south” through official development assistance (ODA) along with patterns, factors of success and failures of past international development projects will also be discussed, using basic techniques for program and project evaluation. In the third section, students will form groups to discuss development issues learned in class and discuss these in detail, which will be presented towards the end of the course.

## Class Policy and Expectations

Following the most recent Thammasat University announcements (issued on 4 January 2021) and Faculty of Economics remote learning guidelines (issued on 7 January 2021), all BE classes for semester 2/2020 will be conducted by remote learning. Google Hangout will be used as the online meeting platform. At the beginning of each class, some time will be spent using the lecture format highlighting the key issues, but students will spend the rest of the time of the time engaging in discussions that support or confront the materials extracted from the required reading, for which students are expected to read ahead and be prepared. For any further clarifications and/or queries, students may either e-mail or set up an appointment with the lecturer.

## Evaluation

The final grade will not rest on one or two activities, but rather, on how many points will be accumulated throughout the semester. Course requirements include participation (including virtual attendance), midterm and final exams and a group presentation. Late submission of assignments/exam: up to 30 minutes a penalty of 10%, up to 60 minutes a penalty of 25%. A 5% bonus will be rewarded to students who can provide a copy of a recent article (e.g., journal, magazine, editorial) relevant to a course topic with a brief one-page explanation of: (i) the main ideas, (ii) how the article relates to the course, and (ii) a critique on the merits and shortcomings of the article. The weights assigned to these activities are as follows:

- |                             |     |
|-----------------------------|-----|
| - Participation and quizzes | 10% |
| - Group presentation        | 15% |
| - Midterm exam              | 30% |
| - Final exam                | 45% |

## EE471 Labor Economics

**Number of credits:** 3 credits (3-0-6)

### **Course description:**

Studying the supply and demand of labor in the short-term and long-term, as well as improving labor quality. Types of labor markets, wage structures, and the role of labor unions. The role of government in the labor market as employer and regulator. Human capital, labor mobility and discrimination in the labor market, and the effect of globalization and integration on employment. The course pays special attention to how labor market works in developed and developing countries and their implications for public policy.

Prerequisites: EE311

### **Course objectives:**

The objective of this course is to provide you an understanding with models of how firms make decisions about their need for workers, how workers make labor supply decisions, and how wages and other benefits are determined. We will discuss important issues such as immigration, discrimination, and unions. Throughout the course, we will examine the effects of relevant public policies such as minimum wage, payroll tax, and employment subsidies on the labor market. Students will have an opportunity to apply these understanding and interest on specific labor topic on their research paper.

### **Textbooks:**

\*\*\*Borjas, G. (2019). Labor Economics. 8th ed. McGraw-Hill, USA. (Main textbook)

#### \*\*\* Main Textbook

Several articles from each topic reading list

Basic Econometrics textbook (optional)

### **Statistics and databases on employment, social, economics and other indicators:**

International Labour Office: Statistics and databases

<http://www.ilo.org/global/statistics-and-databases/lang--en/index.htm>

International Labour Office: Key Indicators of the Labour Market (KILM):

<http://www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/lang--en/index.htm>

World Bank: Database on employment

<http://datatopics.worldbank.org/jobs/>

World Bank: World Development Indicators (WDI)

<http://data.worldbank.org/data-catalog/world-development-indicators>

Asian Development Bank: Statistics and databases:

<http://www.adb.org/data/statistics>

**Grading** The final grade of the course will be based on the following items:

Team proposal paper + presentations	20 points
Team Article Presentation	5 points
Online assignment	5 points
Midterm Exam	30 points
Final Exam	40 points

**Note:** Midterm and final exam dates are not changed due to the official schedule from BE program. Only physical condition with approval medical document is allowed for postponing the exam.

### **Paper and presentation**

Students may select any topics related to Labor Economics. Report can be written in individual or group maximum of 2 students. The purpose of this paper is for students to develop a research topic. Students may select any topics related to Labor Economics. For example, minimum wages, wages differential between gender and race, return to schooling, international labor mobility, government pension fund, agricultural labor market, workplace environment and compensation etc. Empirical study or Theoretical works are equally preferred.

Students will be assigned to present your own topic after the midterm. The length of the presentation is approximately 10-15 minutes, followed by Q&A. After the presentation, students can get feedback from instructor and classmates to improve and make some changes before submitting the final version at the end of semester.

The paper must include introduction, literature review, conceptual/ theoretical framework, data description and empirical methodology and references. Lengthwise, the paper should be 10 double-spaced pages, excluding graphs and tables. The total score is based on completion of each section. Copy and plagiarize are prohibited, your score will be zero for plagiarism or copy without appropriate citation and reference (see MLA or APA citation style).

The examples of style are in website

MLA Style: <http://www.liu.edu/CWIS/CWP/library/workshop/citmla.htm>

APA Style: <http://www.liu.edu/CWIS/CWP/library/workshop/citapa.htm>

Chicago Style: <http://www.liu.edu/cwis/cwp/library/workshop/citchi.htm>

### **Academic Honesty**

You are expected to be honest in all of your academic work. Copying is plagiarism and will be treated as an honor code violation. Potential sanctions include failure in the course and suspension from the university.

### **Conduct and Manner**

Ethics is all above everything, far more valuable than merely subject knowledge. Accordingly, plagiarism and cheating, including any possible plagiarism and cheating, will be subject to penalties as stated in the University Regulations. More importantly, to achieve overall objectives of learning, it is strongly advised that all students of EE471 class behave in proper manner with socially acceptable and right conduct.

Below is advised code of conduct to be performed in EE471 class. Achieving and maintaining the code of conduct throughout the course will surely be awarded.

1. No mobile phones used. This includes silent mode, message sending, LINE, and all social network communication that would interfere teaching and learning.

2. Be punctual. Yet it is understood that students may have continuing classes that cause delay. It is acceptable if it is a few minutes late. But unnecessary delay should be avoided. Even if students are on time, they are advised not to leave the room without unnecessary purposes.

3. Behave. Other socially acceptable manner should be practiced here. For example, this is a classroom whereby food and drink is not allowed. This is the university whereby students wear proper dress.

## TENTATIVE COURSE OUTLINE

### 1. Introduction to labor economics

1.1 Data in Labor market

1.2 Empirical strategies in labor economics

Reading Lists:

\*\*\* Borjas (Chapter 1)

Angrist, Joshua, and Alan Krueger. "Empirical Strategies in Labor Economics." *The Handbook of Labor Economics*. Vol. 3A. 1999, chapter 23, sections 3 and 4, pp. 1278-1357.

Deaton, Angus. 1997. *The Analysis of Household Surveys*, The Johns Hopkins University Press, Chapters 1

### 2. Labor Supply

2.1 Measuring the Labor force

2.2 The Labor supply curve

2.3 Labor supply over the Life Cycle

2.4 Policy Application

2.5 Empirical Finding

Reading Lists:

\*\*\* Borjas (Chapter 2)

Ashenfelter, Orley. "Macroeconomic and Microeconomic Analyses of Labor Supply." *Carnegie-Rochester Conference on Public Policy* 21 (1984): 117-156.

Becker, Gary S. 1965. "A Theory of the Allocation of Time," *The Economic Journal*, September, pp. 493-517.

Chiappori, Pierre-Andre. 1992. "Collective Labor Supply and Welfare," *Journal of Political Economy*, Vol. 100, No.3, pp.437-467.

MaCurdy, Thomas. 1981. "An Empirical Model of Labor Supply in a Life-Cycle Setting," *Journal of Political Economy* 89, pp. 1059-85.

### 3. Labor Demand

3.1 The Production Function

3.2 The Employment Decision in the Short Run and Long Run

3.3 Substitution and Income Effect Analysis

3.4 Elasticity Analysis

3.5 Minimum Wage

Reading Lists:

\*\*\* Borjas (Chapter 3)

Card, David, and Alan Krueger. 1995. "Myth and Measurement: the New Economics of Minimum Wage", selected chapters, (Princeton: Princeton University Press)

Hamermesh, Daniel. "The Demand for Labor in the Long Run." Chapter 8 in *Handbook of Labor Economics*. Vol. 1. Amsterdam, Netherlands: North-Holland, 1986.

Tito Boeri and Jan Van Ours (2008). *The Economics of Imperfect Labor* (Chapter 2 Minimum Wage). Princeton University Press.

### 4. Market Equilibrium

4.1 Equilibrium and Adjustment

4.2 Static and Dynamic Equilibrium

4.3 Market Structure

4.4 Policy Applications

4.5 Practical Wage Determination

Reading Lists:

\*\*\* Borjas (Chapter 4)

Tangtipongkul, K., & Srisuchart, S. (2018). The Decision to Retire Early: Evidence from Private Service Sector in Thailand. *Journal of Population and Social Studies [JPSS]*, 26(2), 149 - 164. Retrieved from <https://www.tci-thaijo.org/index.php/jpss/article/view/117180>

## 5. Compensating Wage Differentials

5.1 The Market for Risky Jobs

5.2 The Hedonic Wage Function

5.3 Compensating Differentials and Job Amenities

5.4 Policy Application: Safety and Health Regulations

Health Insurance and the Labor Market

Reading Lists:

\*\*\* Borjas (Chapter 5)

## 6. Human Capital

6.1 Education and Earnings

6.2 Estimating the rate of return to schooling

6.3 On the Job Training

6.4 On the Job Training and the Age-Earnings Profile

6.5 Policy Application

Reading Lists:

\*\*\* Borjas (Chapter 6)

Abraham, Katharine G., and Henry S. Farber. 1987. "Job Duration, Seniority, and Earnings," *American Economic Review*, 77(3), pp. 278-97.

Altonji, Joseph, and J. Shakotko. 1987. "Do Wages Rise with Seniority?" *Review of Economic Studies*, LIV, pp. 437-59.

Angrist, Joshua D., and Alan B. Krueger. 1991. "Does Compulsory School Attendance Affect Schooling and Earnings?" *Quarterly Journal of Economics*, CVI(4), p. 979-1014.

Becker, Gary S. 1993. *Human Capital*, Chicago: University of Chicago Press, Chapters II, III, IV, and V (section 2). (Mostly from his original book of 1964 NBER)

Bosworth et al. (Chapter 15, 16, 17)

Card, David. 1999. "The Causal Effect of Education and Earnings," *Handbook 3A*, Ch. 30.

Card, David, and Alan B. Krueger. 1992. "Does School Quality Matter? Returns to Education and the Characteristics of Public Schools in the United States," *Journal of Political Economy* 100: 1-40.

Korenman, Sanders, and David Neumark. 1991. "Does Marriage Really Make Men More Productive?" *Journal of Human Resources* 26(2): 282-307.

Tangtipongkul, K. (2015). Rate of return to schooling in Thailand. *Asian Development Review*, 32(2), pp. 38-64.

Punyasavatsut, C., Laovakul, D., Tangtipongkul, K., Warunsiri, S., & Srisuchart, S. (2016). National Education Accounts of Thailand 2008-2013 Methodology and Key Findings. Quality Learning Foundation and Health Promotion Foundation.

Tangtipongkul, K. (2016). Scale Economies in Public Vocational Education: Empirical Evidence from Thailand. *Southeast Asian Journal of Economics*, 4(2), July – December.

## 7. The Wage Structure

7.1 The Earnings Distribution

7.2 Measuring Inequality

7.3 The Wage Structure

7.4 Policy Application: Why Did Wage Inequality Increase?

7.5 The Earnings of Superstars

Reading Lists:

\*\*\* Borjas (Chapter 7)

## 8. Labor Mobility

8.1 Geographic Migration as a Human Capital Investment

8.2 Family Migration

8.3 The Decision to Migrate

8.4 Job Turnover

8.5 Policy Applications

Reading Lists:

\*\*\* Borjas (Chapter 8)

Farber, Henry S. 1999. "Mobility and Stability: The Dynamics of Job Change in Labor Markets", *Handbook 3B*, Ch. 37.

Farber, Henry S. 1994. "The Analysis of Interfirm Worker Mobility," *Journal of Labor Economics*, Vol. 12 no. 4, pp. 554-93.

Topel, Robert H. and Michael P. Ward, 1992. "Job Mobility and the Careers of Young Men", *Quarterly Journal of Economics*, vol. 107, 441-79.

Mortensen, D., and C. Pissarides. 1999. "New Developments in Models of Search in the Labor Market" *Handbook 3B* Chapter 39.

OECD/ILO (2017), How Immigrants Contribute to Thailand's Economy, ILO, Geneva 22/OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264287747-en>

Tangtipongkul, K., & Khiev, V. (2019). The Effect of Remittance on Economic Growth in Cambodia. *Journal of Population and Social Studies [JPSS]*, 27(3), 232 - 246. Retrieved from <https://www.tci-thaijo.org/index.php/jpss/issue/view/13850>

## 9. Labor Market Discrimination

9.1 Race and Gender in the Labor Market

9.2 Experimental and Empirical Studies

9.3 Policy Applications

Reading Lists:

\*\*\* Borjas (Chapter 9)

Altonji, Joseph G. and Rebecca Blank. 1999. "Race and Gender in the Labor Market." *Handbook 3C*. Ch. 48.

Becker, Gary S. 1971. *The Economics of Discrimination* (Chicago, IL: The University of Chicago Press), Chapters 1-5.

Goldin, Claudia. and Cecilia Rouse. 2000. "Orchestrating Impartiality: The Impact of "blind" Auditions on Female Musicians," *American Economic Review*, 90:715-741.

## 10. Labor Unions

10.1 Efficient Bargaining

10.2 Strike

10.3 Union Wage Effect

Reading Lists:

\*\*\* Borjas (Chapter 10)

## 11. Incentive Pay

11.1 Piece Rates and Time Rates

11.2 Tournaments

11.3 Efficiency Wages

Reading Lists:

\*\*\* Borjas (Chapter 11)

Ehrenberg, Ronald G., and Michael L. Bognanno. 1990. "Do Tournaments Have Incentive Effects?" *Journal of Political Economy*, 98(6), pp. 1307-24.

## 12. Unemployment

12.1 Type of Unemployment

12.2 Job search

12.3 Efficiency Wages

12.4 Implicit Contracts

Reading Lists:

\*\*\* Borjas (Chapter 12)

Tangtipongkul, K. & Wangmo, D. (2017). Determinants of Unemployment: Characteristics and Policy Responses in Bhutan. *Southeast Asian Journal of Economics*, 5(2), December.

# EE481 Industrial Economics

## Course Description:

**Prerequisites:** EE311

The class studies behaviors of production unit and relationships among the units under different market structures by analyzing producer behavior, market structure, conduct and performance, the analysis of price theory using game theory as an analysis tool.

## Course Objectives:

The course would study behaviors of firms in imperfectly competitive markets. First, the class will start with the methodology used in this study such as S-C-P model and game theory. Then firm strategies in oligopoly market will be examined. The firm strategies would include both pricing and non-pricing strategies. In addition, some regulatory tools to prevent abuse of market-power and promote market efficiency will be covered.

## Teaching Materials:

### 6.1 Required Textbooks:

1. Carlton and Perloff, Modern Industrial Organization, 4<sup>th</sup> edition, Addison-Wesley, 2005.
2. Church and Ware, Industrial Organization: A Strategic Approach, McGraw-Hill, 2000.
3. Rasmusen, Games & Information, 3<sup>rd</sup>. Edition, Backwell, 2001.
4. Tirole, Industrial Organization, The MIT Press, 1989.

### 6.2 Recommended readings:

1. Dixit, A., "a Model of duopoly suggesting a theory of entry barriers," The Bell Journal of Economics, 10 No.1, 20-32, 1979.
2. Kreps and Wilson, "Reputation and Imperfect Information", Journal of Economic Theory, 27, 253-279, 1982.
3. Milgrom and Roberts, "Price and Advertising Signals of Product Quality", Journal of Political Economy, 94 No.4, 1986.
4. Nevo and Wolfram, "Why do manufacturers issue coupons? An empirical analysis of breakfast cereals", RAND Journal of Economics, 33 No.2, 319-339, 2002.

### 6.3. Other Readings:

1. Harvard Business review (<http://hbr.org>)

## Teaching Plan:

Week	Topics	
1	Theory of Business What is Strategy	Peter Drucker, Theory of Business, HBR M Potter, what is strategy? HBR
2	Market and Market Analysis	CP1, CP8

		Church & Ware 1 and 12
3	Review Game Theory	CH 2 Church & Ware 7,8,9,10 R1-6
4	Oligopoly Models:	CP5
5	Pricing Strategies: Price Discrimination and Two-part Tariff	CP6 Tirole 5
6	Pricing Strategies: Predatory Pricing and Limit Pricing	CP7
7	Is pricing a quality signal?	F. Allen, Reputation and Product Quality Rao, Bergen and Davis, how to fight a price war, HBR
8	Product Quality	Tirole 2
9	Production Differentiation	CP7
10	Entry Barrier	Krep and Wilson Dixit
11	Advertising	CP14 Tirole 2
12	Vertical Integration and Vertical restriction	CP12 Tirole 4
13	R&D and Intellectual Property Rights Protection	CP16 Tirole 10
14	Competition Policies and anticompetition behaviors	CP19-20
15	Disruptive Innovation	Christensen Raynor and McDonald, what is Disruptive Innovation, HBR

**Evaluation Methods:**

Business Analysis Term Paper	30%
Mid-term Examination	30%
Final Examination	40%

## EE482 Industrialization: Role of Public and Private Private Sectors

**Number of credits:** 3 credits (3-0-6)

**Prerequisites:** EE312

**COURSE DESCRIPTION AND OBJECTIVES:** The primary purpose of this class is to read, understand, and discuss academic papers that analyze various aspects of industrialization, focusing on the roles of public policy and other roles of public and private producers and consumers. The course will pay special attention to the causes and effects of industrialization in Asia's advanced (e.g., Japan, Korea, Taiwan) and developing economies (e.g., China, India, Indonesia, Malaysia, Thailand, Vietnam). Students will also practice skills required to research, write, and publish academic papers. The emphasis will be on reading and writing "surveys of the literature" that review and summarize major findings of previous studies on a topic to be chosen by the student.

**COURSE EVALUATION:** A term paper of 4000-5000-words will account for 70% of the course grade. Term papers will survey the economics' literature on the student's chosen research topic; see "Term Paper Guidelines" on p. 6 for details. Classes 9a and 9b are tentatively scheduled for student presentations of short, preliminary outlines of proposed term papers and related discussions. The purpose of the outline presentations is to help students refine their chosen topic, clearly state the core, analytical question(s) that their survey paper asks, and organize their papers so they become easier to write. Discussions of presentations will also emphasize how students need to read and summarize a large number of academic, refereed papers, and how to cite the papers carefully in the paper and in the list of references. For students planning to write a thesis or dissertation, it may be beneficial to use the term paper as practice for part that thesis or dissertation. The most important principle when writing a paper is to make it very easy for the reader of the paper to find the references cited and evaluate the author's interpretation of those references.

**WARNING:** If you plagiarize or fail to cite sources appropriately, you will FAIL THIS CLASS and may be subject to suspension or expulsion from the University for academic dishonesty.

30% of class evaluation will be based on attendance (15% of the total), outlines & presentations (10%), and participation in class discussions (5%). Students will prepare 1-2 page outlines of assigned course readings and to present them in class in about 10-15 minutes. In your reading and term-paper outlines, please use no graphics or powerpoint. Rather please use text sentences and phrases, and maybe a simple equation or two, in simple Word (docx) format (e.g, 12 point Times New Roman font on A4 paper). Please submit all outlines by email to my teaching email (ramtmnc at gmail.com) by 6am of the day of your presentation them. Presentations will be followed by comments from the instructor and general discussion.

Final papers should be submitted in Microsoft Word (docx) or Adobe Acrobat format (pdf) to my teaching email (ramstmnc at gmail.com). Please see the "Term Paper Guidelines" on p. 6 for details. The instructor encourages students to choose a topic related to the subject students are considering for theses or dissertations, and perhaps eventual publication. An important goal of the class is to help students to learn research and writing techniques necessary to write a good thesis or dissertation, and eventually publish academically. These analytical, statistical, and writing techniques will also be useful in non-academic careers (e.g, business or government).

**CONSULTATIONS:** The instructor will be available for student consultations before and after most classes. It is also possible to make appointments for other times. Please confirm the date and time of appointments by email at least 24 hours before the appointment.

**COURSE MATERIALS:** Course materials will be maintained on a usb drive and on the classroom PC in 2 folders: (1) the "SyllabusAssignmentsReadings" folder will contain this syllabus, a list of reading assignments, and all readings; (2) the "Outlines" will contain all student outlines, which will be made available to all students in the class. These folders will be updated weekly in class. Thus, please bring a usb flash drive or a PC/tablet that can read a usb flash drive to class so you can receive timely updates.

## DETAILED SCHEDULE AND READING LIST (1/5)

### EE482 (Wed & Fri 1400-1530)

xxx-0812 Wed no class; holiday

01a-0814 Fri Introduction and First Assignments

01a1-Asian Development Bank (2015), *Thailand: Industrialization and Economic Catch-up*, Manila: Asian Development Bank.

Part 1: Industrialization, Economic Growth, and Economic Development

01b-03a Excerpts from Hayami, Yujiro, 2002, *Development Economics: From the Poverty to the Wealth of Nations*, Oxford and New York: Oxford University Publishers.

01b-0819 Wed

01b1-Ch01-A Theoretical Framework for Economic Development, 9-30

01b2-Ch02-A Comparative Perspective on Developing Economies, 31-58

02a-0821 Fri

02a1-Ch03-Population Growth and the Constraint of Natural Resources, 59-87

02a2-Ch04-Breaking the Resource Constraint, 88-118

02b-0826 Wed

02b1-Ch05-Capital Accumulation and Economic Development, 119-155

02b2-Ch06-Patterns and Sources of Technological Progress, 156-180

03a-0828 Fri

03a1-Ch07-Income Distribution and Environmental Problems, 181-220

03a2-Ch08-Market and State & Ch09-The Role of the Community in Economic Development, 221-320

03b-0902 Wed

03b1- Yeung, Henry Wai-chung, 2017, "State-led development reconsidered: the political economy of state transformation in East Asia since the 1990s", *Cambridge Journal of Regions Economy and Society*, 10(1), 83-98.

03b2-Lee, Keun, Justin Y. Lin, and Ha-Joon Chang (2005), "Late Marketisation versus Late Industrialisation in East Asia", *Asia-Pacific Economic Literature*, ??(?), 42-59.

## DETAILED SCHEDULE AND READING LIST (2/5)

### Industrialization and Agriculture

04a1to05b2-Excerpts from Oshima, Harry T., 1987, *Economic Growth in Monsoon Asia*, Tokyo; University of Tokyo Press.

04a-0904 Fri

04a1-Ch01-The Nature of Asia's Monsoon Economy and Its Heritage of Poverty, 15-46.

04a2-Ch02-An Analytical Framework for Monsoon Development, 47-72.

04b-0909 Wed

04b1-Ch03-The Record of Postwar Economic Growth . . . in Monsoon Asia, 73-100.

04b2-Ch04-Contrasting the Economic Growth of Prewar and Postwar Japan, 101-136.

05a-0911 Fri

05a1-Ch05-Similarities and Contrasts in the Rapid Transition of Taiwan and South Korea, 137-176.

05a2-Ch07-Thailand Catches Up with the Philippines, 199-234.

05b-0916 Wed

05b1-Ch09-Slow Growth with Unlimited Labor Supply: Heavy Industrialization in China and India, 263-290.

05b2-Ch11-The Demographic Transition and Industrial Transition: A Comparative Perspective, 315-342.

### Industrialization and Industrial Policy

06a1to06b1-Excerpts from Ozawa, Terutomo, 2005, *Institutions, Industrial Upgrading, and Economic Performance in Japan: The 'Flying-Geese' Paradigm of Catch-up Growth*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar.

06a-0918-Fri

06a1-Ch02-Labor-driven stage - and logic - of reconstruction & Ch03-Scale-driven stage - and logic - of modernizing heavy and chemical industries: a high growth period, 31-66.

06a2-Ch04-Assembly-driven stage - and logic - of industrial upgrading & Ch05-Knowledge-driven stage - and logic - of catch-up growth, 67-120.

06b-0923 Wed

06b1-Ch06-IT-driven stage - and logic - of new growth & Ch07-Analytics and stylized features of structural transformation: additional theoretical expositions, 121-163.

06b2- Aw, Bee Yan, Sukkyun Chung, and Mark J. Roberts, 2003, "Productivity, Output, and Failure: A Comparison of Taiwanese & Korean Manufacturers", *The Economic Journal*, 113, F485-510.

07a-0925 Fri

07a1-Trindade, Vitor (2005), "The big push, industrialization and international trade: The role of exports", *Journal of Development Economics*, 78, 22-48.

07a2-Beason, Richard and David E. Weinstein (1996), "Growth, Economies of Scale, and Targeting in Japan 1955-1990", *The Review of Economics and Statistics*, 78(2), 286-295.

## DETAILED SCHEDULE AND READING LIST (3/5)

xxx-0930 Wed & 1002 Fri; no class or midterm for EE482

### Industrialization and International Economic Policy

07b-1007 Wed

07b1-Yu, Miaojie (2015), "Processing Trade, Tariff Reductions and Firm Productivity: Evidence from Chinese Firms", *The Economic Journal*, 125 (June), 943-968.

07b2-Imbruno, Michele and Tobias D. Ketterer, 2018, "Energy efficiency gains from importing intermediate inputs: Firm-level evidence from Indonesia", *Journal of Development Economics*, 135, 117-141.

08a-1009 Fri

08a1-Rasih, (2014), "Crisis Effects on the Electronics Industry in Southeast Asia", *Journal of Contemporary Asia*, 44(4), 645-663.

08a2-Chakraborty, Pavel, 2018, "The great trade collapse and Indian firms", *The World Economy*, 41, 100-125.

08b-1014 Wed

08b1-Kiyota, Kozo, Keita Oikawa, and Katsuhiko Yoshioka (2017), "The Global Value Chain and the Competitiveness of Asian Countries", *Asian Economic Papers*, 16(3), 257-281.

08b2-Blonigen, Bruce A. (2016), "Industrial Policy and Downstream Export Performance", *The Economic Journal*, 126 (September), 1635-1659.

Paper outlines and holiday

09a-1016 Fri Paper outlines

09b-1021 Wed Paper outlines

xxx-1023 Fri; no class, holiday

### Industrialization, Firms, and Ownership

10a-1028 Wed

10a1-Bernard, Andrew B., J. Bradford Jensen, Stephen J. Redding, and Peter K. Schott (2018), "Global Firms", *Journal of Economic Literature*, 56(2), 565-619.

10a2-Wang, Jian and Xiao Wang (2015), "Benefits of foreign ownership, Evidence from foreign direct investment in China", *Journal of International Economics*, Volume 97(2), 325-338.

10b-1030 Fri

10b1-Jefferson, Gary H. and Miao Ouyang (2014), "FDI spillovers in China: why do the research findings differ so much?", *Journal of Chinese Economic and Business Studies*, 12(1), 1-27.

10b2-Girma, Sourafel, Holger Görg, and Erasmus Kersting (2019), "Which boats are lifted by a foreign tide? Direct and indirect wage effects of foreign ownership", *Journal of International Business Studies*, 50(6), 923-947.

11a-1104 Wed

11a1-Nguyen, Kien Trung and Eric D. Ramstetter (2019), "Ownership-related Wage Differentials by Occupation in Vietnamese Manufacturing", *Singapore Economic Review*, 64(3), 625-645.

11a2-Swenson, Deborah L. and Huiya Chen (2014), "Multinational Exposure and the Quality of New Chinese Exports", *Oxford Bulletin of Economics and Statistics*, 76(1), 41-66.

## DETAILED SCHEDULE AND READING LIST (4/5)

### Industrialization, Firms, and Ownership (continued)

11b-1106 Fri

11b1-Yamashita, Nobuaki and Kyoji Fukao (2010), Expansion abroad and jobs at home: Evidence from Japanese multinational enterprises, *Japan and the World Economy*, 22, 88-97.

11b2-Baldwin, Richard and Toshihiro Okubo (2014), "Networked FDI: Sales and Sourcing Patterns of Japanese Foreign Affiliates", *The World Economy*, 37(8), 1051-1080.

### Industrialization, Industrial Development, and Competition Policy

12a-1111 Wed

12a1-Aghion, Philippe, Jing Cai, Mathias Dewatripont, Luosha Du, Ann Harrison, and Patrick Legros (2015), "Industrial Policy and Competition", *American Economic Journal: Macroeconomics*, 7(4), 1-32.

12a2-Einav, Liran, and Jonathan Levin (2010), "Empirical Industrial Organization: A Progress Report." *Journal of Economic Perspectives* 24 (2): 145-162.

12b-1113 Fri

12b1-Lamoreaux, Naomi R. (2019), "The Problem of Bigness: From Standard Oil to Google", *Journal of Economic Perspectives*, 33(3), 94-117.

12b2-Schwerhoff, Gregor, Ottmar Edenhofer, and Marc Fleurbaey (2020), "Taxation of Economic Rents", *Journal of Economic Surveys*, 34(2), 398-423.

13a-1118 Wed

13a1- Lee, Chang-Yang (2005), "A New Perspective on Industry R&D & Market Structure", *Journal of Industrial Economics*, 53(1), 101-122.

13a2-Aw, Bee Yan, Mark J. Roberts, and Daniel Xi Yu (2011), "R&D Investment, Exporting, and Productivity Dynamics", *American Economic Review*, 101(4), 1312-1344.

13b-1120 Fri

13b1-Rasiah, Rajah, Yap Xiao Shan and Yap Su Fei (2015), "Sticky Spots on Slippery Slopes: The Development of the Integrated Circuits Industry in Emerging Asia", *Institutions and Economics*, 7(1), 52-79.

13b2-Amighini, Alessia and Sara Gorgon (2014), "The International Reorganisation of Auto Production", *The World Economy*, 37(7), 923-952.

## DETAILED SCHEDULE AND READING LIST (5/5)

### Industrialization and Environmental Policy

14a-1125 Wed

14a1-Nordhaus, William (2019), "Climate Change: The Ultimate Challenge for Economics", *American Economic Review*, 109(6), 1991-2014.

14a2-Heal, Geoffrey (2017), "The Economics of the Climate", *Journal of Economic Literature*, 55(3), 1046-1063.

14b-1127 Fri

14b1-Parry, Ian W.H., Margaret Walls, and Winston Harrington (2007), "Automobile Externalities and Policies", Discussion Paper revised January, RFF-DP-06-26-REV, Washington, D.C: Resources for the Future.

14b2-Libecap, Gary D. (2014), "Addressing Global Environmental Externalities: Transaction Costs Considerations", *Journal of Economic Literature*, 52(2), 424-479.

15a-tbd

15a1-Lee, Myunghun (2008), "Environmental regulation and production structure for the Korean iron and steel industry", *Resource and Energy Economics*, 30, 1-11.

15a2-Zheng, Siqi and Matthew E. Kahn (2017), "A New Era of Pollution Progress in Urban China", *Journal of Economic Perspectives*, 31(1), 71-92.

15b-tbd

15b1-Auffhammer, Maximilian, Weizeng Sun, Jianfeng Wu, Siqi Zheng (2016), The Decomposition and Dynamics of Industrial Carbon Dioxide Emissions for 287 Chinese Cities in 1998-2009", *Journal of Economic Surveys*, 30(3), 460-481.

15b2-Ebenstein, Avraham (2012), "The Consequences of Industrialization, Evidence from Water Pollution and Digestive Cancers in China", *The Review of Economics and Statistics*, 94(1), 186-201.

## TERM PAPER GUIDELINES

**Please submit electronically to "ramstmnc" at gmail.com**

1. Topic: Please write paper summarizing the academic, economics literature on some aspect(s) of industrialization that interests you. Please choose a topic that is sufficiently specific as to be easily discussed in about 10 pages double-spaced (or about 5000 words), but not so narrow as to be irrelevant or difficult to find research references about the topic. Most students first choose topics that are too broad, making it difficult to write a clear, concise paper. The instructor or other students may be able to offer good suggestions about how to revise a topic or analytical focus so the paper is easier to write. The instructor encourages students to choose a topic related to the subject students are considering for theses or dissertations, and perhaps eventual publication.

2. Structure: Please write a review of the academic economics literature on the topic you choose. I suggest a simple structure such as the following.

a. Introduction (about 1 page explaining the paper's analytical questions and structure)

b. Topic 1 (about 3 pages)

c. Topic 2 (about 3 pages)

d. Conclusion (about 1 page double-spaced)

e. References (about 1 page single-spaced, for about 15 references)

f. Tables and Figures (about 1-2 pages for 2-4 medium- or large-sized tables or figures)

3. Bibliography and references: Please use the author (year) reference style similar to that in the list class readings above. Please be sure to review AT LEAST 15 academic papers and include a list of references giving standard bibliographic details for each paper that allows the reader to easily find the referenced paper. Please use primarily papers that have been refereed and published in international journals, such as papers used for this class. The *Journal of Economic Literature* and the *Journal of Economic Surveys* are two good places to begin your literature search.

4. Citations: When writing, you will have to refer to previous studies written by others. In such cases, it is important to cite sources clearly to avoid plagiarism and to make it easy for the reader to verify your citations. Statistical sources should be cited in a similar way. The simplest citation style is the author (year) system. For example, you could paraphrase Keynes (1936, p. 250) as emphasizing the volatility of investment flows and their effects on economic cycles or quote Keynes (1936, p. 250) as emphasizing the implications of “animal spirits of investors” for economic cycles.

5. Paper length: 5000 words or less, including tables, references, notes, etc.; ideally about 10 A4 pages, using Times Roman 12 point font, spacing =double (2) for the text, and spacing =single (1) tables and reference lists. Please use no more than 2 figures; rather please usually use tables to present information more compactly. Length may vary as necessary to cover your topic, but papers should be no more than 15-20pp. including tables and references. Shorter papers are generally better papers.

6. Format: Please submit the paper in one file in Adobe Acrobat v11 or earlier format (\*.pdf) or in Word 2016 or earlier format (\*.docx, \*.doc) format.

7. Comment: An important goal of the class is to help students to learn research and writing techniques necessary to write a good thesis or dissertation, and eventually publish academically. These analytical, statistical, and writing techniques will also be useful in non-academic careers (e.g, business or government).

## EE489 Seminar in Industrial Economics

### Course Description:

In this seminar-style class, students will first read and present outlines of a large volume of literature that highlights the analytical tools that economists use to analyse industrial organization (i.e., how firms and markets interact). Second, students will write term papers summarizing case studies of specific industries and/or countries to be chosen in consultation with the lecturer and other students. The course's primary emphasis will be on practicing how to write and present good outlines of the complex literature on this topic and on learning how to write good literature reviews at a high level. Term paper guidelines are summarized on p. 6 of this course outline.

**Prerequisites:** Having completed at least two 400-level  
(or the above level) courses in field of Industrial Economics

### Course Objectives:

Students will first learn to outline and present most of the course readings in 10-15 minutes. Student presentations will be followed by 25-30 minutes of discussion among the lecturer and students. This class will emphasize learning how to read large volumes of complex literature and summarize this literature in 1-2 page text outlines. Outlines will be comprised of English sentences and phrases only. Graphics or powerpoint files are NOT allowed because this will help student learn verbal/written skills. Second, students will also learn to write short term papers focused on large-firm behavior and/or related government policies in a specific industry and/or country. Because choosing and refining the choice of a topic is the most difficult part of writing a good term paper, students will present text outlines of their proposed term-paper topics and revise outlines based on comments from the instructor and other students.

### Textbooks and Academic Papers:

Main text for classes 1-8: Waldman, Don E. and Elizabeth J. Jensen, 2019, *Industrial Organization: Theory and Practice*, Fifth Edition, New York USA and Oxon UK: Routledge.

#### Reference Texts:

- Church, Jeffrey R. and Roger Ware, 2000, *Industrial Organization: A Strategic Approach*, Boston: Irwin McGraw-Hill, Available at: [https://works.bepress.com/jeffrey\\_church/23/](https://works.bepress.com/jeffrey_church/23/).
- Lipczynski, John, John Wilson and John Goddard, 2005, *Industrial Organization: Competition, Strategy, Policy*, Second edition, Essex UK: Pearson Education Limited.
- Martin, Stephen, 2002, *Advanced Industrial Economics*, Malden MA USA and Oxford UK: Blackwell Publishing.
- Pepall, Lynne, Dan Richards, and George Norman, 2014, *Industrial Organization: Contemporary Theory and Empirical Applications*, Chichester UK and Hoboken NJ USA.

Academic papers will be used in classes 10-15; see "Teaching Plan" below for details.

**Other teaching materials:** Students will submit and share outlines of all readings and outlines of their term papers with the lecturer and other students. Learning from fellow students is very important, perhaps more important than learning from instructors.

**Grading:**

70 percent of the students' grades will be based on term papers which survey case studies of specific industries and/or countries; see "Term Paper Guidelines" on p. 6 for details. Class 9 will be devoted to student presentations of short, preliminary outlines of their proposed term papers and related discussions. The purpose of the outline presentations is to help students refine their chosen topic, clearly state the core, analytical question(s) that their survey paper asks, and organize their papers so they become easier to write. Students will practice how to summarize a large number (10 or more) of academic, refereed papers, concisely and how to cite the papers carefully in the paper and in the list of references. The most important principle when writing a paper is to make it very easy for the reader to understand the paper and to find the references cited in order to evaluate the author's interpretation of those references.

**WARNING: If a student plagiarizes or fails to cite sources appropriately, the student will FAIL THIS CLASS and the instructor WILL RECOMMEND suspension or expulsion of the student from the University for academic dishonesty.**

The remaining 30 percent of class evaluation will be based on student attendance (10% of the total), outlines and presentations (15%), and participation in class discussions (5%).

**Teaching Plan (tentative):**

Class 01 15 Aug

Waldman & Jensen, Ch. 1. Introduction  
Waldman & Jensen, Ch. 2. The Firm and Its Costs  
Waldman & Jensen, Ch. 3. Competition and Monopoly

Class 02 22 Aug

Waldman & Jensen, Ch. 4. Market Structure  
Waldman & Jensen, Ch. 5. Mergers  
Waldman & Jensen, Ch. 6. Game Theory: A Framework for Understanding Oligopolistic Behavior

Class 03 29 Aug

Waldman & Jensen, Ch. 7. The Development of Theory  
Waldman & Jensen, Ch. 8. Monopoly Practices  
Waldman & Jensen, Ch. 9. Price Discrimination

Class 04 5 Sep

Waldman & Jensen, Ch. 10. Product Differentiation  
Waldman & Jensen, Ch. 11. Advertising  
Waldman & Jensen, Ch. 12. Vertical Integration and Vertical Relationships

Class 05 12 Sep

Waldman & Jensen, Ch. 13. Collusion: The Great Prisoner's Dilemma  
14. Oligopoly Behavior: Entry and Pricing to Deter Entry  
15. Oligopoly Behavior: Entry and Nonpricing Strategies to Deter Entry

Class 06 19 Sep

Waldman & Jensen, Ch. 16. Technological Change and Research and Development

Waldman & Jensen, Ch. 17. Antitrust: The Laws and Policy Toward Market Power

Waldman & Jensen, Ch. 18. Antitrust: Collusion

Class 07 26 Sep

Waldman & Jensen, Ch. 19. Antitrust: Mergers

Waldman & Jensen, Ch. 20. Antitrust: Price Discrimination

Waldman & Jensen, Ch. 21. Antitrust: Public Policy Toward Vertical Restraints of Trade  
and Group Boycotts

Midterm 3 Oct NO CLASS (there will be no midterm for this seminar-style class)

Class 08 10 Oct

Waldman & Jensen, Ch. 22. International Economics and Industrial Organization

Waldman & Jensen, Ch. 23. Regulation and Deregulation Answers to Odd-Numbered Problems Index?

Waldman & Jensen, Review

Class 09 17 Oct

Students will present outlines of term papers (see guidelines on p. 6 below)

Class 10 24 Oct

10a-Einav, Liran, and Jonathan Levin, 2010, "Empirical Industrial Organization: A Progress Report", *Journal of Economic Perspectives*, 24(2), 145-162.

10b-Pakes, Ariel, 2003, "Common Sense and Simplicity in Empirical Industrial Organization", NBER Working Paper 10154 (also in *Review of Industrial Organization*, 23(3/4), 193-215).

10c-Colacicco, Rudy, 2015, "Ten Years of General Oligopolistic Equilibrium: A Survey", *Journal of Economic Surveys*, 29(5), 965-992.

10d-Potters, Jan and Sigrid Suetens, 2013, "Oligopoly Experiments in the Current Millenium", *Journal of Economic Surveys*, 27(3), 439-460.

Class 11 31 Oct

11a-Tirole, Jean, 2015, "Market Failures and Public Policy", *American Economic Review*, 105(6), 1665-1682.

11b-Baker, Jonathan B., 2003, "The Case for Antitrust Enforcement", *Journal of Economic Perspectives*, 17(4), 27-50.

11c-Crandall, Robert W. and Clifford Winston, 2003, "Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence", *Journal of Economic Perspectives*, 17(4), 3-26.

11d-Buccirossi, Paolo, Lorenzo Ciari, Tomaso Duso, Giancarlo Spagnolo, and Cristiana Vitale, 2013, "Competition Policy and Productivity Growth, An Empirical Assessment", *The Review of Economics and Statistics*, 95(4), 1324-1336.

Class 12 7 Nov

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### **Term Paper Guidelines, submit to "ramstmnc [at] gmail.com" by 29 November 2019**

1. Topic: Please choose any topic related to economics that interests you. Please choose a topic that is sufficiently specific as to be easily discussed in about 10 pages (or about 5000 words), but not so narrow as to be irrelevant or difficult to find research references about the topic. Initially, most students tend to choose topics that are too broad to analyze clearly within 10 pages. If the topic is too broad, it is very difficult to write a clear, coherent paper. Correspondingly, the instructor or other students may offer good suggestions about how to revise a topic or analytical focus so the paper is easier to write. The instructor encourages students to choose a topic related to the subject students are considering for theses or dissertations, and perhaps eventual publication. An important goal of the class is to help students to learn research and writing techniques necessary to write a good thesis or dissertation, and eventually publish academically. These analytical, statistical, and writing techniques will also be useful in non-academic careers (e.g, business or government).

2. Structure: Please write a simple review of the economics literature on the topic you choose. I suggest a simple structure such as the following.

- a. Introduction (about 1 page double-spaced, explaining the major analytical questions considered in the paper and the paper's structure)
- b. Topic 1 (about 3 pages double-spaced, including relevant tables)
- c. Topic 2 (about 3 pages double-spaced, including relevant tables)
- d. Conclusion (about 1 page double-spaced)
- e. References (about 1 page single-spaced, for about 15 references)
- f. Tables and Figures (about 1 page single-spaced, for 2 medium-sized tables or figures)

3. Bibliography and references: Please use the author (year) reference style similar to that in the list class readings above. Please be sure to review AT LEAST 10 academic papers and include a list of references giving standard bibliographic details for each paper that allows the reader to easily find the referenced paper. Please use primarily papers that have been refereed and published in international journals, such as papers used for this class. The *Journal of Economic Literature* and the *Journal of Economic Surveys* are two very good places to begin your literature search because they contain a large number of literature surveys on a wide range of topics.

4. Citations: In the course of writing your paper you will have to refer to previous studies written by others. In such cases, it is important to cite those sources clearly so you can avoid plagiarism and so the reader can easily verify the validity of your statements. Statistical sources should be cited in a similar way. The simplest method of citation is to the author (year) system. If paraphrasing someone, you would say something like Keynes (1936, p. 250) emphasized the volatility of investment flows and their effects on economic cycles. If making a direct quote, please be use quotation marks: Keynes (1936, p. 250) emphasized how economists often failed to understand the implications of the "animal spirits of investors" for economic cycles.

5. Paper length: 5000 words or less, including tables, references, notes, etc.; ideally about 10 A4 pages, using Times Roman 12 point font, spacing =double (2) for the text, and spacing =single (1) tables and reference lists. Please use no more than 2 figures; rather please usually use tables to present information more compactly. Length may vary as necessary to cover your topic, but papers should be no more than 15-20pp. including tables and references. Shorter papers are generally better papers.

6. Format: Please submit the paper in one file in Adobe Acrobat v11 or earlier format (\*.pdf) or in Word 2016 or earlier format (\*.docx, \*.doc) format.