BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE200 Data Science for Economic Analysis

Semester 1/2021 (Aug 9 – Nov 22, 2021)

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-a4e34111d808
   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
   - Orange

   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/
   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
9 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.
16 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.
23 Aug	*Book or Paper Review presentation*
30 Aug	*Workshop on Excel or PowerBI*
6 Sep	*Group presentation of Dashboard.*
13 Sep	*Workshop on Tableau or Power BI*
20 Sep	*Midterm Week and Review of Python or R*
---- Midterm Exam: Submission of Data Science Project Interim Report	
4 Oct	*Workshop - R or Python*

Class	Topics
11 Oct	*Workshop - R or Python*
18 Oct	*Workshop - R or Python*
25 Oct	*Workshop - R or Python*
1 Nov	*Machine Learning on Python*
8 Nov	*Orange for Machine Learning*
15 Nov	*Orange for Machine Learning*
22 Nov	*Presentation of Machine Learning*
---- Final Project Presentation: TBA	

Course Outline

EE 211 Principles of Microeconomics

Semester 1/2021

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.

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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
●	1.1 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 sustenainable 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 analsyis 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.
○	Students have good interpersonal skills, adapting and working under different conditions.

5. Quantitative Analysis, communication and information technology

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

Remark: ● Primary expected outcome O Secondary expected outcome

Textbooks:

Mankiw, N.G., (2018) **Principles of Microeconomics**, 8th ed., Cengage, (ISBN-10: 1-305-97149-3 ISBN-13: 978-1-305-97149-3) ***with MINDTAP***

Krugman, P. and Robin Wells, (2018) **Microeconomics**. 3nd ed. Macmillan Education, (Hereafter, KW)—Earlier editions are applicable.

Pindyck, R. S., & Rubinfeld, D. L. (2018). **Microeconomics**. Upper Saddle River, N.J: Pearson/Prentice Hall.

Evaluation:

Homework Assignments, Quizzes and Class Attendances	10 points
Midterm Exam	40 points
Final Exam	50 points
Total	**100 points**

Remarks:

- **Mid-Term Examination:** Saturday, October 2, 2021 (09:00-11:00 hrs.)
- **Final Examination:** Friday, December 17, 2021 (9:00-11:30 hrs.)

Study Plan:

The class schedule shown below may be adjusted during the semester as needed.

Sessions	Date	Topics	Activities/Text & Materials/ Media
#1: **Economics: The Study of Choice**	10 – 17 Aug (2 lectures)	○ **What is Economics all about?** ○ **The Basic Economic Problems** ○ **Circular Flow** ○ **Microeconomics Vs. Macroeconomics** ○ **Confronting Scarcity: Production Possibilities Curve (PPC)** ▪ Assumptions ▪ An Illustration of Scarcity, Choice and Opportunity Costs Using the PPC ▪ Economic Growth and Changes in the PPC ○ **Economists' Tool Kit** ▪ Equilibrium Analysis ▪ Comparative Static Analysis ▪ Constrained Optimization	**Read**: Mankiw, chs.1-2; KW, chs.1-2
#2-#3: **Demand, Supply, and Equilibrium**	19 – 31 Aug (4 lectures)	○ **Market: Meaning and Components** ○ **Demand: Buyers' Behavior** • Meaning • Law of Demand • Individual and Market Demands • The Determinants of Demand (or Demand Shifters) • The Distinction of "Change in Quantity Demanded" and "Change in Demand" ○ **Supply: Sellers' Behavior** • Meaning • Law of Supply • Firm and Market Supplies	**Read**: Mankiw, ch.4; KW, ch.3

Sessions	Date	Topics	Activities/Text & Materials/ Media
		• The Determinants of Supply (or Supply Shifters) • The Distinction of "Change in Quantity Supplied" and "Change in Supply" ○ **Market Equilibrium: When Demand and Supply Meet** • Meaning and How to Determine the Equilibrium • What Will Happen if Market is Not Yet in an Equilibrium? (Adam Smith's Invisible Hand or Market Clearing Process) ○ **Shocking an Equilibrium** • When demand curve shifts • When supply curve shifts • When both demand and supply curve simultaneously shift	
#4: **Elasticity: A Measure of Response**	2 – 7 Sep (2 lectures)	○ **Elasticity** ▪ Meaning ▪ Measurement ▪ Why Elasticity? :Absolute Change, Relative Change, and Percentage Change ○ **Price Elasticity of Demand: Defined** ▪ Computing Price Elasticity of Demand • Point-Price Elasticity of Demand • Arc-Price Elasticity of Demand • Determinants of Price Elasticity of Demand • Total Revenue and Price Elasticity of Demand ○ **Other Demand Elasticities** • Income Elasticity of Demand	**Read:** Mankiw, ch.5; KW, ch.6

Sessions	Date	Topics	Activities/Text & Materials/ Media
		• Cross Price Elasticity of Demand ○ **Elasticity of Supply: Meaning, Measurement and Determinants**	
#5: **Consumers, Producers, and the Efficiency of Markets**	9 Sep (1 lecture)	○ **Consumer Surplus** ▪ Willingness to Pay (WTP) ▪ Using the Demand Curve to Measure Consumer Surplus ▪ Effect of a Price Change on Consumer Surplus ▪ What Does Consumer Surplus Measure? ○ **Producer Surplus** ▪ Cost and the Willingness to Sell ▪ Using the Supply Curve to Measure Producer Surplus ▪ Effect of a Price Change on Producer Surplus ▪ What Does Producer Surplus Measure? ○ **Market Efficiency**	**Read:** Mankiw, ch.7; KW, ch.4
#6 **Applications on Demand, Supply, and Government Policies**	14 Sep (1 lecture)	○ **Government Intervention in Market Prices** ▪ Price Ceilings ▪ Its effect on price and quantity ▪ Its inefficiency in resource allocation ▪ Welfare Analysis of Price Ceilings (Who gain and lose from the policy?) ▪ Price Floors ▪ Its effect on price and quantity (Case study: Agricultural commodities) ▪ Its inefficiency in resource allocation ▪ Welfare Analysis of Price Ceilings (Who	**Read:** Mankiw, ch. 6; KW, chs.5 and 7

Sessions	Date	Topics	Activities/Text & Materials/ Media
		gain and lose from the policy?) ▪ Effects of Taxes • A Unit Tax Vs. Ad Valorem Tax • Meaning and Effect of a Unit Tax on Supply and Demand Curves • A Unit Tax Imposed on Producers Vs. A Unit Tax Imposed on Consumers • 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 • Demand and Supply Elasticities: Implications on tax burdens incurred by consumers and producers • The differences between Unit Tax imposed on producers and on consumers ▪ Effects of Subsidy Given to Producers	
#7-#9: **The Theory of Consumer Choice**	16 – 23 Sep (4 lectures)	o **Utility Theory (or Cardinal Approach)** • The Meaning of Utility	**Read:** Mankiw, ch.21; KW, chs.10-11; Frank, chs.3-4;;

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Sessions	Date	Topics	Activities/Text & Materials/ Media
		• Relationship between Total Utility and Marginal Utility • Law of Diminishing Marginal Utility • Consumers' Equilibrium (or Rational Spending Rule) and Change in Equilibrium o **Indifference Curves Theory (or Ordinal Approach)** o What a Consumer Wants • The Meaning of Indifference Curve • Properties of Indifference Curve • Slope of Indifference Curve and Marginal Rate of Substitution (MRS) o What the Consumer Can Afford • Budget Line: Meaning, Slope, and Change in Budget Line o How the Consumer Optimally Chooses o Consumer Equilibrium and Change in Equilibrium o Derivation of an Individual Demand Curve Using Indifference Curves and Budget Lines o How a Consumer Responds to Change in Price: Substitution and Income Effects (Hicksian Approach)	Lipsey, ch. 6 (& appendix);
#10-#12: **Production and Cost in the Short-Run and in the Long-Run**	5 – 26 Oct (7 lectures)	o **Firm and the Objectives of Production** o **Production Functions** o **The Meaning of Cost** ▪ Economic and accounting costs ▪ Sunk costs ▪ Private cost and social cost o **Distinction between Short-run and Long-run**	**Production in the Short-Run** **Read:** Mankiw, ch.13; KW, ch.12; Frank, chs.9-10; Supplement Note provided in our class, **Production in the Long-Run**

Sessions	Date	Topics	Activities/Text & Materials/ Media
		○ **Production and Costs in the Short-run** ▪ Total Product (TP), Average Product (AP), Marginal Product (MP) ▪ Relationship of TP, AP, and MP ▪ Law of Diminishing Returns ▪ Stage of Production ○ **Relationship between Costs and Production** ○ **Short-run Costs of Production: TFC, TVC, TC, AFC, AVC, ATC, MC** ○ **Production and Costs in the Long-run Isoquant** ○ Isocost ○ Least Cost Combination ○ Expansion Path ○ The Meaning of Returns to Scale ○ Long-run Costs of Production: LTC, LAC, LMC ○ Relationship between Expansion Path and LTC ○ Relationship between Long-run and Short-run Costs ○ Economies and Diseconomies of Scale	**Read:** Supplement Note provided in our class; Frank, chs. 9-10; KW, ch. 12
#11-#13: **Market Structure**	28 Oct – 16 Nov (6 lectures)	○ **Meaning** ○ **Structure of Perfect and Imperfect Markets** ○ **Producer's Objectives** ○ **The Meanings of Profits and Loss** ○ **Profit Maximization** ▪ TR-TC Approach ▪ MR-MC Approach ○ **Perfectly Competitive Market**	**Read:** Mankiw, chs.14-15; KW, chs. 13-14

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Sessions	Date	Topics	Activities/Text & Materials/ Media
		▪ The Nature of Demand, TR, MR, AR and Their Relationships ▪ Short-run Equilibrium ▪ Derivation of Firm's and Market's Short-run Supply Curves ▪ Long-run Equilibrium ○ **Monopoly** ▪ Causes of Monopoly ▪ The Nature of Demand, TR, MR, AR and Their Relationships ▪ Short-run Equilibrium ▪ Economic Effects of Monopoly ○ **Comparison between Perfect Competition and Monopoly**	
#14: **Factor Markets**	18 – 23 Nov (2 lectures)	○ **Demand for factor as a derived demand** ○ **The firm's demand for a factor** ○ **The supply of a factor** ○ **Determination of factor prices** Under the two scenarios: 1) Both factor market and output market are perfectly competitive. 2) Factor market is perfectly competitive but output market is under monopoly	**Read:** Mankiw, ch.18; KW, ch. 20; Perloff, ch. 15.1-15.3
#15: **Market Failure**	25 Nov (1 lecture)	○ **Meaning and Characteristics** ○ **Origins of Market Failure** ▪ Monopoly Power ▪ Public Goods ▪ Externalities ▪ Asymmetric Information ○ **Consequences of Market Failure**	**Read:** Mankiw, chs.10-11, 15 and 22; KW, chs. 17-18 **Watch:** "Erin Brockovich" , "Day After Tomorrow".

Sessions	Date	Topics	Activities/Text & Materials/ Media
		○ **Correction of Failure and Imperfections: Government or Private sector**	

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline
EE212 PRINCIPLES OF MACROECONOMICS
Semester 1/2021

Number of credits: 3 credits

Course Description

This is a mandatory first-year undergraduate course that is aimed at introducing macroeconomics, their applications, and limitations. The course will explore how macroeconomic theories attempt to explain how society functions, and how they are constantly challenged by actual economic realisations and new data.

This course explains the current state of literature on the determinants of economic growth, and how/why they vary across countries. The foundations include understanding the 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 'stabilise' an economy. This will lay the foundation of your future economic courses and career.

Important debates on the Thai economy, as well as the 1997 Asian Financial Crisis, Subprime Crisis, public debt, and inequality will be critically examined.

Course Objective:

Introduce students to the formal study of economics, the necessary tools, as well as the current state of macroeconomic knowledge;

- Equip students with tools to understand and solve economic problems using principles, measurement, and observation;
- Make students acquainted with economic data sources such as national income, GDP, and labour force statistics and surveys;
- Provide students with the knowledge and understanding of economic statistics such as economic growth, unemployment rate, inequality indicators, inflation – along with their conceptual or source-based limitations;

- Introduce students to academic research writing through class assignments, and guide the development of research methods;

Prerequisites: *Exclusively for economics major student or students who plan to transfer to the economics major*

Evaluation:

Assignment and Problem sets	10%
Midterm exam	35%
Final exam	55%
Total	100%

Mid-Term Examination	Saturday 2 October 2021 Time: 08.00 – 09.30 am
Final Examination	Friday 17 December 2021 Time: 1.30 – 4.00 pm

Remarks:1) Evaluation methods are subject to change

2) No classes will be held during Songkran holidays

3) To pass this course, it is necessary (but is not sufficient) to attend and actively participate in every class. There will be assignments and problem sets throughout the course. In order to excel in the problem sets and examinations, students are expected to have a good working knowledge of the topics covered based on class materials, mandatory reading list, and own research.

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

Case, Karl E. and Ray C. Fair (2009), ***Principles of Macroeconomics*** (9th ed.): Prentice Hall.

Core-Econ, ***The Economy*.**

Krugman, P. and Robin Wellls (2018), ***Macroeconomics (5th ed.)***: Worth Publishers.

Wattanakoon, Panit (2021), **Principles of Macroeconomics** (W)

Recommended Text

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

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

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

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.

Exam materials are cumulative – meaning that in order to perform well in the finals, students must have good understanding of the materials covered in the midterms. 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:

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.

Teaching Plans

Week	Topic	Reading
1	**1. Introduction to Macroeconomics (3 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 economic thoughts	The Economy, unit 1 Krugman & Wells, chapter 6 Case & Fair, ch. 5, 7; LRS, ch. 1, 2, 19, 31; Mankiw ch. 1, 2, 23 W, ch.1
2	**2. Main measurements in macroeconomics (3 hours)** 2.1 The component of macro economy 2.2 Circular flow diagram 2.3 GDP vs GNP 2.4 Measurement of GDP 2.4.1 Product approach 2.4.2 Expenditure approach 2.4.3 Income approach 2.5 Nominal GDP vs. Real GDP and GDP deflator 2.6 Limitation of GDP concept 2.7 Measuring price changes: inflation and deflator 2.8 Measuring unemployment: definitions and limitations 2.9 Measuring distribution: concepts and limitations	Krugman & Wells, chapter 7, 8 Case & Fair, ch. 6; LRS, ch.20, Mankiw ch. 10, 11 W, ch.2

Week	Topic	Reading
3, 4	**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 Inflationary and deflationary gap 3.5 Keynesian, Classical and Non-Keynes non-classical concept	Case & Fair, ch. 6; LCR, ch.21, 22 Krugman & Wells, chapter 9 W, ch.3
5, 6	**4. Short-run economic fluctuations, unemployment, and fiscal policy at work (6 hours)** 4.1 Growth and economic fluctuations 4.2 Output growth & changes in unemployment 4.3 Transmission of economic shocks 4.3.1 Household target wealth & consumption spending 4.3.2 Investment spending 4.4 Objectives of fiscal policy: dampening or amplifying fluctuations 4.5 Paradox of Thrift & the fallacy of composition 4.6 Multiplier and policymaking 4.7 Budget balance & government's finances 4.8 Fiscal policy and the rest of the world	The economy, unit 13-14 Krugman & Wells, chapter 11, 13 Case & Fair, ch. 9; LCR, ch. 32, Froyen Ch. 18, Mankiw ch. 21 W, ch 5
	Mid-Term Examination	October 2, 2021 9.00-11.00 AM
8	**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	The Economy, unit 10 Krugman & Wells, chapter 14 Case & Fair, ch. 10-11; LRS, ch. 27, 28, 29, Froyen ch. 16, Mankiw ch. 16 W, ch. 6
9, 10	**6. The IS-LM Model (7.5 hours)**	Froyen, ch. 7

Week	Topic	Reading
	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 6.6 Fiscal & monetary policy effectiveness	W, ch. 9
11, 12	**7. The AD-AS Model (3 hours)** 7.1 Aggregate Demand (AD) 7.1.1 The derivation of AD curve from IS-LM model 7.1.2 Movement along AD and shifts of AD 7.2 Aggregate Supply (AS) 7.2.1 Short- and long-run AS 7.2.2 Movement along AS and shift of AS 7.3 Equilibrium and changes in equilibrium 7.3.1 Equilibrium in AD-AS model 7.3.2 Changes in equilibrium in AD-AS model 7.4 The analysis of fiscal policy and monetary policy using AD-AS model	Krugman & Wells, chapter 12 Case & Fair, ch. 12, 13; Froyen, ch. 8, ch. 10; LRS, ch. 23, 24, 25, 30; Mankiw ch. 20, 21, 22 W, ch.4
13	**8. Inflation, Unemployment, and Monetary Policy (4.5 hours)** 8.1 Definition and causes of inflation 8.1.1 Demand-pulled/cost-pushed inflation 8.1.2 Inflation as a monetary phenomenon 8.2 Inflation, the business cycle, and the Phillips curve 8.3 Inflation and unemployment: constraints and preferences 8.4 Phillip's curve mutation and theoretical responses 8.4.1 The role of expectation, commitment, and credibility 8.5 Shocks and policy responses 8.5.1 Supply shocks 8.5.2 Monetary policy responses, and exchange-rate channel 8.5.3 Demand shocks, and demand-side policies	The Economy, unit 15 Krugman & Wells, chapter 14, 15 W, ch.4,7
14	**9. Open-economy macroeconomics (3 hours)** 9.1 Capital flows & the Balance of Payment 9.2 Relationship between difference in saving and investment and current account 9.2.1 Inflation & real exchange rate 9.3 The market for foreign exchanges 9.3.1 Meaning and importance of foreign exchange rate 9.3.2 Demand & supply of foreign exchange 9.3.3 Exchange rate regimes and the impossibility trinity 9.4 Purchasing Power Parity vs Market Exchange Rate 9.5 Exchange rate and macroeconomic policymaking	Krugman & Wells, Chapter 19 Case & Fair, ch. 20; LRS, ch. 34, 35, Froyen ch. 14, Mankiw ch. 18 W, ch.8
	Final Examination	December 17, 2021 1.30 – 4.00 PM

Remark: This schedule is subject to change.

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BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE301: HISTORY OF THAI ECONOMY

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

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

Prerequisite: -

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 development of Thai economics and politics that led to modern Siam state and market, and 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.

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.

The historical period that this course focuses on from Late Ayutthata to Rattanakosin (Bangkok) period. The examination starts with understanding the characteristics of Ayuthaya, to the fall of Ayutthaya and the birth of Early Rattanakosin. The investigation proceeds to the rise and fall of Thai absolutism, and the causes and consequences of 2475 revolution. The exploration of modern Siam followed, starting with the look into 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 economic history Thailand, using the political economy approach. Debates on the following questions will be key to the course

1. What was the key characteristics of Ayutthaya's economics and society? Why is that important?
2. How did the market system developed in early Rattanakosin?
3. What propelled Siam toward modernization of the state?
4. What were the positives and negatives of the modernization of Thai economy?

In discussing the above questions, the course also shed lights onto the following aspects throughout Thai history

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

•Pasuk Phongpaichit and Chris Baker (2002). Thailand: Economy and Politics, KL: Oxford University Press
•Chris Baker and Pasuk Phongpaichit (2017). A History of Ayudtthaya: Siam in the Early Modern World. Cambridge University Press.

Suggested readings

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

Lecture Notes

Please see additional readings for each topic below in the Topics section.

Evaluation

Mid-term exam (Wednesday, Sep 29, 2021)	25	percent
Final exam (Saturday, Dec 11, 2021)	30	percent
(Both mid-term and final exams are take-home exam)		
Discussions and participation in class	10	percent
Group works	15	percent
Essay	20	percent

The details of discussions, group works, 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 sustenainable 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 analsyis 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 Ayudtthaya: 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

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE 311: Microeconomics Theory

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

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

Prerequisite: EE 211 and MA 216

Course Description:

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

Course objectives:

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

4. Know how to determine the equilibrium price and quantity for each type of factor market.
5. Understand the three general equilibrium conditions and the Pareto optimality concept.
6. Understand the factors the 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 two15-minute quizzes during class hours, and participate in class discussions.

Grading Criteria:

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

Important Dates

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

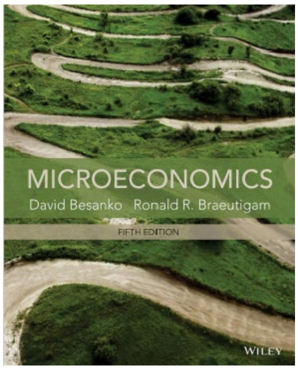
Holidays

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

Main Textbooks

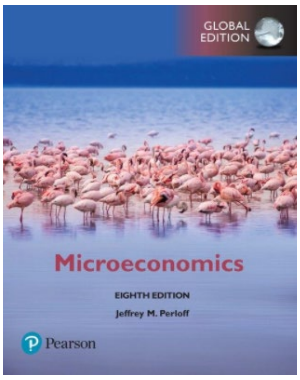
There are several textbooks that cover similar materials. **The first four books will be used extensively, but, for many topics, they can be used interchangeably with the other listed books.** It is important to realize, however, that no single textbook contains **all** the materials covered in this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

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

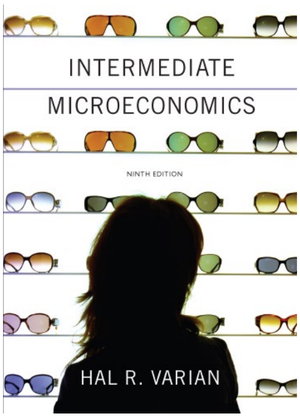


2) **Pindyck, Robert S. and Daniel E. Rubinfeld. *Microeconomics,* (9th ed.), New Jersey: Prentice -Hall, 2018.**

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



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



5) Salvatore, Dominick, *Microeconomics: Theory and Applications,* (5th ed.), New York: Oxford University Press. 2008.

6) Frank, Robert H. (9th ed.). *Microeconomics and Behavior,* New York: McGraw-Hill, 2015.

7) Miller, R.L., and R.P.H. Fishe. *Microeconomics: Price Theory in Practice,*New York: Harper Collins, 1995.

8) Hirshleifer, Jack *Price Theory and Applications* (6th ed.), New Jersey: Prentice - Hall, 1998.

9) Griffiths, Alan and Stuart Wall, *Microeconomics: Theory & Applications,* London: Longman, 2000.

10) Nicholson, Walter and Christopher M. Snyder, *Intermediate Microeconomics and Its Application,* (11th ed.), Dryden Press, 2009.

Supplementary Reading (for fun)**:**

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

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

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

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

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

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

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

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

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

Movies:

"A Beautiful Mind" Universal Studios, 2001.

"An Inconvenient Truth", 2006.

"Inside Job", 2010.

Some Useful Links:

Student Resources for Frank's text:

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

Nobel Prize in Economic Sciences:
http://nobelprize.org/nobel_prizes/economics/shortfacts.html

Robert H. Frank: http://www.robert-h-frank.com/

Econ Ph.D. Net: http://www.econphd.net/

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

The Official Paul Krugman Web Page: http://web.mit.edu/krugman/www/

The Undercover Economist: http://timharford.com

The Airport Economist: http://www.theairporteconomist.com

The Economist Magazine: http://www.economist.com

Expected Learning Outcomes:

1. Morality and Ethics

Applicability	Expected Learning Outcomes
●	1.1 Students demonstrate integrity.
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Applicability	Expected Learning Outcomes
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●	2.3 Students know and understand instruments of economic analysis.
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Applicability	Expected Learning Outcomes
●	3.1 Students have developed individual critical thinking.
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Applicability	Expected Learning Outcomes
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Teaching Plan:

1. Introduction

1.1 Why Study Microeconomics?

Application of Demand and Supply concepts: government intervention

Review: Concepts of consumer and producer surplus.
Read: Besanko & Braeutigam Chs. 2 & 9, Pindyck & Rubinfeld Chs. 2 and 9, Perloff Chs.2, 3, 9, Frank Ch. 2.

2. Consumer Behavior and Demand Theory

2.1 Indifference Curve Analysis

- assumptions
- properties of indifference curve
- analysis of goods, bads, neuters

Review: Properties of indifference curves.
Read: Besanko & Braeutigam Ch. 3 & 4., Pindyck & Rubenfeld Ch. 3, Perloff Ch.4 & App. 4A, Frank Ch.3.

2.2 Consumer equilibrium and changes in equilibrium

- consumer equilibrium and duality
- changes in income
- changes in price: income effect and substitution effect
- compensated and uncompensated demand curves
- market demand
- network externalities
- application: vouchers vs. income transfers

Review: Construction of demand curves, elasticities.
Read: Besanko & Braeutigam Ch. 5, Pindyck & Rubenfeld Ch. 4, Appendix, Perloff Ch. 5; Salvatore Ch 3 (3.4-3.5) Chs.4 -5, Frank Chs. 4-5, Appendix; Varian Ch. 7.8 & Ch. 8.

2.3 Intertemporal consumption (consumption overtime)

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

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

2.4 Consumption under uncertainty

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

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

3. Production and Costs

3.1 Production equilibrium

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

3.2 Production functions and costs

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

Review: All product and cost curves; e.g. AP, MP, TP, TC, AC, MC.
Read: Besanko & Braeutigam Chs. 6-8, Pindyck & Rubinfeld Chs.6-7, Perloff Chs.6-7, Frank Chs.9-10.

4.Product Markets

4.1 Perfectly competitive markets

- long-run equilibrium and efficiency

Review: Characteristics of perfectly competitive markets, price and output under perfect competition.
Read: Besanko & Braeutigam Ch. 9, Pindyck & Rubinfeld Ch.8, Perloff Ch. 8, Frank Ch.11.

4.2 Monopoly

- meaning of market power
- price and output determination
- multi-plant monopoly
- monopoly and resource allocation

- regulation of monopolies and contestable markets
- other pricing strategies
  - price discrimination: degrees and hurdles
  - two-part tariffs and other strategies

Review:	Simple monopoly
Read:	Besanko & Braeutigam Ch. 11.1-11.6 & 12, Pindyck & Rubinfeld Ch. 10 (10.1-10.4 and 10.7) & Ch. 11, Perloff Ch.11, 12; Frank Ch.12.

4.3 Monopolistic competition

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

Read:	Besanko & Braeutigam Ch. 13.5, Pindyck & Rubinfeld Ch. 12.1, Perloff 13.7, Frank Ch.13.

4.4 Oligopoly

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

4.5 Game theory and its application

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

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

5. Factor Markets

5.1 Competitive factor markets

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

Read: Pindyck & Rubinfeld Ch.14.1-14.2, Perloff Ch.5 (5.5), 15 (15.1), Frank Ch.14.

5.2 Factor Markets with Monopoly and Monopsony Power

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

Read: Besanko & Braeutigam Ch. 11.7, Pindyck and Rubinfeld Ch. 10.5-10.6 & Ch.14.3, Perloff Ch. 15 (15.2, 15.3), Frank Ch.14.

5.3 Factor Markets with Monopoly Power of Seller of Input

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

Read: Pindyck & Rubinfeld Ch.14.4.

6. General Equilibrium Analysis and Welfare Economics

6.1 General Equilibrium: consumption, production, and exchange

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

Read: Besanko & Braeutigam Ch. 16.1-16.4.Pindyck & Rubinfeld Ch.16 (16.1-16.4, 16.6), Perloff Ch. 10, Frank Ch.16.

6.2 Market Failure and Imperfect information

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

Read: Besanko & Braeutigam Ch. 17, Pindyck & Rubinfeld Ch.16 (16.7) & Chs.17-18, Perloff Chs. 18,19, Frank Chs.17-18.

Watch: “An Inconvenient Truth”, “Inside Job”

Teaching Plan:

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

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

Course Syllabus

EE 312 MACROECONOMIC THEORY

Semester 1/2021 (August 9th – December 17th, 2021)

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

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6. 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.

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

8. 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.

9. Evaluations*:

Quizzes	15	points	(5 quizzes; pick the best 4)
Mid-term exam	40	points	
Final exam	45	points	
Total	<u>**100**</u>	points	

Mid-term exam date:	*Saturday, October 2, 2021;*
	Time: 13.00 – 15.00 hrs (2.00 hours)
Final exam date:	*Friday, December 3, 2021;*
	Time: 13:30 – 16:00 hrs (2.30 hours)

Remarks: Evaluation methods and weights are subjected to changed.

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10. 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 *Google Classroom*.

11. Expected Learning Outcomes:

11.1) 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 sustenable society.

11.2) 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.

11.3) 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 analsyis and synthesis, students demonstrate an ability to propose policy guidelines to resolve problems.

11.4) 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.

11.5) 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.

12. Lecture / schedule:

Topics	Reading
1. Overview and introduction ***(0.5 lecture)***	
1.1) Class overview: *logistic information*	
1.2) Roadmaps: *where we are headed*	
1.3) Measuring macroeconomic activities (self-study)	*W. Ch. 1/ Ch. 2* *Self-study Video clip*
Part I Closed-economy business cycle fluctuations (9 lectures)	
2. Introduction to business cycle studies and economic fluctuation ***(1 lecture)***	
2.1) What is a business cycle?	*W. Ch. 3*
2.1.1) Nature of macroeconomic data	*M. Ch. 10*
2.1.2) Measuring and characterizing business cycles	
2.2) Framework for business cycles theory	
2.2.1) Ingredient of business cycle theories	
2.2.2) Overview of AD-AS framework	
3. The core AD-AS framework ***(5 lectures)***	
3.1) The Classical long-run macroeconomy (1.5 lecture)	F. *Ch. 3 - 4*
3.1.1) Aggregate production function	*M. Ch 3*
a) Key properties and Graphical illustration	
b) Law of diminishing marginal product	
3.1.2) Labour market outcome	
a) Labour supply	
b) *Labour demand*	
3.1.3) Natural level of aggregate variables and Potential output	
3.2) Foundation of aggregate demand theory (0.5 lecture)	*Self-study Video clip*
3.2.1) Keynesian DAE	*F. Ch. 5 - 6*
3.2.2) The IS-LM model	
3.3) Foundation of aggregate supply theory (1.0 lecture)	*M. Ch. 14*
3.3.1) Long-run aggregate supply	
3.3.2) Short-run aggregate supply	
3.4) AD-AS equilibrium and business cycles (2.0 lectures)	
3.4.1) Short-run fluctuations	
a) Shocks and Propagation mechanism	
b) Macroeconomic policy analysis	
3.4.2) Self-adjusting mechanism and Medium-run fluctuations	
a) Swift adjustment process	
b) Gradual adjustment process	
c) Staggered adjustment process	
3.4.3) How well does the AD-AS framework fit the data? (optional)	

Topics	Reading
4. Inflation and business cycles (3 lectures)	
4.1) Some stylized facts of inflation	
4.2) Long-run theory of inflation	*M. Ch. 5*
4.2.1) Quantity theory of money	
4.2.2) Cost and benefit of inflation	
4.3) Business cycles perspectives of inflation	*M. Ch. 14*
4.3.1) The Phillips curve and its derivation	
4.3.2) Short-run *and* Long-run Phillips curve	
4.4) Macroeconomic policy design	
Part II Open-economy business cycle fluctuations (4.5 lectures)	
5. International financial markets (*1.5 lectures*)	
5.1) Keep tracking in the globally connected economy: *international accounts*	*Self-study video clip* *F. Ch 14*
5.1.1) Current account	
5.1.2) Capital account	
5.1.3) Balance of payments account	
5.2) Foreign exchange market	*F. Ch 14*
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 economics	
a) *Flexible exchange rate regime*	
b) Fixed exchange rate and Implementations	
c) Exchange rate policies and sterilizations	
6. Framework for open-economy business cycle analysis (*3 lectures*)	
6.1) An open-economy macroeconomics model: *IS-LM-BP framework*	*F. Ch 15*
6.1.1) Open-economy IS curve	
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	

Topics	Reading
6.4.1) Macroeconomic imbalances and policy corrections 6.4.2) Issues on policy effectiveness 6.4.3) The impossibility trinity theorem	
Mid-term exam date: *Saturday, October 2, 2021; Time: 13.00 – 15.00 hrs (2.00 hours)*	
Part III: Micro-foundation approach to macroeconomics	
7. A Closed-Economy One-Period Macroeconomic Model ***(4 lectures)*** 7.1) General equilibrium macroeconomy and Circular flow of macroeconomy 7.2) Optimizing-agent decision 7.2.1) Households *a) Preferences over consumption and leisure* *b) Choice set and constraint* *c) Work-leisure decision and labor supply* 7.2.2) Firms *a) Production and technology* b) *Profit maximization problem and labour demand* 7.3) Competitive equilibrium and Pareto optimality 7.3.1) Government and tax 7.3.2) Equilibrium 7.3.3) Pareto optimality 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?	*W. Ch 4* *W. Ch 5*
8. **Two-Period model: the consumption-savings decision** ***(3 lectures)*** 8.1) Credit market and allocation over time 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 *a) Effect of interest rate on consumption and saving behaviour* *b) Effect of permanent and temporary increases in income* 8.3) Government sector and Competitive equilibrium 8.4) The Ricardian equivalence theorem	*W. Ch. 9*
9. A Real Intertemporal Model with Investment ***(5 lectures)*** 9.1) Circular flow of a production economy over time 9.2) Optimizing-agent decision under intertemporal environment	*W. Ch.11*

Topics	Reading
9.2.1) Consumer's problem	
a) *Current labour supply*	
b) *Demand for consumption goods*	
9.2.2) Consumer's problem	
a) *Current labour demand*	
b) *Investment decision*	
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	
10. Long-term Economic Growth ***(4 lectures)***	
10.1) Long-term growth stylized-facts	W. Ch.7
10.2) Growth accounting	
10.3) Solow growth model	W. Ch.8
10.4) Theory confronts with data	
10.5) Income disparities and Growth policies	

Final exam date: *Friday, December 3, 2021;*

Time: 13:30 – 16:00 hrs (2.30 hours)

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Course Outline

EE 320 Introductory Mathematical Economics (046401)

Semester 1/2021

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:

Anin, Aroonruengsawat (2020) *Lecture notes on introductory mathematical economics* **(AA)**

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

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 sustenainable 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 analsyis 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.

Course Outline:

Topics	
1. Introduction - Importance and needs to use mathematics in economics. - The nature of theory, economic model and mathematics.	CW. Ch. 1 AA
2. Mathematics and Economic Relations - Relations and functions - Types of functions	CW. Ch.2 AA
3. Static and Comparative Static Equilibrium Analysis - Linear models in economics - Simultaneous system of equations - Linear equation and graph - Breakeven analysis - Individual and market demand - Individual and market supply - Partial market equilibrium - Excise tax and market equilibrium - Elasticity concept - Simple macroeconomic model - IS-LM model	CW. Ch. 3 AA

4. Linear Model, Basic Matrix Algebra and Applications
- Terminology (Type of matrix)
- Matrix operations (add, subtract, multiply)
- Representation of system of equation by matrix notation
- Matrix inversion by determinants
- Determinant and singularity of matrix
- Cramer's rule
- Matrix applications in:
  - Partial market equilibrium
  - Excise tax and market equilibrium
  - Simple macroeconomic model
  - IS-LM model
	CW.
	Ch. 4, 5
	AA

Topics	

5. Nonlinear Model and Differential Calculus in Economic Theory
 	
- Quadratic theory
- Other nonlinear functions
- Slope and derivatives of a function
- Rule of differentiation
- Non differentiable functions
- Examples in Economics
    - Derivative and marginality
    - Relations among the total, the average and the marginal functions
    - Elasticity, total revenue and marginal revenue
	CW. Ch. 6, 7, 8
	
	AA

6. Optimization without Constraints: One Independent Variable Case
 	
- Maxima, minima and inflection point
- Convexity and concavity
- Maximize profits
    - Competitive market case
    - Monopoly case
- Effects of taxes
    - Lump-sum tax
    - Profit tax
    - Excise tax
- Maximization of tax revenue
	CW. Ch. 9
	
	AA

MIDTERM	

7. Derivatives of More-Than-One Independent Variable Function
 	
- First-order partial derivatives
- Second-order partial derivatives
- Differential
- Total differential
- Total derivatives
- Implicit function and its derivative
- Examples in economics
    - Partial market equilibrium
    - Multipliers in macroeconomic models
    - Utility function
    - Production function
	CW. Ch. 7, 8
	
	AA

Topics	
8. Optimization without Constraint: More-Than-One Independent Variable Cases - Conditions for maximum or minimum - Third degree price discrimination - Multiplant-firm - Multiproduct-firm	CW. Ch. 11 AA
9. Optimization under Equality Constraint - Lagrange multiplier - Conditions for optimization - Maximize output level subject to cost constraint - Minimize cost subject to output constraint - Minimize utility subject to fixed budget	CW. Ch. 12 AA
10. Integration and Its Application - Terminology in Integration - Rules of Integration - Definite Integration - Applications: - Total revenue function from marginal revenue function - Total cost function from marginal cost function - Profit function from MR-MC - Utility function from marginal utility function - Consumption and saving functions from marginal propensity functions - Capital formation and investment functions - Consumer surplus, producer surplus and total surplus - First degree price discrimination - Differential equation (if time allows)	CW. Ch. 14 AA

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

Assessment:

1. Homework 20%
2. Midterm Exam 35 %
3. Final Exam 45 %

Note: Practice problems for each topic will be posted on the class website. Students are encouraged to practice these exercises by themselves regularly.

Remarks:

- **Mid-Term Examination (Wednesday, September 29, 2021, 15.00 - 17.00 hrs.)**
- **Final Examination (Monday, December 13, 2021, 13.30 – 16.00 hrs.)**

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Course Outline

Course ID: COURSE TITLE

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

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

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

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.

Course 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)

Main Text:

1. ** Gujarati, D.N., and D.C. Porter, Basic Econometrics. 5th ed., N.Y., McGraw-Hill, 2009.

2. **Wooldridge, J. M. Introductory Econometrics: A Modern Approach. 6th ed. Thompson: South-Western, 2016.

**Main Text

Recommended Texts & Materials

Jame H. Stock and Mark W. Watson, Introduction to Econometrics, 2nd Edition, Boston: Pearson Addison Wesley (2007)

William E. Griffiths, R. Carter Hill and George G. Judge, Learning and Practicing Econometrics, John Willey & Sons (1993 or latest edition)

Joshua D. Angrist and Jörn-Steffen Pischke, Mostly Harmless Econometrics: An Empiricist's Companion, Princton 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.

Grading Criteria:

Homework Assignments and Quizzes	20 points
Class Attendances and participations	10 points
Midterm Exam	30 points
Final Exam	40 points

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 sustenainable 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 analsyis 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.

Tentative Class Schedule:

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, 2021, 15:00-17:00hrs.=============

Multiple Regression Analysis (Estimation)

- Motivation
- Model and assumptions
- Estimation of parameters and properties of estimators
- Meaning of partial regression coefficients
- Measuring goodness of fit: R2 and adjusted R2
- 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. 15)

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)

=============FINAL EXAM: December 13, 2021 (9:00-11:30 hrs.) ============

Remarks:

- **Mid-Term Examination: Wednesday, September 29, 2021 (15:00-17:00 hrs.)**
- **Final Examination: Monday, December 13, 2021 (9:00-11:30 hrs.)**

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Course Outline

EE361 ECONOMICS OF CLMV COUNTRIES

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

Number of Credit : 3 (Three)

Prerequisites : None

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; education and health; transportation; trade; and urban and rural development, as well as in cross-cutting areas such as the environment, gender, climate change, and foreign aid and investments and international capital flows. The relationships between CMLV 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 Bank publications, which are based on their experiences 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.

Course Objective

The objective of this course is to understand the relationship between economic development and globalization along with the processes, issues and challenges that arise.

Main Text : Todaro, M. and S. Smith. 2013. Economics of Development, 13th ed.

Addison Wesley: NY.

Additional Readings: To be announced in BE Moodle

Grading Criteria

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, quizzes, and contribution to class discussions); group presentation on a particular topic learned in class; which aims to foster collaboration among students in selecting and appropriate topic based on course lecture; issue paper relating to coursework; and midterm and final exams. Late submission of assignments/exam: up to 30 minutes a penalty of 10%, up to 60 minutes a penalty of 25%. The weights of each of these items are as follows, and will be factored in towards the final grade:

- Participation	15%
- Group presentation	15%
- Issue paper	15%
- Midterm exam	25%
- Final exam	30%

Grade conversion

Numerical grades will be converted to letter grades as follows:

- >85−100	A
- >80−85	B+
- >70−80	B
- >65−70	C+
- >60−65	C
- >55−60	D+
- >45−55	D
- 45 and below	F

Class Policy and Expectations

In adherence with the latest Thammasat University Announcements (issued on Jun 1st 2021), all BE classes in semester 1/2021 will be conducted by remote learning. Zoom will be used as the online meeting platform, while communication, announcements and grade posting will be on BE Moodle. 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. To obtain attendance credit, students are required to turn on the computer screens for the first 15 minutes of class. For any further clarifications and/or queries, students may either e-mail or set up an appointment with the lecturer.

Expected Learning Outcomes:

It is expected that by the end of the course, students will have a good understanding of (i) the economic development trajectories of Cambodia, Lao PDR, Myanmar and Viet Nam; (ii) commonalities and variations in terms of CLMV development policies and outcomes; (iii) key economic development sectors, their role in economic development and government policies to address the issues that arise; and (iv) the role of domestic, regional and international actors in the economic development of CLMV.

Tentative Class Schedule

Date/Week	Topic	Reading Materials
Week 1		
10 Aug	Introduction - Course objectives and requirements - Expectations of the course - Scope and coverage	Course syllabus
12 Aug	No classes (Queen Mother's birthday)	
Week 2		
17 Aug	Geographical and Historical Context - CMLV and Southeast Asia - The pre-colonial era - Colonial rule and liberation - Post-war periods of social conflict	Steinberg & Hakim, Ch 1
19 Aug	Era of Reform and Economic Growth - The reform era: 1980s and 1990s - Resumption of foreign aid - Regional cooperation	Steinberg & Hakim, Ch 1; Cheang & Wong
Week 3		
24 Aug	The GMS Programme - Improving connectivity - Increasing competitiveness - Instilling sense of community	ADB GMS Economic Cooperation Program
26 Aug	Agriculture and Rural Development - Agriculture labor and productivity - Land policy and food security	Todaro, Ch 9

<u>Week 4</u>		
31 Aug	Agriculture and Rural Development - Comparisons - Agriculture issues, trends and policies in CLMV - Case study: Vietnam's agricultural transformation	Rillo and Sombilla
2 Sep	Social Development: Education and Health - Health, education and productivity - Health policy and coverage - Formal and vocational education	Todaro, Ch 8
<u>Week 5</u>		
7 Sep	Education and Health Issues in CLMV - Policies, issues and trends across CLMV - Case study: Vocational training in Cambodia	
9 Sep	Transportation and Physical Connectivity - Transportation issues, trends and policies - Case study: East-West Economic Corridor	ADB: GMS Transport Sector Strategy
<u>Week 6</u>		
14 Sep	Urban Development – Issues - Spatial and economic trends - Rural-urban linkages - Urban management and finance	Steinberg & Hakim, Ch 1 & 4
16 Sep	Urban Development in CLMV - Urban issues, trends and policies - Case study: Thanh Hoa city, Viet Nam	TBD
<u>Week 7</u>		
21 Sep	Environmental Management and Climate Change - Environment vs the economy - Environmental policy - Climate change adaptation and mitigation -	Todaro Ch 10
23 Sep	Environmental Management in CLMV-Case Studies - Nam Theun II hydropower, Laos - Biodiversity conservation corridors, Cambodia - Forestry livelihood improvement, Viet Nam	TBD
<u>Week 8</u>	Midterm Exam Week, no classes	
<u>Week 9</u>		
5 Oct	International Trade - Benefits and costs of trade	Todaro, Ch 12

7 Oct	Trade in CLMV	TBD
Week 10 12 Oct	Economic Development in Cambodia - Country context - Reform policies - Issues and challenges	ADB Cambodia CPS 2019-2023
14 Oct	Economic Development in Lao PDR - Country context - Reform policies - Issues and challenges	World Bank 2017 Country Diagnostic
Week 11 19 Oct	Economic Development in Myanmar - Country context - New mechanism and other reform policies - Issues and challenges	ADB 2012 Myanmar in Transition
21 Oct	Economic Development in Viet Nam - Country context - Doi Moi and other reform policies - Issues and challenges	World Bank Viet Nam CPF 2018-2022
Week 12 26 Oct	Gender and Development - Importance of Gender - Gender Mainstreaming	ADB: Gender and Development
28 Oct	Gender in CLMV - Issues, trends and policies	
Week 13 2 Nov	Foreign Aid - Objectives of official development assistance - Pros and cons of aid	Todaro Ch 14
4 Nov	Foreign Aid in CLMV	Moolio and Kong
Week 15 9 Nov	Foreign Direct Investment and International Capital Flows	Todaro Ch 14
11 Apr	Thailand and CLMV Relationships	Sompop Manarusungan

Week 16

16 Nov Group Presentation

18 Nov Group Presentation

Week 17

23 Nov Group Presentation

25 Nov Wrap up and Pictorial Tour of CLMV

- Lessons Learned
- Commonalities and differences across CMLV

Course Outline

EE375 Applied Economics for Natural Resources and Environment

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

Number of Credit: 3

Prerequisite: EE210 or EE211 or EE213 (credits will not be awarded to students who are taking or have completed any 400-level courses in this subfield.)

Course Description: The relationship between economic growth, natural resources allocation and environmental problems. Basic economic theories used for analysis and application in natural resources management and environmental problems. The roles of government, community, and business sectors to control and solve problems in natural resource and environmental exploitation at local, national, and global levels. Concept of sustainable development. Concept of environmental justice. Basic concepts and methodologies in economic valuation of natural resources and environment.

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Course Objectives:

The course aims to provide fundamental knowledge on what topics are discussed in the fields of natural resources and environment, how economic concepts are applied to analyze issues in these fields, and how to approach a range of natural resource management and environmental problems using economic instruments to inform private and public sector with policy considerations.

Course Schedule and Topics:

Date	Topics	Notes
Aug 11 Aug 13	1. Introduction to natural resource and environmental economics a. Relationship between economics, natural resources, and environment b. Key insights from Economics	HSW (Ch.1)
Aug 18 Aug 20	2. Economic Approach a. Economic efficiency b. Efficient market allocations c. Externalities and market failure	HSW (Ch.2) TL (Ch.2)
Aug 25 Aug 27 Sep 1 Sep 3	3. Valuing the environment: Concepts and methods a. What 'economic value' means b. Cost-benefit analysis c. Types of valuation methods	HSW (Ch.3, 4) TL (Ch. 3,4)
Sep 8 Sep 10	4. Applications: Energy a. Problems and their sources b. Economic and policy instruments	TL (Ch. 7)
Sep 15	5. Applications: Water a. Problems and their sources b. Economic and policy instruments	TL (Ch.9)
Sep 17	6. Applications: Land a. Problems and their sources b. Economic and policy instruments	TL (Ch. 10)
Sep 22	7. Applications: Forest a. Problems and their sources b. Economic and policy instruments	TL (Ch. 11) HSW (Ch.10)
Sep 24	8. Applications: Fishery a. Problems and their sources b. Economic and policy instruments	TL (Ch.12)
Mid-term exam on Friday Oct 1 at 12:00 – 14:00		
Oct 6 Oct 8	9. Economics of Climate Change	TL (Ch.16) HSW (Ch.9)
Oct 15	10. Economics of Pollution Controls	TL (Ch.14)
Oct 20 Oct 22	11. Applications: Air pollution a. Problems and their sources	TL (Ch. 15, 17)

Date	Topics	Notes
	b. Economic and policy instruments	
Oct 27 Oct 29	12. Applications: Water pollution a. Problems and their sources b. Economic and policy instruments	TL (Ch. 18) HSW (Ch.11)
Nov 3 Nov 5	13. Applications: Waste and toxic substances a. Problems and their sources b. Economic and policy instruments c. Environmental Justice	TL (Ch.19)
Nov 10	14. Sustainable Development	TL (Ch.20)
Nov 12, 17 19, 24	Group project presentations	
Nov 26	Summary and review	
Final Exam on Wednesday Dec 1 at 9:00 – 11:30		

Main Reading Lists:

[TL] – Tietenberg, T. and Lewis, L. Environmental Natural Resource Economics, 2015 (10th edition), Pearson.

[HSW] – Hanley, N., Shogren, J. and White, B., Introduction to Environmental Economics 2013 (2nd edition), Oxford University Press.

Additional materials related to the topics will be provided during the class.

Grading Criteria:

Midterm Examination	30%
Final Examination	30%
Group project	20%
Assignment and quiz	20%

Group project: Students will work in groups of 4-5. Each group will identify problems of interests related to natural resources and environment, approach the problems using economic concepts and tools and propose policy considerations. The evaluation will be based on the quality of two deliverables i) A 20-minute group presentation ii) A 5-page policy brief.

Expected Learning Outcomes:

To understand natural resource and environmental problems with the perspective of an economist and be able to apply economic concepts and tools to analyze and solve the problems in the fields.

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Course Syllabus

EE 376 Economics of Climate Change

Semester 1/2021

Number of credits: 3 credits
Prerequisites: EE 210 or EE 211 or EE 213

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 Aug 11-13, 2021	**1. Introduction to Climate Change Science** • The Earth's climate system • Greenhouse gas (GHGs), global energy balance, and the greenhouse effect • Important GHGs: CO_2 and carbon cycles, other GHGs • Dissenting opinions: the great hoax? **Reading:** H Ch. 1-4, T Ch. 1, Nordhaus Ch.5, 13-14, 24-25, Incropera Ch. 2-6, 9.
3-4 Aug 18-20, 2021	**2. Anthropogenic global warming and consequences** • GHGs concentration and global temperature • Impacts, damages and losses of CC • GHGs data and information • GHGs emission by countries • Share of mitigation responsibility for climate stability **Reading:** H Ch. 6-7, Incropera Ch. 5, T Ch. 2, IPCC (2013a), Stern Ch. 3-6
5-6 Aug 25 - 27, 2021	**3. Climate Change and Market Failure** • Externalities and carbon pricing • Global commons and Tragedy of Commons • The under provisioning of Public Goods **Reading:** HR Ch. 3-4, T Ch. 3

7- 9
Sep 1-8, 2021
	4. Carbon Taxes
	• Optimum emission
	• Correction market failure with carbon
	    o Single source
	    o Multiple sources
	• Pros and cons of carbon taxes
	• Carbon tax research
	Reading: HR Ch. 16, T Ch. 4, Pearce, David (1991) pp. 938-948.

10 - 12	**5. Carbon Market or Cap-and-Trade** • Definition and concept of Carbon market

<table>
<tr><th>Date</th><th>Topics</th></tr>
<tr><td>Sep 10-17, 2021</td><td>Demand and supply of carbon credits
Deriving the demand and supply for carbon credits
Factors influencing the demand and supply
Carbon market equilibrium
Choices of carbon credits allocation and efficiency
Comparison of carbon market and carbon tax
Carbon market research
Reading: HR Ch. 16, T Ch. 5</td></tr>
<tr><td>13-14</td><td rowspan="2">6. Technological Development Policy and mitigation
Why do mitigation technology grow so slow?
Technology-push vs. Demand-pull debate
Policy for inducing technological change
Costs of low carbon technology and mitigations
Reading: Grubb, M. (2004), Goulder and Schneider (1999), T Ch. 5</td></tr>
<tr><td>Sep 22 - 24, 2021</td></tr>
<tr><td></td><td>Midterm exam: Friday October 1, 2021, 12:00 – 14:00</td></tr>
<tr><td>15-16</td><td rowspan="2">7. Global Institutions: Kyoto Protocol and Post-Kyoto
The Intergovernmental Panel on Climate Change (IPCC)
The United Nations Framework Convention on Climate Change (UNFCCC)
Kyoto Protocol
‘Annex-I’ vs. ‘Non-Annex-I’ countries
Emissions Trading Scheme (ETS), Joint Implementation (JI), and Clean Development Mechanism (CDM) Cooperation failure?
Paris Agreement
Reading: Incropera Ch. 8, T Ch. 5</td></tr>
<tr><td>Oct 6 - 8, 2021</td></tr>
<tr><td>17-20</td><td>9. International Trade and Climate Change
Mitigation & competitiveness
Carbon offshoring and Carbon leakages</td></tr>
</table>

<table>
<tr><th>Date</th><th>Topics</th></tr>
<tr><td>Oct 13-20, 2021</td><td>• Concepts about GHGs responsibility
o Production-based and consumption-based responsibility
• Carbon leakages and Border-Carbon Adjustment (BCAs)
o Pros and cons of BCAs
• World Trade Organization (WTO) and Climate Change
Reading: Incropera Ch. 8, T Ch. 8-9</td></tr>
<tr><td>20-22</td><td rowspan="2">7. Economic Concepts (III): Social Costs of Climate Change
• Cost-Benefit Analysis (CBA) concept
• Social discount rates
• Economic assessment of the damages caused by global warming
• The Stern's Review
• The Nordhaus DICE model
• Stern vs. Nordhaus debates
Reading: FF Ch.6, Stern Ch.6, 9, 12, Nordhaus Ch.15-16, 18</td></tr>
<tr><td>Oct 27, 2021 – Nov 3, 2021</td></tr>
<tr><td>23-24</td><td rowspan="2">8. Economics of Climate Change Adaptation
• Climate risks
• Climate change adaptation
• Economics of technology & adaptation
Reading: Stern Ch.5, 18-20, OECD (2015)</td></tr>
<tr><td>Nov 5-10, 2021</td></tr>
<tr><td>25 -27</td><td rowspan="2">10. Climate Change and Economic Sectors
• Fossil fuel vs. renewable energy
• Carbon sink
• Carbon offsets
• REDD+
• Demand management</td></tr>
<tr><td>Nov 12-19, 2021</td></tr>
<tr><td>27-28</td><td rowspan="2">14. Group project presentation</td></tr>
<tr><td>Nov 24-26, 2021</td></tr>
<tr><td></td><td>Midterm exam: Wednesday October 1, 2021, 13:30 – 16:00</td></tr>
</table>

Evaluation

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

Group project (15 points): maximum 3 member/group

- 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 12 minutes (without any note!) and 3 minutes of Q&A.

Submission date of selected topic: October 6, 2021
Submission date of the outline: October 20, 2021
Presentation dates: November 24 – 26, 2021

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

Reading lists

[T] Tantivasadakarn, 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_2 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 Completer 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. (ห้องสมุดปรีดี)

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.

Additional links:

Glossary terms: https://archive.ipcc.ch/pdf/special-reports/srex/SREX-Annex_Glossary.pdf

Gas Emissions by Countries and Sectors:
https://www.wri.org/blog/2020/02/greenhouse-gas-emissions-by-country-sector

Global emission: https://www.c2es.org/content/international-emissions/

NASA: https://climate.nasa.gov/evidence/

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BE-Moodle: http://bemoodle.econ.tu.ac.th/

BACHELOR OF ECONOMICS
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Course Outline

EE382: ECONOMICS OF SERVICE SECTORS

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

Number of Credit: 3

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

Course Description:

Organization and components of service sector in an economy. Importance of service sectors. 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 service sector relating to development and inclusive growth.

Course Objectives:

Students 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.

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Recommended Texts & Materials:

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

Suggested Readings:

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.

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

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*.

Grading Criteria:

Group project/group assignments	50%
Entrepreneur evaluation	20%
Peer evaluation for group assignment contribution	10%
Individual assignments/participation	20%

Expected Learning Outcomes:

Application of relevant theories to selected service industry case study.

Enrollment key for BE Moodle: 1235 (http://bemoodle.econ.tu.ac.th/)

Entrepreneurs contributed to class

1. **Chak Cherdsatirkul**
   Business Development Manager
   Kaomai Lanna Resort/ Kaomai Estate 1955
2. **Patikon Jarugosol**
   Owner Daddy's Running Page
3. **Sansanee Limpong**
   General Manager
   P.Patcharloil Group
4. **Thapanee Anutarachotikul**
   Managing Director
   Just in Time Solution Co., Ltd.)

Topics:

1. Introduction to service sectors

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

Reading

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

Paper: OECD (2000); World Travel & Tourism Council (2015); World Travel & Tourism Council (2017); 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 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

5. Service Demand and Service Costs

5.1 Demand for service (macro perspective)

5.2 Service costs

Reading

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

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

Tentative Class Schedule and Assignments:

	Topic	Individual assignment	Group assignment	Project development	Weekly schedule with entrepreneurs (tentative)
Week 1 Aug 10, Aug 12 (Holiday)	**1. Introduction to service sector**	Assignment 1 Six characteristics of service sector			
Week 2 Aug 17, Aug 19	**2. Economic impact of service sector**	Assignment 2 - Economic impact of service sector			
	3.Service sector development	Assignment 3 - Service economy evolution mechanism			
Week 3 Aug 24, Aug 26	**Introduction to case study** **(First Meeting with entrepreneurs)**		Assignment 1 - Case study and mentor selection	- Introduction to case study - Case study and mentor selection	
Week 4 Aug 31, Sep 2	**3. Service development (Continue)**		Assignment 2 - Basic feature of economic development trend Assignment 3 - Service sector productivity, service sector growth and economic growth	- Announcement of case study allocation - Entrepreneur contact distribution	- First group meeting with entrepreneur - Discuss direction and rules for future meeting with entrepreneur - Discuss various possibilities for group project objectives
Week 5 Sep 7, Sep 9	**4. Market analysis** (Structure conduct performance)		Assignment 4 - Analyze the market of service sector from case study Assignment 5	- Analyse market of service sector from case study	- Discuss with entrepreneur regarding service market structure, conduct (and non-price strategy) and performance measures

			- Search and explain relevant pricing and non-pricing strategy theories		
Week 6 Sep 7, Sep 9	**How to write academic paper**	Assignment 4 - Write introduction for group project Assignment 5 - Write literature review for group project	Assignment 6 - Write conceptual framework and research method for group project	- Decide on project topic and key objectives - Find and summarize relevant literature review - Brainstorm for research framework and research method	-Discuss and decide on project key objectives
Week 7 Sep 21, Sep 23	Present the service market analysis findings, research idea and research methodology to class	Assignment 6 - Comment other groups research idea and research methodology	Assignment 7 - Write introduction and literature review for group project Assignment 8 - Design questionnaires and/or interview questions for group project	- Overall project proposal preparation	- Discuss about conceptual framework and research method for group project
Week 8 Sep 28, Sep 30	Midterm week		Assignment 9 - Submit group project proposal (including questionnaires and/or interview questions) Assignment 10 - Prepare proposal presentation to entrepreneur (draft)	- Project proposal submission (with questionnaires or interview questions) - Prepare proposal presentation to entrepreneur	
Week 9 Oct 5, Oct 7	Discuss about group project with instructor and practice proposal presentation to		Assignment 11 - Revise proposal presentation to entrepreneur	- Plan on data collection - Revise questionnaires and/or interview	- Further discuss about data collection method - Submit proposal presentation to entrepreneur

	entrepreneur with instructor		Assignment 12 - Revise questionnaires and/or interview questions based on professor's comment	questions based on instructor's comment	
Week 10 Oct 12, Oct 14	**Proposal presentation to entrepreneur**		Assignment 13 - Response to entrepreneur comments Assignment 14 - Revise project proposal, questionnaires and/or interview questions based on entrepreneur's comment	- Proposal presentation to entrepreneur - Revise questionnaires and/or interview questions based on entrepreneurs' comment	- Submit questionnaire and/or interview questions to entrepreneurs and get feedback - Discuss about steps of project implementation/collecting necessary data
Week 11 Oct 19, Oct 21	**5. Service quality and measurement**		Assignment 15 - Service quality questionnaires Assignment 16 - Other service quality assignment	- Finalize questionnaires and/or interview questions - Collect data	- Update with entrepreneur
Week 12 Oct 26, Oct 28	**6. Service demand & Service costs**		Assignment 17 - Service demand Assignment 18 - Service costs	- Collect data	- Update with entrepreneur
Week 13 Nov 2, Nov 4	**6. Service demand & Service costs**		Assignment 19 - Project update with A. Nessara	- Collect data and analyse data	- Update with entrepreneur
Week 14 Nov 9, Nov 11	**7. Service innovation 8. International trade in service**		Assignment 20 - Service innovation Assignment 21 - Prepare final presentation to class	- Analyse data and write suggestions	- Update with entrepreneur

Week 15 Nov 16, Nov 18	**Final presentation to class**	Assignment 7 - Comment other groups projects final results	Assignment 22 - Prepare final presentation to entrepreneur	- Revise project based on class and instructor comments	- Update with entrepreneur - Submit final presentation to entrepreneur
Week 16 Nov 23, Nov 25	**Final presentation to entrepreneur**			- Revise project based on entrepreneurs' comments	Final comments from entrepreneur
Final paper submission is date to be announced	Final paper submission		Assignment 23 - Final project paper submission		Entrepreneur evaluation

Note

Content in outline is subjected to change and update

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Syllabus

EE403 Law and Economics

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

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

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

Mid-term exam date: Friday 1 October 2021
12:00 – 14:00 hrs.

Final exam date: Wednesday 1 December 2021
9:00 - 11:30 hrs.

Textbook

1. **(TM) Thomas J. Miceli, (2011) .** ***The Economic Approach to Law. 2nd Edition*** **.**
   Stanford Economics and Finance
2. (RC)Cooter, R., & Ulen, T. (2008). *Law & economics.* Pearson/Addison Wesley

Topics

Topic 1. An Economic Model of Tort Law [**TM** : **Chapter 2, RC** : **Chapter 5**]

- What Is a Tort?
- An Economic Model of Accidents: The Model of Precaution
  - The Unilateral Care Model
  - Bilateral Care Model
  - The Hand Rule
  - The Reasonable-Person Standard
  - Contributory Negligence
- Further Topics
  - Sequential Care Accidents
  - Comparative Negligence
  - Causation and Liability
  - Punitive Damages

Topic 2. Applying the Economic Model of Tort Law [**TM** : **Chapter 3, RC** : **Chapter 6**]

- Products Liability
  - An Economic Model of Products Liability
- Workplace Accidents
- Liability for Environmental Damages
  - Characteristics of Environmental Accidents
- Medical Malpractice

Topic 3. The Economics of Contract Law I: [**TM** : **Chapter 4, RC** : **Chapter 7**]

- The Elements of a Valid Contract
  - Contracts and Efficient Exchange
  - The Elements of a Valid Contract
  - Reasons for Invalidating Contracts

Topic 4. The Economics of Contract Law II: Remedies for Breach [**TM** : **Chapter 5, RC** : **Chapter 8**]

- The Efficient Breach Model
  - Money Damages and Efficient Breach
  - Incentives for Efficient Reliance
  - Mitigation of Damages

- Impossibility and Related Excuses
- Specific Performance
    - Transaction Costs
    - Subjective Value and Efficient Breach
    - The Value of Consent
- Self-Enforcement of Contracts
    - Liquidated Damage Clauses
    - Product Warranties
    - Long-Term Contracts

Topic 5. The Economics of Property Law: Fundamentals [**TM** : **Chapter 6, RC** : **Chapter 4**]

- The Nature and Function of Property Right
    - The Definition of Property Rights
    - Property Rights and Incentives
    - The Emergence of Property Rights
    - Enforcement of Property Rights
- Fundamentals of the Economics of Property Law
    - The Coase Theorem
    - Enforcement of Property Rights
    - Trespass and Nuisance
    - The General Transaction Structure
- Limited and Divided Ownership
    - Leasing
    - Private Versus Group Ownership
    - Time-Limited Property Rights: Intellectual Property
        - Patents
        - Copyrights

Topic 6. The Economics of Dispute Resolution [**TM** : **Chapter 8 , RC** : **Chapter 9**]

- The Litigation Process
- Why Do Trials Occur?
    - The Differing Perceptions, or Optimism Model
    - The Asymmetric Information Model
    - The Social Versus Private Incentive to Sue
- Procedural Rules and Litigation Costs
    - The English Versus American Rule
    - The English Rule and Settlement
    - The English Rule and the Incentive to File Suit
- Rule 68
- Contingent Fees
    - The Benefits of Contingent Fees
    - Contingent Fees and Settlement
    - Do Contingent Fees Promote Frivolous Suits?
- Frivolous Suits

Topic 7. The Economics of Crime [**TM** : **Chapter 9, RC** : **Chapter 11**]

- Distinguishing Crimes and Torts
- The Economic Model of Crime
    - The Offender's Decision to Commit a Crime and the Supply of Offenses
    - Optimal Punishment
    - The Optimal Fine
    - Gain Versus Harm-Based Fines
    - Fines and Imprisonment
    - Prison, Probation, and Parole
    - The Probability of Apprehension Is Variable
    - Repeat Offenders
    - Empirical Evidence on the Economic Model of Crime
    - The Death Penalty
    - Economics of the Death Penalty
- Plea Bargaining
    - Economic Models of Plea Bargaining
    - Plea Bargaining and Deterrence

B.E. International Program

Faculty of Economics, Thammasat University

Course Syllabus

EE 404 History of Economic Thought

Semester: 1/2021 (August 9 – December 17, 2021)

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 0136 The Google Classroom Code is mpna4c5. The Zoom Meeting code is Meeting ID: 967 7868 3302 Passcode: 471231

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:

1. **Morality and Ethics**

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

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.	
●	2.2 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
●	2.3 Students know and understand instruments of economic analysis.	Know how we got to where we are.
○	2.4 Students know and understand applied fields in economics, including monetary, public, international,	

Applicability	Learning Goals	Expected Learning Outcomes
	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.	Per Exams
●	3.2 Students are sufficiently trained in research skills.	N/A
●	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 analsyis and synthesis, students demonstrate an ability to propose policy guidelines to resolve problems.	Per Exams

4. **Interpersonal Skills and Responsibilities**

Applicability	Learning Goals	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.	Do so

Applicability	Learning Goals	Expected Learning Outcomes
○	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.	No presentations required, but participate in class discussions
●	5.3 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	**Online Readings (Not Required), Chapter 1** **Chapter 2**
Week 2	Class 3: The Physiocrats Special Topics: Economic History vs. History of Economic Thought Class 4: The Classical School I - Adam Smith	**Chapter 3** **Chapter 4**
Week 3	Class 5: The Classical School II - Adam Smith Class 6: The Classical School III - Malthas, Say	**Chapter 5** **Chapter 6**
Week 4	Class 7: The Classical School IV - David Ricardo	**Chapter 8**

Date	Topic	Readings
	Class 8: The Classical School V - David Ricardo	
Week 5	Class 9: The Classical School VI – Bentham Class 10: The Classical School VII Senior, Mill	**Chapter 7**
Week 6	Class 11: The Socialists Class 12: The Socialists II	**Chapter 9**
Week 7	Class 13: The Marxists I Class 14: The Marxists II	**Chapter 10** **Supplemental Handout**
October 1	**Midterm, Friday 14.00 - 16:00**	
Week 9	Class 15: German Historical School Class 16: The Institutionalists, the Austrians	**Chapter 11** **Chapter 19**
Week 10	Class 17 -18: The Marginal Revolution I The Marginal Revolution II	**Chapter 12 (optional)** **Chapter 13** **Chapter 14**
Week 11	Class 19 - 20: The Neoclassical School I (Marshall) The Neoclassical School II (Monetary)	**Chapter 15** **Chapter 16**
Week 12	Class 21: The Neoclassical School III (Imperfect competition) Class 22: Game Theory	**Chapter 17** **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 December 1, 2020, 09.00-11.30 hrs.	

Remarks:

- **Mid-Term Examination (Friday, 1 October 2021, 12.00 - 14.00 hrs.)**
- **Final Examination (Wednesday, 1 December 2021, 09.00 – 11.30 hrs.)**

Course Outline

EE 406 Contemporary Economic Issues

Semester 1/2021 (10 August – 28 November 2021)

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.

Course Objectives:

This course aims to provide students with a general knowledge about "contemporary" economic issues such as that of inequality, poverty, labour market, 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, this 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 alternative data;
3. Train students on academic writing and presentation through class assignments and guide the development of research methods.

Specifically, the main approach of this section (046401) is 'data-driven'. An instructor will introduce the sets of alternative data and research methods. Then, students are encouraged to apply these data and methods to their topics of interest. Hence, all topics of group projects and individual paper are based on students' preference.

Prerequisites: *EE211 and EE212*

Evaluation:

Class presentation #1 (group project)	15%
Class presentation #2 (group project)	15%
Class presentation #3 (group project)	15%
Class presentation #4 (group project)	15%
Final paper (individual paper)	30%
Class participation	10%

Recommended readings:

All readings for each lecture are listed in the attached sheet.

Class Policies:

Attendance is strictly required. 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, it is highly encouraged to raise them in class. Please do not hesitate to consult the lecturer after the class or via appointment.

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*.

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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 analsyis and synthesis, students demonstrate an ability to propose policy guidelines to resolve problems.

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4. Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes
	4.1 Students are responsible for assigned tasks and work in groups effectively.
	4.2 Students have problem-solving skills.
	4.3 Students show leadership skills and team spirit.
	4.4 Students are always improving themselves.
	4.5 Students have good interpersonal skills, adapting and working under different conditions.

5. Quantitative Analysis, Communication and Information Technology

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

Teaching Plans

Week	Date	Topic	Class arrangement
1	August 11, 2021	Introduction of Economic Growth	Lecture
	August 13, 2021	Introduction of Economic Growth	Lecture
2	August 18, 2021	Google Trend & Economic Analysis	Lecture & workshop
	August 20, 2021	Google Trend & Economic Analysis	Lecture & workshop
3	August 25, 2021	Google Mobility Index	Lecture & workshop
	August 27, 2021	Google Mobility Index	Lecture & workshop
4	September 1, 2021	Presentation of Assignment #1	Class presentation
	September 3, 2021	Presentation of Assignment #1	Class presentation
5	September 8, 2021	Social Network Analysis	Lecture
	September 10, 2021	Social Network Analysis	Lecture
6	September 15, 2021	Introduction to NodeXL	Lecture & workshop
	September 17, 2021	Introduction to NodeXL	Lecture & workshop
7	September 22, 2021	Presentation of Assignment #2	Class presentation
	September 24, 2021	Presentation of Assignment #2	Class presentation
Midterm-exam week (September 27 - October 3, 2021)			
8	October 6, 2021	Input-Output Table	Lecture
	October 8, 2021	Input-Output Table	Lecture
9-10	October 15, 2021	Network Analysis with Gephi	Lecture & workshop
	October 20, 2021	Network Analysis with Gephi	Lecture & workshop
	October 22, 2021	Network Analysis with Gephi	Lecture & workshop
11	October 27, 2021	Presentation of Assignment #3	Class presentation
	October 29, 2021	Presentation of Assignment #3	Class presentation
12	November 3, 2021	Text Analysis & RapidMiner	Lecture & workshop
	November 5, 2021	Text Analysis & RapidMiner	Lecture & workshop
13	November 10, 2021	Text Analysis & RapidMiner	Lecture & workshop

	November 12, 2021	Satellite Data & GIS	Lecture & workshop
14	November 17, 2021	Satellite Data & GIS	Lecture & workshop
	November 19, 2021	Satellite Data & GIS	Lecture & workshop
15	November 24, 2021	Presentation of Assignment #4	Class presentation
	November 26, 2021	Presentation of Assignment #4	Class presentation

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BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE409 Seminar in Political Economics and Economic History

Semester 2/2021-2 (January 10 – May 7, 2022)

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

Lecture Time: Monday, 9.00 – 12.00 hours

Lecture Venue: Room: TBA , Faculty of Economics

Enrollment key #BE Moodle: 0279 (http://bemoodle.econ.tu.ac.th/)

1) Online Learning Management System: google classroom

Invitation Link: https://classroom.google.com/c/NDUwNzIwMjQyNzE5?cjc=kvflp2b

Passcode: kvflp2b

2) Online Meeting Platform: Zoom

Meeting ID: 921 9153 8622

Passcode: 815312

Instructor: Asst. Prof. Dr. Thorn Pitidol
Faculty of Economics, Thammasat University

Email: thorn@econ.tu.ac.th; Office hours: by appointment

Line Open Chat for Class:

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Prerequisites Completion of at least two 400 level or higher courses in the Political Economics and Economic History field.

Course Description

Seminar and research on specific topics in political economy and economic history under supervision and guidance of the lecturer.

Objectives

1. To practice research-related skills including observation, thinking, defining the problem(s) and research question(s), analysis, reading, problem-solving by using relevant conceptual frameworks (from what students have learnt in 4xx and 40x courses), discussion, synthesis and formulation of the answer to the problem/research question, writing and presentation, and comments and critique.

2. To familiarise students to research methodologies in political economy and related fields.

3. To widening perspectives of students on relevant fields of economics through the process of research for possible frontier expansion in the future. Moreover, those skills accumulated throughout the processes could be easily improvised to apply to real-life works.

Class Etiquettes

To prepare the students for the real world working environment — presumably working as economists participating in research and conferences, the following etiquettes shall be strictly obeyed:

<u>Time-keeping and Punctuality</u>: students shall be punctual and must arrive within 10 minutes. Time-keeping is crucial for seminar; taking too long to complete certain tasks means lesser time for others. All presentation shall be no longer than 12 minutes sharp unless indicate otherwise.

<u>Participation</u>: academic advancement relies on contributive and constructive exchange of ideas; participation is essential. All students must participate promptly, either voluntarily or compulsorily. Class participation is compulsory; all students must be in all classes in order to be assessed. Absence of medical reasons is not acceptable unless bed-ridden accompanied by proper documents.

Nuisance: due to the nature of the course, nuisance shall be kept at minimum. Mobile phones and other communication devices shall not be used at all time if it is not for the matter relevant to the study; food and drink are prohibited; entrance to and exit from the room are discouraged except in life-threatening circumstances; conversations not related with the materials discussed are discouraged.

Failure to comply with these will result in the deduction of 10 points for everyone without any notification and, consequently, the grade will be continuously decreased.

Assessments

Since this course is designed for students to integrate their knowledge in the field through research, there is no examination. Assessments are based on the students' ability to conduct research independently under supervision and guidance as well as necessary prerequisites students may need. Assignments would be given throughout the course. All assignments would be marked.

Each student is expected to deliver one independent term paper (the title/topic is subject to the permission from the lecturer; the length of not exceeding 30 A4 pages inclusive) and present it in front of the class (12 mins). Students are also required to submit written comments for friends' proposal and final paper. Other assignments are works that students need to deliver along the path to the finishing of the term paper.

Individual Term Paper	**50**	**percent**
Writing	40	percent
Presentation	10	percent
Group Discussion (assignments & participation)	**30**	**percent**
Research Proposal	**15**	**percent**
Others (Research Outline, Preliminary Results)	**5**	**percent**

Plagiarism Policy

•No student will copy another person's work, partially, substantially, or fully, without giving proper reference and citation.

•Any writing found to be plagiarised is subject to severe penalties (at least failure of the course) without further notice.

•It is more important for the writing to reflect students' ability to analyse than for it to be grammatically flawless. A clear and well-organised writing will better express student's idea.

Failure to comply with this policy will result in no assessment of any kind.

Organisation of the Classes

Because of the nature of the course, lectures are not essential. Lecturer is now a supervisor and a guide. Therefore, students' self-discipline and independence are utmost important. All deadlines are not negotiable. For the first half of the term (6 sessions), before the midterm examination, students would be trained to come up with individual independent topics. In the second half, students would be more engaged to their topics — despite being independent, their progress must be reported and shared on a regular basis.

Reading

Please use USC research guide "Organizing Your Social Sciences Research Paper" to gain most benefits. Use the link here: https://libguides.usc.edu/writingguide

Suggested readings by topics:

Democracy

- Becker, Gary S. 1983. "A Theory of Competition Among Pressure Groups for Political Influence." The Quarterly Journal of Economics. 98(3): 371–400.
- Besley, Timothy. 2006. Principled Agents?: The Political Economy of Good Government. Oxford, UK: Oxford University Press.
- Besley, Timothy and Stephen Coate. 1997. "An Economic Model of Representative Democracy." The Quarterly Journal of Economics. 112 (1): 85-114.
- De Figueiredo Jr., Rui J. P. 2002. "Electoral Competition, Political Uncertainty, and Policy Insulation." The American Political Science Review. 96(2): 321–33.

- Osborne, Martin J., and Al Slivinski. 1996. “A Model of Political Competition with Citizen-Candidates.” The Quarterly Journal of Economics. 111(February): 65–96.
- Boix, Carles. 2003. Democracy and Redistribution. New York: Cambridge University Press.
- Acemoglu, Daron, and James A. Robinson. 2006. Economic Origins of Dictatorship and Democracy. Cambridge, U.K.: Cambridge University Press.
- Acemoglu, Daron, and James A. Robinson. 2008. “Persistence of Power, Elites, and Institutions.” The American Economic Review. 98(1): 267–93.
- Lipset, Seymour Martin. 1959. “Some Social Requisites of Democracy: Economic Development and Political Legitimacy.” American Political Science Review. 53(1): 69-105.
- Lizzeri, Alessandro, and Nicola Persico. 2004. “Why Did the Elites Extend the Suffrage? Democracy and the Scope of Government with an Application to Britain’s ‘Age of Reform.’” The Quarterly Journal of Economics 119(May): 707–65.

Inequality

- Austen-Smith, David, and Michael Wallerstein. 2006. “Redistribution and Affirmative Action.” Journal of Public Economics 90(10-11): 1789–1823.
- Cameron, David R. 1978. “The Expansion of the Public Economy: A Comparative Analysis.” The American Political Science Review 72(4): 1243–61.
- Chattopadhyay, Raghabendra, and Esther Duflo. 2004. “Women as Policy Makers: Evidence from a Randomized Policy Experiment in India.” Econometrica 72(5): 1409–43.
- Goldin, Claudia. 2014. “A Great Gender Convergence: Its Last Chapter,” American Economic Review, 104(4): 1091-1119.
- Austen-Smith, David, and Michael Wallerstein. 2006. “Redistribution and Affirmative Action.” Journal of Public Economics 90(10-11): 1789–1823.
- Cameron, David R. 1978. “The Expansion of the Public Economy: A Comparative Analysis.” The American Political Science Review 72(4): 1243–61.
- • Debs, Alexandre and Gretchen Helmke. 2010. “Inequality under Democracy: Explaining the Left Decade in Latin America.” Quarterly Journal of Political Science. 5(3): 209-241.
- • Persson, Torsten, and Guido Tabellini. 1994. “Is Inequality Harmful for Growth?” The American Economic Review. 84(3): 600–621.

- Piketty, Thomas. 1995. “Social Mobility and Redistributive Politics.” The Quarterly Journal of Economics 110(3): 551–84.

- Piketty, Thomas, and Emmanuel Saez. 2007. “How Progressive Is the U.S. Federal Tax System? A Historical and Internaitonal Perspective.” Journal of Economic Perspectives 21(1): 3–24.

Welfare

- Fox Piven, Frances and Richard A. Cloward. 1971. Regulating the Poor: The Functions of Public Welfare. New York: Vintage Books.

- Moene, Karl Ove, and Michael Wallerstein. 2001. “Inequality, Social Insurance, Redistribution.” The American Political Science Review 95(4): 859–74.

- Persson, Torsten, Roland, and Guido Tabellini. 2007. “Electoral Rules and Government Spending in Parliamentary Democracy.” Quarterly Journal of Political Science. 2(2): 155-188.

- Rodrik, Dani. 1998. “Why Do More Open Economies Have Bigger Governments?” Journal of Political Economy 106(5): 997–1032.

- Scheve, Kenneth and David Stasavage. 2010. “The Conscription of Wealth: Mass Warfare and the Demand for Progressive Taxation.” International Organization 64(4): 529–61.

- Skocpol, Theda. 1992. Protecting Soldiers and Mothers: The Political Origins of Social Policy in the United States. Cambridge, MA: Harvard University Press.

- Swenson, Peter A. 2002. Capitalists Against Markets: The Making of Labor Markets and Welfare States in the United States and Sweden. New York, N.Y.: Oxford University Press.

- Wallerstein, Michael. 1999. “Institutions and Pay Inequality in Advanced Industrial Societies.” American Journal of Political Science 43(3): 649–80.

Corruption

- Bardhan, Pranab. 1997. “Corruption and Development: A Review of Issues.” Journal of Economic Literature. 35(September): 1320–46.

- Dunning, Thad. 2008. Crude Democracy. Cambridge, UK: Cambridge University Press.

- Ferraz, Claudio, and Frederico Finan. 2008. “Exposing Corrupt Politicians: The Effects of Brazil’s Publicly Released Audits on Electoral Outcomes.” The Quarterly Journal of Economics. 123(2): 703–45.

- Rose-Ackerman, Susan. 1999. Corruption and Government: Causes, Consequences, and Reform. Cambridge, UK: Cambridge University Press.

- Shleifer, Andrei, and Robert W. Vishny. 1993. “Corruption.” The Quarterly Journal of Economics. 108(3): 599–617.

- Campos Edgardo J., Donald Lien, and Sanjay Pradhan (1999). “The Impact of Corruption on Investment: Predictability Matters”, World Development, Volume 27, Issue 6, June 1999, pp. 1059–1067

- Emerson, Patrick M. (2006). “Corruption, competition and democracy”, Journal of Development Economics, Vol. 81, pp. 193 – 212.

- Gupta, Sanjeev, Luiz de Mello, and Raju Sharan (2000). “Corruption and Military Spending”, IMF Working Paper 00/23, Washington DC: IMF

- Jain, A. K. (2001). “Corruption: A Review”. Journal of Economic Surveys, 15: 71–121.

- Javorcik, Beata S. & Wei, Shang-Jin, (2009). "Corruption and cross-border investment in emerging markets: Firm-level evidence," Journal of International Money and Finance, Elsevier, vol. 28(4), pages 605-624

- Lambsdorff, J.G. (2007) .The institutional economics of corruption and reform, Cambridge: Cambridge University Press

- Mauro, Paolo (1998). “Corruption and the Composition of Government Expenditure”, Journal of Public Economics, Vol. 69, pp. 263-279.

- Murphy, Kevin M., Andrei Shleifer, and Robert W. Vishny (1991). “The Allocation of Talent: Implications for Growth”, Quarterly Journal of Economics, Volume 106:2, pp. 503-30

- Tanzi, Vito and Davoodi, Hamid R. (2000). “Corruption, Growth, and Public Finances”. IMF Working Paper, Vol. , pp. 1-27, 2000

Institutions (and Economic History)

- Ostrom, Elinor. 1990. Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge, UK: Cambridge University Press.
- Olson, Mancur. 1965. The Logic of Collective Action. Cambridge, MA: Harvard University Press.
- North, Douglass C., and Barry R. Weingast. 1989. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England." The Journal of Economic History. 49(04): 803–32.
- Przeworski, Adam, Mike Alvarez, José A. Cheihub, and Fernando Limongi. 2000. Democracy and Development: Political Institutions and Well Being in the World, 1950-1990. Cambridge, UK: Cambridge University Press.
- North, Douglass C., "Institutions," The Journal of Economic Perspectives, 5:1 (Winter 1991), pp. 97-112.
- North, Douglass C., "New Institutional Economics and Development." 1993 working paper (PDF file).
- North, Douglass C., "Economic Performance Through Time," The American Economic Review, 84 (June 1994), pp. 359-368.
- North, Douglass C., "Five Propositions about Institutional Change," in Explaining Social Institutions, Jack Knight and Itai Sened, eds., University of Michigan Press, 1995, pp. 15-26.
- North, Douglass C., "Understanding Economic Change," in Transforming Post-Communist Political Economies, Joan M. Nelson, Charles Tilly and Lee Walker, eds., Washington D. C.: National Academy Press, 1997, pp. 13-18.
- Allen, Douglas W., The Institutional Revolution: Measurement and the Economic Emergence of the Modern World, Chicago: University of Chicago Press, 2011.
- Acemoglu, Daron, Simon Johnson and James Robinson, "The Colonial Origins of Comparative Development: An Empirical Investigation," American Economic Review 91: 1369-1401, 2001.
- Rodrik, Dani, Arvind Subramanian, and Francesco Trebbi. "Institutions Rule: The Primacy of Institutions Over Geography and Integration in Economic Development," Journal of Economic Growth 9 (2): 131-165, 2004.
- Eggertsson, Thrainn. "No Experiments, Monumental Disasters: Why It Took a Thousand Years To Develop a Specialized Fishing Industry in Iceland,", Journal of Economic Behavior and Organization 30:1, pp. 1-23 ,1996.

- Engerman, Stanley and Kenneth Sokoloff, "Factor Endowments, Institutions, and Differential Paths of Growth Among New World Economies: A View from Economic Historians of the United States," in How Latin America Fell Behind: Essays on the Economic Histories of Brazil and Mexico, 1800-1914, edited by Stephen Haber, Stanford University Press, pp. 260-304, 1997.
- Banerjee, Abhijit and Lakshmi Iyer, "History, Institutions and Economic Performance: The Legacy of Colonial Land Tenure Systems in India," American Economic Review 95 (4): 1190-1213, 2005.
- Nunn, Nathan, "The Long-Term Effects of Africa's Slave Trades," Quarterly Journal of Economics 123 (1): 139-176, 2008.

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 sustenainable 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 analsyis 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.

Teaching Plan and Class Schedule

Week	Date	Agenda	Assignment
1	10-Jan-22	Introduction - Review of Course and Research Resources. Identification of Topics. Individual Meetings to identify research topics, relevant literature Selection of reading materials for future classes	Read the suggested readings and start thinking about your topic.
2	17-Jan-22		
3	24-Jan-22	Outlining the steps for research and group comment on past papers	Yes – Powerpoint presentation
4	31-Jan-22	Reviewing research question	Yes – Group Discussion
5	7-Feb-22	Literature review – individual consultation	Yes – Group Discussion
6	14-Feb-22	Research methods – individual consultation	Yes – Group Discussion
7	21-Feb-22	Workshop- How to write a good research paper	
8	28-Feb-22	Midterm Week, No Class.	
9	7-Mar-22	Presenting a proposal	Yes - Powerpoint presentation And a proposal paper
10	14-Mar-22	Consultation on progress	Yes – Group Discussion
11	21-Mar-22	Consultation on progress	Yes – Group Discussion
12	28-Mar-22	Presenting preliminary results	Yes – Powerpoint Presentation
13	4-Apr-22	Finalizing paper	
14	18-Apr-22	TBA (maybe Guest Lecturer/consultation)	
15	25-Apr-22	Final Presentation	Submit your draft final
	12-May-22	Submit Your Final Paper	

ACADEMIC CALENDAR & HOLIDAY
SEMESTER 2/2021

Semester 2/2021 (January 10 – May 7, 2022)	
Classes Begin	January 10, 2022
Add-drop period	January 17 - 20, 2022 *(from 9.00 AM of January 17 to 10.30 PM of January 20)*
Tuition Fee Payment Period	7 December, 2021 - January 23, 2022 *(9 AM - 10.30 PM)*
*Makha Bucha Day**	*February 16, 2022*
Mid-term Examination Period	February 28 - March 5, 2022
Withdrawal period with “W” on record	March 14 - April 25, 2022 *(from 9.00 AM of March 14 to 10.30 PM of April 25)*
*Chakri Memorial Day**	*April 6, 2022*
*Songkran Festival Day**	*April 11 - 17, 2022*
*Coronation Day**	*May 4, 2022*
Last day of class for Semester 2/2021	May 7, 2022
Final exam period	May 9 - 12, 17 - 25, 2022
*Royal Ploughing Ceremony Day**	*May 13, 2022*
*Visakha Bucha Day**	*May 15, 2022*
*Substitution for Visakha Bucha Day**	*May 16, 2022*

Remark * Holiday, No classes during this period

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BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Syllabus

EE 411 Microeconomic Analysis

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

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: Wednesday, September 29, 2021 at 9.00-11.00 hrs.
Final Exam Date: Saturday, December 11, 2021 at 9.00-11.30 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,* 3rd Edition, Pearson Addison Wesley.
- Varian, Hal R. (V), *Microeconomics Analysis,* 3rd Edition, W.W. Norton & Company.
- Silberberg, Eugene and Wing Suen (SS), *The Structure of Economics: A Mathematical Analysis*, 3rd. ed., Irwin McGraw-Hill.

V. 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.	

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

VI. 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
	Midterm Examination	
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
	Final Examination	

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE412 : Macroeconomics Analysis

Semester 2/2021 (January 10th – May 7th, 2022)

Number of Credit: 3 Credits

Prerequisite: EE 312 and EE 320 (or EE 421)

Course Description: This course is for those undergraduate students who seek to understand advanced macroeconomic tool. The main topics in this course include dynamic macroeconomics and asset price theory that form the insights of various economic policies.

Course Objectives: Encourage students to improve their analytical skills.

Class Time and Logistic

Class day: Wednesday and Friday

Class time: 09.30-11.00 AM

Teaching Materials Platform: BE Moodle

Meeting Platform: Zoom [Meeting ID: 984 8844 0230 Passcode: 746643]

Zoom Link: https://zoom.us/j/98488440230?pwd=NzRVbzRCY1l0MFoxNHdFeUFRNURUZz09

Instructor:

Name: Professor Dr. Arayah Preechametta

Office Hours: Wednesday and Friday 11.00-12.00 noon

Email: arayah@econ.tu.ac.th

Phone: 085-0729-566

Main Text: Sargent, Thomas J., Dynamic Macroeconomic Theory, Harvard University Press, Cambridge, 1987.

Recommended Texts & Materials:

Mankiw, Gregory, N., Macroeconomics, Worth Publishers, New York, 2006.

Romer, David. Advanced Macroeconomics, McGraw-Hill, Singapore, 2000.

Suggested Readings:

Blanchard, Olivier, J., and Stanley Fischer, Lectures on Macroeconomics, (Fourth Printing) the MIT Press, Cambridge, 1990.

Grading Criteria:

- Homework Assignment and Class Participation (20%)
- Mid-Term Examination (30%): Wednesday, March 2, 2022; 09.00-11.00 AM.
- Final Examination (50%): Tuesday, May 24, 2022; 09.00-12.00 noon.

Expected Learning Outcomes: Students will understand complex macro policy.

Tentative Class Schedule:

Week/Session	Date	Topics	Instructor
1/1-1/2	12/01/2022 14/01/2022	Introduction: - Static analysis - Dynamic analysis	Arayah
2/1 – 2/2	19/01/2022 21/01/2022	Solving a dynamic problem - Traditional method: system of simultaneous equations - Backward recursive method	Arayah
3/1 – 4/2	26/01/2022 28/01/2022 02/02/2022 04/02/2022	The Bellman's equations and time consistent optimal policies	Arayah

Week/Session	Date	Topics	Instructor
5/1 – 5/2	09/02/2022 11/02/2022	Applications - Optimal consumption - Optimal growth	Arayah
6/1 – 6/2	16/02/2022 18/02/2022	Asset Price: Hall's random walk of theory of consumption	Arayah
7/1 -7/2	23/02/2022 25/02/2022	The random walk theory of stock prices	Arayah
8/1 – 8/2	**28/02/2022-05/02/2022**	**-----Mid-Term Examination------**	
9/1 - 9/2	09/03/2022 11/03/2022	The random walk theory of stock prices	Arayah
10/1 – 10/2	16/03/2022 18/03/2022	The random walk theory of stock prices	Arayah
11/1 – 12/2	23/03/2022 25/03/2022 30/03/2022 01/04/2022	Lucas's Asset Pricing Function	Arayah
13/1 – 13/2	06/04/2022 08/04/2022	Lucas's Asset Pricing Function and Rational Expectation Equilibrium	Arayah
14/1 – 15/2	20/04/2022 22/04/2022 27/04/2022 29/04/2022	Applications: - The term structure of interest rate, - Contingent claims,	Arayah
16/1 – 16/2	04/05/2022 06/05/2022	- The value of a firm - Government debt: the Ricardian Equivalence	Arayah
	24/05/2022	**-------Final Examination-----------**	

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Syllabus

EE 422 Mathematical Economics 2

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

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

Prerequisites: EE421 and having completed or currently taking EE312

I. 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.

II. Course Objectives

This course is a second sub-field course in quantitative economics and it is designed for the students who want to prepare themselves for further studying economics in the graduate level. This class will mainly focus on the dynamic analysis which will be used as a tool to analyze dynamic economic phenomena and the stability. This course composed of two parts: the ordinary differential equations and difference equations part and the dynamic optimization part.

III. Evaluation

Homework Assignment 20%, Midterm Exam 30%, and Final Exam 50%.

Midterm Exam Date: Thursday, September 30, 2021 at 12.00-14.00 hrs.
Final Exam Date: Tuesday, November 30, 2021 at 9.00-11.30 hrs.

IV. Textbook

Main Texts:

- [L] Sittisak Leelahanon, *Lecture Notes for EE422 Mathematical Economics 2*, Faculty of Economics, Thammasat University.
- [SHSS] Knut Sydsæter, Peter Hammond, Atle Seierstad and Arne Strøm, *Further Mathematics for Economic Analysis*, 2nd ed., Prentice Hall.

Supplementary Texts:

- [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.

V. 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 theories.
○	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 mathematical economics 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.	

Applicability	Learning Goals	Expected Learning Outcomes
○	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.	

VI. Tentative Outline

Week	Topic	Book Chapter
1	Integral Calculus	(L) 1, (SHSS) 4
2	Integral Calculus	(L) 1, (SHSS) 4
3	Integral Calculus	(L) 1, (SHSS) 4
4	Differential Equations	(L) 2, (SHSS) 5-7, (SB) 24
5	Differential Equations	(L) 2, (SHSS) 5-7, (SB) 24
6	Difference Equations	(L) 3, (SHSS) 11
7	System of Simultaneous Difference Equations	(L) 4, (SHSS) 23,25
	Midterm Examination	
8	System of Simultaneous Differential Equations	(L) 4, (SHSS) 23,25
9	System of Simultaneous Differential Equations	(L) 4, (SHSS) 23,25
10	Calculus of Variation	(L) 5, (SHSS) 8, (C) 1-6
11	Calculus of Variation	(L) 5, (SHSS) 8, (C) 1-6
12	Optimal Control Theory	(L) 6, (SHSS) 9-10, (C) 7-10
13	Optimal Control Theory	(L) 6, (SHSS) 9-10, (C) 7-10
14	Dynamic Programming	(L) 7, (SHSS) 12
15	Dynamic Programming	(L) 7, (SHSS) 12
	Final Examination	

BACHELOR OF ECONOMICS
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Course Outline

Course ID: EE425 ECONOMETRICS 1

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

Number of Credit: 3 Credits

Prerequisite: MA216 (or MA211) and ST217 (or ST212)

Course Description: In this course, we will study applications of statistical and economic theories in analyzing economic data. This includes parameter estimation using the ordinary least squares (OLS) technique and hypothesis testing. The course covers single and multiple regressions. It also discusses problems encountered by OLS, including autocorrelation, heteroskedasticity, multi-collinearity and specification error. Other estimation techniques such as generalized least squares (GLS), maximum likelihood estimation (MLE) and the use of computer application in practice will also be covered.

Course Objectives: This course is the more advanced alternative to EE325 (Introductory Econometrics). It will focus on the theory that underpins standard econometric methods. Students will learn to derive simple theoretical results from standard principles. They will also learn to apply the knowledge to analyze actual datasets using a standard software such as STATA.

Main Text: Wooldridge, J. M. ***Introductory Econometrics: A Modern Approach***. 3rd ed. Thompson: South-Western, 2006.

Recommended Texts & Materials: Gujarati, D.N., and D.C. Porter***, Basic Econometrics***. 5th ed., N.Y., McGraw-Hill, 2009.

Suggested Readings: Gujarati, D.N., and D.C. Porter***, Basic Econometrics***. 5th ed., N.Y., McGraw-Hill, 2009.

Grading Criteria:

Homework 20%
Paper Replication 15% **(Due on December 15, 2014 right before the Final Exam)**
Midterm Exam 30% **(October 3, 2021, 13.00 PM – 15:00 PM)**
Final Exam 35% **(December 13, 2021, 9.00 AM – 11.00 AM)**

***Late homeworks count as 50% of your actual marks.**

*If there is any handout or additional reading, it will be posted on Google Classroom prior to class. Students are responsible to review the topic ahead of the class for more effective learning.

Tentative Class Schedule:

Introduction

- What is econometrics?
- Methodology of econometrics
- Types of economic data
  (Wooldridge, ch.1; 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; 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
- Regression Through the Origin
  (Wooldridge, ch. 2; Gujarati, chs. 2 – 6)

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; 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; Gujarati: ch. 8)

================= MIDTERM EXAM ABOUT HERE =================

Multiple Regression Analysis (Extensions)

- Data scaling on OLS statistics
- More on functional forms

(Wooldridge, ch. 6, (6.1 and 6.2))

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; Gujarati: ch. 15)

Matrix Algebra in Economics

- Summary of Matrix Operations
- The Linear Regression Model in Matrix Form
  (Wooldridge Appendix D, Appendix E)

Heteroscedasticity Problem

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

Specification Errors and Data Problems

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

Multicollinearity Problem

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

Autocorrelation Problem

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

Instrumental Variables Estimation (if time allows)

- Motivation
- The instrumental variables (IV) method
  (Wooldridge, ch.15; Dougherty, ch.8.1-8.3)

================= FINAL EXAM =================

Course Syllabus

EE 431 Economics of Financial Markets and Institutions

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

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

5. 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.

6. Prerequisite: EE311

7. 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

8. Evaluation

Homework	10%
Quiz	30%
Mid-term exam	25% (Topic 1 – Topic 4)
Final exam	35% (Topic 4 – Topic 8)

Mid-Term Examination: **28 September 2021, 9.00 – 11.00 hr.**
Final Examination: **8 December 2021, 13.30 -16.00 hr.**

Remarks:

1. Evaluation methods are subjected to changed.
2. More information will be announced in the Zoom Class, Google Classroom or Line Official.
3. When doing any essay exam or assignments use graphs, mathematical expressions or else to support your answer where appropriate. Marks depend on quality of explanation.

9. 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)

Bailey R.E., The Economics of Financial Markets, Cambridge University Press (2005)

Remarks: Supplement handouts or reading will be posted on *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 sufficient for the exam.

10. Lecture/Schedule

Topics	Reading
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 rates (7 times) 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	FM2009 Ch.4-6
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	Copeland2005 Ch.5
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	Copeland2005 Ch.6

Topics	Reading
Part II : Financial Institution, Financial Market and Asymmetric Information	

Topics	Reading
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	FM2009 Ch.9 -11 KM 2008 Ch.7
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	PS2000 Ch.8 Diamond (1996)
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	PS2000 Ch.9 KM 2008 Ch.8
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	Diamond (2007)

12. Class Policies:

Any changes to the course outline (if any) **will be announced in** the Zoom Class, Google Classroom or Line Official. 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.

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE432: Monetary Theory and Policy

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

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

Prerequisite: EE312

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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 facilitating a solid foundation for further study and enhancing professional capability in the financial services industry.

It will investigate the 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, term structure and their implications. In addition, it will further analyze the evolving roles of central banks and their views regarding execution monetary policy, including recent and historical international policy actions. Both theoretical concept and empirical evidence, especially current economic situations will be used to examine the effects of monetary policies. In terms of theory, this course will adopt macroeconomic model to study the rationale behind monetary policy and provide a thorough understanding of transmission mechanisms and their impacts on macroeconomic variables, specifically economic growth and inflation.

Besides, 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, exercise, in-class discussion and peer-to-peer learning.

Main Text:

The primary textbook will be:

> Cecchetti, Stephen and Schoenholtz, Kermit. (2020) **Money, banking, and financial markets.** (6th edition). McGraw-Hill.

Recommended Texts & Materials:

Students are required to read all lecture notes presented through virtual classroom.

Suggested Readings:

Students should also study other related teaching materials, including case-based or topic-based articles, news clips and central banks' publications, posted on this subject's moodle platform.

Course Evaluation:

The course will be assessed by active learning approach with a variety of individual learning, including in-class discussion on current economic situation, individual exercise, individual report assignment, online mid-term examination, and online final examination. Students should also follow the current economic situations which will be brought into discussion via the online classes. Besides, the students are encouraged to utilize a web-based platform provided by Mc-Graw Hill Connect https://connect.mheducation.com, which linked to our BE-moodle as additional source of learning. The major materials are lecture note presentation provided on BE-moodle and other related materials posted on moodle platform. The assessment criteria are detailed as follow.

1.	Attendance and in-class participation	10%
2.	Individual exercise	10%
3.	Individual report assignment	10%
4.	Online mid-term examination	30%
5.	Online final examination	40%

Grading Criteria:

A	=	80 and above
B+	=	75 - 79.9
B	=	70 - 74.9
C+	=	65 - 69.9
C	=	60 - 64.9
D+	=	55 - 59.9
D	=	50 - 54.9
F	=	49.9 and below

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 sustenainable 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 analsyis and synthesis, students

Applicability	Expected Learning Outcomes
	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.

Tentative Class Schedule:

Week	Topic	Date
1.	Financial instruments, financial markets, and financial institutions (Cecchetti & Schoenholtz Textbook Chapter 3)	14 Aug 2021
2.	Understanding risk (Cecchetti & Schoenholtz Textbook Chapter 5)	21 Aug 2021
3.	The risk and term structure of interest rates (Cecchetti & Schoenholtz Textbook Chapter 7)	28 Aug 2021
4.	The economics of financial intermediation (Cecchetti & Schoenholtz Textbook Chapter 11)	4 Sep 2021

Week	Topic	Date
5.	Depository institutions: banks and bank management (Cecchetti & Schoenholtz Textbook Chapter 12)	11 Sep 2021
6.	Regulating the financial system (Cecchetti & Schoenholtz Textbook Chapter 14)	18 Sep 2021
7.	Central banks in the world today (Cecchetti & Schoenholtz Textbook Chapter 15) & Mid-term exam revision	25 Sep 2021
	Mid-term examination (Online)	2 Oct 2021 9-11 AM
8.	The central bank balance sheet and the money supply process (Cecchetti & Schoenholtz Textbook Chapter 17)	9 Oct 2021
9.	Monetary policy: stabilizing the domestic economy (Cecchetti & Schoenholtz Textbook Chapter 18)	16 Oct 2021
10.	Exchange rate policy (Cecchetti & Schoenholtz Textbook Chapter 19)	28 Oct 2021 (TBC) *(Make-up class for the Sat 23 Oct Holiday)*
11.	Money growth and money demand (Cecchetti & Schoenholtz Textbook Chapter 20)	30 Oct 2021
12.	Output, inflation, and monetary policy (Cecchetti & Schoenholtz Textbook Chapter 21)	6 Nov 2021
13.	Understanding business cycle fluctuations (Cecchetti & Schoenholtz Textbook Chapter 22)	13 Nov 2021
14.	Modern monetary policy and the challenges (Cecchetti & Schoenholtz Textbook Chapter 23)	20 Nov 2021
15.	Special topic: New Keynesian monetary economics & Final exam revision	27 Nov 2021
	Final examination (Online)	9 Dec 2021 1.30 – 4.00 PM

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE434 Behavioral Finance

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

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

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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 evidences 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.

Prerequisites: EE311

Course Objective:

1. To provide students with an introduction to the field of behavioral finance, focusing on Behavioral Finance Microeconomics (BFMI).

2. To provide students with an introduction to Prospect theory and other behavioral science foundations such as heuristics, biases, emotion.

3. To learn how behavioral finance can help promote the understanding of how financial decision-makings are made in financial market.

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.
Note: Students will receive the username and password to access the e-book via @st.econ.tu.ac.th email.

Supplementary textbooks:

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

Venezia, I. (2018). **Lecture Notes in Behavioral Finance** (Tel Aviv-Yaffo Academic College, IsraelThe Hebrew University of Jerusalem, Israel). World Scientific Lecture Notes in Finance. https://doi.org/10.1142/10751

Recommended book (for fun and for knowledge):

Ariely, D. (2010). **Predictably Irrational : the Hidden Forces That Shape Our Decisions**. New York :Harper Perennial.

Baker, H. Kent, Filbeck, Greg, Nofsinger, John R. (2019). **Behavioral Finance What Everyone Needs to Know**. NewYork: Oxford University Press.

Kahneman, D. (2011). **Thinking, fast and slow**. Farrar, Straus and Giroux.

Academic Journal:

Papers discussed/mentioned in class will be provided on BE Moodle and Google classroom. Suggested readings include:

Barberis, Nicholas & Thaler, Richard (2003). **A survey of behavioral finance**. Handbook of the Economics of Finance, in: G.M. Constantinides & M. Harris & R. M. Stulz (ed.), Handbook of the Economics of Finance, edition 1, volume 1, chapter 18, pages 1053-1128 Elsevier.

Thaler, R., & Johnson, E. (1990). **Gambling with the House Money and Trying to Break Even: The Effects of Prior Outcomes on Risky Choice**. Management Science, *36*(6), 643-660. Retrieved August 2, 2021, from http://www.jstor.org/stable/2631898

Assessments:

Assignments	15 %
Research Project	20 %
Midterm Exam	25 %
Final Exam	40 %

Midterm and final exams will be take-home exams. Date and time will be as originally scheduled in the midterm and final periods (as stated below). Midterm and final exams are subject to the student ethical code guided by the university regulation.

Exam date and time:

Mid-term Exam: Thursday, September 30, 2021; 09.00 – 11.00 AM
Final Exam: Tuesday, December 7, 2021; 09.00 – 11.30 AM

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.

Course Outline:

Topics	Textbook
1. Introduction	
2. Foundations of Finance: Expected Utility Theory	A&D, Ch.1 Venezia, Ch. 2, 3
3. Models of investor preferences: Prospect Theory, Framing, and Mental Accounting Ambiguity aversion	A&D, Ch.3 Venezia, Ch. 4, 5, 6
4. Heuristics and Biases and their implications for financial decision-making	A&D, Ch.5, 8 Venezia, Ch. 11, 14, 15
5. Overconfidence and their implications for financial decision-making	A&D, Ch.6, 9 Venezia, Ch7
6. Emotional Foundations, Individual Investors and the Force of Emotion	A&D, Ch.7, 10
7. Social forces	A&D, Ch.11
8. Behavioral Investing	A&D, Ch.18, 19 Venezia, Ch.8, 9, 11, 17
9. Market Efficiency, Limits to arbitrage, and Stock Market Puzzles	A&D, Ch. 2, 4, 14 Venezia, Ch.10, 12

The topics are subject to change as instructor sees fit when course proceeds.

BACHELOR OF ECONOMICS
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Course Outline

EE 435 Introductory Financial Econometrics

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

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

Prerequisite: EE325 (or EE425) and EE431 (or EE432)

Course Description: The application of econometrics method to financial and macroeconomics data, emphasizing at time-series models; Characteristics and properties of financial data; Univariate Time-Series Model; Regression with the long-run relationship and short-run dynamics; Volatility Model; Trainings in statistical software.

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.

Main Text:

Brooks, C. (2019). Introductory Econometrics for Finance. 4th ed. Singapore: 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)

Recommended Texts & Materials

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)

Enders, W. (2014). Applied Econometric Time Series. 4th 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.

Suggested Readings:

Grading Criteria:

1.	Assignments	20%
2.	Group Projects	12%
3.	Group Workshop	13%
4.	Midterm Exam	25%
5.	Final Exam	30%
		100%

Expected Learning Outcomes:

1. Morality and Ethics

Applicability	Learning Goals	Expected Learning Outcomes
●	1.1 Students demonstrate integrity.	Learn how to make interpretation of the estimated results without bias.
●	1.2 Students prioritize social and public benefits over personal ones.	Learn how to make interpretation of the estimated results without bias.
●	1.3 Students are punctual and comply with the code of conduct of the institution and society at large.	Submit Assignments on time.

●	1.4 Students are responsible and accountable to society, the nation, and the subject of economics.	Learn how to make interpretation of the estimated results without bias.
○	1.5 Students realize the cultural and environmental value of the sustainable society.	Learn how to make interpretation of the estimated results without bias.

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.	Learn how to construct econometric models based on economic and financial theories.
●	2.2 Students know and understand Thai and global economic structure, and the importance of major international economic events.	Learn how to construct econometric models based on economic and financial theories.
○	2.3 Students know and understand instruments of economic analysis.	Learn how to construct econometric models based on economic and financial theories.
●	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.	Learn how to construct econometric models based on economic and financial theories.
○	2.5 Students are informed about related fields including sociology, business administration, education, law policy, and science.	Learn how to construct econometric models based on economic and financial theories.

3. Intellectual Development

Applicability	Learning Goals	Expected Learning Outcomes
●	3.1 Students have developed individual critical thinking.	Learn how to make discussion based on estimated results.
●	3.2 Students are sufficiently trained in research skills.	Learn how to make discussion based on estimated results.
●	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 analsyis and synthesis, students demonstrate an ability to propose policy guidelines to resolve problems.	Learn how to make discussion based on estimated results.

4. Interpersonal Skills and Responsibilities

Applicability	Learning Goals	Expected Learning Outcomes
●	4.1 Students are responsible for assigned tasks and work in groups effectively.	Work on group project and workshop.
●	4.2 Students have problem-solving skills.	Work on group project and workshop.
○	4.3 Students show leadership skills and team spirit.	Work on group project and workshop.
●	4.4 Students are always improving themselves.	Work on group project and workshop.
○	4.5 Students have good interpersonal skills, adapting and working under different conditions.	Work on group project and workshop.

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.	Learn how to apply econometric model in answering research questions.
○	5.2 Students communicate effectively and select appropriate presentation methods.	Learn how to apply econometric model in answering research questions.
○	5.3 Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	Learn how to apply econometric model in answering research questions.

Class Schedule:

Week	Date	Content	Reading	Activity *(Due)*
1	10/8/2021	Review Least Squares Estimation Method - Ordinary Least Squares Estimation Method	Ch 1-2	
	12/8/2021 (Clip)	Review Least Squares Estimation Method - Least Squares Estimation – Matrix Approach - Generalized Least Squares Estimation Method	Ch 3-4	
2	17/8/2021	Application of Simple Regression Model Capital Asset Pricing Model Application of Multiple Regression Model Fama-French Three Factor Model	Handout	Q&A
	19/8/2021	Application of Dummy Variable Technique Calendar Effect in Stock Market Workshop: Database – Eikon & Datastream (By Dr.Jutamas)	Handout	WS1
3	24/8/2021	Simultaneous Equation Model Simultaneous Biased	Ch 6	Q&A *(Assign 1)*
	26/8/2021	Simultaneous Equation Model Indirect Least Squares (ILS) Two Stage Least Squares (2SLS) Three Stage Least Squares (3SLS)	Ch 6	WS2
4	31/8/2021	Maximum Likelihood Estimation (MLE) Method Concept	Heij 4	Q&A *(Assign 2)*
	2/9/2021	Maximum Likelihood Estimation (MLE) Method Computation Inferential Statistics	Heij 4	WS3
5	7/9/2021	Limited Dependent Variable Models Logit & Probit Model – Concept	Ch 11	Q&A
	9/9/2021	Limited Dependent Variable Models Logit & Probit Model – Inferential Statistics	Ch 11	WS4 *(Project 1)*
6	14/9/2021	Panel Data Models Characteristic of Data and Problems. Model with Heteroscedasticity, Autocorrelation and Cross-sectional Correlation.	Ch 10	Q&A *(Assign 3)*
	16/9/2021	Panel Data Models Fixed Effects Models. Random Effects Models.	Ch 10	WS5
7	21/9/2021	Univariate Time Series Models Stationary vs Nonstationary	Ch 5	Q&A *(Assign 4)*
	23/9/2021	Univariate Time Series Models (cont.) Integrated Series	Ch 5	WS6
8	**28/9/2021 9:00-14:00**	**Take-Home Midterm Exam** (Week 1 – 6)		

Week	Date	Content	Reading	Activity *(Due)*
9	5/10/2021	Univariate Time Series Models (cont.) Unit Root Test	Ch 5	Q&A
	7/10/2021	Time Series Models (cont.) Cointegration & Error Correction Models	Ch 5	WS7
10	12/10/2021	Univariate Time Series Models (cont.) ARIMA Model – Estimation	Ch 5	Q&A *(Assign 5)*
	14/10/2021	Univariate Time Series Models (cont.) ARIMA Model – Forecast	Ch 5	WS8
11	19/10/2021	Modelling Volatility and Correlation Autoregressive Conditional Heteroscedasticity (ARCH), ARCH-M	Ch 8	Q&A *(Assign 6)*
	21/10/2021	Modelling Volatility and Correlation (cont.) Generalized Autoregressive Conditional Heteroscedasticity (GARCH) EGARCH	Ch 8	WS9
12	26/10/2021	Multivariate Time Series Models Vector Autoregressive (VARs) Model – Concept	Ch 6	Q&A *(Assign 7)*
	28/10/2021	Multivariate Time Series Models (cont.) Vector Autoregressive (VARs) Model – Procedure	Ch 6	WS10
13	2/11/2021	Multivariate Time Series Models (cont.) Impulse Response Analysis	Ch 6	Q&A *(Project 2)*
	4/11/2021	Multivariate Time Series Models (cont.) Orthogonal Impulse Response Analysis	Ch 6	WS11
14	9/11/2021	Multivariate Time Series Models (cont.) Forecast Error Variance Decomposition	Ch 6	Q&A *(Assign 8)*
	11/11/2021	Modelling Long-run Relationships in Finance Engle Granger Cointegration Test	Ch 7	WS12
15	16/11/2021	Modelling Long-run Relationships in Finance (cont.) Johansen Cointegration Test	Ch 7	Q&A *(Assign 9)*
	18/11/2021	Modelling Long-run Relationships in Finance (cont.) Vector Error Correction Models (VECM)	Ch 7	WS13
16	23/11/2021	Additional Time Series Models	Handout	Q&A *(Assign10)*
	25/11/2021	Additional Time Series Models (cont.)	Handout	Q&A
	Wed. 8/12/2021 13:30-18:30	**Take-Home Final Exam** (Week 7 – 16)		

Remarks:

- **Mid-Term Examination (Tuesday, September 28, 2021, 09.00 - 15.00 hrs.)**
- **Final Examination (Wednesday, December 8, 2021, 13.30 – 18.30 hrs.)**

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE 441: Economics of Public Expenditure

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

Number of Credit: 3 (3-0-6)
Prerequisite:
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.

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.

Academic Integrity:

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.

Grading Criteria:

- **Short Essays** **15%**

  (3 short essays conducted by a group of 2-3 participants will be assigned after the midterm exam. Only two best essays will be counted towards the final grade. Topics will be related to issues discussed in class and those in public economics, in particular, on government expenditure aspect)

- **Group Presentation** **5%**

  (a group of 2-3 participants lead a discussion concerning an academic paper)

- **Homework and pop quizzes** **10%**

  (Late homework submission will receive 50% of earned points)

- **Mid-term examination** **30%**
- **Final examination** **40%**

Important Dates

Class begins	10 August 2021
Add-Drop period	16 – 19 August 2021
Midterm Exam period (no classes)	27 Sep - 3 Oct 2021
Midterm	**Tuesday, 28 September 2021; 12.00 – 2 P.M.**
Final	**Monday, 13 December 2021; 09.00 – 12.00**
Last day for course withdrawal	15 November 2021
Last class	25 November 2021

Main References:

Rosen, Harvey S., and Ted Gayer (2014), **Public Finance**, 10th edition, McGraw-Hill.

Stiglitz, Joseph E. and Jay K. Rosengard (2015) ***Economics of the Public Sector***. 4th ed. W.W. Norton & Company, New York.

Other Recommended References:

Atkinson, A., and J. Stiglitz., ***Lectures on Public Economics***, New York, NY: McGraw Hill, 1980. ISBN: 0070841055.

Auerbach, A and M. Feldstein, ***Handbook of Public Economics***, Vols. 1, 2 and 3. Amsterdam, Holland, New York, NY: North-Holland; New York, NY: Elsevier, 1985, 1987, 2003. ISBNs: 044487612X, 0444879080, 044482314X.

Buchanan, James M. and Richard A. Musgrave, ***Public Finance and Public Choice: Two Contrasting Visions of the State***, MIT Press, 1999.

Connolly, Sarah and Alistair Munro, ***Economics of the Public Sector***, Prentice Hall, London, 1999.

Grubber, Jonathan. ***Public Finance and Public Policy***. 5th ed. New York: Worth Publishers, 2015.

Hillman, Arye L., ***Public Finance and Public Policy, Responsibilities and Limitations of Government***, Cambridge: Cambridge University Press, 2003.

Hindriks, Jean and Gareth D. Myles. ***Intermediate Public Economics***. MIT Press, 2006. ISBN: 0262083442 (HB846.5 .H55)

Hyman, David N., ***Public Finance: a Contemporary Application of Theory to Policy.*** 12th ed. Thomson/South-Western, 20

Laffont, J., ***Fundamentals of Public Economics***, Cambridge, MA: MIT Press, 1988. ISBN: 0262121271.

McLean, Iain., ***Public Choice: An Introduction***, Oxford: Basil Blackwell.

Mueller, Dennis, ***Public Choice II/III***, Cambridge University Press, 1989, 2003.

Musgrave, R.A. and P.B. Musgrave, ***Public Finance in Theory and Practice***, 5th edition, McGraw-Hill, 1989. (HJ257.2 .M8 1989)

Myles, G., ***Public Economics,*** New York, NY: Cambridge University Press, 1995. ISBN: 0521497698.

Persson, Torsten and Guido Tabellini, ***Political Economics: Explaining Economic Policy***. MIT Press, 2000. ISBN: 0262161958. (HD87 .P468)

Shepsle, Kenneth and Mark Boncheck. ***Analyzing Politics: Rationality, Behavior and Institutions***, New York: Norton, 1997.

Course Outline:

PART I GETTING STARTED: INTRODUCTION AND BACKGROUND

- Why Study Public Economics?
- What or Who is the Government?
- The Economic Role of Government: What should the role of government be? How much government intervention is desirable in a market-based economy?
- Thinking Like a Public Sector Economist
- Disagreements among Economists: Value judgments are inescapable.

Reading:
Feldstein, Martin (2001) The Transformation of Public Economics Research: 1970- 2000. NBER website. (URL: http://www.nber.org/feldstein/publiceconomics.html)
Atkinson, Anthony B. 2012. "The Mirrlees Review and the State of Public Economics." Journal of Economic Literature, 50(3): 770-80.
Rosen, Ch. 1
Stiglitz, Ch. 1

PART II FUNDAMENTALS OF WELFARE ECONOMICS

- Market Efficiency
  - Equilibrium in Competitive Market
  - Pareto Efficiency (Pareto Optimality)
  - The Fundamental Theorems of Welfare Economics
    - The First Theorem of Welfare Economics (FTWE)
    - The Second Theorem of Welfare Economics (STWE)
  - Analysing Economic Efficiency
- Efficiency and Equity

Reading:
Stiglitz, Chs. 3-5

PART III DEPARTURES FROM EFFICIENCY: EXTERNALITIES AND PUBLIC GOODS

- **Externalities**
  - The Nature of Externalities
  - Externality Examples
    - River Pollution
    - Traffic Jams
    - Pecuniary Externality
    - The Rat Race Problem
    - The Tragedy of the Commons
    - Bandwagon Effect
  - Private-Sector Solutions to Externalities
    - Internalization
    - The Coase Theorem, Property Rights, and Bargaining
  - Public Sector Remedies for Externalities
    - Pigouvian Taxes (a.k.a corrective taxes)
    - Emission Fee
    - Emissions Standard
    - Tradeable Emissions Permits
    - Subsidies for Positive Externalities

Reading

Stiglitz, Ch. 9

Rosen, Ch. 5

Adam Davidson. 2012. "Should We Tax People for Being Annoying" New York Times. January 8,

"Climate change and inequality" The Economist July 13, 2017

Coase, Ronald H. "The Problem of Social Cost." *Journal of Law and Economics* 3 (1960): 1-44.

Oreopoulos, Philip, "The Long-Run Consequences of Living in a Poor Neighborhood," Quarterly Journal of Economics, 118(4), Nov. 2003.

Dickert-Conlin, Stacy, Todd Elder and Brian Moore. Forthcoming "Donorcycles: Motorcycle Helmet Laws and the Supply of Organ Donors", Journal of Law and Economics, 2011, vol. 54, issue 4, pages 907 –935.

Watching

The Global Philosopher (BBC)- Who should pay for climate change?

- **Public Goods**
    - Public Goods Defined
    - When to Provide a Public Good
    - Optimal Provision of Public Goods
    - Private Provision of Public Goods
    - Public Provision of Public Goods
    - The Free Rider Problem
    - Lindahl Equilibrium
- **Local Public Goods**
- **The Tiebout Hypothesis: Vote with Their Feet**

Reading:

Stiglitz, Ch. 6

Rosen, Ch. 4

Paul Samuelson, "The pure theory of public expenditures," Review of Economics and Statistics, 1954, 387-389.

Lindahl, E., "Just Taxation - A Positive Solution," in Musgrave and Peacock, eds., Classics in the Theory of Public Finance, Macmillian, 1958, 168-76

Hardin, G. (1968), The Tragedy of the Commons," Science 162: 1243-48. (Downloadable at: http://www.physics.ohio-state.edu/~wilkins/sciandsoc/tragedy.pdf)

Charles Tiebout, "A pure theory of local expenditure," Journal of Political Economy, 1956, 416-424.

Part IV Public Choice and Political Economics (New Political Economy)

- **Public Mechanisms for Allocating Resources**
  - The Problem of Preference Revelation
  - Individual Preference for Public Goods
  - The Problem of Aggregate Preferences
  - Majority Voting and the Paradox of Voting
  - Arrow's Impossibility Theorem
  - Single-Peaked Preferences and the Existence of a Majority Voting Equilibrium
  - The Median Voter Model
  - The Inefficiency of the Majority Voting Equilibrium
  - Social Choice Theory

Reading:

Stiglitz, Ch. 7

Rosen, Ch. 7

Persson and Tabellini, p. 1-14

Torsten Persson and Guido Tabellini. Political Economics and Public Finance. Handbook of Public Economics. Available as NBER Working paper 7097

Besley, Timothy. ***The New Political Economy***. A paper based on Keynes Lecture in Economics, delivered at the British Academy, 2004.

Wrasai, P. and Otto H. Swank. Policy Maker, Advisors, and Reputation. *Journal of Economic Behaviour and Organization*, 62, 579-590, 2007.

Wrasai, P. Politicians' Motivation, Role of Elections, and Policy Choices. *Tinbergen Institute Discussion Paper*, 2005.

Part V Issues in Public Expenditure

- **Government and Health Care**
- **Government and Education**
- **Defense Expenditures**
- **Income Redistribution: Conceptual Issues**
- **Expenditure Programs for the Poor**

Reading:

Rosen, Chs. 9-13

Stiglitz, Chs. 10-16

Earth 2.0: Is Income Inequality Inevitable? Listen to the podcast: http://freakonomics.com/podcast/earth-2-0-income-inequality/

Freakonomics radio, April 19, 2017

Assigned Journal Articles (TBA)

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE 451 International Trade Theory and Policy

Semester 1/2021 (Aug 9 – Nov 27, 2021)

Number of credits 3 credits

Prerequisite: *EE311*

Evaluation:

Quizzes and assignment	15%
Group project or reports	15%
Midterm Exam	35%
Final Exam	35%

Group project (15 points): maximum 3 members/group

- Design and print **an A0-sized academic poster** related to international trade policies. 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.

Suggested topic lists:

Doha Round of WTO	CPTPP	RCEP	BIMSTEC
BREXIT	Rules of Origin	US.-China trade conflict	Tariff waters
Intellectual property rights issues	Government procurement	Transparency, Anticorruption and Competition	Illicit products
Compulsory licensing	Food security and GMO products	Maximum residue limit and trade	Pesticides ban policies
Ban on Ractopamine used in pork	Quarantine and tourism industry	Sin taxes and trade in sin products	Climate change and Border carbon adjustment

International trade of waste and recycling	Greenfield and brow nfield investments	CITES and Trade in Endangered Species	Nagoya Protocol
IUU fishing	GSP	Fairtrade products	Movement of natural person
COVID-19 and global supply chains	Transfer pricing	Digital Trade and competition policy	Commercial presence

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), attractive and reader-friendly poster design. The total mark will come from classmate evaluation (4 marks), Facebook likes (4 marks) and instructor evaluation (7 marks)

Your oral presentation would take 8 minutes (without any note!) and 2 minutes of Q&A.

Submission date of selected topic: Wed 6 October, 2021

Submission date of the outline: Wed 20 October, 2021

Presentation dates: 24 – 26 November, 2021

Note: 1. Please be strictly aware of '*plagiarism rule*' which could bring a zero score for violators.

2. The poster must contain major references used, names of the team members, and the statement "This poster is a part of the learning exercises of EE 451: International Trade Theory and Policy, B.E., T.U.".

Main text:

Feenstra, R.C. and A.M. Taylor (2012), International Economics,Worth Publishers, New York.(2nd edition), Palgrave-Macmillan. (FT)

Alternative texts:

Appleyard, D.R.; A.J. Field, Jr.; and S.L. Cobb (2016) *International Economics*, 9th ed., McGraw-Hill: Singapore. (AF)

Krugman, P.R.; Obstfeld, M.; and Marc Melitz (2017) International Economics: Theory and Policy, Global Edition, 11th edition, Pearson, New York. (KOM)

Markusen, J.R.; James R. Melvin; Willium H. Kaempfer and Keith E. Maskus (1995) *International Trade: Theory and Evidence*, McGraw-Hill, New York. (MMKM)

van Marrewijk, Charles (2017). International Trade and the World Economy. Oxford University Press: Oxford. (M)

Salvatore, Dominick (2016) *International Economics*, 11th ed., Prentice Hall International Editions, London. (S)

Other supplements as assigned in class

Interactive Excel Exercises:

There will be 10 Interactive Excel Exercises located in
http://econ.tu.ac.th/archan/Chayunt/Site/EE451.html
and https://www.facebook.com/AjarnChayun

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

Topics:

1. Introduction 1.5 hr.
   1.1. Merchandise Trade and Trade in Services
   1.2. The Purpose of International Economic Theories and Policies
   Read: FT ch.1, AF ch. 1, M ch. 1, KOM ch. 1-2, MMKM ch. 1, S ch. 1

2. Early Trade Theories and The Classical Trade Theory 6 hr.
   2.1. Mercantilism
   2.2. Adam Smith and Absolute Advantage
   2.3. David Ricardo and 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 Model
   Read: FT ch 2-5, AF ch. 2-4, M ch. 2-3, KOM ch 3, MMKM ch. 7 and 14.3, S ch. 2

   P. Krugman, "*Ricardo's difficult idea*" at
   http://web.mit.edu/krugman/www/ricardo.htm

   Laursen, Keld (2015) "Revealed Comparative Advantage and the Alternatives as Measures of International Specialisation" Eurasian Business Review. 5: 99-115. https://www.researchgate.net/publication/289126100_Revealed_Comparative_Advantage_and_the_Alternatives_as_Measures_of_International_Specialisation

3. Neoclassical Trade Theory 4 hr.
   3.1. Basic Tools
      (a) The Theory of Consumer Behavior
      (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
   3.3. Offer Curves and Terms of Trade [Chacholiades, M. (1990) *International Economics*, ch. 6]

Read: AF ch. 5-7, M ch. 4-6, KOM ch 3, MMKM ch. 2-5, S ch.3-4

4. Factor Endowments and the Heckscher-Olin Model 8 hr.
    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. Stolper-Samuelson Theorem
    4.7. Rybczynski Theorem
    4.8. Empirical Tests of the Heckscher-Olin Theorem
        (a) The Leontief Paradox
        (b) Suggested Explanations for The Leontief Paradox

    Read: FT ch. 4, AF ch. 8-9, M ch. 7, KOM ch 5, MMKM ch. 8-9 and 14.4, S ch. 5

    4.9. Specific-Factors Model: a short run version of H-O model

    Read: FT ch 3, S ch. 5, AF ch. 8, MMKM ch. 9, KOM ch 4

+++++++++++++ **Midterm** +++++++++++

5. Alternative Theories and Intra-Industry Trade 6 hr.
    5.1. Intra-Industry Trade
    5.2. The Product Cycle Theory
    5.3. The Kemp Model and external economies of scale
    5.4. Krugman model and internal economies of scale with imperfect competition

    Read: ST ch. 6, AF ch. 10, M ch. 9-10 and 15, KOM ch 7-8, MMKM ch. 11-13, S ch.6

6. International Factor Movement 3 hr.
    6.1. Capital Movement
    6.2. Labor Movement

    Read: FT ch. 5, AF ch. 12, KOM ch. 8, S ch.12

7. Trade Policy 9 hr.
    7.1. Arguments for Protection
    7.2. Import Tariffs and non-tariff barriers under perfect competition
        (a) Measurement of Tariffs and Effective rate of protection
        (b) Import tariffs for a small country
        (c) Import tariffs for a large country
        (d) Import quotas
        (e) Production Subsidies
        (f) Export Taxes and Subsidies
    7.3. Import tariffs and quotas under imperfect competition

    Read: FT ch. 8-10, AF ch. 13-16, M ch. 8 and 11, KOM ch 9-10, MMKM ch. 8.5, 15-16, S ch. 8-9

7.4 Other policies: Environment, standards
Read: FT ch. 11, KOM ch 12

8. International Trade Institution and Economic Integration 4.5 hr.
8.1. World Trade Organization
8.2. Types of Economic Integration
8.3. The Static Effects
(a) Trade Creation and Trade Diversion
(b) The Second Best Theory
8.4. The Dynamic Effect
8.5. Regional Trade Agreements: AFTA and AEC, APEC, ASEM
Read: ST ch. 11, AF ch. 18, M ch. 12-13, S ch. 9-10, KOM ch 10 and 11, MMKM ch.18

9. Economic Growth and International Trade 3 hr.
9.1. Classifying the Trade Effects of Economic Growth
9.2. Sources of Growth and the Production-Possibilities Frontier
9.3. Factor Growth, Trade and Welfare
(a) The Small-Country Case and the Rybczynski Theorem
(b) The Large-Country Case
Read: AF ch. 11, M ch. 16, KOM ch 11, MMKM ch. 8.5 and 23, S ch.7

Class No.	Date	Topic
1	Wed 11 Aug	Introduction, Mercantilism,
2	Fri 13 Aug	Adam Smith and Absolute Advantage, David Ricardo and Comparative Advantage
3	Wed 18 Aug	Ricardian model and Comparative Advantage
4	Fri 20 Aug	Ricardian model and Comparative Advantage
5	Wed 25 Aug	Neoclassical Trade Theory: Basic tools **Quiz 1:** Ricardian model
6	Fri 27 Aug	Neoclassical Trade Theory: Gains from Trade
7	Wed 1 Sep	Neoclassical Trade Theory: Offer Curves and Terms of Trade
8	Fri 3 Sep	Factor Endowments and Heckscher-Olin Model (H-O) **Quiz 2:** Basic tools and Grains from Trade
9	Wed 8 Sep	Factor Endowments and Heckscher-Olin Theorem
10	Fri 10 Sep	H-O model and The Factor Price Equalization Theorem
11	Wed 15 Sep	H-O model and Stolper-Samuelson Theorem
12	Fri 17 Sep	H-O model and Rybczynski Theorem
13	Fri 22 Sep	Specific-Factors Model
14	Wed 24 Sep	Specific-Factors Model+ **Quiz 3:** H-O Theorem
15-16	Sep 27 – Oct 3	Midterm week, no class
	Midterm: **Friday 1 October, 2021, 9:00 – 11:00**	
17	Wed 6 Oct	Introduction to Intra-Industry Trade
18	Fri 8 Oct	The Kemp Model and External Economies of Scale
	Wed 13 Oct	H.M. King Bhumibol Adulyadej The Great Memorial Day. *** No class ***
19	Fri 15 Oct	Krugman model
20	Mon 18 Oct (make up)*	Krugman model
21	Wed 20 Oct	Trade Policy: Arguments for Protection

Class No.	Date	Topic
22	Fri 22 Oct	Measurement of Tariffs and Effective rate of protection **Quiz 4:** Alternative trade model
23	Wed 27 Oct	Import tariffs for a small and large country
24	Fri 29 Oct	Import quotas, Other non-tariff barriers
25	Wed 3 Nov	Other non-tariff barriers
26	Fri 5 Nov	Import Tariffs and quotas under imperfect competition
27	Wed 10 Nov	Trade and Environment **Quiz 5:** Tariffs and non-tariff barriers
28	Fri 12 Nov	World Trade Organization
29	Wed 17 Nov	World Trade Organization
30	Fri 19 Nov	Economic Integration and Regional Trade Agreements
31	Wed 24 Nov	Economic Integration and Regional Trade Agreements
32	Fri 26 Nov	Poster presentation 1
33	Wed 12 May	Poster presentation 2
	Final Examination: Friday, 17 December, 2020, 13:30-16:00 hrs.	

*To be confirmed

B.E. International Program

Faculty of Economics, Thammasat University

Course Syllabus

EE 452 International Monetary Economics

Semester 2/2019 (August 9 - November 27, 2021)

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

Prerequisite: 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.

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 exchange rate system, foreign exchange market, capital markets, and how it is interconnected with rest of the economy. There will be theoretical applications to the real-world scenarios for all topics.

Evaluation:

Mid-term exam	30%
Final Exam	40%
Group Report/Presentation	15%
Individual assignment/Class Attendance/Quiz	15%

Main Textbook:

Krugman,P.R., M. Obstfeld., M. J. Melitz (2015), International Economics: Theory and Policy: tenth edition, Pearson

Montiel, P.J. (2009), *International Macroeconomics,* Wiley-Blackwell, Sussex

Sodersten, B. and G. Reed (1994), International Economics: Third edition, Macmillian, p. 512-24

Recommended Articles:

Jongwanich, J. (2019), 'Capital Controls in Emerging East Asia: How do they affect investment flows?: How do they affect investment inflows?

Jongwanich, J. (2017), *Capital Mobility in Asia, Causes and Consequences,* ISEAS Publisher

Jongwanich, J. (2013), Capital Flows and Real Exchange Rates in Emerging Asian Countries, *Journal of Asian Economics*, 24: 138 - 146 (with A. Kohpaiboon)

Jongwanich, J. (2012), Effectiveness of Capital Account Policies: Evidence from Thailand, *Asian Development Review*, 29 (2): 50-93 (with A. Kohpaiboon)

Jongwanich, J. (2010), Determinants of Export Performance in East and Southeast Asia', *World Economy* 33 (1): 20-41.

James, W., etc. (2008) The US Financial Crisis, Global Financial Turmoil, and Developing Asia: Is the Era of High Growth at an End?, *ERD Working Paper* No. 139, Economics and Research Department, Asian Development Bank

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+	Based on the distribution of students' scores
	B	
	C+	
	D+	
	D	
	F	less than 40

Class Schedule

No.	Topic/Activities	Documents	Note
1	1.1 Balance of Payments and its components 1.1.1 Current account 1.1.2 Capital/Financial account 1.1.3 Implications drawn from balance of payments	Montiel (2009): Ch 2; Krugman et.al (2015) Ch.13	Some parts are only in the lecture note
2	2. Exchange rate 2.1.1 Exchange rate system	Annual report on exchange arrangements and exchange restrictions, IMF (2014): p. 1, 69-71;	Some parts are only in the lecture note
3	2.1.2 Exchange rate measurements - Nominal effective exchange rate - Real effective exchange rate	Montiel (2009): Chp 3; Krugman et.al (2015) Ch.14: 374-84	Some parts are only in the lecture note
4	2.1.3 Models: exchange rate determination 2.1.3.1 Foreign exchange market	Krugman et.al (2015) Ch.14: 374-84	Some parts are only in the lecture note

No.	Topic/Activities	Documents	Note
5	2.1.3.2 Demand and Supply approach - Marshall-learner condition - J-Curve effect	Sodersten and Reed (1994): p. 512-24	
Mid Term Examination: Friday, October, 1 October 2021 **09.00 - 11.00 am**			
6	2.1.3.3 Financial Asset Approach - Uncovered/Covered Interest Parity - Money/Interest Rate/Exchange Rate (short-run/long-run)	Krugman et.al (2015) Ch.14,15	
7	2.1.3.4 Output and Exchange Rate Model	Krugman et.al (2015) Ch.17	
8	3 Law of One Price and Purchasing Power Parity-PPP) 3.1 Concepts 3.2 Problems relating to PPP 3.3 Determinants of Long-run (real) exchange rate	Krugman et.al (2015) Ch.16; Jongwanich (2008)	Some parts are only in the lecture note
9	4. Exchange Rates vs Key Economic Variables 4.1 Exchange rate and trade	Jongwanich (2010)	
10	4.2 Exchange rate and financial account 4.2.1 Foreign direct investment 4.2.2 Other form of capital flows 4.3 Exchange rate pass-through	Jongwanich (2009, 2011, 2012, 2013)	Some parts are only in the lecture note
11	5. Macroeconomic Model 5.1 Macroeconomic Model Setting	Montiel, 2009: Ch 4	
12	5.2 Fixed Exchange Rate and Perfect Capital Mobility	Montiel, 2009: Chs 6: p.130-145	
13	5.3 Fixed but Adjustable Exchange Rate and Imperfect Capital Mobility 5.4 Floating Exchange Rate and Perfect Capital Mobility	Montiel, 2009: Ch.7, and Ch. 8: p.177-187	
14	6. Currency Crisis 6.1 First generation	Krugman, 2015: Ch.22 and James,	Some parts are only in the

No.	Topic/Activities	Documents	Note
	6.2 Second generation 6.3 Third generation 6.4 Asian financial crisis 6.5 Global financial 2008-09 and impacts on Asian countries 6.6 Latin American crisis	W., etc. 2008	lecture note
Final Examination: Friday, December 17, 2021 **1.30 – 4.00 am**			

Method of Instruction: There are total of 45 class-hours for this course or 3 hours per week. Class activities include lectures, discussions and presentations. Students are expected to work on group presentations, and participate in class discussions

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE459: SEMINAR IN INTERNATIONAL ECONOMICS

Semester 2/2021 (January 10th – May 7th, 2022)

Number of Credit: 3 credits

Prerequisite: EE 451 and EE 452

Course Description:

Seminar and research on topics in International Economics under the lecturer's supervision.

Course Objectives:

The main objective of this course is to enable students to apply their knowledge of international economics to conduct their empirical research papers. Students must conduct research independently, present their research papers, discuss and comment on research papers of their classmates/other papers published in journals.

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Main Text:

Booth, W. C., Colomb, G. G., & Williams, J. M. (2008), The craft of research, Chicago: University of Chicago Press.

Greenlaw, S. A. (2006), Doing economics: A guide to understanding and carrying out economic research, Boston, MA: Houghton Mifflin.

Recommended Texts & Materials:

Appleyard, D.R., and Field A.j. (2017), International Economics, 9th edition, Singapore: McGraw Hill

Koop, G. (2013), Analysis of economic data, Chichester: Wiley.

Strunk, W. and White, E. (1990), The Elements of Style, Boston, MA: Pearson Education

Wooldridge, J. (2015), Introductory econometrics: A modern approach, Toronto: Nelson Education.

Suggested Readings:

Korwatanasakul, U. and Paweenawat, S.W. (2021) “Trade, Global Value Chains and Small and Medium-Sized Enterprises in Thailand: A firm-level panel analysis,” In Shujiro Urata (Ed.), *Enhancing SME Participation in Global Value Chains*. Chapter 5, Pages 166–191, Tokyo: Asian Development Bank Institute

Myat Ko, K., Rangkakulnuwat, P., and Paweenawat, S.W. (2015), “The Effect of International Trade on Labor Demand in ASEAN5,” *Economics Bulletin*, 35(2): 1034–1041

Paweenawat, S.W. (2019), “Foreign Direct Investment and Wage Spillover in Thailand: Evidence from Firm-Level Panel Data,” *International Journal of Social Economics*, 46(10): 1198–1213

Paweenawat, S.W. “The Impact of Global Value Chain Integration on Wages Evidence from Matched Worker-Industry Data in Thailand,” *Journal of the Asia Pacific Economy* (Forthcoming 2022)

Xaypanya, P., Rangkakulnuwat, P., and Paweenawat, S.W. (2015), "The Determinants of Foreign Direct Investment in ASEAN: The First Differencing Panel Data Analysis," *International Journal of Social Economics*, 42(3): 239–250

Grading Criteria:

The assessments are based on the students' ability to conduct research independently under the instructor's supervision. Assignments will be given throughout the course to build up students' research skills and guide their research.

Summary of one published article (Present#1)	10%
Literature Review (Present#2)	10%
Research Outline	10%
Research Proposal (Present#3)	20%
Research Progress (Present#4)	10%
Research paper (Present#5)	30%
Referee Report	10%

Expected Learning Outcomes:

This course is designed for students to integrate their knowledge in international economics through research. At the end of the semester, each student is expected to deliver one independent term paper, present this research paper, and comment/provide referee reports on their classmates' papers.

Tentative Class Schedule:

Date	Tentative Topic and Class Activity
10 Jan 2022	Introduction, Course description, Research in Economics
17 Jan 2022 24 Jan 2022	Present #1 – Summary of one published article
31 Jan 2022	Writing Research Proposal
7 Feb 2022 14 Feb 2022	Present #2 – Literature review
21 Feb 2022	Submitting research outline & discussing with instructor
7 Mar 2022 14 Mar 2022	Present #3 – Research Proposal
21 Mar 2022	Writing Research Paper

Date	Tentative Topic and Class Activity
28 Mar 2022 4 April 2022	Present #4 – Research Progress
18 April 2022	Presenting and commenting research paper
25 April 2022 2 May 2022	Present #5 – Research paper and referee report

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE 462 Development Macroeconomics

Semester 1/2021

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

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.

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:

1. Morality and Ethics

Applicability	Learning Goals	Expected Learning Outcomes
●	1.1 Students demonstrate integrity.	Students do not cheat on exams or engage in plagiarism.
●	1.2 Students prioritize social and public benefits over personal ones.	Students study hard and seek good jobs.
●	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.	Students study hard and know that they should be responsible.
○	1.5 Students realize the cultural and environmental value of the sustenainable 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 know about the process of economic development.
●	2.2 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.
●	2.3 Students know and understand instruments of economic analysis.	Students learn about important economic tools from reading journal articles.
●	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.	Students know about applied macroeconomics related to developing countries such as Thailand.
●	2.5 Students are informed about related fields including sociology, business administration, education, law policy, and science.	Students learn about other related field from reading journal articles.

3. Intellectual Development

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

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Applicability	Learning Goals	Expected Learning Outcomes
	demonstrate an ability to propose policy guidelines to resolve problems.	

4. Interpersonal Skills and Responsibilities

Applicability	Learning Goals	Expected Learning Outcomes
●	3.1 Students are responsible for assigned tasks and work in groups effectively.	Students work in groups each week and undertake a joint essay project.
●	3.2 Students have problem-solving skills.	Students do problem solving in the course.
○	3.3 Students show leadership skills and team spirit.	
●	3.4 Students are always improving themselves.	Students are evaluated based on their course work and can use that as a benchmark to improve themselves.
○	3.5 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.	Students can gather data from available data source and analyze them well.
●	5.2 Students communicate effectively and select appropriate presentation methods.	Students effectively participate in class discussion and present their work.
●	5.3 Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	Students are able to gather data, , understand, analyze, write a synthesis, and present the report in class.

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
- World Trade Organization 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.ggdc.net/pwt

Assessment

Class participation (and attendance)	10 %
Research paper and presentation	25 %
Mid-term exam	30 %
Final exam	35 %

Class Participation (and attendance)

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

Research Paper and Presentation

Research paper is a data-oriented report. Each student will select a topic of their own, set up a research question, conduct a literature review, collect and analyze data, and write a report. Students will give a presentation of findings in November. After receiving comments from the instructor and classmates, students 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.

Remarks:

- **Proctored Mid-Term Examination:** Thursday, September 30, 2021, noon – 2 pm.
- **Take-Home Final Examination:** Due Tuesday, November 30, 2021, 4 pm. (Note: Exam questions will be posted online on November 28, 2021 at noon.)

Lecture Schedule - 2021

Week	Topics and Readings	Discussion Session
1 (Aug 10)	**Introduction to Economic Development** *Perkins et al., chapters 1-2 * The prospects for developing countries are not what they once were. *The Economist*. July 31, 2021. (https://www.economist.com/briefing/2021/07/31/the-prospects-for-developing-countries-are-not-what-they-once-were) Deaton, A. (2008). Income, health and well-being around the world: Evidence from the Gallup World Poll. *Journal of Economic Perspectives*, *22*(2), 53-72.	
2 (Aug 17, 19)	**Patterns and Concepts of Growth and Development** *Perkins et al., chapter 3 *Jones, C. I. (2016). The facts of economic growth. In *Handbook of macroeconomics* (Vol. 2, pp. 3-69). Elsevier. (https://www.nber.org/system/files/working_papers/w21142/w21142.pdf) Bosworth, B., & Collins, S. M. (2008). Accounting for growth: Comparing China and India. *Journal of Economic Perspectives*, *22*(1), 45-66.	Jones (2016)
3 (Aug 24, 26)	**Growth Theory: Basic Growth Model and Neoclassical (Solow) Growth Model** *Perkins et al., ch. 4 Jones, chapter 2 *Mankiw, N. G., Romer, D., & Weil, D. N. (1992). A contribution to the empirics of economic growth. *The Quarterly Journal of Economics*, *107*(2), 407-437. Lee, J.-W. and K. Hong. 2012. Economic growth in Asia: Determinants and Prospects. *Japan and the World Economy*, vol. 24, pp. 101-113	*Mankiw, Romer, & Weil (1992)

Week	Topics and Readings	Discussion Session
4 (Aug 31, Sept 2)	**Endogenous Growth Models** *Jones, chapter 5, 8 * Jones, C. I., & Romer, P. M. (2010). The new Kaldor facts: ideas, institutions, population, and human capital. *American Economic Journal: Macroeconomics*, *2*(1), 224-45. Balart, P., M. Oosterveen and N. Webbink. 2018. Test scores, noncognitive skills and economic growth. *Economics of Education Review*, vol. 63, pp. 134-153	Jones and Romer (2010)
5 (Sept 7, 9)	**Human Capital and Growth: Population** *Perkins et al, chapters 7 *Cruz, M. and S.A. Ahmed. 2018. On the impact of demographic change on economic growth and poverty. World Development, 105. Pp. 95-106.	Cruz & Ahmed (2018)
6 (Sept 14, 16)	**Human Capital and Growth: Education** *Perkins et al, chapters 8 * Psacharopoulos, G., & Patrinos, H. A. (2018). Returns to investment in education: a decennial review of the global literature. *Education Economics*, *26*(5), 445-458. Bloom, David E.; Kuhn, Michael; Prettner, Klaus (2018) : Health and Economic Growth, IZA Discussion Papers, No. 11939, Institute of Labor Economics (IZA), Bonn (https://www.econstor.eu/handle/10419/193233) Jones, C. I., & Romer, P. M. (2010). The new Kaldor facts: ideas, institutions, population, and human capital. *American Economic Journal: Macroeconomics*, *2*(1), 224-45.	Psacharopoulos & Patrinos (2018)
7 (Sept 21, 23)	**Human Capital and Growth: Health** *Perkins et al, chapters 9	Bloom et al. (2018)

Week	Topics and Readings	Discussion Session
	*Bloom, David E.; Kuhn, Michael; Prettner, Klaus (2018) : Health and Economic Growth, *IZA Discussion Papers*, No. 11939, Institute of Labor Economics (IZA), Bonn (https://www.econstor.eu/handle/10419/193233)	
8	**MIDTERM:** **Thursday, September 30, 2021, noon - 2 pm.**	
9 (Oct 5, 7)	**Inequality and Poverty** *Perkins et al., chapter 6 *Deaton, A. (2021). *Covid-19 and global income inequality* (No. w28392). National Bureau of Economic Research. (https://www.nber.org/system/files/working_papers/w28392/w28392.pdf)	Deaton (2021)
10 (Oct 12, 14)	**Investment and Savings** *Perkins et al., ch. 10 *P-C. Athukorala and S. Wagle. 2011. Foreign direct investment in Southeast Asia: Is Malaysia falling behind? *ASEAN Economic Bulletin* 28.2, pp. 115-133	Athukorala & Wagle (2011) pp. 115-131
11 (Oct 19, 21)	**Foreign Debt and Financial Crises** *Perkins et al., ch.13 *Arellano, C., Bai, Y., & Mihalache, G. P. (2020). *Deadly debt crises: COVID-19 in emerging markets* (No. w27275). National Bureau of Economic Research. (https://www.nber.org/system/files/working_papers/w27275/w27275.pdf) Radelet, D., & Sachs, J. (1998). The East Asian financial crisis: Diagnosis, remedies, prospects. *Brookings Papers on Economic Activity* 1, 1-90. (Downloadable from http://www.brookings.edu/~/media/Projects/BPEA/1998%201/1998a_bpea_radelet_sachs_cooper_bosworth.PDF)	Arellano *et al.*. (2020)

Week	Topics and Readings	Discussion Session
12 (Oct 26, 28)	**Foreign aid** *Perkins et al., ch. 14 *Cardwell, R., & Ghazalian, P. L. (2020). COVID-19 and International Food Assistance: Policy proposals to keep food flowing. *World Development*, *135*, 105059. Young, A. and L. Sheehan. 2014. Foreign aid, institutional quality and growth. *European Journal of Political Economy*, no. 36, 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. *The Economic Journal*, *122*(561), 590-617.	Cardwell & Ghazalian (2020)
13 (Nov 2, 4)	**Trade and Development** *Perkins et al., chapter 18 * Maliszewska, M., Mattoo, A., & Van Der Mensbrugghe, D. (2020). The potential impact of COVID-19 on GDP and trade: A preliminary assessment. *World Bank Policy Research Working Paper*, (9211). Chang, H. J. (2003). Kicking away the ladder: Infant industry promotion in historical perspective. *Oxford Development Studies*, *31*(1), 21-32.	Maliszewska et al. (2020)
14 (Nov 9, 11)	**Managing Short-Run Crisis in an Open Economy** *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. *Asian Economic Policy Review*. 7, pp. 248-269. Wiboonchutikula, P. et al. 2011. An analysis of Thailand's net capital inflows surges after the 1997 crises. *ASEAN Economic Bulletin* 28(3), pp 281-314.	Sangsubhan & Basri (2012). pp. 248-269

Week	Topics and Readings	Discussion Session
15 (Nov 16, 18, 23, 25)	**Student Presentations**	None
	TAKE-HOME FINAL EXAM: **Due Tuesday November 30, 2021, 4 pm.**	

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

Course Outline

EE463 GLOBALIZATION AND INTERNATIONAL DEVELOPMENT

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

Number of Credit : 3 (Three)

Prerequisites : EE211 and EE212; or 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 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 and policy dimensions of various key development sectors such as agriculture; education and health; urban and rural development; and international trade and capital flows; as well as cross-cutting areas such as environment, climate change, and gender. Other topics that will be discussed are foreign direct investments and international capital flows; the roles of international development organizations e.g. the United Nations, World Bank, International Monetary Fund IMF and bilateral development agencies in bridging the divide between the "north", or developed countries, and the "south", or developing countries, through official development assistance; and patterns, factors of success and failures of past international development assistance. In the third and final 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.

Course Objective

The objective of this course is to understand the process of economic development; the contribution of key development sectors; roles of government, the private sector and other stakeholders; and how globalization affects and is affected by economic development along with the issues that arise and policy responses to the issues.

Main Text : **Perkins, D., S. Radelet, D. Laindauer, & S. Block. 2013.** ***Economics of Development, 13th ed*. W.W. Norton & Co.: NY.**

Additional Readings : **Will be provided/announced through BE Moodle**

Grading Criteria

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, quizzes, and contribution to class discussions); group presentation on a particular topic learned in class; issue paper relating to coursework; and midterm and final exams. Details of each requirement will be discussed during class and announced in BE Moodle. Late submission of assignments/exam: up to 30 minutes a penalty of 10%, up to 60 minutes a penalty of 25%. The weights of each of these items are as follows, and will be factored in towards the final grade:

- Participation	15%
- Group presentation	15%
- Issue paper	15%
- Midterm exam	25%
- Final exam	30%

Grade conversion

Numerical grades will be converted to letter grades as follows:

- >85−100	A
- >80−85	B+
- >70−80	B
- >65−70	C+
- >60−65	C
- >55−60	D+
- >45−55	D
- 45 and below	F

Class Policy and Expectations

In adherence with the latest Thammasat University Announcements (issued on Jun 1st 2021), all BE classes in semester 1/2021 will be conducted by remote learning. Zoom will be used as the online meeting platform, while communication, announcements and grade posting will be on BE Moodle. 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. To obtain attendance credit, students are required to turn on the computer screens for the first 15 minutes of class. For any further clarifications and/or queries, students may either e-mail or set up an appointment with the lecturer.

Expected Learning Outcomes:

It is expected that by the end of the course, students will have a good understanding of (i) how and why countries economically grow and develop; (ii) how globalization and development are linked and impact each other; (iii) key economic development sectors, their role in economic development and government policies to address the issues that arise; and (iv) the role of international aid organizations, financing institutions and private capital in shaping the economic development of a country.

Tentative Class Schedule

Date/Week Topic	Reading Materials
9 August: Introduction - Course objectives and requirements - Expectations of the course - Scope and coverage	Course syllabus
16 August: Globalization and Development - What is economic growth? development? - Development & globalization: trends and linkages - Trajectories of low- middle- and high-income countries	Perkins, Ch 1, 2, 3
23 August: Theories of Economic Growth - Linear stages-of-growth - Structural change - Neoclassical economic growth model	Perkins, Ch 4
30 August: States, Markets; Demographics - Role of the state and the market - Market and command economies - Population trends and issues; demographic transition	Perkins, Ch 5 & 7
6 September: Poverty and Inequality - Causes of poverty: structural and absolute - Measurement of poverty and inequality - Trends and issues - Poverty reduction strategies	Perkins, Ch 6
13 September: Agriculture and Development - Agricultural production, growth and structural transformation - The Green Revolution - Agriculture and poverty alleviation - Issues: land reform, global food crisis	Perkins, Ch 16 & 17

20 September: Human and Social Development - Human capital and productivity - Issues. trends and policies in the education sector - Issues, trends in global health; policies in the health sector	Perkins, Ch 8 & 9
27 September: Midterm Exam	
4 October: Urban and Rural Development - Role of cities and rural areas - Challenges of urbanization - The rural transition - Urban-rural linkages	Steinberg and Hakim Ch 1 & 2
11 October: Sustainable Development and Climate Change - Economic growth vs environmental sustainability - Market failures and government policies - Global warming and climate change - Climate change adaptation and mitigation	Perkins, Ch 20
18 October: Gender and Development - Why gender matters - Gender inequality and mainstreaming	ADB: Gender and Development
25 October: No Classes (substitution King Chulalongkorn's birthday)	
1 November: International Trade and Development - Trends and patterns - Tariffs, subsidies and trade barriers - Improving balance of trade	Perkins, Ch 18 & 19
8 November: Foreign Aid and Foreign Direct Investment - Multilateral organizations and financial institutions - Bilateral institutions - Foreign borrowing and debt repayments - Multinational corporations and foreign direct investments - Capital flows: issues and challenges	Perkins, Ch 13 & 14
15 November: Group Presentations	
22 November: Wrap up	

B.E. International Program

Faculty of Economics, Thammasat University

Course Outline

EE476 Environmental Economics

Semester: 1/2018 (August 14 – December 3, 2018)

Course Description:

Important environmental problems and related theories, the concepts of efficiency and cost-benefit analysis. The effectiveness of policies, measures, and tools to control and solve environmental problems. The estimation of effects of various economic development projects on environment. The concept of sustainable development, social welfare indicators that incorporate environmental impacts.

Prerequisites: EE311

Evaluation

Mid-term examination	35%
Final examination	45%
Group presentation and paper	20%

(Paper IS REQUIRED to pass this course. If students cannot submit paper within the deadline, s/he will get an F for the course regardless of the exam scores)

Reading Materials

1. **Kolstad, Charls D. (2000). Environmental Economics. New York: Oxford University Press. [K]
2. *Field, Barry C.; and Martha K. Field (2002). Environmental Economics: An Introduction. Third Edition. New York: McGraw-Hill/Irwin. [F]
3. *Tietenberg, Tom (2003). Environmental and Natural Resource Economics. Sixth Edition. Pearson International Edition. New York: Addison Wesley. [T&L]
4. Sunstein, R. Cass (2002). Risk and Reason: Safety, Law, and the Environment. Cambridge University Press.
5. Kuhn, Michael (2005). The Greening of the Markets: Product Competition, Pollution, and Policy Making in a Duopoly. New Horizons in Environmental Economics Series. Edward Elgar Publishing, Inc.
6. Other assigned reading materials

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 sustenainable 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 analsyis 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.

Lecture Schedule

Date	Topics	Read
14 Aug	Course Overview	
16 Aug	**Part 1 The Economy and the Environment** • The Human-Environment Relationship • Pollutions: Emissions, Ambient Quality, and Damages • The Fundamental Balance and Carrying Capacity • Anthropocentrism, Biocentrism, Gaia, and Anthropocene • Sustainability	F Ch.2 K Ch.2 D&D Ch.2
21 Aug 23 Aug	**Part 2 Economic Concepts as Analytical Tools** • Public Bads • Externalities • Pollution Control: A General Model • Liability and Polluter-Pay-Principle (PPP) • Property Rights and the Coase Theorem	F Ch.4, 5, 10 K Ch.4, 5, 6 T&L Ch.14 D&D Ch.1, 6, 7, 8, 12
28 Aug	**Part 3 Analysis of Environmental Policies** • Types of Policy Instruments • Criteria for Evaluating Environmental Policies	F Ch.9, 10 K Ch.2, 4, 8 D&D Ch.4
30 Aug	3.1 Command-and-Control Strategies • Environmental Standards	F Ch.11 K Ch.8 D&D Ch.9
4 Sept 6 Sept	3.2 Incentive-Based Strategies • Emission Taxes (Pigovian Fees) • Subsidies • Case of Imperfect Competition	F Ch.12 K Ch.7
11 Sept	• Transferrable Discharge Permits	F Ch.13 K Ch.9
13 Sept 18 Sept	3.3 Policy Combination • Regulation with Unknown Control Costs • Permits or Fees? • Stationary vs. Mobile Source Pollution	K Ch.10 T&L Ch.15, 17 D&D Ch.14
20 Sept 25 Sept 27 Sept	**Part 4 Institutions of Environmental Policies** • Political Economy Model of Regulation • Economic Analysis of Environmental Laws • Audits, Enforcement, and Moral Hazard • State and Local Environmental Issues	F Ch.17 K Ch.8, 11
Mid-Term Exam: Tuesday, October 2, 2018, 09.00-11.00 hrs.		
9 Oct 11 Oct	**Part 5 Environmental Risks, Liability, and Insurance** • Thinking about Risks • Environmental Insurance • Environmental Liability Bond	K Ch.12 T&L Ch.18 Sunstein (2002)

Date	Topics	Read
16 Oct 18 Oct	**Part 6 Economics of Green Product Development** • Environmental Product Standards • Environmental Labelling • Subsidizing Innovation in Green Product Design	Kuhn (2005)
25 Oct 30 Oct 1 Nov 6 Nov	**Part 7 Environmental Evaluation** • Benefit-Cost Analysis • Contingent Value Methods (CVM) • Hedonic Price Method • Defensive Expenditure • Travel Cost Method • Application on Payment for Ecosystem Service (PES)	K Ch.15-18 F Ch.7-8 T&L Ch.3, 4
8 Nov 13 Nov 15 Nov 20 Nov	**Part 8 International Environmental Issues** • International Trade and Environment • Pollution Haven Hypothesis • Multilateral Environmental Agreements (MEAs)	K Ch.13 F Ch.19-21 T&L Ch.15, 20
22 Nov	• Economics of Climate Change	Guest lecturer
27 Nov 29 Nov	**Project Presentation**	
Final Exam: Tuesday, December 11, 2018, 13.30-16.30 hrs.		

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE481: INDUSTRIAL ECONOMICS (SECTION: 046402)

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

Number of Credit: 3

Prerequisite: EE 311

Course Description: study the behaviors of firms in imperfectly competitive markets on how to set the pricing and non-pricing strategies under different environments, such as different market structure, different technologies, and different government regulations. The methodology used mainly is based on the applied game theory under asymmetric information.

Course Objectives: Students should be able to set the optimal strategies of firms under different circumstances in the imperfectly competitive markets.

Main Text:

Carlton and Perloff, Modern Industrial Organization, fourth edition, Pearson Education Limited, 2015.

Drucker, P., Theory of the Business, Harvard Business Review Classics, 2017.

Rasmusen, Eric, Games & Information, third edition, Blackwell Publishers Ltd., 2001.

Tirole, Jean, Industrial Organization, The MIT Press, 1989.

Recommended Texts & Materials

Allen F., "Reputation and Product Quality", the Rand Journal of Economics, 15 No.3, pp.311-327,1984.

Dixit, A., "A Model of duopoly suggesting a theory of entry barriers", the Bell Journal of Economics, 10 No.1. pp. 20-32, 1979.

Kreps and Wilson, "Reputation and Imperfect Information", Journal of Economic Theory, 27, pp. 253-279, 1982.

Suggested Readings:

Harvard Business Review, various issues

Grading Criteria:

Mid-term examination (October 1st. 12.00-14.00)	30
Term Paper (December 10th. 16.30)	30
Final examination (December 1st. 13.30-16.00)	40

Expected Learning Outcomes: Every student should understand the basic knowledge on business strategic planning

Tentative Class Schedule:

Week		Topics	
1		Introduction to industrial Economics: Methodology	
2		Drucker's Theory of Business	
3		M. Potter on "What is Strategy?"	
4		Market and Market Analysis	
5		Asymmetric Information Game Theory	
6		Oligopoly Models	
7		Product Quality and Price signaling	
8		Vertical and Horizontal Product Differentiation	
9		Advertising	
10		Entry and Accommodation	
11		Vertical integration and Vertical Restriction	
12		Horizontal Integration and Collusion	
13		Disruptive Technology and Intellectual Property Rights Protection	
14		Reputation, Limit Pricing, and Predation	
15		Government Regulation: Competition Policy	

Course Outline & Reading List for EE482 Aug-Dec 2021, as of 5 Aug 2021

Course Outline: EE482 Industrialization: Role of Public and Private Sectors
Thammasat University, Semester 1/2020 (August 9 – December 17, 2021), 3 credits

COURSE DESCRIPTION AND OBJECTIVES: This class analyzes 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). 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. 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).

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. Please see the "Term Paper Guidelines" on p. 7 and important principles for the constructing your list of references on pp. 8-10. 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. Term papers should summarize related economic analyses from at least 5 papers published in the *Journal of Economic Literature*, the *Journal of Economic Perspectives*, or the *Journal of Economic Surveys*, plus an additional 5 refereed papers published in other journals indexed in EconLit (https://www.aeaweb.org/econlit/journal_list.php). All papers must include a comprehensive and detailed list of references used in the paper. The most important principles when writing the paper is for the author to make it easy for the reader to (1) understand the paper, (2) check all the references cited, and (3) 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 student presentations and class participation. Students will prepare short outlines of the structure of assigned course readings, write 1-2 paragraphs summarizing the main points of the readings, and present them in class in about 10-15 minutes.

All assignments are to be submitted in MS Word (docx) files by email to the instructor from students' assigned TU email addresses to the instructor's email listed at the top of this page. In the submissions, students should use only text and a simple font such as 12 point Times New Roman font on A4 paper in MS-Word format so the instructor can edit submissions, as appropriate.

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. When emailing the instructor, please begin the email subject with "EE482" and use your assigned TU email address based on your student number.

Prerequisites: EE312

COURSE MATERIALS: Course materials will be available from the instructor's Google Drive in two 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.

DETAILED SCHEDULE AND READING LIST (1/5)

Most classes are scheduled on Wednesdays or Fridays at 1400-1530. Two makeup classes are currently scheduled for 1530-1700 on 0922 and 1015 to make up for missed classes on national holidays. Classes will be held on Zoom and links to classes will be emailed to all students from the instructor about 15-30 minutes before class begins.

01a-0811 Wed Introduction and syllabus explanation
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-0813 Fri
01b1-Ch01-A Theoretical Framework for Economic Development, 9-30
01b2-Ch02-A Comparative Perspective on Developing Economies, 31-58

02a-0818 Wed
02a1-Ch03-Population Growth and the Constraint of Natural Resources, 59-87
02a2-Ch04-Breaking the Resource Constraint, 88-118

02b-0820 Fri
02b1-Ch05-Capital Accumulation and Economic Development, 119-155
02b2-Ch06-Patterns and Sources of Technological Progress, 156-180

03a-0825 Wed
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-0827 Fri
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, doi:10.1093/cjres/rsw031.
03b2-Lee, Keun, Justin Y. Lin, and Ha-Joon Chang (2005), "Late Marketisation versus Late Industrialisation in East Asia", *Asia-Pacific Economic Literature*, 19(1), 42-59, https://doi.org/10.1111/j.1467-8411.2005.00157.x.

Part 2: Industrialization and Agriculture

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

04a-0901 Wed
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-0903 Fri
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.

DETAILED SCHEDULE AND READING LIST (2/5)

05a-0908 Wed
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-0910 Fri
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.

Part 3: 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 Northhampton, MA, USA: Edward Elgar.

06a-0915 Wed
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-0917 Fri
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, https://doi.org/10.1046/j.0013-0133.2003.00166.x.

07a-0922 Wed
07a1-Trindade, Vitor (2005), "The big push, industrialization and international trade: The role of exports", *Journal of Development Economics*, 78, 22-48, doi:10.1016/j.jdeveco.2004.08.006.
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, http://www.jstor.org/stable/2109930.

DETAILED SCHEDULE AND READING LIST (3/5)

Part 4: Industrialization and International Economic Policy

07b-0922 Wed 1530-1700 (makeup for 0924 Fri)
07b1-Yu, Miaojie (2015), "Processing Trade, Tariff Reductions and Firm Productivity: Evidence from Chinese Firms", *The Economic Journal*, 125 (June), 943-968, Doi: 10.1111/ecoj.12127.
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, https://doi.org/10.1016/j.jdeveco.2018.06.014.

08a-1006 Wed
08a1-Rasiah, Rajah (2014), "Crisis Effects on the Electronics Industry in Southeast Asia", *Journal of Contemporary Asia*, 44(4), 645-663, DOI: 10.1080/00472336.2014.923637.
08a2-Chakraborty, Pavel, (2018), "The great trade collapse and Indian firms", *The World Economy*, 41, 100-125, DOI: 10.1111/twec.12517.

08b-1008 Fri
08b1-Kiyota, Kozo, Keita Oikawa, and Katsuhiro Yoshioka (2017), "The Global Value Chain and the Competitiveness of Asian Countries", *Asian Economic Papers*, 16(3), 257-281, doi:10.1162/ASEP_a_00573.
08b2-Blonigen, Bruce A. (2016), "Industrial Policy and Downstream Export Performance", *The Economic Journal*, 126 (September), 1635-1659, Doi: 10.1111/ecoj.12223.

Paper outlines
09a-1015 Fri Paper outlines
09b-1015 Fri 1530-1700 (make up for 1013) 1020 Wed Paper outlines

Part 5: Industrialization, Firms, and Ownership

10a-1020-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, https://doi.org/10.1257/jel.20160792.
10a2-Wang, Jian and Xiao Wang (2015), "Benefits of foreign ownership, Evidence from foreign direct investment in China", *Journal of International Economics*, 97(2), 325-338, http://dx.doi.org/10.1016/j.jinteco.2015.07.006.

10b-1022-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, http://dx.doi.org/10.1080/14765284.2013.875292.
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, https://doi.org/10.1057/s41267-019-00248-2.

DETAILED SCHEDULE AND READING LIST (4/5)

11a-1027-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, DOI: 10.1142/S0217590818500303.

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, doi: 10.1111/j.1468-0084.2012.00726.x.

11b-1029 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, http://dx.doi.org/10.1016/j.japwor.2009.10.001.

11b2-Baldwin, Richard and Toshihiro Okubo (2014), "Networked FDI: Sales and Sourcing Patterns of Japanese Foreign Affiliates", *The World Economy*, 37(8), 1051-1080, doi: 10.1111/twec.12116.

Part 6: Industrialization, Industrial Development, and Competition Policy

12a-1103 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, http://dx.doi.org/10.1257/mac.20120103.

12a2-Einav, Liran, and Jonathan Levin (2010), "Empirical Industrial Organization: A Progress Report." *Journal of Economic Perspectives* 24 (2): 145-162, doi=10.1257/jep.24.2.145.

12b-1105 Fri

12b1-Lamoreaux, Naomi R. (2019), "The Problem of Bigness: From Standard Oil to Google", *Journal of Economic Perspectives*, 33(3), 94-117, https://doi.org/10.1257/jep.33.3.94.

12b2-Schwerhoff, Gregor, Ottmar Edenhofer, and Marc Fleurbaey (2020), "Taxation of Economic Rents", *Journal of Economic Surveys*, 34(2), 398-423, doi: 10.1111/joes.12340.

13a-1110 Wed

13a1- Lee, Chang-Yang (2005), "A New Perspective on Industry R&D & Market Structure", *Journal of Industrial Economics*, 53(1), 101-122, https://doi.org/10.1111/j.0022-1821.2005.00247.x.

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, DOI: 10.1257/aer.101.4.1312.

13b-1112 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, doi: 10.1111/twec.12091.

DETAILED SCHEDULE AND READING LIST (5/5)

Part 7: Industrialization and Environmental Policy

14a-1117 Wed

14a1-Nordhaus, William (2019), "Climate Change: The Ultimate Challenge for Economics", *American Economic Review*, 109(6), 1991-2014, https://doi.org/10.1257/aer.109.6.

14a2-Heal, Geoffrey (2017), "The Economics of the Climate", *Journal of Economic Literature*, 55(3), 1046-1063, https://doi.org/10.1257/jel.20151335.

14b-1119 Fri

14b1-Parry, Ian W.H., Margaret Walls, and Winston Harrington (2007), “Automobile Externalities and Policies”, *Journal of Economic Literature,* 45(2), 373-399, DOI: 10.1257/jel.45.2.373.

14b2-Libecap, Gary D. (2014), "Addressing Global Environmental Externalities: Transaction Costs Considerations", *Journal of Economic Literature,* 52(2), 424-479, http://dx.doi.org/10.1257/jel.52.2.424.

15a-1124 Wed

15a1-Lee, Myunghun (2008), "Environmental regulation and production structure for the Korean iron and steel industry", *Resource and Energy Economics,* 30, 1-11, doi:10.1016/j.reseneeco.2007.01.006.

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, https://doi.org/10.1257/jep.31.1.71.

15b-1126 Fri

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, doi: 10.1111/joes.12158.

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, https://doi.org/10.1162/REST_a_00150.

Term Paper Guidelines, submit to "ramstmnc [at] gmail.com" by 26 November 2021

1. Topic: Please choose a topic related to industrialization and narrow enough 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. 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)
NOTE: All paragraphs should consistent of 3-7 sentences and include clear topic sentences.

3. List of References: Please use the author (year) reference style similar to that in the list of class readings above. Term papers should summarize related economic analyses from at least 5 papers published in the *Journal of Economic Literature*, the *Journal of Economic Perspectives*, or the *Journal of Economic Surveys*, plus an additional 5 refereed papers published in other journals indexed in EconLit (https://www.aeaweb.org/econlit/journal_list.php). Other references can also be used, but your paper should focus primarily on summarizing the 10 academic papers you collect from the above journals. The papers in the reading list for this class and papers in their lists of references are good places to begin your literature search.

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. 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 do not use figures; rather please use tables to present your 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 Microsoft Word format (*.docx, *.doc) format.

DUE DATE: FRI 26 NOV

Term Paper: Important Principles for the List of References (1/3)

1. The most important principle is to provide sufficient information about every publication or reference cited and clear indications of when and where and how they are used in text.

2. For easy citation of references in a text, it is often easiest to use an author-date system. For example, if the publication below is cited in a paper the easiest way to cite it is to call it Bernard and Jensen (2004) in your text; i.e., you could say that Bernard and Jensen (2004) analyze the determinants of determinants of firm exporting.

3. Correspondingly, when listing publications in your bibliography it is common to use "author-year" styles similar to the style in the syllabuses for my courses. In other words, author(s) name(s) are listed first, followed by the year of publication, and then other publication details. The goal is to create a 1-to-1 correspondence between text citations and the list of references (e.g., the reference Nguyen and Ramstetter (2019) clearly corresponds to the publication listed under 3a1 below. If there are 2 publications by the same author(s) in the same year, you can distinguish them by adding a, b, c, …, etc. to the end of the year number (e.g., listing one as Nguyen and Ramstetter (2019a) and another as Nguyen and Ramstetter (2019b).

3a. Required details in academic papers differ depending on the type of publication. I provide some examples of the styles I usually use below. Styles differ among publishers, but the details included are standard. Including internet URLs can be very helpful, but many internet links change or disappear over time. A site called "doi.org" assigns fixed doi numbers to "good" publications that should be tracked on the internet when their URLs change. Because doi numbers are more useful than internet URLs, please USE doi numbers whenever possible (e.g., for refereed journal papers).

3a1. Articles in academic journals (journal articles are considered to be the "highest quality" of academic publications, particularly if the journal is refereed and ranked highly.
Items: Authors (year), "article title", *journal title*, VolumeNo(IssueNo), pages, doinumber

Examples:
Bernard, Andrew B. and J. Bradford Jensen (2004), "Why Some Firms Export", *Review of Economics and Statistics*, 86(2), 561-569, https://doi.org/10.1162/003465304323031111.

Nguyen, Kien Trung and Eric D. Ramstetter (2019), "Ownership-related Wage Differentials by Occupation in Vietnamese Manufacturing", *Singapore Economic Review*, 64(3), 625-645, https://doi.org/10.1142/S0217590818500303.

3a2. Books

Items: Authors (year), *book title*, city or cities of publication: publisher

Examples:

Hayami, Yujiro, 2002, *Development Economics: From the Poverty to the Wealth of Nations*, Oxford and New York: Oxford University Publishers.

Caves, Richard E. (2007) *Multinational enterprise and economic analysis* (3rd ed.). Cambridge, UK: Cambridge University Press.

Term Paper: Important Principles for the List of References (2/3)

3a3. Articles in books
Items: Authors (year), "article title", in book editors, *book title*, city or cities of publication: publisher, pages of the article, URL if relevant.

Examples:

Sjöholm, Fredrik and Sadayuki Takii (2006), "Multinational Companies and Exports in Indonesian Manufacturing Exports" in Eric D. Ramstetter and Fredrik Sjöholm, eds., *Multinationals in Indonesia and Thailand: Wages, Productivity and Exports*. Hampshire, UK: Palgrave-Macmillan, 173-193.

Tham, Siew Yean and Liew Chei Siang (2014), "The Impact of Foreign Labor on Labor Productivity and Wages in Malaysian Manufacturing, 2000-2006", in Adams, Richard H. Jr and Ahmad Ahsan, eds. (2014), *Managing International Migration for Development in East Asia*, Washington, D.C.: World Bank, 136-158, http://documents.worldbank.org/curated/en/2014/06/23036792/managing-international-migration-development-east-asia

3a4. Working Papers, Government Documents, and Other Non-refereed publications
Items: Author (year), "document title", document publication location: document publisher, other relevant details (e.g., working paper series name and number).

Examples:

Ottaviano, Gianmarco I.P. and Giovanni Peri (2008), "Immigration and National Wages: Clarifying the Theory and the Empirics", NBER Working Paper 14188, Cambridge, MA: National Bureau of Economic Research, http://www.nber.org/papers/w14188.

Ramstetter, Eric D. and Kien Trung Nguyen (2016), "Multinational Enterprise Growth and Vietnam's Employment and Wages in Manufacturing and Trade Industries: Did Takeovers Play a Role?", Working Paper 2016-05, Kitakyushu: Asian Growth Research Institute.

3a5. Internet or Electronic ONLY resources: for this category does NOT include publications with a printed version and should be a very small category. If you cite 15 publications in your paper, no more than 2 or 3 should fall into this category. Please concentrate on reading academic papers in refereed journals (see 3a1 above).

As illustrated under 3a3 above, for publications available in print AND on the internet, the PRINT DETAILS must be provided, in addition to the URL, because they do not change like internet information often does. In these cases, the "standard style" should include all of the following:
Document Author, YearPublished, "Title", City of Publisher, Name of Publisher, URL

Examples:

Bank of Thailand (2018), "Total Value and Quantity of Exports Classified by Product Group", Bangkok: Bank of Thailand Table EC_XT_008_S2, downloaded 23 February from https://www.bot.or.th/English/Statistics/EconomicAndFinancial/Pages/StatInternationalTrade.aspx

Term Paper: Important Principles for the List of References (3/3)

Central Institute for Economic Management (CIEM), General Statistics Office, and Development Economics Research Group, University of Copenhagen (2015), "Firm-level Technology and Competitiveness in Vietnam, Evidence from 2010-2014 Surveys", Copenhagen: University of Copenhagen http://www.econ.ku.dk/ftarp/Publications/Docs/Sacnned%20Pubs/Tech%20report%202009-2013%20April%202015.pdf.

National Economic and Social Development Board (2012), Gross output and value added data for manufacturing by 4-digit TSIC, 1995-2010, Bangkok: National Economic and Social Development Board, data provided by email in December.

National Statistical Office (2009), *The 2007 Industrial Census Whole Kingdom*, Bangkok: National Statistical Office, publication tables downloaded from http://service.nso.go.th/nso/nso_center/project/search_center/23project-en.htm (link as of 11 May 2018) and underlying plant-level data.

United Nations COMTRADE (2016), SITC revision 3 data downloaded from the COMTRADE database, July 2016, New York: United Nations, http://comtrade.un.org/db/dqBasicQuery.aspx.

General note about name order for the first author in multiple author citations:

I prefer to list the first author's name with the family name first (Chinese/Korean/Japanese style) as follows:
FamilyNameAuthor1, GivenNamesAuthor1 and GivenNamesAuthor2 FamilyNameAuthor2 (YEAR), other details depend on the type of publication
I use this style because I think it corresponds more directly to citations in the text, which use only family names. To illustrate, the reference example given under 3a1 above would NEVER be referred to as Kien and Eric (2019) but always rather Nguyen and Ramstetter (2019).

However, some journals will list the first author as "Kien Trung Nguyen" (English order), not Nguyen, Kien Trung) as I do. The alternative style is less confusing for some.
GivenNamesAuthor1 FamilyNameAuthor1 and GivenNamesAuthor2 FamilyNameAuthor2 (YEAR), other details depend on the type of publication
The choice of which order to list the first author's name is somewhat arbitrary but I do think English order is probably more common these days.

The important point is NOT if the family name comes first or last in your list of references. However, please DO be sure to list BOTH family and given names in your citations and list of references (=bibliographies) and to use a consistent format in order to help your readers.

Course Outline

EE489 Seminar in Industrial Economics

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

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

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

Course Description:

Seminar and research on topics in industrial economics with the lecturer's guidance.

Course Objectives:

1. To develop research skills including of identifying research questions and its significance, reviewing literature related to the research topic, designing research methodologies and conducting research, analyzing and discussing research results together with reviewing and criticizing peers' research works. This course also aims to develop communication skills in both writing and oral presentation.

2. To learn to conduct a systematic and original research on students' topic of interest and to develop economic analysis skills and critical thinking needed for future self-learning and development.

Textbooks & Materials:

Economic Theories:

Church, J. & Ware, R. (2000). *Industrial organization: A strategic approach*. Boston: McGraw Hill.
Laffont, J.J. & Tirole J. (1993). *A theory of incentives in procurement and regulation*. Massachusetts: The MIT Press.

Motta, M. (2004). *Competition Policy. Theory and Practice*. Cambridge: Cambridge University Press
Pepall, L., Richards, D.J. & Norman. G. (2004). Industrial Organization: Contemporary Theory and Practice. South-Western College Publishing.
Shy, O. (1995). *Industrial Organization*. Massachusetts: The MIT Press.
Tirole, J. (1990). *The Theory of Industrial Organization*. Massachusetts: The MIT Press.
Handbook of Industrial Organization, Volumes I, II, and III, North-Holland.

Econometrics:

Davis, P. & Garcés , E. (2009). *Quantitative Techniques for Competition and Antitrust Analysis*. Princeton University Press.
Greene, W.H. (2018). *Econometric Analysis*. New Jersey: Pearson Education.
Gujarati, D.N. (2015). *Econometrics by Example*, Red Globe Press.
Shum, M. (2016). *Econometric Models for Industrial Organization*. World Scientific Lecture Notes in Economics.
Train, K.E. (2009). *Discrete Choice Methods with Simulation*. Cambridge: Cambridge University Press,.
Wooldridge, J. (2010). *Econometric Analysis of Cross-Section and Panel Data*. Massachusetts: The MIT Press.

Note: Students will be given some suggested readings and materials on how to do a successful research project throughout this course.

Teaching and Learning Approach:

1. Lectures

The objectives of classroom lectures are to equip the students with a good research practice, to provide step-by-step guidance to conduct their research projects in topics of interest, to highlight contentious aspects of research process and to effectively manage a research project. Lecturing also includes training session for citation, referencing and checking plagiarism.

2. Research

Since this course focuses on industrial economic issues, research topic of student's interest should be related to industrial economics and/or industrial policies.

Students will conduct research project and submit research report or article, of which the **elements** are:

0. Abstract
1. Introduction
    - 1.1 Significance of Problem
    - 1.2 Research Objective
    - 1.3 Research Scope
2. Literature Review (Theories and/or Empirical Studies)
3. Analytical Framework and/or Research Methodology
    - 3.1 Analytical or Conceptual Framework
    - 3.2 Research Methodology and Data Sources
4. Result of Study
5. Conclusion and Policy Implications
    - 5.1 Conclusion
    - 5.2 Policy Implications
    - 5.3 Limitation of Study
    - 5.4 Future Study
6. References
0. Appendix (if available)

To write a clear and original research paper, students will practice reviewing and summarizing related literature concisely, citing the previous research papers carefully in students' research report and in a list of references and using footnote where necessary. Students have to follow the 6th edition of American Psychological Association style (APA) Style 6th Edition) for referencing.

Throughout the semester, students will be assigned tasks as following.

Task 1: Students will choose any topics of interest, identify its significance and refine research objectives and scopes. Students will conduct a survey of previous studies and review literature. To accomplish this task, students will submit "Introduction and Literature Review" in no more than 10 A4 pages together with a list of reference.

Task 2: Students develop analytical framework and research methodology and submit "Research Proposal" composing of element 1-3 in no more than 15 A4 pages together with a list of reference. Approval of research topic and proposal by instructors is required before conducting research.

Task 3: Students conduct research independently under instructor's supervision and consultation. Students will apply the statistical techniques or econometric methods with data available and will analyze results of study. Submission of "Draft Final Report (or Article)" will be composed of element 1-6 in no more than 30 A4 pages.

Task 4: Students improve the report from comments and discussion in their seminar. Submission of "Final Report (or Article)" will be composed of element 0-6 in no more than 35 A4 pages with the aim of publishing the paper in academic journal.

Note: Paper length includes text, tables, figures, notes and etc. Date of submission of each task will be announced in the class.

Task 1-4 shall be submitted in **electronic files both in Word Document and PDF format** via Google Classroom.

According to **code of ethics** of "**Thailand and The World Economy**" journal, in this course students must

- ensure that the submitted report comprises original work by the students, with proper citations and sufficient details.
- ensure the report does not plagiarize other works, contain data fabrication and/or falsification, have duplicate submissions, ghost authors or contain citation manipulation.

Any violation of code of ethics will result in no assessment of any kind in that task.

3. Seminar

Student presentations are required along with submission of Task 1-3. Students will learn how to present their research works in seminar and conference **within time limit** and to discuss their works with the instructor and other students. Students will develop communication and presentation skills. All students must attend and participate in every seminar to exchange contributive and constructive idea, comment and advice.

Presentation 1: Introduction and Literature Review (10 minutes)

Presentation 2: Research Proposal (15 minutes)

Presentation 3: Draft Final Report or Article (20 minutes)

Note: Students must prepare their presentations in advance. They are free to choose the presentation software. However, they have to submit electronic file in PDF format to the instructor before their seminar via Google Classroom. Date and time slot of each presentation shall be scheduled and announced in the class.

Students will be assigned to play a **discussant**'s role and to practice writing up **discussion report**.

Grading:

	Score (%)
Task 1 and Presentation 1	15
Task 2 and Presentation 2	20
Task 3 and Presentation 3	25
Task 4	30
Class participation and discussion	10
Total	100

Note: Deadline of submission of each task and presentation is 14.00 pm on the specified dates. Any late submission will result in deduction of 2% of final score a day.

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.

Tentative Class Schedule:

Week	Activities	Submission
1	Lecture: - Introduction to EE489 - Frontier research in industrial economics and policy Research: Task 1 Training session: Citation, referencing and checking plagiarism	-
2	Lecture: - How to develop research question and objectives from topics of interest. - Literature search and review techniques - Journal of Economic Literature (JEL) classification Research: Task 1	Topics of Interest
3	Research: Task 1 (Cont.) Seminar: Presentation 1	Presentation 1
4	Lecture: - Developing analytical framework - Selecting research methodology - Data source and usage Research: Task 2	Introduction and Literature Review
5	Lecture: - Reporting results of study Research: Task 2 (Cont.)	-
6	Research: Task 2 (Cont.) Seminar: Presentation 2	Presentation 2
7	Research: Task 2 (Cont.) and Task 3 (Data collection) with Consultation	Research Proposal
8	**Midterm Week** Research: Task 3 (Data collection and conduct research)	-
9	Research: Task 3 with Consultation	-
10	Lecture: - Writing a concise conclusion and giving policy recommendation - Identifying limitation of study and suggesting future study - How to write an abstract Research: Task 3 with Consultation	-

Week	Activities	Submission
11, 12	Research: Task 3 with Consultation	-
13	Lecture: - Role of discussant - Writing discussion report Research: Task 3 with Consultation	Draft Final Report
14	Seminar: Presentation 3 Research: Task 4 with Consultation	Presentation 3 Discussion Report
15	Seminar: Presentation 3 Research: Task 4 with Consultation	-
16	Research: Task 4 with Consultation	-
28 November 2021: Submission of Final Report or Article		

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Tentative Course Outline
EE363 Chinese Economy

Prerequisite: a) EC210 or b)EC211 and EC212 or C) EC213 and EC214

Course Description:
Economic development in China. The transformation of their economic structure. The roles of the public and private institutions along with other economic, social, and political factors that contribute to China's economic changes. The relationship between China's economy and the world and Thai economies.

Course Objectives:

The course will familiarize students with issues related to the contemporary Chinese economy: its history, the success of its reforms in the past four decades and the reasons for it, China's specific institutions in the world economy and problems it is facing in the 21st century.

By the end of this course, you would be able to:

1. Describe the historical background and path of evolution of China's economic development.
2. Compare, contrast, and evaluate China's economic reforms as well as analyze its future trends.
3. Apply the economic theories and empirical methods introduced in class to the analysis of economic phenomena related to China.
4. Apply the knowledge in cross-border investment and business strategy analysis

Recommended Texts & Materials:

The Chinese Economy. Adaptation and Growth, by Barry Naughton , MIT Press 2018.

Grading:

Midterm Examination	35%
Final Examination	35%
Home Work	20%
Class Participation	10%
Total	**100%**

Tentative class schedule

1. Basic set up of the system
2. Important reforms over the past decades
3. Stock market and the economy
4. Real estate
5. Banking and shadow banking
6. Credit and expansion
7. Agriculture and urbanization
8. FDI
9. E-commerce and related industry
10. Cultural diversity, regional differences, and the economy
11. ESG
12. Education
13. International investment
14. Population, individuals' behavior and the role/impact in the economy
15. Group discussion

Tentative Course Outline

Course ID: EE 364

COURSE TITLE: GENDER ECONOMICS

Semester 1/2022 (August – December 2022)

Number of Credit: 3 credits

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

Course Description:

Evolution of male and female roles in the economic system. Theories of family formation. Differences in gender-related time allocation for market and non-market activities. Supply and demand factors determining gender-related differences in occupation and income, and gender roles switching in occupation. Roles of female in socio-economy and politics. Different effects of policies or welfare programs on gender. Gender in the aging economy. Effects of economic crisis on family and gender in the labor market. Roles of the LGBT in the economy. Gender equality in international criteria, and other interesting issues.

Course Objectives:

To provide students with basic theories and empirical studies related to topics in gender economics and to prepare students to further their research in the future.

Class Time and Logistic

Class day: Tuesday and Thursday

Class time: 9.30 am-11.00 am

Teaching Materials Platform: [MS Team - EE 364]

XXX

Meeting Platform: [MS Team - EE 364]

XXX

Main Text:

Blau, F., and Winkler, A. 2017. The Economics of Women, Men, and Work (8th Edition), Oxford University Press.

Hoffman, S. and Averett, S. 2021. Women and the Economy: Family, Work, and Pay (4th edition), Red Globe Press.

Jacobsen, J. 2007. The Economics of Gender (3rd Edition), Blackwell Publishing.

Recommended Texts & Materials:

Averett, S., Argys, L., and Hoffman, S. 2018. The Oxford Handbook of Women and the Economy (Illustrated edition), Oxford University Press.

Eswaran, M. 2014. Why Gender Matters in Economics (1st edition), Princeton University Press.

Goldin, C. 1990. Understanding the Gender Gap: An Economic History of American Women, Oxford University Press.

Wooldridge, J. 2003. Introductory Econometrics. Thomson Learning.

Suggested Readings:

Adams, R. and Ferreira, D. 2009. "Women in the boardroom and their impact on governance and performance," *Journal of Financial Economics,* 94(2): 291–309

Alon, T. M., Doepke, M., Olmstead-Rumsey, J. and Tertilt, M. 2020. "The Impact of COVID-19 on Gender Equality." *NBER Working Paper 26947*.

Blau, F. and Kahn, L., 2007. "Changes in the labor supply behavior of married women: 1980-2000," *Journal of Labor Economics,* 25, 393–438.

Blau, F. and Kahn, L, 2017. "The Gender Wage Gap: Extent, Trends, and Explanations," *Journal of Economic Literature,* 55(3): 789-865.

Blinder, A. S., 1973. "Wage Discrimination: Reduced Form and Structural Estimates," *Journal of Human Resources*, 8(4): 436-455.

Dollar, D., Fisman, R. and Gatti, R. 2001. "Are women really the "fairer" sex? Corruption and women in government," *Journal of Economic Behavior & Organization*, 46(4): 423–429

Duflo, E. 2012. “Women Empowerment and Economic Development,” *Journal of Economic Literature,* 50(4): 1051-1079

Liao, L., and Paweenawat, S.W. 2020. “Alternative Boomerang Kids, Intergenerational Co-residence, and Maternal Labor Supply.” *Review of Economics of Household* (Forthcoming 2022)

Liao, L., and Paweenawat, S.W. 2021. “The Inversion of Married Women’s Labor Supply and Wage: Evidence from Thailand,” *Asian-Pacific Economic Literature*, 35(1): 82–98

Oaxaca, R. L., 1973. “Male-Female Wage Differentials in Urban Labor Markets,” *International Economic Review*, 14(3): 693-709.

Paweenawat, S.W. 2018. “The Gender-Corruption Nexus in Asia,” *Asian-Pacific Economic Literature,* 32 (1): 18–28.

Paweenawat, S.W. 2019. “Women on Boards and Corporate Governance: Evidence from Listed Companies in Thailand,” *International Journal of Business Governance and Ethics,* 13 (4): 408–425.

Paweenawat, S.W. and Liao, L. 2019. “Parenthood Penalty and Gender Wage Gap: Recent Evidence from Thailand.” *Journal of Asian Economics - Forthcoming 2022*.

Paweenawat, S.W., and Liao, L. 2019. “‘Gold Miss’ or ‘Earthy Mom’? Evidence from Thailand.” *PIER Discussion Paper 110*, Puey Ungphakorn Institute for Economic Research.

Paweenawat, S.W., and Liao, L. 2020. “A Shesession? The Impact Of COVID-19 Pandemic on Labor Market in Thailand.” *ERIA Research on COVID-19 and Regional Economic Integration,* Economic Research Institute for ASEAN and East Asia.

Paweenawat, S.W., and McNown, R. 2018. “A Synthetic Cohort Analysis of Female Labour Supply: The Case of Thailand,” *Applied Economics*, 50 (5): 527–544.

Paweenawat, S.W., and Vechbanyongratana, J. 2015. “Transfer Payments and Upper Secondary Outcomes: The Case of Low-income Female Students in Thailand,” Singapore Economic Review, 60(5): 1550082 (19 pages).

Smith, N. 2014. “Gender quotas on boards of directors,” *IZA World of Labor*, 7(7): 408–425.

UNDP. 2019. Tolerance But Not Inclusion. https://www.undp.org/content/undp/en/home /librarypage/democratic-governance/tolerance-but-not-inclusion.html.

Warunsiri, S. and McNown, R. 2010. “The Returns to Education in Thailand: A Pseudo Panel Approach.” *World Development*, 38 (11): 1616–1625.

Grading Criteria:

In-class Participation	10%
Exercises/Assignments/Quizzes	40%
Midterm Examination	20%
Final Examination	30%

Expected Learning Outcomes:

This course is designed for students to have basic knowledge and understanding of theories and empirical studies related to topics in gender economics.

Tentative Class Schedule:

Week	Tentative Topic and Class Activity
1	Evolution of male and female roles in the economic system.
2	The role of Thai women in the economy in Thailand.
3	Theories of family formation.
4	Differences in gender-related time allocation for market and non-market activities.
5	Differences in gender-related time allocation for market and non-market activities. (continued)
6	Supply and demand factors determining gender-related differences in occupation and income, and gender roles switching in occupation.
7	Supply and demand factors determining gender-related differences in occupation and income, and gender roles switching in occupation. (continued)
8	Roles of female in socio-economy and politics.
9	Gender in the aging economy.
10	Gender and informal economy.
11	Roles of the LGBT in the economy.
12	Effects of COVID-19 on family and gender in the labor market.
13	Different effects of policies or welfare programs on gender.
14	Gender equality in international criteria.
15	Research issues on gender roles in the economy.

Course Syllabus: EE522 Selected topics in Quantitative Economics 2 (Data analytics for economics and business with Python)

1. **Lecturer and course administrator with contact information**

2. **Prerequisite:** -
3. **Class Date, Time and Venue:**
4. **Course Objectives**

The aim of the course is to provide a broad understanding of the principles and techniques of data analysis and machine learning in business and economic applications through the use of Python coding in Jupiter notebooks with intuitively visualized output. These objectives will be achieved by solving tasks/case studies and discussing theory. In this course, the real datasets from retail, marketing, social media, finance and other interesting sectors will be introduced for business decision support. For example, profiling of customers and their transactions will be used to identify the advertising strategies and create the new market segments for the business. The food reviews and customer feedbacks from social media will be analyzed by using the text mining for generating the ideas to improve its services.

On completion of the course students will be expected to:

- Understand what machine learning is and why it is essential to the design of intelligent machines.
- Understand how big data technologies can improve and extend the opportunity for its business.
- Know how to fit the suitable models for types of business decisions.
- Understand numerical computation, statistics and optimization in the context of learning.
- Have a good understanding of the business problems that arise when dealing with very small and very big data sets, and how to solve them.
- Understand the basic mathematics necessary for constructing novel data analysis and machine learning solutions.
- Be able to design and implement various data analysis and machine learning algorithms in a wide range of real-world applications.

Understanding the problems covered in the course can be important for all students seeking a career in the expanding technology-intensive field of financial engineering/Business analytics or grappling with the challenges related to the business data.

5. Course evaluation, grading criteria, grading system, and course rules

5.1. Evaluation

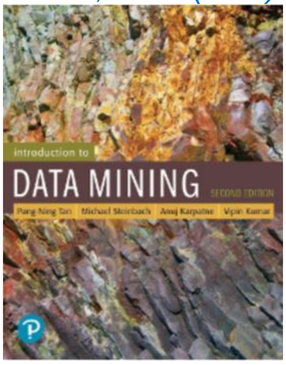
The grade breakdown is as follows:

Methods/Activities	**Weights Assigned**
Assignments	*30%*
Term Project	*30%*
Participation and Class Contribution/Professionalism	10%
Final Examination	*30%*
Total	100%

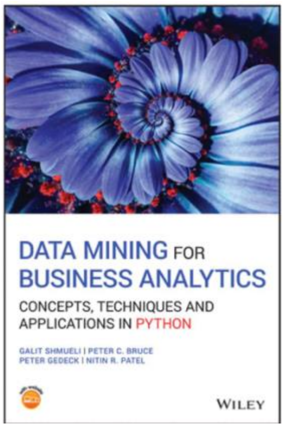
6. Reference materials

6.1. Main textbook

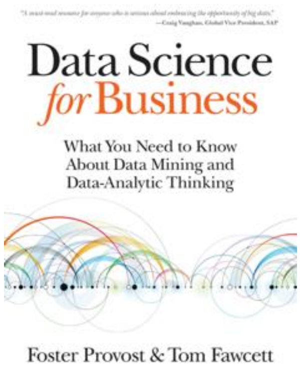
Pang-Ning Tan, Michael Steinbach, Vipin Kumar, ***Introduction to Data Mining*** *, Addison Wesley, ISBN: 0-321-32136-7, 2005. (PMV)*



Galit Shmueli, Peter Bruce, Inbal Yahav, Nitin Patel, and Kenneth C Lichtendahl Jr, ***Data Mining for Business Analytics: Concepts, Techniques, and Applications in Python****, Wiley, ISBN: 978-1-119-54984-0 (GPINK)*



Foster Provost and Tom Fawcett , Data Science for Business: Fundamental principles of data mining and data analytic thinking, O'Reilly 2013. (P&F)



Ewen Gallic, Python for economists. (E)

Luis Pedro Coelho and Willi Richert, Building Machine Learning Systems with Python, 2nd Edition, Packt publishing 2013. (C&R)

6.2. Recommended texts and materials

John Guttag, Introduction to Computation and Programming using Python.

Tom M. Mitchell, Machine Learning, 1st Edition McGraw-Hill 1997.

Kevin P. Murphy. Machine Learning: A Probabilistic Perspective, MIT Press 2012.

Christopher M. Bishop. Pattern Recognition and Machine Learning, Springer 2007.

T. Hastie, R. Tibshirani, and J. Friedman. The Elements of Statistical Learning. Springer 2011.

S. Haykin. Neural networks and learning machines. Pearson 2008.

7. Course plan

Session	Topic	Lecturer/ Reading/Lab
	Introduction • Why Big Data? What is data mining? Why data mining? Data Mining Process, relation to Business Intelligence techniques. • Introduction to Data Mining Tasks (Classification, Clustering, Association Analysis, Anomaly Detection). What is a model? Basic terminologies, predictive modeling. • Real-world data mining applications	*Ch.1(PMV)*

Session	Topic	Lecturer/ Reading/Lab
	Introduction to Python Learn the basics of Python, one of the world's most popular and powerful programming languages, and see how it can be utilized in Economics and Finance.	
	Introduction to NumPy Learn the basics of NumPy, a Python package for handling large, multi-dimensional arrays and matrices, to quicken your economic and financial analyses.	
	Data and Preprocessing ● Understanding of Data, what is data? Types of attributes, properties of attribute values, types of data, data quality ● Sampling, Data Normalization, Data Cleaning, Similarity Measures ● Feature Selection/Instance Selection, the importance of feature selection/instance selection in various big data scenarios *Introduction to Pandas*	*Ch.2(PMV)* *Basic Python: Pandas* *Case Study: analyzing stock returns* *-Bitcoin returns*

Session	Topic	Lecturer/ Reading/Lab
	Learn the basics of Pandas, a Python package for data manipulation and analysis, and discover how to access economic and financial data from APIs.	
	Visualizing Economic and Finance Data *Learn the basics of Matplotlib, a Python package for data visualization, and discover how to optimize a portfolio of stocks.*	*Case Study: analyzing asset prices* *-Stock returns*
	Statistics for Data Analysis *Learn how to calculate and interpret several descriptive statistics using the Python library NumPy.* ***Hypothesis Testing with SciPy*** *Learn SciPy, a Python module for comparative statistics, in order to perform many different statistical tests in code.*	*Case Study: COVID-19 and Resale Price of Luxury Masks* *Case Study: Firm Level Innovation and CE0 Compensation*
	Prediction and Classification: Basic Concepts and Techniques • Basic Concepts.	*Ch.3(PMV)*

Session	Topic	Lecturer/ Reading/Lab
	● General Framework for Classification. ● Model Overfitting ●Model Selection ●Model Evaluation	
	Linear Regression	*Ch.6(GPINK)* *Case Study: 3-Factor model, 5-Factor model*
	Logistic Regression	*Ch.10(GPINK)* *Case study: Predict Loan Funding with Loan Profile*
	Classification and Regression Tree	*Ch.7(GPINK)* *Case Study: B2B customer buying stage prediction*
	Association Rules and Collaborative Filtering *Cluster Analysis*	*Ch.14,15(GPINK)*

Session	Topic	Lecturer/ Reading/Lab
		Case Study: Modeling consumer behavior for targeted marketing (banking and/or online advertising)
	Text Analytics	*Ch.20 (GPINK)* *Case Study: Sentiment Classification on movie reviews (IMDb)*
	Anomaly Detection • Statistical-based and Density-based Methods • Ethics of data mining, privacy, what can/do firms know?	Lecture Note
	Wrap Up *Project Presentations*	
FINAL EXAM		