BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

(Tentative) Course Syllabus
For
Economics Courses (EE-course)
Semester 2/2025

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE212 Principles of Macroeconomics

Semester 2/2025

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

Prerequisite: -

Course Description:

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

Course Objectives:

Student comprehends the principle of macroeconomics theories and can apply those theories to analyze causes and effects of the movement of various macroeconomic variables in Thailand and some other countries' economies.

Expected Learning Outcomes

The student shall be equipped with knowledge of the principles of macroeconomics. By the end of the semester, students should understand macroeconomic news and be able to analyze the causes and effects of the movement of key macroeconomic variables in Thailand

1. Morality and Ethics

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students demonstrate integrity.	Cheating in the exam will be punished according to university rule
○	2. Students prioritize social and public benefits over personal ones.	Group Assignment
●	3. Students are punctual and comply with the code of conduct of the institution and society at large.	Attendance and time of attendance check a spart of the participation score
○	4. Students are responsible and accountable to society, the nation, and the subject of economics.	Assignment and exam
○	5. Students realize the cultural and environmental value of a sustainable society.	Assignment

2. Knowledge

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students know and understand modern economics principles and theories, and are up to date with new developments.	Assignment and exam
●	2. Students know and understand Thai and global economic structure and the importance of major international economic events.	Assignment and exam
●	3. Students know and understand the instruments of economic analysis.	Assignment and exam
●	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.	Assignment and exam
○	5. Students are informed about related fields including sociology, business administration, education, law policy, and science.	Assignment and exam

3. Intellectual Development

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

4. Interpersonal Skills and Responsibilities

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

5. Quantitative Analysis, communication, and information technology

Applicability	Expected Learning Outcomes	Evaluation Method
○	1. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	Assignment and exam
○	2. Students communicate effectively and select appropriate presentation methods.	Assignment and exam

O	3. Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	Assignment and exam

Remark: ● Primary expected outcome O Secondary expected

Main Text:

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

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

Recommended Texts & Materials

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

Suggested Readings:

To be announced.

Grading Criteria:

Homework and other assignments/quizzes and class attendance	20%
Midterm exam	35%
Final exam	45%

Tentative Class Schedule:

1. Introduction to Macroeconomics (4.5 hours)

1.1 Introduction to Economics
1.2 Macroeconomic objectives and macroeconomic policy
1.3 Types of macroeconomics variables
  1.3.1 Stock vs flow variables
  1.3.2 Real vs nominal variables

1.4 Key Macroeconomic variables
    1.4.1 Output/Input
    1.4.2 Employment/Unemployment
    1.4.3 Price level/Inflation
    1.4.4 Interest rate
    1.4.5 Exchange rate
    1.4.6 Inequality
1.5 A brief history of macroeconomics
Read: Case, Fair & Oster, Ch. 5, 7; LRS, Ch. 1, 2, 19, 31; Mankiw Ch. 1, 2, 23

2. National Income and National Product (4.5 hours)

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

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

3. National Income and Equilibrium Determination (9 hours)

3.1 Introduction
3.2 Composition of desired aggregate expenditure (DAE)
    3.2.1 Desired aggregate consumption expenditure
    3.2.2 Desired aggregate investment expenditure
    3.2.3 Desired aggregate government expenditure
    3.2.4 Desired aggregate net exports
3.3 Equilibrium national income
    3.3.1 Definition
    3.3.2 Determination of equilibrium national income
        3.3.2.1 Y = DAE approach
        3.3.2.2 Leakage = Injection approach
    3.3.3 Changes in equilibrium national income and adjustment to new equilibrium
3.4 Paradox of Thrift
3.5 Inflationary and deflationary gap
3.6 Keynesian, Classical and Non-Keynes non-classical concept

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

4. Fiscal Policy at Work (3 hours)

4.1 Meaning of fiscal policy
4.2 Objectives of fiscal policy
4.3 Fiscal policy tools

4.3.1 Government expenditure
4.3.2 Government transfer payment
4.3.3 Government revenue
4.3.4 Public debt
4.4 Types of government policy

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

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

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

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

6. The IS-LM Model (9 hours)

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

Read Froyen, Ch. 7

7. Policy Effectiveness (3 hours)

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

Read Froyen, Ch. 7

8. The Ad-AS Model and inflation (6 hours)

8.1 Aggregate Demand (AD)
- 8.1.1 The derivation of the AD curve from the IS-LM model
- 8.1.2 Move along the AD curve
- 8.1.3 The shift of AD curve

8.2 Aggregate Supply (AS)
- 8.2.1 Short-run AS
- 8.2.2 Long-run AS
- 8.2.3 Move along AS and shift of AS

8.3 Equilibrium and changes in equilibrium
- 8.3.1 Equilibrium in the AD-AS model
- 8.3.2 Changes in equilibrium in the AD-AS model

8.4 The analysis of fiscal policy and monetary policy using the AD-AS model

8.5 Inflation
- 8.5.1 Definition
- 8.5.2 Causes of inflation
  - 8.5.2.1 Demand-pull inflation
  - 8.5.2.2 Cost-push inflation
- 8.5.3 Phillips Curve

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

9. International Economics (3 hours)

9.1 Introduction to international trade

9.2 The Balance of Payment

9.3 Relationship between difference in saving and investment and current account

9.4 The market for foreign exchanges
- 9.4.1 Meaning and importance of foreign exchange rate
- 9.4.2 Demand for foreign exchanges
- 9.4.3 Supply of foreign exchanges
- 9.4.4 Exchange rate system

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

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE211 Principles of Microeconomics

Semester 2/2025

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

Prerequisite: -

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.

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 EE211

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

2. Knowledge

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students know and understand modern economics principles and theories, and are up to date with new developments.	Homework and reading assignments Class discussion
●	2. Students know and understand Thai and global economic structure, and the importance of major international economic events.	Homework and reading assignments Class discussion
●	3. Students know and understand instruments of economic analysis.	Homework and reading assignments Class discussion
●	4. Students know and understand applied fields in economics, including monetary, public, international, business, natural resource and environmental, industrial, agricultural, cooperative, political,	Homework and reading assignments Class discussion

Applicability	Expected Learning Outcomes	Evaluation Method
	developmental, and entrepreneurial economics as well as agribusiness.	
○	5. Students are informed about related fields including sociology, business administration, education, law policy, and science.	Homework and reading assignments Class discussion

3. Intellectual Development

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students have developed individual critical thinking.	Quizzes activities, Homework assignments, and Case studies
●	2. Students are sufficiently trained in research skills.	Quizzes activities, Homework assignments, and Case studies
●	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.	Quizzes activities, Homework assignments, and Case studies

4. Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students are responsible for assigned tasks and work in groups effectively.	Quizzes activities and Case studies
○	2. Students have problem-solving skills.	Quizzes activities and Case studies
○	3. Students show leadership skills and team spirit.	Case studies
●	4. Students are always improving themselves.	Quizzes activities, Homework assignments, and Case studies
○	5. Students have good interpersonal skills, adapting and working under different conditions.	

5. Quantitative Analysis, communication and information technology

Applicability	Expected Learning Outcomes	Evaluation Method
O	1. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	Homework assignments
O	2. Students communicate effectively and select appropriate presentation methods.	Case study
O	3. Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	Case study

Remark: ● Primary expected outcome O Secondary expected outcome

EE211 Course Learning Outcomes: CLOs

Course Title	Knowledge (K)				Skills (S)			Ethics (E)				Character (C)				
	K1	K2	K3	K4	S1	S2	S3	E1	E2	E3	E4	C1	C2	C3	C4	C5
EE211	●	●		●	●	●		●		●		●			●	

Learning Management and Evaluation

CLO	Learning Management	Evaluation
CLO1.1: K1, K2, K4, S1, S2 Apply economic theories, fundamental economic tools, and theory development to analyze and interpret relevant economic issues in various contexts.	1. Lecture on theoretical knowledge 2. Problem-based learning by emphasizing problem analysis/problem-solving 3. Demonstrating knowledge integration in related study fields 4. Brainstorming to encourage active learning and applied knowledge	• Quizzes, Homework assignments and examinations • Observation of participation in analytical thinking • Class participation and discussion
CLO1.2: K1, K2, K4, C1, C4 Analyze strategic interactions in economic, social, or organizational settings and demonstrate appropriate decision-making aligned with	• Individual assignments • Lecture/ class discussion/knowledge sharing • Encourage asking questions in class to	• Quizzes, Homework assignments and examinations • From teamwork skills and

CLO	Learning Management	Evaluation
professional standards. Show active learning characteristics and aspire to personal development	promote student engagement • Activities to encourage problem-based learning by emphasizing analysis of problem /problem-solving sources	problem/case study analysis • Examine thought processes, connected thinking, and reasoning
CLO1.3 : E1, E3 Demonstrate adherence to ethical principles in academic work and economic decision-making. Respect rights, opinions, values, and dignity of others. Obey organizational and societal rules and regulations	• Lecture/ class discussion/knowledge sharing	1. From punctuality, class participation, and meeting deadlines 2. Peer- and self-reflections

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
CLO 1	• Homework Assignments and Class Attendances • Midterm exam • Final exam	• Weeks 1-15 • Weeks 8 • Week 15	• 20% • 35% • 45%
CLO 2	• Homework Assignments and Class Attendances • Midterm exam • Final exam	• Weeks 1–15 • Weeks 8 • Week 15	• 20% • 35% • 45%
CLO 3	• Homework Assignments and Class Attendances	• Weeks 1-15	• 20%

Main Text:

Mankiw, N.G., (2023) **Principles of Microeconomics**, 10th ed., Cengage, (ISBN-13: 978-981-5119-30-5)

Recommended Texts & Materials

Krugman, P. and Robin Wells, (2018) **Microeconomics**. 3rd 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.

Grading Criteria*:

Homework Assignments (5 HWs), Quizzes (10 Quizzes) and Class Attendances	20 points
Midterm Exam	35 points
Final Exam	45 points
Total	**100 points**

*Note: A (85-100) ; D-B+ (41-84) ; F (0-39)

Tentative Class Schedule:

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

Sessions	Lectures	Topics	Activities/Text & Materials/ Media
#1: **Economics: The Study of Choice**	1 lecture	○ **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.1-3; KW, chs.1-2
#2-#3: **Demand, Supply, and Equilibrium**	2 lectures	○ **Market: Meaning and Components** ○ **Demand: Buyers' Behavior** • Meaning	**Read**: Mankiw, ch.4; KW, ch.3

Sessions	Lectures	Topics	Activities/Text & Materials/ Media
		• 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 • 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**	1 lecture	○ **Elasticity** ▪ Meaning ▪ Measurement ▪ Why Elasticity? : Absolute Change,	**Read:** Mankiw, ch.5; KW, ch.6

Sessions	Lectures	Topics	Activities/Text & Materials/ Media
		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 • Cross Price Elasticity of Demand ○ **Elasticity of Supply: Meaning, Measurement and Determinants**	
#5: **Consumers, Producers, and the Efficiency of Markets**	0.5 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.7-8; KW, ch.4

Sessions	Lectures	Topics	Activities/Text & Materials/ Media
#6 **Applications on Demand, Supply, and Government Policies**	0.5 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 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	**Read:** Mankiw, ch. 6-8; KW, chs.5 and 7

Sessions	Lectures	Topics	Activities/Text & Materials/ Media
		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**	2 lectures	○ **Utility Theory (or Cardinal Approach)** • The Meaning of Utility • Relationship between Total Utility and Marginal Utility • Law of Diminishing Marginal Utility • Consumers' Equilibrium (or Rational Spending Rule) and Change in Equilibrium ○ **Indifference Curves Theory (or Ordinal Approach)** ○ What a Consumer Wants • The Meaning of Indifference Curve • Properties of Indifference Curve • Slope of Indifference Curve and Marginal Rate of Substitution (MRS) ○ What the Consumer Can Afford • Budget Line: Meaning, Slope, and Change in Budget Line ○ How the Consumer Optimally Chooses	**Read:** Mankiw, ch.22; KW, chs.10-11; Frank, chs.3-4;; Lipsey, ch. 6 (& appendix);

Sessions	Lectures	Topics	Activities/Text & Materials/ Media
		○ Consumer Equilibrium and Change in Equilibrium ○ Derivation of an Individual Demand Curve Using Indifference Curves and Budget Lines ○ How a Consumer Responds to Change in Price: Substitution and Income Effects (Hicksian Approach)	
Mid-Term Examination			
#10-#12: **Production and Cost in the Short-Run and in the Long-Run**	3.5 lectures	○ **Firm and the Objectives of Production** ○ **Production Functions** ○ **The Meaning of Cost** ▪ Economic and accounting costs ▪ Sunk costs ▪ Private cost and social cost ○ **Distinction between Short-run and Long-run** ○ **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	**Production in the Short-Run** **Read:** Mankiw, ch.14; KW, ch.12; Frank, chs.9-10; Supplement Note provided in our class, **Production in the Long-Run** **Read:** Supplement Note provided in our class; Frank, chs. 9-10; KW, ch. 12

Sessions	Lectures	Topics	Activities/Text & Materials/ Media
		○ 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	
#11-#13: **Market Structure**	3 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** ▪ 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**	**Read:** Mankiw, chs.15-16; KW, chs. 13-14
#14: **Factor Markets**	1 lecture **(28 April 2026)**	○ **Demand for factor as a derived demand** ○ **The firm's demand for a factor** ○ **The supply of a factor**	**Read:** Mankiw, ch.19; KW, ch. 20; Perloff, ch. 15.1-15.3

Sessions	Lectures	Topics	Activities/Text & Materials/ Media
		○ **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	
#15: **Market Failure**	0.5 lecture **(28 April 2026)**	○ **Meaning and Characteristics** ○ **Origins of Market Failure** ▪ Monopoly Power ▪ Public Goods ▪ Externalities ▪ Asymmetric Information ○ **Consequences of Market Failure** ○ **Correction of Failure and Imperfections: Government or Private sector**	**Read:** Mankiw, chs.10-11, 16 and 23; KW, chs. 17-18 **Watch:** "Erin Brockovich" , "Day After Tomorrow".

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE215 Research Methodology

Semester 2/2025

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

Prerequisite: Have earned credits of EE211 and EE212 and EE325 (or EE425)

Course Description:

Study methods of conducting research and writing report in economics by studying the meaning and objectives and economic research characteristics. Study the composition and process of conducting research consisting of topic selection. Defining Objectives and Scopes setting and testing hypotheses for the use of educational theories and methods; Various statistical sources, both primary and secondary. preparation of research projects, proposals, data processing, and analysis and writing of research reports

Course Objectives:

The primary objective of this course is to teach and prepare students to write a competent, and useful, paper that advances the science of economics. To do this, students will need to acquire the knowledge of how academic papers need to be organized, and written, which requires the mastery of several discrete skills. By the end of the semester, it is expected that the students will have mastered the Course Learning Outcomes (CLAs) presented below, showing a basic level of competence in all the skills and knowledge necessary to write a research paper, as detailed in the Program Learning Outcomes (PLOs) that operationalize the tasks that need to be mastered.

Recommended Texts & Materials

The main text will vary from student to student, based upon the topic they choose to research, and the papers assigned, and that they will then find. But overall, students will be reading a large number of abstracts, and a smaller number of articles. Student specific mandatory articles will be assigned in week two or three, depending on the topic of research they chose. Further articles and/or abstracts will then follow.

Attendance: Most of the skills that are being taught, and the time spent mastering them, will occur in class. Therefore, **ATTENDANCE IS MANDATORY**. If students cannot attend class, they should notify their professor beforehand with an explanation as to why. The class is being taught simultaneously by several professors, but the classes are not all at the same time. Therefore, if you are going to miss a class, you should try to take it at one of the other available times. All your instructors are working from the same script; every effort is being made to give all students the same experience.

Grading This course will be graded on **Pass/Fail criteria**, with scores calculated on four criteria

Attendance:	40%
In class writing assignments:	30%
Final Mini-Paper:	20%
Final Presentation:	10%

The **in class writing assignments** are just that, time is set aside in each class for you to write. These will be handwritten, it is important that you write things yourself, A.I. is not learning. Please bring whatever pens, erasers etc. you need. Scratch paper will be available, if you want to outline, or write a first draft that way.

At the end of the semester, you will write and submit a **final mini paper**. Much of it will be based on what you have previously written, but you will have to put it all together. You will be given 5-7 minutes to make your **final presentation** to the class on the final day of class.

Weekly Schedule

Week	Topic / Focus	Activities & Outputs
1	Course Overview & Research Paper Structure	• Lecture: components of an economics paper (Intro–Lit Review–Method–Results–Conclusion). • Show model examples from journals. • Assign: choose a broad research topic of interest.
2	Finding a Research Question	• Lecture: what makes a good research question (relevance, feasibility, contribution). • In-class brainstorming using economics themes. • Workshop: refine questions into testable hypotheses.
3	How to Write an Introduction	• Discuss: functions of the introduction (motivation, question, contribution, structure). • Read 2 sample introductions; identify strong/weak elements. • Assignment: draft an outline of your own introduction.
4		• Practice writing first paragraphs that “hook” the reader.

Week	Topic / Focus	Activities & Outputs
	Writing Motivation and Context	• Peer review of introduction outlines. • Revise based on feedback.
5	Research Gaps and Contribution	• Lecture: how to identify and articulate research gaps. • Activity: review 2–3 related studies and summarize their limitations. • Assignment: draft full introduction (1–2 pages).
6	Introduction Revision Workshop	• Peer editing session using a checklist (clarity, motivation, question, contribution). • Instructor feedback on draft intros.
7	Searching, Screening and Selecting Economic Literature	• Workshop: Database search workshop (Google Scholar, EconLit, SCOPUS). • Activity: Designing a Search Strategy, Screening Titles and Abstracts, Selecting Core Papers • Output: Short written summaries of searching, screening, and selecting economic literature.
8	Extracting Evidence, Quality Assessment, and Literature Synthesis	· Lecture: how literature reviews synthesize rather than list studies. · Activity: Group-based extraction, quality assessment, synthesis, and visualization of selected economic studies. · Output: Short written summaries of extracting, assessing, and synthesizing economic evidence.
9	Writing the Literature Review	• How to link studies and identify patterns or debates. • Write a 1–2 paragraph section connecting at least 3 papers. • Peer feedback in class.
10	Advanced Literature Review Techniques	• Discuss citation, paraphrasing, and avoiding plagiarism. • In-class revision and integration practice. • Assignment: complete first draft of full literature review.
11	Transitioning from Literature to Methodology	• How to justify your method using the reviewed literature. • Discussion: empirical strategies in economics (OLS, RCT, DiD, IV, etc.). • Identify data sources for each topic.

Week	Topic / Focus	Activities & Outputs
12	Designing the Methodology Section	• Explain structure: model/equation, variable definitions, data, estimation approach. • Activity: students outline their empirical framework.
13	Writing the Methodology Section	• Write-up workshop: data description and model specification. • Peer review of draft methodology.
14	Integration and Consistency	• Combine all sections: intro–lit review–methodology. • Ensure logical flow between research question, literature, and methods. • Instructor consultations. · Presentation (how to give a good presentation)
15	Final Revision & Presentation	• Short student presentations (5–7 min per paper). • Final feedback and discussion on improving academic writing style. • Submit complete mini-paper (Intro + Lit Review + Methodology).

Course Learning objectives and Program Learning outcomes

Learning Management and Evaluation

CLO	Learning Management	Evaluation
CLO1 Explain the structure, objectives, and conventions of an academic research paper in economics.	Lectures on research paper structure; analysis of published economics journal articles; in-class discussion.	Attendance; in-class writing and identification exercises.
CLO2 Formulate a clear, feasible, and relevant economic research question and testable hypothesis.	Brainstorming workshops; guided research question development; peer discussion and instructor feedback.	In-class writing assignments; participation.
CLO3 Search for, screen, and select relevant economic	Database workshops (Google Scholar, EconLit, Scopus);	Written summaries of literature search and

CLO	Learning Management	Evaluation
literature using academic databases.	guided searching and screening activities.	screening process; in-class assignments.
CLO4 Critically evaluate and synthesize economic literature to identify research gaps and contributions.	Group-based literature synthesis activities; peer discussion; instructor-led feedback sessions.	Draft literature review sections; in-class writing assignments
CLO5 Design an appropriate empirical methodology consistent with the research question and reviewed literature.	Lectures on empirical strategies; methodology outlining workshops; peer review of research design.	Draft methodology section; in-class assignments.
CLO6 Write coherent and academically appropriate sections of a research paper (Introduction, Literature Review, Methodology).	Writing workshops; peer editing sessions; instructor feedback and revision activities.	Final mini-paper.
CLO7 Present research ideas and findings clearly and professionally in oral and written forms.	Presentation skills lecture; student presentations; class discussion and feedback.	Final presentation; participation.

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
CLO1	Attendance; in-class exercises	Weeks 1–15	40%
CLO2	In-class writing assignments (research question & hypothesis drafting)	Weeks 2–4	30%

CLO3	Written summaries of literature search, screening, and selection	Weeks 7–8	

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
CLO4	Draft literature review sections; peer and instructor feedback	Weeks 9–10	
CLO5	Draft methodology section	Weeks 12–13	
CLO6	Final mini-paper submission	Week 15	20%
CLO7	Oral presentation	Week 15	10%

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE302 WORLD ECONOMIC HISTORY

Semester 2/2025

Number of credits: 3 credits

Course Content:

Study and analysis of world economy with an emphasis on the economic expansion of Western territories between the 14th and the 21st centuries. Emphases are given to contextual changes in economy, geography, history society, culture, religion and politics as the role of determining economic leadership of certain economies, such as Italy, Portugal, Spain, the United Kingdom, Belgium, the Netherlands, France, Germany, Sweden, the United States and Japan.

Course Objectives:

This class has three primary purposes. Firstly, it is to identify the major economic changes that have occurred throughout world history, and to analyze what they were, when they occurred, and why. Thus, students will be expected to know (or learn) the basic outlines of world history, so that they can learn how economic rules have shaped it.

Secondly, the class seeks to demonstrate how the rules and laws of economics are universal; they apply through time and space. Thus, students will learn how complex organizations have been created throughout history, how material, technological and human capital limitations have influenced societies and history, and how different societies have solved similar problems in different, and similar, ways. And they will learn how the laws of economics apply in non-market economies, how decisions and resources are allocated in the absence of modern markets.

Finally, the class will explore the economic, societal and political prerequisites of economic growth. Economic growth throughout history shows some persistent patterns, and these patterns apply to today, as well as the past. Different theories of growth and development stress different factors as being key; the answer to the question of what specific factors are necessary for sustained economic growth has great import to the world today.

Prerequisites:

Econ 211 (introduction to economics) is not a prerequisite for this course, though it will be very helpful. While this course will be very non-mathematical, a certain degree of familiarity with economic terms and concepts is assumed. A basic knowledge of world history is also assumed for this course. Students should be familiar with the broad outlines of world history. Certain periods of history will be highlighted in greater detail, to demonstrate or illustrate concepts taught, but students will not be expected to know these periods in detail before class.

Text: (Moodle Code – TBA)

There is not a standard text for this subject, and most of the books on the subject assume either an extensive working knowledge of Western History, or a great deal of familiarity with economic subjects; often the books assume both. As such, the material for the course will come from several sources, all collected into a general reader. The readings are drawn from the books and articles listed below. All books are available in my office, for those who want to read deeper into the topics.

Landes, David, The Wealth and Poverty of Nations, New York, W.W. Norton and Company, 1999

Cameron, Rondo and Larry Neal, A Concise Economic History of the World: From Paleolithic Times to the Present, New York, Oxford University Press, 2003

Jones, Eric, The European Miracle; Environments, Economies and Geopolitics in the History of Europe and Asia, New York: Cambridge University Press, 2003

North, Douglass C. and Robert Paul Thomas, The Rise of the Western World: A New Economic History, New York; Cambridge University Press, 1973

North, Douglass C., Structure and Change in Economic History, Douglass C. North, W.W. Norton and Company, New York, 1981

Mokyr, Joel, The Lever of Riches: Technological Creativity and Economic Progress, New York, Oxford University Press, 1990

Clark, Gregory, A Farewell to Alms: A Brief Economic History of the World, Princeton, Princeton University Press, 1997

Mentioned Texts:

These are books that have had a significant impact outside economics, which will be briefly covered in class. Again, they are available, but are not required for class.

Olsen, Mancur, The Rise and Decline of Nations, New York, Yale University Press, 1981

Kennedy, Paul, The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000, New York, Vintage Books, 1987

Diamond, Jared, Guns, Germs and Steel; the Fates of Human Societies, New York, W.W. Norton and Co, 1999

Evaluation:

The class evaluations will be based on two exams, given throughout the semester. Each exam will be 1½ hours in length, students will have a choice of what questions to answer. A sample exam will be passed out before the midterm.

Midterm: 40%

Final: 60%

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 exam you are caught cheating on, other punishments include automatically failing the course, and being suspended for one (or more) semesters.

Topics:

Below is a tentative course outline. Depending on student knowledge, some parts may move a little faster or slower. Certain classes, will involve a more in depth analysis of historic facts; essentially I will use those classes to make sure you know the history of the period well enough to discuss the economic underpinnings of it. Other classes will delve into economic theory more.

Introduction: Homo economicus throughout time. Economic history, vs. history of economics. Economics as human capital. People as rational beings. Evolutionary models of economic progress. The S curve. Humans as social animals.

Week 1a The world 10,000 B.C.
Prehistoric man. The hunter-gatherer tribe. Population pressure, and **the S curve**. Property rights. **Marginal values** of everything. The jungle wasteland. **Time allocation and gender roles**.

Two Models of early Population growth. Jared Diamond/Kemmer model. Property **rights, spillover effects**. The conservative (safety) bias of society, and **risk adverse** tribes. **Early trade and specialization**. **Comparative and absolute advantage** in family production.

Week 1b – The world 7,000 B.C.
The first agricultural Revolution. **The North Model**. **Olsen's roving bandit**

model. The **raw materials** of agricultural growth, **factors of production**. The beginning of **property rights**, and **economic specialization and social classes**.

Week 2a – The world 3,000 B.C.
The second agricultural revolution. The birth of empires. The **Hydraulic society**. The **problem of coordination**. **Technological problems vs. institutional problems**. Ancient Babylon. Ancient Assyria. Ancient Egypt. Ancient China. Ancient India. The **holdout problem** in irrigation. **Transaction costs**. "**The Surplus"**, and the use(s) of it.

The north model of government. **The Olsen model of tyranny**. Ancient **public goods** vs. **publicly provided goods**.

Week 2b The world 431 B.C.
Trade and Money. **Coinage and agoras**. The role of money. The greek city states. Transportation costs. Specialization and **Smithian growth (pt. 1)**. Government as other than tyranny. **Colonization**. **Incentives**. **Planned vs. emergent organization**. Athens and Sparta, Citizens and Helots. Natural disasters and the end of capital. Relative effects on Capital and Labor.

Week 3a The world 1 A.D.
Empire: The Romans. Roman law and courts. The **economics of the Law**. Organizational genius. **Smithian growth, absolute and comparative advantage in a large empire**. **Economies of scale** for enterprises and states. Roman agriculture, the **slave system**. Extended example: The Roman legion, and the complexity of ancient societies. Baumol, good and bad **entrepreneurship**.

Week 3b The world 478 A.D.
The Roman decline. The technological explanation (North). The biological explanation (xxxx). The military explanation (Luttwak, Higgens). The **distributive coalition** hypothesis (Olsen). Also, Byzantium, and early Islam.

Week 4a Interlude -- Taking stock of the world, and how it was governed.
The state. Theories of the State. North. Olsen, Others. Going back in time: China, Egypt, Persia, Greece, Rome, The Barbarians.

Week 4b The world in 1066 A.D.
The Early middle ages and the problem of security. Feudalism and the Manorial system. The western world. Violence. Trade as a public good – "the encompassing interest". Economies of scale in violence. The feudal system of national defense. Self-sufficiency, the absence of encompassing power. Political competition. The role of military technology. A model of path-dependent military dominance, the hurdle effect on a new Rome – monopoly and barriers to entry.

Week 5a The world of 1348
The Black Death. Recap of Diamond hypothesis. The effect on Europe, the Middle East and Asia. The Malthusian hypothesis. Relative prices of factors of production. Changes in the status of the peasantry. Legal rights. The Rebirth of

Mediterranean trade, and the new commercial organizations – banks, insurance, corporations, double entry bookkeeping, credit, etc.

Week 5b The world of 1500
The age of exploration. Portuguese and Chinese fleets. Columbus and the new world. The Aztecs, incas, and silver. The gunpowder revolution, the end of feudalism and the rise of the nation state. European economies – The Netherlands, England, Spain, France. The three field system. The market economy, the common law system. Thick markets.

Week 6a The world of 1700
The early industrial revolution, mercantilism, colonies and trade.
Narrative of the industrial revolution 1
Theories of the industrial revolution 1

Week 6b The world of 1850
Narrative of the industrial revolution 2
Narrative of the industrial revolution 2
Schumpetarian growth, rising productivity. Escape from Malthusian economics. Free trade, most favored nation status. The Technological arms race.

Week 7a The world of 1914
The later industrial revolution, imperialism, free trade, global smithian growth (globalization), trade unionism, the beginning of the welfare state. Central planning, Marxism (fascism), and the USSR.

Week 7b The world of 1948
Standardization, global monopolies and cartels

Week 8a The world of 2005 A.D.
The (non) importance of resources. Human Capital and the Asian Miracle. (idea – Arab and Asian face). The Modern Welfare State. Petrolocracies. Free trade and modern finance. The role of economics in economies. Public choice theory. The bureaucratic state.

Course Evaluation:

Type of evaluation	Evaluation Method
Midterm Exam	40%
Final Exam	60%

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline
EE311 Microeconomic Theory
Semester 2/2025

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

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

Course Description:

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

Course Objectives:

1. Understand and able to apply the consumer behavior and demand theory.
2. Understand and be able to explain the relationship between inputs and output in the short run and long run. Understand types of cost curves and their properties as well as understanding the relationship between production and costs.
3. Know the characteristics of each type of product market structure. Know how to determine the equilibrium price and quantity for each market structure.
4. Know how to determine the equilibrium price and quantity for each type of factor market.
5. Understand the three general equilibrium conditions and the Pareto optimality concept.
6. Understand the factors that lead to market failure and the way to solve the market failure.

Method of Instruction:

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

Student Evaluation:

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

Learning Management and Evaluation

CLOs	Learning Management	Evaluation Method
CLO K 1 K2 K4 Able to analyze and propose solutions to economic problems using economic theory and tools, and apply such knowledge effectively in practical work settings.	• Lecture • Case study • Self-directed learning through in-class activities and assignments	• Written exam (85%) • Assignments/quizzes (15%)
CLO S 1 S2 Able to select and apply appropriate tools, such as demand and cost theory, pricing, and game theory, to solve economic problems.	• Lecture • Case study • Self-directed learning through in-class activities and assignments	• Written exam (85%) • Assignments/quizzes (15%)
CLO E 1 Adheres to academic ethics and properly cites academic work.	• Self-directed learning through in-class activities and assignments	• Proper citation of sources (included in the 15%)
CLO E 3 Able to assess ethical impacts on society, resource distribution, and sustainability, and capable of recommending economic decisions and designing policies with social responsibility in mind.	• Lecture • Case study • Self-directed learning through in-class activities and assignments	• Written exam (85%) • Ethical analysis and recommendations in assignments and quizzes (15%)

CLOs	Learning Management	Evaluation Method
CLO C 1 Able to complete assignments/quizzes.	• Self-directed learning through in-class activities and assignments	• Assignments/quizzes (15%)
CLO C 2 C4 Possesses creativity, accepts differing opinions, plans work systematically, and continuously develops oneself.	• Self-directed learning through in-class activities and assignments	• Development of the assignments based on feedback (included in the 15%)

Main Text:

There are several textbooks that cover similar materials. **The <u>first three books</u> 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*, (4th 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: Pearson, 2018.**
4) Salvatore, Dominick, *Microeconomics: Theory and Applications,* (5th ed.), New York: Oxford University Press. 2008.
5) Frank, Robert H. (8th ed.). *Microeconomics and Behavior,* New York: McGraw-Hill, 2010.
6) Miller, R.L., and R.P.H. Fishe. *Microeconomics: Price Theory in Practice,* New York: Harper Collins, 1995.
7) Hirshleifer, Jack Price *Theory and Applications* (6th ed.), New Jersey: Prentice - Hall, 1998.
8) Griffiths, Alan and Stuart Wall, *Microeconomics: Theory & Applications,* London: Longman, 2000.

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

10) Varian, Hal *Intermediate Microeconomics*, (5th ed.) New York: Norton, 1999.

Suggested Readings (For fun):

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

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

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

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

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

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

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

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

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

Suggested Movies and useful links:

Movies

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

Links

- Student Resources for Frank's text: http://highered.mcgraw-hill.com/sites/0073375942/student_view0/index.html
- 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

Teaching Plan (Subject to change):

1. Introduction

1.1 Why Study Microeconomics?

Application of Demand and Supply concepts: government intervention

Review: Concepts of consumer and producer surplus.

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

2. Consumer Behavior and Demand Theory

2.1 Indifference Curve Analysis

- assumptions
- analysis of goods, bads, neuters

Review: Properties of indifference curves.

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

2.2 Consumption equilibrium and changes in equilibrium

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

Review: Construction of demand curves, elasticities.

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

2.3 Intertemporal consumption (consumption overtime)

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

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

2.4 Consumption under uncertainty

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

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

3. Transactions Costs and Institutional Economics

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

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

4. Production and Costs

4.1 Production equilibrium

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

4.2 Production functions and costs

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

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

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

5.Product Markets

5.1 Perfectly competitive markets

- long-run equilibrium and efficiency

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

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

5.2 Monopoly

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

Review: Simple monopoly

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

5.3 Monopolistic competition

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

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

5.4 Oligopoly

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

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

6. Factor Markets

6.1 Competitive factor markets

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

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

6.2 Factor Markets with Monopoly and Monopsony Power

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

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

6.3 Factor Markets with Monopoly Power of Seller of Input

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

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

6.4 Economic Rent

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

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

7. General Equilibrium Analysis and Welfare Economics

7.1 General Equilibrium: consumption, production, and exchange

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

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

7.2 Market Failure and Imperfections

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

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

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

Tentative Learning Activities:

Class No.	Topics
1	Application of Demand and Supply concepts: government intervention
2	Application of Demand and Supply concepts: government intervention
3	Consumer Behavior and Demand Theory: Indifference Curve Analysis
4	Consumption equilibrium and Changes in equilibrium
5	Applications: vouchers vs. income transfers, revealed preferences, index numbers
6	Intertemporal consumption
7	Intertemporal consumption
8	Consumption under uncertainty
9	Consumption under uncertainty
10	Production and Costs
11	Production and Costs
12	Perfectly competitive markets
13	Monopoly
14	Monopoly
Midterm Exam	
15	Pricing strategies
16	Pricing strategies
17	Monopolistic competition and Oligopoly
18	Various models of oligopoly
19	Various models of oligopoly
20	Game theory and its application
21	Game theory and its application
22	Factor Markets
23	Factor Markets
24	Factor Markets
25	General Equilibrium Analysis
26	General Equilibrium Analysis
27	General Equilibrium Analysis and Market Failure and Imperfections
28	Market Failure and Imperfections
29	Market Failure and Imperfections
30	Review
Final Exam	

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE312 Macroeconomic Theory

Semester 2/2025

Number of Credit: 4 Credits

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

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; dynamic AD-AS framework; economic stabilization policies; growth theory, micro-foundation of macroeconomics focusing on real business cycle model, new classical model, and new Keynesian model; applications of Macroeconomic theory to analyze economic situations.

Course Objectives:

CLO1: Understand and explain the fundamental theories of intermediate macroeconomics, as well as how closed and open macroeconomies work.
CLO2: Identify and interpret key economic data sources and indicators.
CLO3: Apply macroeconomic theories and models to interpret changes in economic indicators and to provide comprehensive evaluations of the impact of real-world situations on the macroeconomy.
CLO4: Effectively construct and communicate ideas in written and oral formats that meet academic standards.
CLO5: Be responsible and accountable by completing individual and group assignments on time.

Readings

1. Main Text:

- 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.)

2. Supplement readings will be posted on the Google Classroom.

Assessments:

• Quizzes and Homework*	15	points
• Mid-term exam **	40	points
• Final exam**	45	points
Total	100	points

Each student's cumulative score will be updated via LMS platform. Check the link to grade spreadsheet posted on the LMS platform. Alert the instructor if you see any errors.

Quizzes and Homework: There will typically be around one homework as week and one quiz or in-class assignment a class, though this may vary. In some classes, there may be no quiz. For each student, the FIVE lowest quiz/homework scores will be dropped, and the remaining scores will be counted toward the final grade.

FIVE quizzes/HW with the lowest score will be dropped.

- will have their from either removed from their total score calculation.
- It does not matter whether the five lowest scores are from quizzes or homework; it can be a mix of both, as long as the total number of lowest scores dropped is.

So, for example, if a student has three quizzes and two homework assignments with low scores, those five scores will be removed. If they have more quizzes than homework, the five lowest scores from the entire pool (quizzes + homework) will be dropped. The idea behind dropping some quizzes/homework with the lowest scores is to accommodate students who may miss assignments for various reasons. Therefore, if a student happens to miss a quiz or a homework assignment, there won't be a makeup opportunity, as we've already factored this into the grading system.

Please inform me at the beginning of the semester or as soon as possible if you have any medical condition or necessity that may prevent you from attending class for

more than three weeks. In such cases, the quiz score will be transferred to the final exam. In any case, there will be no makeup quiz.

Guideline for midterm and final exams:

- You must strictly follow the guidelines on the exam set out in the official announcement of the faculty of economics and B.E. international program.
- Accommodation for students with verified medical conditions will be made according to the University's and Faculty's policies. For privacy purposes and record tracking, please contact B.E. office by email. Your request will be reviewed by B.E. office.
- Students who miss the exam due to an emergency or unforeseen circumstance should contact the B.E. office as soon as possible. You may file the request to schedule a makeup exam. Your request will be reviewed by B.E. office.

Grading Criteria:

Grading is conducted separately for each section. I generally adopt a mixed approach, combining both criteria-based and distribution-based methods. When criteria-based grading is appropriate and applicable, I follow the university's general guidelines outlined below. However, given the many factors that must be considered, **I reserve the right to adjust the grading brackets, criteria, and final decisions as I deem appropriate.**

A = 4.0 (85-100)	B+ = 3.5 (75-84)
B = 3.0 (70-74)	C + = 2.5 (65-69)
C = 2.0 (60-64)	D+ = 1.5 (50-59)
D = 1.0 (40-49)	F = 0 (0-39)

When the final grade is grade reconsideration. Contact posted on the Reg-TU system; students may file their request for a the BE office if you would like to do.

Grading Criteria:

Session	Topics	Details	Materials
1	Class Overview & Intro to	- Class logistics - What do we study in this class? Roadmaps - Intro to business cycles framework	*W. Ch. 1* */ Ch. 2* *W. Ch. 3*

Session	Topics	Details	Materials
		- Framework for Long-run macroeconomy and Trend determination	*M. Ch. 10*
2	Long-run Macroeconomy	- Production technology & MP - Labor demand curve and its determinants. - Labor supply curve and its determinants - Labor market outcome & Long-run equilibrium - Drivers for Long-term equilibrium & Trends - Linkage to Growth theory	*F. Ch. 3 - 4* *M. Ch 3*
3	AD-AS framework of economic fluctuations 1	- Big picture of business cycle fluctuations - Building blocks of core AD-AS model *- IS-LM model & Derivation of AD curve (Self-study)* - Views on Aggregate supply relation - Incorporating institutional features to the Labor market framework - Derivation of expectation-augmented AS curve & its Determinants	*F. Ch 5 – 8* *M. Ch 11 – Ch 14*
4	AD-AS framework of economic fluctuations 2	- Equilibrium representation: Graphical diagrams under multi-market macroeconomy	
5	AD-AS framework of economic fluctuations 3	- Shocks propagating mechanism in the closed-economy 1: IS shocks & LM shocks	

Session	Topics	Details	Materials
6	AD-AS framework of economic fluctuations 4	- Shocks propagating mechanism in the closed-economy2: AS shocks	
7	AD-AS framework of economic fluctuations 5	- Types of shocks and Self-correcting mechanisms under the Medium-run adjustment process	
8	Theory of Inflation 1	- Long-run behavior of inflation - Cyclical behavior of inflation and Traditional Phillips Relation	*M. Ch 5* *M. Ch 14*
9	Theory of Inflation 2	- Expectation-augmented Phillips relation	
10	Theory of Inflation 3	- Short-run and Long-run Phillips curve - Rational expectation and policy neutrality	
11	Dynamic Model of Economic Fluctuations 1	- What's wrong with the traditional AD-AS framework? - Ingredients of modern dynamic AD-AS framework - modern AD curve (IS + Monetary policy rule) - modern AS curve (Output gap-based Phillips curve)	*M. Ch 15*
12	Dynamic Model of Economic Fluctuations 2	- Model solution, equilibrium, and Analysis	
13	Dynamic Model of Economic Fluctuations 3	- Dynamic response to shocks - Policy implications	
14	Dynamic Model of Economic Fluctuations 4	- Dynamic response to shocks - Policy implications	

Session	Topics	Details	Materials
15	Exchange Rate model 1	- Basic Concepts of international economy, Forex and Forex market - D&S framework for Exchange rate determination - Applications and impact analysis - Forex market intervention - Domestic implication of FOREX intervention and Financial Sterilization	*F. Ch. 14 –Ch. 15*
16	Open- economy macro-1	- Basic concepts and Model Structure - Balance of Payment equilibrium and BP curve - BP curves under Mundell-Fleming environment and notion of Mundell-Fleming Equilibrium - Disequilibrium adjustment mechanism under Mundell-Fleming environment - Shocks-propagation mechanism in the open-economy	
17	Open-economy macro-3	- Exchange rate policy: Effect of devaluation or revaluation under fixed exchange rate system - Fiscal and monetary policy under different choices of exchange rate system - Applications: AFC & Impossible Trinity / GFC and QEs (if time permits) - Midterm Exam Q&A	

Session	Topics	Details	Materials
18	Static GE model 1: One-period HH Optimizing principle	- Micro-founded macroeconomics - Household optimizing theory: Labor supply curve and Consumption demand curve	
19	Static GE model 2: One-period Optimizing principle	- Firm optimizing theory: Labor demand curve and Output supplied curve - Notion of micro-founded General Equilibrium macroeconomy	*W. Ch 4*
20	Static GE model 3: Equilibrium representation	- Equilibrium representation with D&S diagram ** - Equilibrium representation with Edgeworth Box diagram - Shocks in Static GE model and Application	*W. Ch 5*
21	Consumption-Saving & Credit market Equilibrium 1	- Basic Intertemporal choice model - Behavioral Implications: Effect of Change in income	
22	Consumption-Saving & Credit market Equilibrium 2	- Behavioral Implications: Effect of Change in real interest rate - Government and Notion of Credit market equilibrium - Credit market equilibrium and Application	*W. Ch 9*
23	Real-intertemporal model 1: Analysis	- Household optimizing theory: Labor supply curve and Consumption demand curved	

Session	Topics	Details	Materials
24	Real-intertemporal model 2: Analysis	- Firm optimizing theory: Labor demand curve and Investment demand curve	*W. Ch 11*
25	Real-intertemporal model 3: Analysis	- Optimizing AD-AS curve: derivation - Slop of optimizing AD-AS curve - Equilibrium representation	
26	Real-intertemporal model 4: Analysis	- Shocks and Equilibrium Business cycles fluctuations	
27	Real-intertemporal model 5: Analysis	- Shocks and Equilibrium Business cycles fluctuations (contd.)	
28	Growth Theory 1	- Stylized facts & Basic Structure of Solow growth model - Solution method of Solow Growth model - Steady state and Transition path	*W. Ch 7 / Ch. 8*
29	Growth Theory 2	- Equilibrium Analysis and Some applications - Changes in Steady State Equilibrium	
30	Growth Theory 3	- Limitations of Solow growth model - Buffer sessions - Final Exam Q&A	
Final Exam			

Expected Learning Outcomes

1. Morality and Ethics EE312

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

2. Knowledge

Applicability	Expected Learning Outcomes	Evaluation Method
•	1. Students know and understand modern economics principles and theories, and are up to date with new developments.	In-class participations / Quizzes & HW / Exams
•	2. Students know and understand Thai and global economic structure and the importance of major international economic events.	In-class participations / Quizzes & HW / Exams
•	3. Students are punctual and comply with the code of conduct of the institution and society at large.	In-class participations / Quizzes & HW / Exams
•	4. Students know and understand applied fields in economics, including monetary, public, international, business, natural resource, and environmental,	In-class participations / Quizzes & HW / Exams

	industrial, agricultural, cooperative, political, developmental, and entrepreneurial economics as well as agribusiness.	
○	5. Students are informed about related fields including sociology, business administration, education, law policy, and science.	

3. Intellectual Development

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

4. Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes	Evaluation Method
•	1. Students are responsible for assigned tasks and work in groups effectively.	In-class participations / Quizzes & HW / Exams

•	2. Students have problem-solving skills.	In-class participations / Quizzes & HW / Exams
○	3. Students show leadership skills and team spirit.	
•	4. Students are always improving themselves.	In-class participations / Quizzes & HW / Exams
○	5. Students have good interpersonal skills, adapt, and work under different conditions.	

5. Quantitative Analysis, communication, and information technology

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

Remark: ● Primary expected outcome ○ Secondary expected

Learning Plan

Categories	***Expected Learning Outcome*** ***(Applicable)***	***CLOs***	***Teaching Methods***	***Assessments methods***
Knowledge	K1. Demonstrate the ability to analyze and solve problems using economic theories and tools, and apply this knowledge effectively in practical work. K2. Ability to apply theoretical knowledge to analyze and provide practical suggestions for economic and social issues K4. Ability to attain lifelong learning and thoroughly understand world economic and societal changes and impacts	CLO 1/ CLO2 / CLO3	Lecture/ Discussion in class,	In-class participations / Quizzes & HW / Exams

Categories	***Expected Learning Outcome*** ***(Applicable)***	***CLOs***	***Teaching Methods***	***Assessments methods***
Skills	S1. Select and apply economic principles, tools, and methods appropriately to solve economic and social challenges. S2. Acquire analytical and communication skills and ability to interpret data from different sources, analyze, and integrate knowledge to propose appropriate problem-solving guidelines for economic and social issues	CLO 1/ CLO2 / CLO3	Lecture/ Discussion in class,	In-class participations / Quizzes & HW / Exams
Ethics	E1. Uphold academic integrity and respect academic freedom E3. Recognize the ethical dimensions of economic decision-making and policy design, particularly in relation to social impacts, resource distribution, and sustainability, with a	CLO3	Lecture/ Discussion in class,	In-class participations / Quizzes & HW / Exams

Categories	***Expected Learning Outcome*** ***(Applicable)***	***CLOs***	***Teaching Methods***	***Assessments methods***
	focus on social responsibility.			
Character	C1. Ability to effectively complete assigned tasks and responsibilities C2. Demonstrate a commitment to lifelong learning, creative thinking, openness to diverse perspectives, systematic planning, and continuous self-improvement. C4. Show active learning characteristics and aspire to personal development	CLO 3 / CLO4 / CLO5	Lecture/ Discussion in class,	In-class participations / Quizzes & HW / Exams

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE320 Introductory Mathematical Economics

Semester 2/2025

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

Prerequisite: a) EE211, EE212 and MA216 (or MA211) or b) EE213, EE214 and MA 216 (or MA 211)

(Credits will not be awarded to students who are taking or have completed EE421)

Course Description:

Applying mathematical concepts and tools such as functions, equations, matrices, univariate and multivariate differential calculus, constrained and unconstrained optimization, and basic integral to understand the relationship between different economic variables and explain concepts of Microeconomic theory and Macroeconomic theory. An emphasis will be placed on relationships between total, average, and marginal functions, the analyses of elasticity, market equilibrium, impacts of taxation, and the basic input output model.

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.

Expected Learning Outcomes

1. Morality and Ethics

Applicability	Expected Learning Outcomes	Evaluation Method
●	6. Students demonstrate integrity.	Assignment plagiarism.
○	7. Students prioritize social and public benefits over personal ones.	
●	8. Students are punctual and comply with the code of conduct of the institution and society at large.	Assignment deadlines and class attendance records.
○	9. Students are responsible and accountable to society, the nation, and the subject of economics.	
○	10. Students realize the cultural and environmental value of a sustainable society.	

2. Knowledge

Applicability	Expected Learning Outcomes	Evaluation Method
●	6. Students know and understand modern economics principles and theories, and are up to date with new developments.	Assignments and Exams.
●	7. Students know and understand Thai and global economic structure and the importance of major international economic events.	Assignments and Exams.
●	8. Students know and understand the instruments of economic analysis.	Assignments and Exams.
●	9. Students know and understand applied fields in economics, including monetary, public, international, business, natural resource, and environmental, industrial, agricultural, cooperative, political, developmental, and entrepreneurial economics as well as agribusiness.	Assignments and Exams.
○	10. Students are informed about related fields including sociology, business administration, education, law policy, and science.	

3. Intellectual Development

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

4. Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes	Evaluation Method
●	6. Students are responsible for assigned tasks and work in groups effectively.	Assignments.
●	7. Students have problem-solving skills.	Assignments and Exams.
O	8. Students show leadership skills and team spirit.	
●	9. Students are always improving themselves.	Assignments and Exams.
O	10. Students have good interpersonal skills, adapt, and work under different conditions.	

5. Quantitative Analysis, communication, and information technology

Applicability	Expected Learning Outcomes	Evaluation Method
●	4. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	Assignments and Exams.

O	5. Students communicate effectively and select appropriate presentation methods.	
●	6. Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	Assignments and Exams.

Remark: ● Primary expected outcome O Secondary expected

Learning Management and Evaluation

CLO	Learning Management	Evaluation
K1	Acquire and apply knowledge of mathematical functions and equilibrium analysis to microeconomic and macroeconomic models.	Exams
K2	Apply mathematical tools to analyze policy impacts and solve economic and social problems.	Exams
K4	Reflect on learning progress and adjust strategies to improve understanding of mathematical economics in real-world contexts.	Quizzes/Assignments
S1	Develop systematic thinking and apply mathematical reasoning to economic problem-solving.	Exams /Quizzes/Assignments
S2	Interpret data and use mathematical analysis to propose solutions to economic issues.	Exams
S3	Utilize quantitative techniques such as calculus and matrix algebra in economic modeling.	Exams
E1	Demonstrate ethical awareness when analyzing the societal implications of economic models.	Quizzes/Assignments

CLO	Learning Management	Evaluation
E3	Respect differing views in discussions on policy impacts derived from mathematical analysis.	Quizzes/Assignments
C1	Complete written tasks accurately using appropriate mathematical economic tools.	Quizzes/Assignments
C2	Independently and collaboratively analyze economic problems using quantitative methods.	Quizzes/Assignments
C4	Engage in self-directed learning and actively seek improvement in mathematical skills.	Quizzes/Assignments

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
K1, S1	Problem-solving exam on mathematical foundations, static models, and single-variable optimization in economics	Midterm Exam	35%
K2, S2, S3	Applied problem-solving exam on multivariable optimization, constraint analysis, and integral-based policy applications	Final Exam	50%
K4, E1, E3, C1, C2, C4	3 Quizzes	Throughout Semester	15%

Main Text:

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

Assesments:

1. **Quiz** **15%**
   - Total of 3 Quizzes will be given.
   - All quizzes will be informed at least one week in advance.
   - **No makeup quiz will be given.**
2. **Midterm Exam** **35%**
3. **Final Exam** **50%**

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

Grading Criteria:

- Grading will be determined within only this section

- Letter grades are determined based on your relative performance in the class. However, any **score below 40 out of 100 is assigned an F**, and **any score of 85 or above is assigned an A**.

Course Outline and Tentative Class Schedule:

Topics	
1. Introduction - Importance and needs to use mathematics in economics. - The nature of theory, economic model, and mathematics.	CW. Ch. 1
2. Mathematics and Economic Relations - Relations and functions - Types of functions	CW. Ch. 2
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
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
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	CW. Ch. 6, 7, 8

Topics	
- Relations among the total, the average, and the marginal functions - Elasticity, total revenue, and marginal revenue	
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
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
8. Optimization without Constraint: More-Than-One Independent Variable Cases - Conditions for maximum or minimum - Third degree price discrimination - Multi-plant firm - Multi-product firm	CW. Ch. 11

Topics	
9. Optimization under Equality Constraint - Lagrange multiplier - Conditions for optimization - Maximize output level subject to cost constraint - Minimize cost subject to output constraint - Maximize utility subject to fixed budget	CW. Ch. 12
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	CW. Ch. 14
FINAL	

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE325 Introductory Econometrics

Semester 2/2025

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

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

(Credit will not be awarded to students who are taking or have completed EE425)

Course Description:

Applying statistical methods and economic theories to analyze economic data using simple and multiple regression. Topics also include dummy variable, multicollinearity, heteroscedasticity, autocorrelation, and specification error. This course focuses on how to choose the appropriate tool for empirical study, with the emphasis placed on using some econometric software.

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.

Expected Learning Outcomes

1. Morality and Ethics EE325

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

2. Knowledge

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students know and understand modern economics principles and theories, and are up to date with new developments.	Assignments, Quizzes, Class exercises, Group Project, and Exams.
●	2. Students know and understand Thai and global economic structure and the importance of major international economic events.	Assignments, Class exercises, Group Project, and Exams.
●	3. Students know and understand the instruments of economic analysis.	Assignments, Quizzes, Group Project, and Exams.
●	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.	Assignments, Group Project, and Exams.

☐	5. Students are informed about related fields including sociology, business administration, education, law policy, and science.	Assignments and Exams.

3. Intellectual Development

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

4. Interpersonal Skills and Responsibilities

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

5. Quantitative Analysis, communication, and information technology

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	Assignments, Class exercises, and Exams.
□	2. Students communicate effectively and select appropriate presentation methods.	Assignments
●	3. Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	Assignments

Remark: ● Primary expected outcome □ Secondary expected

Main Text:

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

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

Recommended Texts & Materials:

Greene, W.H. (2012). ***Econometric Analysis***. 7th ed., Upper Saddle River, NJ: Prentice Hall.

Griffiths, W.E., Hill, R.C., and Judge, G.G. (2011). ***Principles of Econometrics***, John Willey & Sons.

Angrist, J.D. and Pischke, J-S. (2009). ***Mostly Harmless Econometrics: An Empiricist's Companion***, Princton University Press.

Stock, J.H., & Watson, M.W. (2007). ***Introduction to Econometrics***, 2nd ed., Boston: Pearson Addison Wesley.

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

Grading Criteria:

Homework and Assignments	10%
Class Attendances, Quizzes & Participation	15%
Midterm Exam	35%
Final Exam	40%

Tentative Class Schedule:

Session	Lecture	Topic	Reading
Introduction	**1 lecture**	• What is econometrics? • Methodology of econometrics • Types of economic data	Wooldridge, Chş1 *or* Gujarati, Ch. 1
Review of Some Statistical Concepts	**1 lecture**	• 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	**5 lectures**	• Principle, assumptions and derivation of ordinary least squares (OLS) estimators • Properties of OLS estimators • Statistical inference • Prediction • Regression Through the Origin • Data scaling on OLS statistics • More on functional forms	Wooldridge, Chş2 *or* Gujarati, Ch. 2 – 6 Wooldridge, ch. 6 (6.1 & 6.2)
MIDTERM EXAM			
Multiple Regression Analysis (Estimation)	**1 lecture**	• Motivation • Model and assumptions • Estimation of parameters and properties of estimators • Meaning of partial regression coefficients	Wooldridge, Chş3 *or* Gujarati, Ch. 7, Appendix B, C

		• Measuring goodness of fit: R^2 and adjusted R^2 • The matrix approach to linear regression model (Optional)	Note: Make-up class for March 3 (Makha Bucha Day) via Zoom
Multiple Regression Analysis (Inference)	**2 lectures**	• 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, Chş4 *or* Gujarati, Ch. 8
Dummy Variable Regression Models	**0.5**	• Describing Qualitative Information • Models with a single dummy independent variable • Using dummy variables for multiple categories • Interactions involving dummy variables	Wooldridge, Chş7 *or* Gujarati, Ch. 15
Multicollinearity Problem	**0.5**	• Nature and Consequences of Multicollinearity • Detecting Multicollinearity •	Wooldridge, Chş3 ů3ş4ŭ *or* Gujarati, Ch. 10
Heteroscedasticity Problem	**1 Lecture**	• Nature and Consequences of heteroscedasticity for OLS • Testing for heteroscedasticity • Remedial measures (weighted least squares estimation)	Wooldridge, Chş8; Gujarati, Ch. 11
Autocorrelation Problem	**1 Lecture**	• Nature and Consequences of Autocorrelation, Serial Correlation	Wooldridge, Chş12 ů2ş ů2ş3ŭ

		• Testing for Autocorrelation • Remedial measures	Gujarati, Ch. 12
Specification Errors and Data Problems	**1 Lecture**	• Type of specification errors • Consequences of specification error • Tests of specification error • Errors of measurement • IV (If time permits)	Wooldridge Chş9; Gujarati, Ch. 13
Extension: Logit Model	**1 lecture**	• Linear Probability Model • Maximum likelihood estimation	
Final Exam			

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

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE365/EE364 Economics of Local Development

Semester 2/2025

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

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

Course Description:

Dynamics of local development in rural and urban areas. Economic and social theories regarding communities and collective action of people in communities. Interactions between livelihoods, natural resource capital, cultural and ethnic factors, and their influences on local farm and non-farm economic activities. Responses and adaptation of local communities to development policies. Roles of actors, such as community leaders, government officers, local administrative organizations, academics, and non-governmental organizations in local development. Analysis of capacities and limitations of local communities for collaboration in the allocation of resources and conducting economic activities. Sustainable development in the context of local development. Alternative approaches for local development such as incorporating with social entrepreneurs.

Course Objectives:

1. To enable students to recognize and understand global and domestic changes and experiences in local development, with a specific focus on rural development, and to effectively apply this knowledge.
2. To equip students with specialized economic analytical frameworks for local development, particularly in the contexts of rural and local economic development.
3. To enable students to apply these analytical frameworks to examine relevant economic phenomena by integrating interdisciplinary knowledge—specifically from political science, sociology, and development studies—to understand issues and provide systematic recommendations and solutions.

4. To provide students with a concrete understanding of local development in practice, covering the linkages between national and provincial policies; governance and development management models at central, regional, and local levels; the roles of various stakeholders; and emerging trends and contemporary case studies.
5. To provide students with opportunities to practice functional listening, speaking, reading, and writing skills, while effectively utilizing educational technology to enhance learning efficiency and communication.

Learning Management and Evaluation

CLO	Learning Management	Evaluation
CLO1: Remember and understand concepts, theories, and frameworks in economics in the context of local and agricultural development. (K1)	• Lecture • Problem-based Learning	• Exams
CLO2: Apply relevant economic theories in the context of local and agricultural development and integrate with other social sciences disciplines (K2, K3)	• Problem-based Learning	• Exams • Assigned PBL tasks.
CLO3: Point out relevant economic theories and analyze the scenario(s) provided effectively and provide practical suggestions for relevant economic and social issues (K2)	• Problem-based Learning	• Exams • Assigned PBL tasks.
CLO4: Acquiring intellectual skill and ability to think systematically to identify research topics, perform research, process data, and evaluate findings. (S1)	• Problem-based Learning	• Observation of PBL participation. • Assigned PBL tasks.
CLO5: Acquire analytical and communication skills and ability to interpret data from different sources, analyze and integrate knowledge to propose appropriate problem-solving	• Problem-based Learning	• Observation of PBL participation. • Assigned PBL tasks.

CLO	Learning Management	Evaluation
guidelines for economic and social issues (S2).		
CLO6: Acknowledge moral values and exhibit ethical traits, including decency, selflessness, and integrity (E1)	• Problem-based Learning	• Observation of PBL participation.
CLO7: Showing self-discipline, social responsibility, and good citizenship. (E2)	• Lecture • Problem-based Learning	• Observation of PBL participation.
CLO8: Respect rights, opinions, values, and dignity of others. Obey organizational and societal rules and regulations. (E3)	• Problem-based Learning	• Observation of PBL participation.
CLO9: Ability to effectively complete assigned tasks and responsibilities. (C1)	• Problem-based Learning	• Assigned PBL tasks.
CLO10: Ability to initiate problem analysis independently and/or in teamwork. (C2)	• Problem-based Learning	• Assigned PBL tasks.
CLO11: Acquire leadership and collaborative skills and respect different viewpoints. (C3)	• Problem-based Learning	• Assigned PBL tasks. • Observation of PBL participation.

Learning Assessment Plan

Methods of Learning Assessment	Assessment Week	Proportion of Assessment	Relevant CLOs
• Midterm Exam • Final Exam	Feb 23 May 5	30% 40%	CLO1, CLO2
• Assigned PBL tasks.	Feb 2,16 Mar 9, 30 Apr 27	30% (5 PBLs, each for 6%)	CLO2, CLO3, CLO4, CLO5, CLO6, CLO7, CLO8, CLO9, CLO10, CLO11

Recommended Texts & Materials

Eicher, Carl K. and Staatz, John M. (edited). (1998). *"International agricultural development, Third Edition"*. Baltimore (Md.) : Johns Hopkins university press, 1998. [ES]

Green Leigh, Nancey, and Edward J. Blakely (2017). *"Planning Local Economic Development: Theory and Practice, Sixth Edition"*. Thousand Oaks, CA: Sage. [GLB]

Scoones, Ian. 1998. "Sustainable Rural Livelihoods: A Framework for Analysis." *IDS Working Paper* 72. https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/3390. [S]

Taylor, J. Edward, and Irma Adelman. 2003. "Agricultural Household Models: Genesis, Evolution, and Extensions." Review of Economics of the Household 1 (1/2): 33–58. [TA]

Ostrom, E. (2002) Type of good and collective action, Workshop in Political Theory and Policy Analysis, Indiana University. [O1]

Ostrom, E. (2011) Background on the Institutional Analysis and Development Framework, The Policy Studies Journal, 39(1): 7-27 [O2]

Suggested Readings:

อรรถจักร สัตยานุรักษ์ (2559). ลืมตาอ้าปาก จาก "ชาวนา" สู่ "ผู้ประกอบการ". กรุงเทพฯ: มติชน. 160 หน้า

Grading Criteria:

Grades	**A**	**B+**	**B**	**C+**	**C**	**D+**	**D**	**F**
Scores	> 90 (or no more than 15% of the class)	85	80	70	60	55	50	< 50

Tentative Class Schedule:

Date	Topics	Remarks
Jan 5	**Basic concepts** - Introduction - **Development Concepts*** - **Dynamic of Rural Development*** - **Interplay between rural and urban development*** - **Sustainable Livelihood Framework and Sustainable Development in Local Development*** Introduction to Problem-Based Learning	
Jan 12		
Jan 19		
Jan 26	**PBL 1: Agriculture** <u>Key concepts & theories</u> - Agricultural Household Model - Agricultural Technology - Sustainable Agriculture	
Feb 2		
Feb 9	**PBL 2: Financial Resource** <u>Key concepts and theories</u> - Financial Market in Rural Areas - Micro Credit	
Feb 16		
Feb 23	Midterm	
Mar 2	**PBL 3: Natural Resources** <u>Key concepts & theories</u> - **Collective Action*** - **Community-Based Natural Resource Management*** - Land Economics	
Mar 9		
Mar 16	---Speaker---	Two sections combined
Mar 23	**PBL 4: Human Capital** <u>Key concepts & theories</u>	
Mar 30		

Date	Topics	Remarks
	- Inequality in Education - Inequality in Health	
Apr 6	Chakri **PBL 5: Environmental Justice – Week 1 (Online)** <u>Key concepts & theories</u> - Climate Change and Climate Adaptation - Environmental Justice - Polluter Pay Principle - Payment for Ecosystem Service	
Apr 20	---Speaker---	Two sections combined
Apr 27	**PBL 5: Environmental Justice – Week 2** (Continued)	

*Tentatively shared topics between sections

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Syllabus

EE 376 Economics of Climate Change

Semester 2/2025

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.

Course Objectives:

Students will be equipped with the basic principle of climate change science and it linkages and impacts to the economy including the economic knowledge and analytical skills to assess the economic implications of climate change, evaluate policy options for climate mitigation and adaptation.

Expected Learning Outcomes

1. Morality and Ethics EE376

Applicability	Expected Learning Outcomes	Evaluation Method
●	11. Students demonstrate integrity.	Quizzes and assignments
●	12. Students prioritize social and public benefits over personal ones.	
●	13. Students are punctual and comply with the code of conduct of the institution and society at large.	

●	14. Students are responsible and accountable to society, the nation, and the subject of economics.	
●	15. Students realize the cultural and environmental value of a sustainable society.	

2. Knowledge

Applicability	Expected Learning Outcomes	Evaluation Method
●	11. Students know and understand modern economics principles and theories, and are up to date with new developments.	Quizzes, assignments, and exam
●	12. Students know and understand Thai and global economic structure and the importance of major international economic events.	
O	13. Students know and understand the instruments of economic analysis.	
●	14. Students know and understand applied fields in economics, including monetary, public, international, business, natural resource, and environmental, industrial, agricultural, cooperative, political, developmental, and entrepreneurial economics as well as agribusiness.	
●	15. Students are informed about related fields including sociology, business administration, education, law policy, and science.	

3. Intellectual Development

Applicability	Expected Learning Outcomes	Evaluation Method
●	7. Students have developed individual critical thinking.	Group project
●	8. Students are sufficiently trained in research skills.	
●	9. Students demonstrate an ability to analyze and synthesize data, as well as appropriately integrate economics concepts to understand the causes of current	

	economic problems in Thailand. Based on analysis and synthesis, students demonstrate an ability to propose policy guidelines to resolve problems.	

4. Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes	Evaluation Method
●	11. Students are responsible for assigned tasks and work in groups effectively.	Group project
●	12. Students have problem-solving skills.	
O	13. Students show leadership skills and team spirit.	
●	14. Students are always improving themselves.	
O	15. Students have good interpersonal skills, adapt, and work under different conditions.	

5. Quantitative Analysis, communication, and information technology

Applicability	Expected Learning Outcomes	Evaluation Method
O	7. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	Assignments
O	8. Students communicate effectively and select appropriate presentation methods.	Group project
O	9. 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

Learning Management and Evaluation

CLO	Learning Management	Evaluation	PLOs
C1. Understand the basic principle of climate change science related to greenhouse gas emissions and their impacts on the environment and the economy	Lectures and readings from IPCC's documents	Excercises, homeworks, and exams	K1, K3, K4, E1-E3
C2. Apply the concepts of market failure to analyze how they lead to climate change	Lectures with economic graphs and calculations to demonstrate with examples	Excercises, homeworks, and exams	K1-K4, E1-E3
C3. Understand the concept of carbon pricing as a tool to mitigate greenhouse gas emissions and be able to compare its pros and cons as well as the impacts of differences in carbon pricing levels on international trade and investment issues	Lectures with economic graphs and calculations to demonstrate with empirical studies	Excercises, homework, and exams	K1-K4, E1-E3
C4. Understand the usage of carbon labeling and nudge to enhance sustatinable consumption choices	Lectures with economic graphs and calculations to demonstrate with examples	Excercises, homeworks, and exams	K1-K4, E1-E3
C5.Analyze and evaluate vareities of mitigation measures to achieve global desirable temperature	Apply EN-ROADS Climate Solution Simulator	Assignments	S1, S2, E2

C6. Understand the role of global climate-change institutions and important regulations of climate agreements and their economic and social consequences	Lectures with examples and case studies	Exams	K1, K3, K4, E1-E3
C7. Understand the concept of adaptation economics and project evaluation tools	Lectures with examples and case studies		
C8. Construct an infographic poster to using data and information with proper visualization and citation, presenting sharp arguments linking the topic with the economics of climate change mitigation and/or adaptation, cost-effectiveness evaluation when applicable, attractive and reader-friendly poster design	Student group project with oral presentation to the class	Peers and instructor evaluations, and Facebook's likes and shares	K1-K4, S1, S2, E1-E3, C1, C2, C4

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
C1. Climate science	Excersise 1, exam	2nd	Midterm Exam 35% Final Examination 35% Exercises & Assignments 15%
C2 Market failure	Excersise 2, exam	4th	

C3 Carbon pricing	Excersise 3, exams	6th	Poster 15%
C4 EN-ROADS Simulator	Assignment 1, exam	8th	
C5 Sustainable consumer choices	Assignment 2, exam	10th	
C6 Global Climate Institution	Final Exam		
C7 Economics of Adaptation	Final Exam		
C8 Infographic Poster and Presentation	Poster	14th and 15th	

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 (2023) 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/

Lecture Schedule

Date	Topics
1	**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.
2	**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 **Exercise 1:** topic #1 and #2
3	**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

4	**4. Carbon Taxes**
	• Optimum emission
	• Correction market failure with carbon
	  ○ Single source
	  ○ Multiple sources
	• Pros and cons of carbon taxes
	• Carbon tax research
	Reading: HR Ch. 16, T Ch. 4, Pearce, David (1991) pp. 938-948.
	Exercise 2: topic #3

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

Date	Topics

	• 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

6	**6. Carbon pricing and international competitiveness** • Theoretical background • Economic impacts of ETS • Economic impacts of carbon tax • Competitiveness impacts **Reading:** Tantivasadakarn, Chayun; "Carbon Pricing and International Competitiveness for Thailand and ASEAN," Thammasat Review of Economic and Social Policy, Vol. 6, No. 2, July-December, 2020. **Exersise 3**: topic #5 - 6
7	**7. Climate change, International Trade, and Investment** • Carbon offshoring and Carbon leakages • Concepts about GHGs responsibility ○ Production-based and consumption-based responsibility **Reading:** Incropera Ch. 8, T Ch. 8-9
	Midterm
8	**8. Carbon Border Adjustment Mechanism** • Border-Carbon Adjustment (BCAs) or Carbon-Border-Adjustment Measures (CBAM) • proponent and opponent views • EU's Carbon Border Adjustment Measure **Assignment 1:** En-Roads model
9	**9. Sustainable consumer choices** **9.1 Carbon Labeling** • Life cycle assessment (LCA) • What is carbon labelling? • Economics of carbon labelling • Types of carbon labelling • Carbon labelling situation in other countries and Thailand

Date	Topics
	9.2 Behavioral Economics and climate mitigation • Concept of nudge • Applications
10	**9. 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 • Paris Agreement **Reading:** Incropera Ch. 8, T Ch. 5 **Assignment 2**: topic# 9.1
11-12	**10. Economics of Climate Change Adaptation** • Climate risks • Climate change adaptation • Cost-Benefit Analysis (CBA) concept • Social discount rates **Reading:** FF Ch.6Stern Ch. 5,6, 9, 12, 18-20, Nordhaus Ch.15-16, 18
13-14	**11. Group project presentation (9:00-12:00, 13:00-16:00)**
	Final exam

Evaluation

Midterm Examination	35%
Final Examination	35%
Exercises and Assignments	15%
Poster and presentation	15%

Infographic Poster and Presentation (15 points):

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

Suggested topic lists:

EV battery technology	Mass transit system	**Early Warning Systems and Climate Monitoring**	**Nature-based adaptation**
Concentrating solar power	Climate-smart agriculture	**Circular economy**	Funding climate technology
Biomass energy	Green Hydrogen	Water management	Food waste management
Bio fuel	Plant-based meat	Flood management	Forest management
Small Modular Nuclear Reactor	Coral reef restoration technology	Solid waste management	Renewable energy and grid stability
Small wind turbine energy	Urban Planning and Green Infrastructure	Waste water management	Climate Justice and Equity Issues
Carbon Capture and Storage (CCS)	Low carbon tourism	Climate-related health issues	Data Centers and AI impacts on climate change

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**, cost-effectiveness evaluation when applicable, and an attractive and reader-friendly poster design. The total mark will come from instructor evaluation (7 marks), peer evaluation (4 marks), and Facebook like and share (4 marks)

Your oral presentation would take 12 minutes (without any notes!) and 3 minutes of Q&A.

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

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE401 POLITICAL ECONOMICS

Semester 2/2025

Number of Credit: 3 Credits

Prerequisite: TBD

Course Description

Foundation of international political economy; theories and approaches in international political economy; changes in global political and economic orders; power relations and bargaining processes in international politics and their impact on allocation and distribution of economic resources; transnational factor and resource mobilization.

Course Objectives:

This course is designed to give the students the tools necessary to understand how the economic systems of the world effect both the domestic economies and politics of countries, and how these interact on the world stage. While the class will address the political landscape, systems, and the leadership that they produce, the primary (not sole) approach will be economic. That is to say, it will usually assume that the economic structure in turn determines the political structure. The other causality you should have addressed already.

Text:

International Political Economy, Seventh edition, Thomas Oatley. A link to a legal copy is available in Teams.

Notes, Note taking, and Attendance:

I DO NOT use power point for the most part, I lecture and use the board. I give each lecture off of prepared notes, which will be available before class, via Teams. I would recommend that you print out a copy of them for yourselves, or have them available on your tablet/laptop, 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.

Microsoft Teams:

I manage notes, online makeup classes, etc. through Microsoft Teams. In the event that the Wuhan Flu returns, floods, political unrest etc., if the University shuts down again, class will then be maintained via teams and meet.

Cheating:

Don't. If you do, and I catch you, you will be reported to the program director for the

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 2 hours in length, the final will be 3 hours in length. Students will have a choice of what questions to answer. A sample exam will be passed out before the first exam. Each exam is worth a percentage of your grade as given below. The Midterm exam will cover material from the first half of class, the Final exam will be comprehensive, though it will be weighted towards materials studied in the second half of the semester. The exam schedule is given below:

Midterm Exam:	40%
Final Exam:	60%

Tentative Class Schedule:

Date Topic Readings

Week 1: Introduction to International Political Economy

Readings: Oatley, International Political Economy, Chapter 1

Week 2: The WTO and the World Trade System

Readings: Oatley, International Political Economy, Chapter 2

Week 3: The Political Economy of International Trade Cooperation

Readings: Oatley, International Political Economy, Chapter 3

Week 4: A Society-Centered Approach to Trade Politics

Readings: Oatley, International Political Economy, Chapter 4

Week 5: A State-Centered Approach to Trade Politics

Readings: Oatley, International Political Economy, Chapter 5

Week 6: Trade and Development I: Import Substitution Industrialization

Readings: Oatley, International Political Economy, Chapter 6

Week 7: Trade and Development II: Neoliberalism and Institutionalism

Readings: Oatley, International Political Economy, Chapter 7

Week 8: Multinational Corporations in the Global Economy

Readings: Oatley, International Political Economy, Chapter 8

Week 9: The Politics of Multinational Corporations

Readings: Oatley, International Political Economy, Chapter 9

Week 10: The International Monetary System

Readings: Oatley, International Political Economy, Chapter 10

Week 11: Cooperation, Conflict, and Crisis in the Contemporary International Monetary System

Readings: Oatley, International Political Economy, Chapter 11

Week 12: A Society-Centered Approach to Monetary and Exchange-Rate Policies

Readings: Oatley, International Political Economy, Chapter 12

Week 13: A State-Centered Approach to Monetary and Exchange-Rate Policies

Readings: Oatley, International Political Economy, Chapter 13

Week 14: Developing Countries and International Finance 1:: The Latin American Debt Crisis

Readings: Oatley, International Political Economy, Chapter 14

Week 15: Communism, Liberalism, Mercantilism

Readings: TBD

Week 16 TBD, Review for Final Exam

Readings: TBD

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE406 Contemporary Economic Issues

Semester 2/2025

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

Prerequisite: EE211 and EE212

Course Description:

This course is a general introduction to the subject matter and methods of economics, through the investigation of specific contemporary economic issues such as economic growth, inequality, poverty, and environmental deterioration. The focus also is on how economists address these issues.

Course Objectives:

This course aims to provide students with a general knowledge about "contemporary" economic issues such as that of inequality, poverty, labour market institutions, social welfare, and environmental deterioration.

To do so, the course will focus on two connected themes: trends of inequality and policies for inequality reduction. The study of inequality examines the current nature of the problems, and the future trends that will create profound impact. Two trends will be investigated to look at their impact on the changes in inequality. These trends include (1) technology change, (2) climate change. The course also looks at the connection between middle income trap and inequality, in order to examine how inequality is intertwined with the inability to achieve economic growth.

After the study of inequality, the course will focus on policies for reducing inequalities. The policies that will be covered include, for example, education policies, health policies, social protection policies, taxation and other aspects of public finance, and the political economy of inequality reduction. The aim of the course's study of these policies is to explore pathways that can address the challenges in reducing inequality.

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

1. Equip students with tools to understand economic issues using definitions, principles, measurement, and observation;

2. Make students acquainted with economic data such as poverty rate, inequality indicators, labor market statistics, and budgetary statistics, and other indicators concerning public health and education;

3. Train students on academic writing and presentation through class assignments and guide the development of research methods.

Evaluation:

- Midterm examination 30%
- Final examination 40%
- Group assignment and presentations 20%
- In class activities and participation 10%

Text and Readings:

- Class slides and references
- United Nations (2020). World Social Report 2020: Inequality in a Rapidly Changing World. United Nations Department of Economic and Social Affairs
- McKinsey Global Institute (2017). A Future that Works: Automation, Employment, and Productivity. McKinsey&Company
- World Bank (2024). World Development Report 2024: The Middle Income Trap. World Bank Group
- International Labour Organization (2022). World Social Protection Report 2020-2022. Social Protection at Crossroads – in Pursuit of a Better Future.
- Pitidol Thorn (2014). Communitarianism and the Expansion of Freedom, Book for V-Reform. Thai Health Foundaion. (in Thai: ธร ปีติดล (2557) *แนวคิดเรื่องชุมชนนิยมกับการสร้างเสริมเสรีภาพ.* ชุดหนังสือสำรวจองค์ความรู้เพื่อการปฏิรูปประเทศไทย มูลนิธิสาธารณสุขแห่งชาติ)
- Pitidol Thorn (2021). The History of Thailand's Welfare System: A Comparative Study of Factors and Paths of Welfare State Development. Faculty of Economics, Thammasat University (in Thai: ธร ปีติดล (2564) *ประวัติศาสตร์ระบบสวัสดิการในประเทศไทย: การศึกษาเปรียบเทียบปัจจัยและเส้นทางพัฒนาการของระบบสวัสดิการไทยกับสากล* คณะเศรษฐศาสตร์ มหาวิทยาลัยธรรมศาสตร์)

- Pitidol, Thorn (2024). *Building Thailand's Welfare System*. FES-Thailand Publication. (in Thai: ธร ปีติดล. การผลักดันระบบสวัสดิการในประเทศไทย. มูลนิธิฟรีดริทเอแบร์ท ประเทศไทย)

- Pitidol, Thorn (2024). *Ideologies and Narratives in Thailand's Welfare System*. FES-Thailand Publication. (in Thai: ธร ปีติดล. แนวคิดและอุดมการณ์ในระบบสวัสดิการไทย. มูลนิธิฟรีดริทเอแบร์ท ประเทศไทย)

Lecture notes

- EE406 Contemporary Economic Issues Lecture Notes, January 2024, Thorn Pitidol, Faculty of Economics, Thammasat University.

*Additional mandatory and suggested reading lists under each chapter will be provided via google classroom. Please regularly check for the readings to be assigned for each topic in Google Classroom.

Class Policies:

The classes will consist of (1) lecture (2) class activities, and (3) group works preparation. 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 defense.

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 Google Classroom.

In-class Activities and participation score:

For each topic, there will be in-class activities to assist students reviewing key contents, and checking their understanding. The activities consist of, for example, discussions, debates, a quick exchanges, and short presentations.

These activities will be recorded and submitted to the lecturer, with the students' participation checked to be their participation score.

Students are expected to do the preparation readings before joining the activities. The content of the activities will be related to group works and final exams.

Group Works:

There will be two group works, one to be submit before mid-term, and another to be submit before final exam.

Students will be divided into groups. The total number of groups shall not exceed 7 groups. Each group work comprises of a report and a presentation. 4-5 topics will be provided for selection.

To aid the preparation, after the topic is selected, there will be 2 time slots for students to meet with the lecturer to help them go through their preparation of the report and the presentation.

In the final week before mid-term and final exam, student will need to submit their report and do the presentation. Students are expected to take their presentation in a similar way to their participation in the case-competition.

Topics

<u>Theme 1: Trends in inequality</u>

1. Inequality: overview (Week 1-3)

- Economic inequality: global perspectives
  - Income inequality across countries
  - Trend within countries
  - Inequality of opportunity
  - The price of inequality
- Inequality: the case of Thailand
  - Important trends
  - Vulnerable groups
- **Week3 - Inequality: the case of ASEAN (guest lecture)**

2. Technology and inequality (Week 4-5)

- The technological revolution: winners and losers
    - Technology, employment, and inequality
    - The case of platform economy
    - The case of automation
    - Technological divide and opportunity for inclusion
- The case of Thailand
    - Ensuring fair competition
    - Quality work

3. Climate change and inequality (Week 6-7)

- Channels and determinants
- Unequal exposure and impacts across countries
- Unequal exposure and impacts within countries
- Distribution effects of climate action

[week 8- mid-term exam]

<u>Theme 2 Policies for inequality reduction</u>

4. Middle income trap and inequality (Week 9-10)

- Middle income trap: meaning and situation
- Why middle-income trap happened? The connection between middle income trap and inequality
- Successful transition away from middle-income trap: what are needed

5. Social protection (Week 11-14)

- From Covid 19 pandemic to the need to focus on social protection
    - Covid-19, vulnerability, and inequality
    - Covid-19 and the policy gaps
- Social protection
    - Meanings and rationale
    - Global challenges
    - Current gaps
- Financing social protection
    - Types of social protection policies and financing options
    - Different combinations of policies and implications
- Diagnosing social protection gaps in Thailand
    - Context and challenges
    - Current landscape
    - Diagnosing gaps

7. Education and health (Week 15&16)

- Education, health, and inequality
- Understanding educational and health inequality
- The case of Thailand

Class Schedule

Week	Topics (Tentative)	
1	Introduction	Inequality: global perspective
2	Inequality: case of Thailand	In-class activities and group work preparation
3	**Inequality: the case of ASEAN (Guest Lecture)**	
4	Technology and inequality	In-class activities
5	Technology and inequality	In-class activities
6	Climate change and inequality	In-class activities and group work preparation
7	Climate change and inequality	Group work 1 presentation
8	Mid-term exam week	
9	Middle-income trap	In-class activities
10	Middle-income trap	In-class activities
11	Social protection: introduction	In-class activities and group work preparation
12	Social protection and inequality reduction	In-class activities

13	Diagnosing social protection gaps in Thailand	In-class activities
14	Education and health	In-class activities
15	Education and health	In-class activities and group work preparation
16	Group work 2 presentation	Closing of the course

Expected Learning Outcomes

1. Morality and Ethics EE406

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

2. Knowledge

Applicability	Expected Learning Outcomes	
●	1. Students know and understand modern economics principles and theories, and are up to date with new developments.	Group works and exams
●	2. Students know and understand Thai and global economic structure and the importance of major international economic events.	Group works and exams
O	3. Students know and understand the instruments of economic analysis.	Group works and exams

●	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.	Group works and exams
●	5. Students are informed about related fields including sociology, business administration, education, law policy, and science.	Group works and exams

3. Intellectual Development

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

4. Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes	
●	1. Students are responsible for assigned tasks and work in groups effectively.	Group works and exams
●	2. Students have problem-solving skills.	Group works and exams
O	3. Students show leadership skills and team spirit.	Group works and in-class activities
●	4. Students are always improving themselves.	Group works and exams
O	5. Students have good interpersonal skills, adapt, and work under different conditions.	Group works and in-class activities

5. Quantitative Analysis, communication, and information technology

Applicability	Expected Learning Outcomes	
O	1. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	Exams
O	2. Students communicate effectively and select appropriate presentation methods.	Group works and in-class activities
O	3. Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	Group works and in-class activities

Remark: ● Primary expected outcome O Secondary expected

Learning Management and Evaluation

CLO	**Learning Management**	**Evaluation**
CLO1.1 Describe and explain key contemporary economic issues including inequality, poverty, and climate change.	Lectures; guided discussions; weekly readings from global and Thai sources.	Midterm and final exams; class participation.
CLO1.2 Analyze the impacts of technological and environmental changes on economic inequality.	Case studies and debates; in-class exercises on automation, climate impact, platform economy.	In-class debates; final exam essays.
CLO2.1 Evaluate inequality reduction policies such as education, health, and social protection using interdisciplinary reasoning.	Lectures and student-led discussions on policy effectiveness; group research and peer feedback.	Group assignments; presentations; final exam policy analysis.

CLO3.1 Collaborate effectively on group assignments and presentations.	Group project assignments; instructor consultations; peer support sessions.	Group project submission and teamwork quality.
CLO3.2 Communicate ideas clearly in academic discussions and group presentations.	Weekly in-class activities; report rehearsals and structured presentations.	Group presentations and class communication tasks.
CLO4.1 Demonstrate academic integrity and responsibility in in-class activities.	Participation tracking; in-class engagement and reflection exercises.	Participation score based on classroom presence and collaboration.

Learning Assessment Plan

CLO	**Methods of Learning Assessment**	**Assessment Week**	**Proportion of Assessment**
CLO1.1 Describe and explain key contemporary economic issues including inequality, poverty, and climate change.	Midterm and final exams; class discussion performance	Weeks 8, 16	30%
CLO1.2 Analyze the impacts of technological and environmental changes on economic inequality.	In-class discussions; final exam analytical essays	Weeks 4–6, 16	10%
CLO2.1 Evaluate inequality reduction policies such as education, health, and social protection using interdisciplinary reasoning.	Group assignments and policy evaluation in final exam	Weeks 9–15	20%
CLO3.1 Collaborate effectively on group assignments and presentations.	Group project submission; peer review and feedback	Weeks 7, 16	10%

CLO3.2 Communicate ideas clearly in academic discussions and group presentations.	Group presentations and instructor evaluations	Weeks 7, 16	10%
CLO4.1 Demonstrate academic integrity and responsibility in in-class activities.	Participation logs; in-class activity tracking and feedback	Throughout semester	20%

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE409 Seminar in Political Economy and Economic History

Semester 2/2025

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

Prerequisite: Having completed at least two 400-level (or the above level) courses in the field of Political Economics and Economic History, excluding EE400, EE404, EE406 and EE500.

Course Description:

Seminar and research on specific topics in Political Economics and Economic History under the supervision of the lecturer.

Course 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:

Time-keeping and Punctuality: 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.

Participation: 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.

Grading Criteria

Individual Term Paper	**60**	**percent**
Writing	30	percent
Presentation/Oral Exam	30	percent
Participation	**10**	**percent**
Research Proposal	**20**	**percent**
Assignments (Research Outline, Preliminary Results)	**10**	**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.

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.

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.
- Pitidol Thorn (2014). Communitarianism and the Expansion of Freedom, Book for V-Reform. Thai Health Foundaion. (in Thai: ธร ปีติดล (2557) ***แนวคิดเรื่องชุมชนนิยมกับการสร้างเสริมเสรีภาพ.*** ชุดหนังสือสำรวจองค์ความรู้เพื่อการปฏิรูปประเทศไทย มูลนิธิสาธารณสุขแห่งชาติ)

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.
- Pitidol, T. (2018). Changing Thailand’s Future with Tax Reform. Thammasat Review of Economic and Social Policy, 4(1), 26–54. https://doi.org/10.14456/tresp.2018.2

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.
- Pitidol Thorn (2021). The History of Thailand’s Welfare System: A Comparative Study of Factors and Paths of Welfare State Development. Faculty of Economics, Thammasat University (in Thai: ธร ปีติดล (2564) ***ประวัติศาสตร์ระบบสวัสดิการในประเทศไทย: การศึกษาเปรียบเทียบปัจจัยและเส้นทางพัฒนาการของระบบสวัสดิการไทยกับสากล*** คณะเศรษฐศาสตร์ มหาวิทยาลัยธรรมศาสตร์)

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 EE409

Applicability	Expected Learning Outcomes	Evaluation Method
●	1. Students demonstrate integrity.	Assignments and Class Participation
○	2. Students prioritize social and public benefits over personal ones.	
●	3. Students are punctual and comply with the code of conduct of the institution and society at large.	Assignments and Class Participation

●	4. Students are responsible and accountable to society, the nation, and the subject of economics.	Assignments and Class Participation
O	5. Students realize the cultural and environmental value of a sustainable society.	

2. Knowledge

Applicability	Expected Learning Outcomes	
●	1. Students know and understand modern economics principles and theories, and are up to date with new developments.	Research Proposal and Final Paper
●	2. Students know and understand Thai and global economic structure and the importance of major international economic events.	Research Proposal and Final Paper
●	3. Students know and understand the instruments of economic analysis.	Research Proposal and Final Paper
●	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.	Research Proposal and Final Paper
O	5. Students are informed about related fields including sociology, business administration, education, law policy, and science.	

3. Intellectual Development

Applicability	Expected Learning Outcomes	
●	1. Students have developed individual critical thinking.	Research Proposal and Final Paper
●	2. Students are sufficiently trained in research skills.	Research Proposal and Final Paper
●	3. Students demonstrate an ability to analyze and synthesize data, as well as appropriately integrate economics concepts to understand the causes of current economic problems in Thailand. Based on	Research Proposal and Final Paper

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

4. Interpersonal Skills and Responsibilities

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

5. Quantitative Analysis, communication, and information technology

Applicability	Expected Learning Outcomes	
●	1. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	Research Proposal and Final Paper
●	2. Students communicate effectively and select appropriate presentation methods.	Research Proposal and Final Paper Presentations
●	3. Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	Research Proposal and Final Paper

Remark: ● Primary expected outcome O Secondary expected

Learning Management and Evaluation

CLO	PLO	Learning Management	Evaluation
CLO1.1 Identify meaningful research questions	K1,K2,K3, K4, C2	Class discussions; individual meetings; review of past research topics.	Participation; early-stage written submissions.
CLO1.2 Critically review and summarize academic literature.	S1, S2	Assigned journal readings; student-led paper discussions.	Paper summary assignments; in-class discussions.
CLO1.3 Design appropriate methodology for empirical or theoretical analysis.	S2,S3	Lectures on research methods; proposal writing workshops; group consultations.	Midterm draft submissions; individual feedback meetings.
CLO2.1 Present research progress clearly and constructively engage with feedback.	E3, C1,C3 C5	Progress presentations; peer comments; individual meeting sessions.	Progress presentation; final presentation. Oral Examination
CLO2.2 Produce a well-structured research report with academic integrity.	E1,E3,E4, C1,C4	Step-by-step writing support; outline reviews; feedback on structure and argumentation.	Final seminar paper (8,000–12,000 words).

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
CLO1.1 Identify meaningful research questions	Class participation; initial topic proposals.	Weeks 1–3	10%
CLO1.2 Critically review and summarize academic literature.	Paper summary assignments; leading paper discussions.	Weeks 4–6, 9–11	10%
CLO1.3 Design appropriate methodology for empirical or theoretical analysis.	Rough draft submissions; methodology feedback sessions.	Weeks 6–7, 13	20%
CLO2.1 Present research progress clearly and constructively engage with feedback.	Progress presentation; peer feedback during class.	Week 12, 16	20%
CLO2.2 Produce a well-structured research report with academic integrity.	Final presentation/Oral Examination and final report.	Week 16 (presentation), Week 17 (report)	40%

Tentative Class Schedule:

Week	Agenda	Assignment
1	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		
3	Outlining the steps for research and group comment on past papers	Yes – Powerpoint presentation
4	Reviewing research question	Yes – Group Discussion
5	Literature review – individual consultation	Yes – Group Discussion
6	Research methods – individual consultation	Yes – Group Discussion
7	Workshop- How to write a good research paper	
8	Midterm Week, No Class.	
9	Presenting a proposal	Yes - Powerpoint presentation And a proposal paper
10	Consultation on progress	Yes – Group Discussion
11	Consultation on progress	Yes – Group Discussion
12	Consultation on progress	Yes – Group Discussion
13	Consultation on progress	Yes – Group Discussion
14	Presenting preliminary results	Yes – Powerpoint Presentation
15	Final check	Yes – Group Discussion
16	Final Presentation – Results and Discussion	Submit your draft final
	Submit Your Final Paper	

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE415 GAME THEORY

Semester 2/2025

Course Description

The application of game theory under complete and incomplete information including strategic games, Nash Equilibrium; Mixed-Strategies Equilibrium; Extensive games; Subgame perfect equilibrium; Bayesian game; Extensive game of incomplete information; other applications of game theory.

Prerequisites: EE311 and EE320 (or EE421)

Course Objective:

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

Expected Learning Outcomes

CLOs	PLOs	Activities	Assessment
CLO1 Demonstrate a thorough understanding of key concepts in game theory, including Nash equilibrium, dominant strategies, and mixed strategies.	K1, S1, E1, C1, C4	- Lectures - Class Assignment	Midterm Exam 30% Final Exam 40% Class Assignment 30%
CLO2 Analyze strategic interactions in various economic, political, and social settings using formal game-theoretic models.	K2, S1, S2, E3, C2	- Lectures - Class Assignment	Midterm Exam 30% Final Exam 40% Class Assignment 30%

CLO3: Evaluate the implications of strategic behavior on policy design and economic outcomes.	K2, S2, E1, E3, C1, C2	- Lectures - Class Assignment	Midterm Exam 30% Final Exam 40% Class Assignment 30%
CLO4: Develop critical thinking skills by identifying assumptions, limitations, and alternative approaches within game-theoretic models.	K4, S2, E3, C4	- Lectures - Class Assignment	Midterm Exam 30% Final Exam 40% Class Assignment 30%

Learning Management and Evaluation

CLO	Learning Management	Evaluation
CLO1 (K1, S1, E1, C1, C4) Demonstrate a thorough understanding of key concepts in game theory, including Nash equilibrium, dominant strategies, and mixed strategies.	• Lecture with guided derivations (definitions and equilibrium concepts) • In-class worked examples and short problem-solving drills • Weekly practice problems / structured problem sets (progressive difficulty) • Independent study prompts (students identify what they need to review/learn next) • Short reflection checks to encourage active learning and continuous improvement	• Class assignments / problem sets (concept checks and solution quality) • Midterm exam (core concepts and standard problems) • Final exam (comprehensive, including mixed strategies and advanced equilibrium concepts)

CLO2 (K2, S1, S2, E3, C2) Analyze strategic interactions in various economic, political, and social settings using formal game-theoretic models.	• Modelling workshops (translate narratives to normal/extensive form) • Guided discussion of applications (e.g., entry, pricing, bargaining, voting) • Small-group board work / solution walk-throughs (students explain steps) • Structured discussion rules (listen, respect different viewpoints, critique ideas not people) • Homework emphasising model set-up, interpretation, and clear communication	• Class assignments (model formulation, equilibrium analysis, and interpretation) • Midterm exam (modelling, solving, and interpretation) • Final exam (applied questions; includes dynamic and/or incomplete-information contexts)
CLO3 (K2, S2, E1, E3, C1, C2) Evaluate the implications of strategic behavior on policy design and economic outcomes.	• Lecture linking models to policy questions (commitment, institutions, and incentives) • Case-based discussion (how outcomes change under alternative rules) • Short applied write-ups: model → equilibrium → welfare/policy implications • Peer feedback sessions (students provide constructive comments and revisions) • Emphasis on academic integrity and responsible reasoning in policy recommendations	• Class assignments (applied write-ups / policy-implication tasks) • Midterm exam (interpretation and implications for simpler models) • Final exam (policy/welfare implications in repeated and incomplete-information settings)

CLO4 (K4, S2, E3, C4) Develop critical thinking skills by identifying assumptions, limitations, and alternative approaches within game-theoretic models.	• "Assumptions audit" activities (what drives the result?) • Compare solution concepts (NE vs. SPNE vs. PBE) using the same scenario • Reflection prompts embedded in assignments (limitations, robustness, alternative modelling choices) • Independent extension tasks (students explore a new application or extension to deepen understanding) • Peer review of solution write-ups (clarity, logic, and respectful critique)	• Class assignments (quality of reasoning, clarity, robustness, and reflection components) • Midterm exam (identify assumptions/structure and select suitable solution concept) • Final exam (critical evaluation across game forms; includes signalling/PBE contexts)

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
CLO1	• Class assignments / problem sets • Midterm exam • Final exam	• Weeks 1–15 (ongoing) • Week 7 (Feb 25) • After Week 15 (May 18)	• 25% • 35% • 40%
CLO2	• Class assignments / modelling exercises • Midterm exam • Final exam	• Weeks 1–15 (ongoing) • Week 7 (Feb 25) • After Week 15 (May 18)	• 25% • 35% • 40%
CLO3	• Class assignments / applied write-ups (policy implications) • Midterm exam • Final exam	• Weeks 1–15 (ongoing) • Week 7 (Feb 25) • After Week 15 (May 18)	• 25% • 35% • 40%

CLO4	· Class assignments / critical reasoning components · Midterm exam · Final exam	· Weeks 1–15 (ongoing) · Week 7 (Feb 25) · After Week 15 (May 18)	· 25% · 35% · 40%

Evaluation

Midterm Exam	35 %
Final Exam	40 %
Class Assignment	25 %

Main Text

1. Avinash Dixit, Susan Skeath and David McAdams. (2021) Games of Strategy, 5th edition, W.W. Norton & Company. (ASD)
2. Joel Watson (2013) Strategy: An Introduction to Game Theory, 3rd edition, W.W. Norton & Company. (W)
3. Joseph Harrington Jr. (2014) Games, Strategies and Decision Making. Worth Publishers. (Second edition). (H)

Other Recommend Text

1. Prajit K. Dutta (1999) Strategis and Games : Theory and Practice, 1st edition, MIT Press (PD)

Week	Date	Course Content	Reading References
1	Jan 7	Structure of the Game	ASM Ch 1-2, W Ch 2-3
2	Jan 14	Simultaneous Move Game	ASM Ch 1-2, W Ch 2-3
3	Jan 21	Sequential Move Game	ASM Ch 3, W Ch 2-3
4	Jan 28	Nash Equilibrium	
5	Feb 4	Mixed Strategy	ASM Ch7
6	Feb 11	Subgame and Subgame Perfection	ASM Ch 6
7	Feb 18	Subgame and Subgame Perfection: Application	

Week	Date	Course Content	Reading References
		Midterm Exam	
8	Mar 4	Repeated Game	ASM Ch9
9	Mar 11	Games with Incomplete Information and Bayes-Nash Equilibrium	W Ch.28
10	Mar 18	Games with Incomplete Information and Bayes-Nash Equilibrium: Application	
11	Mar 25	Perfect Bayesian Equilibrium	W Ch 29
12	Apr 1	Perfect Bayesian Equilibrium	W Ch 29
13	Apr 8	Signaling Games and The Lemons Problem	
	Apr 15	Songkran Holiday: No Class	
14	Apr 22	Perfect Bayesian Equilibrium: Other Application	
15	Apr 29	Review Session	
		Final Exam	

Course Outline

EE416 Behavioral Economics

Semester 2/2025

Course Description:

Concepts and frameworks in behavioral economics including a comparative study of models for decision under uncertainty between mainstream economics and behavioral economics, empirical evidence that support behavioral economics, models that incorporate psychological and sociological factors for consumer and social behaviors, and other topics that the lecturer finds suitable.

Prerequisite: Have earned credits of EE311

EVALUATION:

BE Free-form Project: **10%**

What? Mini project customized to your interest related to behavioral economics,

Type: Individual or group work with no more than 5 people

Deadline: Friday, 29th May 2026

BE TED Talk: **10%**

What? Pick a research paper related to behavioral economics and present it in 8-minutes TED-Talk style

Type: Individual or group work with no more than 5 people

When? After the midterm exam

BE Term Project: **25%**

What? Research project which you can choose one in the following three routes: Research Insight, Business Insight, or Policy Insight, with a poster presentation

Type: Individual or group work with no more than 5 people, the group can choose to do an unanimous peer review after finishing the group work

Deadline: Friday, 29th May 2026

Midterm Exam: 25%

Covering content in classes up until February 20th; a calculator is allowed.

Final Exam: 30%

Covering all content from the beginning till the end of the semester; one A4 note (2 pages front and back) and a calculator are allowed.

Note: There might be marginal points for participation, beyond total 100 points above.

Grading Criteria:

Grading on a curve.

In the past, students who earned at least 86 points received an A, those who earned at least 78 points received a B+, those who earned at least 70 points received a B, and a score of 39 was the benchmark for a grade of F.

MAIN TEXTBOOK

Dhami**, S. (2016). ***The foundations of behavioral economic analysis. Oxford University Press.

Puey Ungphakorn Library, Tha Phra Chan campus, HB74.P8 D43 2016

***Cartwright**, E. (2024). **Behavioral Economics, Fourth Edition**. Routledge. https://doi.org/10.4324/9781003357971

Dhami, S. (2025). ***Principles of Behavioral Economics: Microeconomics and Human Behavior***. Cambridge: Cambridge University Press.

Dhami, S. (2019). ***Foundations of Behavioral Economic Analysis: Volume 1 Behavioral Economics of Risk, Uncertainty, and Ambiguity***. Oxford University Press.
Puey Ungphakorn Library, Tha Phra Chan campus, HB74.P8 D43 2019 V. 1

Dhami, S. (2019). ***Foundations of Behavioral Economic Analysis: Volume 2 Other-Regarding Preferences***. Oxford University Press.

Puey Ungphakorn Library, Tha Phra Chan campus, HB74.P8 D43 2019 V. 2

Dhami, S. (2019). ***Foundations of Behavioral Economic Analysis: Volume 3 Behavioral Time Discounting***. Oxford University Press.
Puey Ungphakorn Library, Tha Phra Chan campus, HB74.P8 D43 2019 V. 3

Dhami, S. (2019). ***Foundations of Behavioral Economic Analysis: Volume 4 Behavioral Game Theory***. Oxford University Press.
Puey Ungphakorn Library, Tha Phra Chan campus, HB74.P8 D43 2019 V. 4

Dhami, S. (2020)***. Foundations of Behavioral Economic Analysis: Volume 5 Bounded Rationality***. Oxford University Press.
Puey Ungphakorn Library, Tha Phra Chan campus, HB74.P8 D43 2020 V. 5

Dhami, S. (2020). ***Foundations of Behavioral Economic Analysis: Volume 7 Further Topics in Behavioral Economics***. Oxford University Press.
Puey Ungphakorn Library, Tha Phra Chan campus, HB74.P8 D43 2020 V. 7

RECOMMENDED BOOKS:

- Angner, Erik. ***A course in behavioral economics***. Bloomsbury Publishing, 2020.
- Corr, P., Plagnol, A. ***Behavioral Economics the basics***. London: Routledge, 2019
  Companion site: https://www.behavioraleconomicsbasics.net/
- Kahneman, D. ***Thinking, fast and slow***. New York, NY, US: Farrar, Straus and Giroux, 2011
- Sunstein, Cass R. ***Behavioral Science and Public Policy***. Cambridge: Cambridge University Press, 2020
- Sunstein, Cass R. ***Sludge: What Stops Us From Getting Things Done And What To Do About It***. MIT Press, 2021
- Thaler, R. H. ***Misbehaving: The making of behavioral economics***. 2015.
- Thaler, Richard H., and Cass R. Sunstein. ***Nudge: Improving decisions about health, wealth, and happiness***. Yale University Press, 2008.
- Wendel, Stephen. ***Designing for behavior change: Applying psychology and behavioral economics***. O'Reilly Media, 2020.
- Lembke, A. (2021). ***Dopamine nation: Finding balance in the age of indulgence***. Dutton.
- Gneezy, U., & List, J. A. ***The why axis: Hidden motives and the undiscovered economics of everyday life***. Public Affairs Books, 2013

- Gneezy, U. ***Mixed Signals: How Incentives Really Work***. Yale University Press, 2023
- Hershfield, H. ***Your Future Self: How to Make Tomorrow Better Today***. Little, Brown Book Group Limited, 2023
- Thaler, R. H., & Imas, A. O. ***The winner's curse: Behavioral economics anomalies, then and now***. Simon & Schuster, 2025.
- Kahneman, Daniel, Olivier Sibony, and Cass R. Sunstein. ***Noise: A Flaw in Human Judgment***. Updated ed., Little, Brown Spark, 2022.

Expected Learning Outcomes:

- **Morality and Ethics**

Applicability	Expected Learning Outcomes
●	1.1 Students demonstrate integrity.
O	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.
O	1.4 Students are responsible and accountable to society, the nation, and the subject of economics.
O	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.
O	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.
O	4.3 Students show leadership skills and team spirit.
●	4.4 Students are always improving themselves.
O	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.

Learning Management and Evaluation

CLOs	PLOs	Teaching & Learning Methods	Assessment
CLO 1: Explain and critically analyze human behavior by recognizing the complexity of decision-making processes influenced by psychological and economic factors, including nonstandard preferences, beliefs, and decision-making.	K1, K3, K4	Lectures; Interactive lectures (in-class and online experiments); Case-based learning; Problem-based learning; Guest lectures; Flipped classroom; BE TED Talk	Midterm and Final Examinations (55%); BE TED Talk (10%)
CLO 2: Apply principles of behavioral economics to address economic and social problems, such as public policy design, business strategy analysis, and the generation of new insights beyond mainstream economics.	K1, K2, K3, K4; S1, S2	Lectures; Interactive lectures; Case-based learning; Problem-based learning; Guest lectures; Flipped classroom; BE TED Talk; BE Term Project development	Midterm and Final Examinations (55%); BE TED Talk (10%); BE Term Project (25%)
CLO 3: Develop research, business analyses, or policy analyses grounded in behavioral economics concepts.	K1, K2, K3; S1, S2, S3; E1, E3; C1–C5	BE Term Project development	BE Term Project (25%)
CLO 4: Communicate complex knowledge effectively to a general audience using appropriate presentation techniques.	S2; C2	BE TED Talk presentation; Poster preparation and BE Term Project presentation	BE TED Talk (10%); BE Term Project (25%)

CLOs	PLOs	Teaching & Learning Methods	Assessment
CLO 5: Demonstrate academic integrity through proper citation and responsible use of information sources and AI tools	E1	Proper academic referencing in BE TED Talk and BE Term Project; No plagiarism or uncredited AI use	Originality Report and AI detection in BE Term Project (25%)
CLO 6: Demonstrate intellectual curiosity, creativity, global awareness, adaptability to societal changes, and effective teamwork informed by behavioral economics perspectives.	K4; C4, C5	Independent research for BE TED Talk and BE Term Project; Selfdirected exploration; BE Free-form design	BE TED Talk (10%); BE Term Project (25%); BE Free-form (10%)

COURSE OVERVIEW

The planned timeline is subject to change as the instructor sees fit when the course proceeds

Topics
1. Introduction to Behavioral Economics & Nudge
2. Behavioral Economics of Risk
3. Behavioral Economics of Time
4. Social Preferences
5. Emotions
6. Bounded Rationality
7. Behavioral Welfare Economics
8. Behavioral Game Theory
9. Origins of Behavior: Neuroeconomics, Evolution, and Culture
10. AI and Behavioral Economics

TOPICS & READING MATERIALS

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

1. Introduction to Behavioral Economics & Nudge

- **What is behavioral economics?**
- **What better insight can we get from studying behavioral economics?**
- **Principles of (Behavioral) Economics**
- **Public Policy to combat error**
- **How to design a nudge**

Reading:

Nudge, Ch. 1, 4, 5, 11

Cartwright(2024), Chapter 1, 11

Behavioral Economics the basics (Corr and Plagnol), Ch.1, 4, 6

Laibson, David, and John A. List. 2015. "Principles of (Behavioral) Economics." *American Economic Review*, 105 (5): 385-90.DOI: 10.1257/aer.p20151047

Dolan, Paul & Hallsworth, Michael & Halpern, David & King, D. & Metcalfe, R. & Vlaev, Ivo. (2012). "Influencing behavior: The mindspace way." Journal of Economic Psychology. 33. 264–277.

Johnson EJ, Goldstein D. Medicine. "Do defaults save lives?" Science. 2003 Nov 21;302(5649):1338-9. doi: 10.1126/science.1091721. PMID: 14631022.

Brigitte C. Madrian, Dennis F. Shea. "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior." *The Quarterly Journal of Economics*. Volume 116.
Issue 4. November 2001, Pages 1149–1187

Banerjee, S., & John, P. (2021). "Nudge plus: Incorporating reflection into behavioral public policy." Behavioural Public Policy, 1-16.

Further reading:

Rabin, M. (2013). "An Approach to Incorporating Psychology into Economics," American Economic Review Papers and Proceedings, 103(3), 617-22.

DellaVigna, S. (2009). "Psychology and Economics: Evidence from the Field," Journal of Economic Literature, 47, 315-372.

Camerer, C. and G. Loewenstein (2004). "Behavioral Economics: Past, Present, Future," in Advances in Behavioral Economics, C. Camerer, G. Loewenstein, and M. Rabin, eds., Princeton University Press.

Rabin, M. (1998). "Psychology and Economics," Journal of Economic Literature, 36, 11-46.

2. Behavioral Economics of Risk

- **Prospect theory**
- **Loss aversion**
- **The endowment effect**
- **Probability weighting**
- **Fourfold patterns of choices under risk**
- **Applications of Prospect theory**

Reading:

Dhami, S. (2019). *Foundations of Behavioral Economic Analysis: Volume 1 Behavioral Economics of Risk, Uncertainty, and Ambiguity.*

Cartwright (2024), Chapter 3

Thinking Fast and Slow, Ch. 25-30

Nudge, Ch. 1

Behavioral Economics the basics (Corr and Plagnol), Ch.4

Further reading:

Kahneman, D. and A. Tversky, (1979) "Prospect Theory: An Analysis of Decision Under Risk," Econometrica, 47, 263-291.

Camerer, C., L. Babcock, G. Loewenstein, and R. Thaler (1997). "Labor Supply of New York City Cabdrivers: One Day at a Time," Quarterly Journal of Economics, 112, 407 - 443.

Barberis, Nicholas. "A Model of Casino Gambling." Management Science 58, no. 1 (2012): 35–51

3. Behavioral Economics of Time

3.1 Present Bias

- **Procrastination and Self-control**
- **Commitment Devices**
- **Experimental evidences and applications of Time Discounting**.

Reading:

Dhami, S. (2019). *Foundations of Behavioral Economic Analysis: Volume 3 Behavioral Time Discounting.*

Cartwright(2024), Chapter 4
Nudge, Ch. 2, 6, 7

Further reading:

O'Donoghue, T. and M. Rabin (1999). "Doing it Now or Later," American Economic Review, 89, 103-124.

O'Donoghue, T. and M. Rabin (2001). "Choice and Procrastination," Quarterly Journal of Economics, 116, 121-160.

Laibson, D. (1997). "Golden Eggs and Hyperbolic Discounting," Quarterly Journal of Economics, 112, 443-477.

DellaVigna, S. and U. Malmendier (2006). "Paying Not to Go to the Gym," American Economic Review, 96(3), 694-719.

Gruber, J. and Mullainathan, S. (2005). "Do Cigarette Taxes Make Smokers Happier?" Advances in Economic Analysis and Policy, 5(1), Article 4.

Meier, S. and C. Sprenger (2010). "Present-Biased Preferences and Credit Card Borrowing,"American Economic Journal: Applied Economics, 2(1), 193-210.

Shapiro, JM.(2005). Is there a daily discount rate? Evidence from the food stamp nutrition cycle. Journal of Public Economics, 89, 303-325.

3.2 Projection bias

Reading:

Loewenstein, G., T. O'Donoghue, and M. Rabin (2003). "Projection Bias in Predicting Future Utility," Quarterly Journal of Economics, 118, 1209-1248.

Conlin, M., T. O'Donoghue, and T. Vogelsang (2007). "Projection Bias in Catalog Orders,"American Economic Review, 97(4), 1217-1249.

4. Social Preferences

- **The Evidence on Human Sociality**
- **Fairness**
- **Behavioral Political Economy**
- **Altruism**
- **Reciprocity**
- **Charity giving**
- **Human Morality and Social Identity**
- **Discrimination**

Reading:

Dhami, S. (2019). *Foundations of Behavioral Economic Analysis: Volume 2 Other-*

Regarding Preferences.

Cartwright(2024), Chapter 7

Misbehaving, Ch. 14 – 15

Further reading:

Kahneman D, J. Knetsch, and R. Thaler (1986). "Fairness and the Assumptions of Economics," Journal of Business, 59, 285-300.

Fehr, Ernst, and Klaus M. Schmidt. "A Theory of Fairness, Competition, and Cooperation." *The Quarterly Journal of Economics*, vol. 114, no. 3, 1999, pp. 817–68.

Falk, Armin. "Gift Exchange in the Field." *Econometrica*, vol. 75, no. 5, 2007, pp. 1501–11.

DellaVigna, S., J. List, and U. Malmendier (2012). "Testing for Altruism and Social Pressure in Charitable Giving," Quarterly Journal of Economics, 127, 1-56.

Pope, Devin G., and Justin R. Sydnor. 2011. "Implementing Anti-discrimination Policies in Statistical Profiling Models." *American Economic Journal: Economic Policy*, 3 (3): 206–31.DOI: 10.1257/pol.3.3.206

Bertrand, Marianne, and Sendhil Mullainathan. 2004. "Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." *American Economic Review*, 94 (4): 991–1013.DOI: 10.1257/0002828042002561

Gneezy, U. and List, J.A. (2006), Putting Behavioral Economics to Work: Testing for Gift Exchange in Labor Markets Using Field Experiments. Econometrica, 74: 1365-1384. https://doi.org/10.1111/j.1468-0262.2006.00707.x

5. Emotions

- **Dual-Process theory**
- **Emotions and decision-making**
- **Anticipation and delay under certainty**
- **Fear and anxiety under uncertainty**
- **Happiness economics**

Reading:

Dhami, S. (2020). ***Foundations of Behavioral Economic Analysis: Volume 7 Further Topics in Behavioral Economics***.

Behavioral Economics The Basics (Corr and Plagnol), Ch.4

Further reading:

Loewenstein, G., T. O'Donoghue, and S. Bhatia (2015). Modeling the interplay between affect and deliberation. Decision 2 (2), 55-81.

Lerner, J. S., Y. Li, P. Valdesolo, and K. S. Kassam (2015). Emotion and Decision Making. Annual Review of Psychology 66 (1), 799-823.

Benjamin, D., O. Heffetz, M. Kimball, and A. Rees-Jones (2012). "What Do You Think Would Make You Happier? What Do You Think You Would Choose?" American Economic Review, 102(5), 2083-2110.

6. Bounded Rationality

- **Heuristics and Biases**
- **Herbert Simon's approach to bounded rationality**
- **Limited Attention**

Reading:

Dhami, S. (2020). ***Foundations of Behavioral Economic Analysis: Volume 5 Bounded Rationality***.

Cartwright(2024), Chapter 2

Tversky, A. and D. Kahneman(1974). "Judgement under uncertainty: Heuristics and Biases" Science, New Series, Vol. 185, No. 4157, pp. 1124-1131.

Chetty, R., A. Looney, and K. Kroft (2009). "Salience and Taxation: Theory and Evidence," American Economic Review, 99(4), 1145-1177.

Lacetera, N., D. Pope, and J. Sydnor (2012). "Heuristic Thinking and Limited Attention in the Car Market," American Economic Review, 102(5), 2206-2236

Pedro Bordalo, Nicola Gennaioli, Andrei Shleifer, Memory, Attention, and Choice, *The Quarterly Journal of Economics*, Volume 135, Issue 3, August 2020, Pages 1399–1442

7. Behavioral Welfare Economics

- **Soft paternalism**
- **Optimal sin tax**
- **Limited attention and tax elasticities**

Reading:

Dhami, S. (2020). ***Foundations of Behavioral Economic Analysis: Volume 7 Further Topics in Behavioral Economics***.

Sunstein, C. and R. Thaler (2003). "Libertarian Paternalism Is Not An Oxymoron." University of Chicago Law Review, 70, 1159-1202.

O'Donoghue, T. and M. Rabin (2003). "Studying Optimal Paternalism, Illustrated by a Model of Sin Taxes," American Economic Review (Papers and Proceedings), 93, 186-191.

O'Donoghue, T. and M. Rabin (2006). "Optimal Sin Taxes," Journal of Public Economics, 90(10-11), 1825-1849.

8. Behavioral Game Theory

- **Psychological game theory**
- **Correlated equilibrium and social norms**

Reading:

Dhami, S. (2019). ***Foundations of Behavioral Economic Analysis: Volume 4 Behavioral Game Theory***. Oxford University Press.

9. Origins of behavior

9.1 Neuroeconomics

- **Neuroeconomics of risky decision**
- **Pharmacoeconomics: an application to the social effects of oxytocin**

Reading:

Dhami, S. (2020**). *Foundations of Behavioral Economic Analysis: Volume 7 Further Topics in Behavioral Economics***.

9.2 Evolution and Culture

Reading:

Cartwright(2024), Chapter 8

10. AI and Behavioral Economics

Reading:

Pataranutaporn, P., Powdthavee, N., & Maes, P. (2025). Algorithmic inheritance: Surname bias in AI decisions reinforces intergenerational inequality. In arXiv [cs.CY] (p. arXiv:2501.19407). arXiv.

Fang, C. M., Liu, A. R., Danry, V., Lee, E., Chan, S. W. T., Pataranutaporn, P., Maes, P., Phang, J., Lampe, M., Ahmad, L., & Agarwal, S. (2025). *How AI and human behaviors shape psychosocial effects of chatbot use: A longitudinal controlled study*. MIT Media Lab. https://www.media.mit.edu/publications/how-ai-andhuman-behaviors-shape-psychosocial-effects-of-chatbot-use-a-longitudinalcontrolled-study/

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE421 Mathematical Economics I

Semester 2/2025

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

Course Description
The application of matrices, Jacobian determinants, derivatives, partial derivatives and optimization, with and without constraints, to explain theories in Microeconomics and Macroeconomics, such as the theory of consumer behavior, The theory of production, equilibrium in goods and factor markets, equilibrium of national income in product and money markets, international trade, comparative static equilibrium analysis, the input-output model, determination of maximum-minimum point and duality of linear programming.

Course Objectives:
This course aims to provide the foundation of optimization as applied to the theory of Economics. The course covers the optimization of differentiable functions of single and several variables, both with and without constraints. Comparative Static analysis will be discussed with the use of Implicit Function Theorem and Envelope Theorem with matrix differentiation and algebra.

Prerequisites: MA217 (or MA212) and have completed or currently taking EE311

Text: **Jeffrey Baldani, et. al.**, *Mathematical Economics*, 2nd edition, Dryden 2004.

Lecture Notes: Thanet Makjamroen, *Lecture Notes for EE421 Mathematical Economics I*.

References:

Gale [1960], *The Theory of Linear Economic Models*, McGraw-Hill.
Jehle [1991], *Advanced Microeconomics Theory*, Prentice-Hall.
Sundaram [1996], *A First Course in Optimization Theory*, Cambridge University Press.
Simon and Blume [1994], *Mathematics for Economics*, Norton.
Sydsaeter and Hammond [1995], *Mathematics for Economic Analysis*, Prentice-Hall.

Evaluation:

Midterm Exam	45%
Final Exam	55%

Topics:

Chapter 1 Introduction
- 1.1 Mathematical Economic Model
- 1.2 Use of Economic Model
- 1.3 An Example of Mathematical Models

Chapter 2 Calculus of Single Variable
- 2.1 Derivative
- 2.2 Examples of Derivatives in Economics
- 2.3 Derivatives and Increasing Functions
- 2.4 Second- and Higher-Order Derivatives
- 2.5 Optimization: Single Variable
  - 2.5.1 Necessary Conditions
  - 2.5.2 Sufficient Conditions
- 2.6 Concave and Convex Functions
- 2.7 Differentials

Chapter 3 Calculus of Single Variable: Applications
- 3.1 Labor Union
- 3.2 Profit Maximization in Perfect Competition
- 3.3 Profit Maximization of a Monopoly
- 3.4 Taxation on Monopoly
- 3.5 Profit Maximization of Duopoly (Cournot Model)
- 3.6 Balanced-Budget Multiplier

Chapter 4 Multivariate Calculus
- 4.1 Partial Derivatives
- 4.2 Second-Order Partial Derivatives and Cross Partial Derivatives
- 4.3 Total Differentials
- 4.4 Conventions of Matrix Notations for Derivatives of Functions of

Several Variables
4.5 Chain Rules of Composite Functions of Several Variables
4.6 Directional Derivatives
4.6.1 First-order Directional Derivatives
4.6.2 Directional Derivatives and Optimization
4.6.3 Second-order Directional Derivatives
4.7 Mean-Value Theorem
4.8 Taylor's Polynomials and Taylor's Approximation in R^n
4.9 Implicit Functions and Implicit Function Theorem
4.10 Level Sets, Tangents and Gradients
4.11 Homogeneity
Chapter 5 Multivariate Calculus: Applications
5.1 Balanced-Budget Multipliers in Closed Economy
5.1.1 Simple Keynesian Model
5.1.2 IS-LM Model
5.1.3 Aggregate Demand-Aggregate Supply Model
5.2 Monetary Policy Effectiveness
5.2.1 IS-LM Model
5.2.2 Mundell-Fleming Model with Flexible Exchange Rate
5.3 Tax Incidence in Supply-Demand Model
Chapter 6 Multivariable Optimization without Constraints
6.1 Definitions of Extreme Points
6.2 2-Variable Optimization
6.3 First-Order Necessary Condition
6.4 Second-Order Necessary Condition
6.5 Sufficient Conditions
6.6 Multivariable Optimization without Constraints
6.7 First-Order Necessary Condition
6.8 Second-Order Necessary Condition
6.9 Sufficient Conditions
6.10 Test of Definiteness of the Hessian
6.11 Concavity, Convexity and Optimization
6.12 Comparative Statics Analysis
Chapter 7 Multivariable Unconstrainted Optimization: Applications
7.1 Competitive Firm Input Choices: Cobb-Douglas Technology
7.2 Competitive Firm Input Choices: General Production Technology
7.3 Multiplant Firm
7.4 Multi-Market Monopoly
7.5 Statistical Estimation: Linear Regression
Chapter 8 Constrained Optimization: Equality
8.1 The Lagrangian Method
8.2 Graphical Interpretation
8.3 Optimization with *k* Equality Constraints
8.4 Second-order Sufficient Conditions
8.4.1 Bordered Hessian for Single Equality Constraint
8.4.2 Bordered Hessian for *k* Equality Constraints
8.4.3 Test of Bordered Matrix
8.5 Comparative Static Analysis: Sensitivity Analysis

Chapter 9 Equality Constrained Optimization: Applications
9.1 Cost Minimization and Conditional Input Demand
9.1.1 Sufficient Conditions
9.1.2 comparative Static Analysis
9.2 Utility Maximization: Log Utility Function
9.3 Utility Maximization Subject to Budget and Time Constraints
9.3.1 Sufficient Conditions
9.3.2 Sensitivity analysis
9.4 Intertemporal Consumption
9.4.1 2-Period Case
9.4.2 *n*-Period Case
Chapter 10 Inequality Constraints Optimization
10.1 First-Order Sufficient Conditions: One Inequality Constraint
10.2 First-Order Sufficient Conditions: Several Inequality Constraints
10.3 First-Order Sufficient Conditions: Mixed Constraints
10.4 First-Order Sufficient Conditions: Minimization under Mixed Constraints
10.5 Second-Order Sufficient Conditions: Mixed Constraints
10.6 Second-Order Necessary Conditions
10.7 Comparative Static analysis: Sensitivity Analysis
10.8 Kuhn-Tucker Formulation
Chapter 11 Inequality Constrained Optimization: Applications
11.1 Utility Maximization with Two Goods
11.2 Two Goods Diet Problem: Linear Programming and its Duality
11.3 Sales Maximization
11.4 Intertemporal Consumption with Liquidity Constraint
Chapter 12 Sensitivity Analysis and Envelope Theorems
12.1 The Meaning of the Multipliers
12.2 The Meaning of Lagrange Multiplier: One Equality Constraint Case
12.3 The Meaning of Lagrange Multiplier: Several Equality Constraint Case
12.4 The Meaning of Lagrange Multiplier: Inequality Constraint Case
12.5 Envelope Theorems
12.6 Envelope theorem: Unconstrained Case
12.7 Envelope Theorem: Equality Constraints Case
12.8 Applications: Shephard's Lemma, Roy's Identity and Demand Function
12.9 Slutsky's Equation
12.10 Envelope Theorem: Inequality Constraints Case

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

EE423

DATA ANALYTICS PROGRAMMING FOR ECONOMISTS

Semester 2/2025

COURSE INFORMATION

Course Code	EE423 (Section 046401)
Course Title	Data Analytics Programming for Economists
Credit Hours	3 Credits (3-0-6)
Prerequisites	EE325 Introductory Econometrics or equivalent

COURSE DESCRIPTION

This course introduces students to programming and data analytics essential for modern economic analysis. Students will learn the fundamentals of Python programming and apply them to economic data analysis, statistical computing, econometric modeling, and data visualization. The course emphasizes practical applications using Google Colab and AI tools like Google Gemini to enhance productivity and learning efficiency.

Primary Platform

- Google Colab (cloud-based Jupyter notebooks) - No installation required
- Google Gemini AI Assistant (integrated into workflow)

Prerequisites

- EE325 Introductory Econometrics or equivalent
- Basic understanding of statistics and econometrics
- No prior programming experience required

ALIGNMENT WITH PROGRAM LEARNING OUTCOMES

This course aligns with the following B.E. Program Learning Outcomes:

Knowledge (K)

- K1: Acquiring knowledge and understanding of economic theories and tools
- K2: Ability to apply theoretical knowledge to analyze economic and social issues
- K3: Ability to integrate economic knowledge with other study fields
- K4: Ability to attain lifelong learning and understand world economic changes

Skills (S)

- S1: Intellectual skills to identify research topics and process data
- S2: Analytical and communication skills to interpret and integrate data
- S3: Quantitative and technological skills for research studies

Ethics (E) and Character (C)

- E2: Self-discipline, social responsibility, and good citizenship
- C1: Ability to complete assigned tasks effectively
- C2: Ability to initiate problem analysis independently and in teamwork
- C4: Active learning and personal development
- C5: Interpersonal skills and ability to collaborate and adapt

COURSE LEARNING OUTCOMES (CLOs)

Upon successful completion of this course, students will be able to:

CLO 1: Programming Fundamentals [PLOs: K1, K3, S1, S3, C2, C4]

Write Python code to solve economic and statistical problems, demonstrating understanding of programming logic, data structures, and control flow.

CLO 2: Data Manipulation & Analysis [PLOs: K2, S1, S2, S3, C1, C2]

Import, clean, transform, and analyze economic datasets using pandas and NumPy, applying appropriate data manipulation techniques.

CLO 3: Statistical Computing [PLOs: K1, K2, S1, S3, C2]

Implement statistical methods and econometric models in Python and interpret results in economic contexts.

CLO 4: Data Visualization [PLOs: K2, S2, C1, C4]

Create effective visualizations of economic data and analysis results using Matplotlib, Seaborn, and Plotly.

CLO 5: Research Application [PLOs: K2, K4, S1, S2, E2, C1, C2, C5]

Conduct independent data analysis projects that address economic research questions, demonstrating the ability to apply programming skills to real-world economic problems.

CLO 6: AI-Assisted Programming [PLOs: K4, S3, C4, C5]

Effectively use AI tools (e.g., Google Gemini) to enhance coding productivity, debug programs, and learn new programming concepts.

ASSESSMENT & EVALUATION

Component	Weight	Due Date
Assignment 1: Python Fundamentals & Data Structures	10%	Week 5
Assignment 2: Data Analysis with Pandas	10%	Week 10
Assignment 3: Econometric Analysis & Visualization	10%	Week 14
Take-Home Midterm Exam	30%	
Take-Home Final Exam	35%	
Class Participation & Engagement	5%	Ongoing
Total	**100%**	

Grading Scale (Thammasat University Standard)

Grade	Percentage	Points	Additional
A	85-100	4.0	B+: 75-84 (3.5)
B	70-74	3.0	C+: 65-69 (2.5)
C	60-64	2.0	D+: 50-59 (1.5)
D	40-49	1.0	F: 0-39 (0.0)

AUN-QA ASSESSMENT RUBRICS

Performance Levels: 5 = Excellent | 4 = Good | 3 = Satisfactory | 2 = Developing | 1 = Unsatisfactory

Rubric 1: Programming Competence (CLO 1)

Level	Criteria
5 - Excellent	Writes clean, efficient, well-documented code; implements advanced programming concepts; demonstrates strong problem-solving; applies Pythonic idioms
4 - Good	Writes functional, mostly efficient code; uses appropriate programming constructs; code is readable and organized; good understanding of fundamentals.
3 - Satisfactory	Writes working code that meets basic requirements; uses basic constructs correctly; has adequate functionality but may lack efficiency
2 - Developing	Code runs but contains errors or inefficiencies; limited use of programming constructs; organization needs improvement.
1 - Unsatisfactory	Code doesn't run or contains major errors; incorrect use of programming concepts; poor organization and documentation.

Rubric 2: Data Analysis Capability (CLO 2, CLO 3)

Level	Criteria
5 - Excellent	Performs comprehensive, sophisticated data analysis; applies advanced pandas/NumPy operations efficiently; correctly implements and interprets statistical methods
4 - Good	Conducts thorough data analysis; uses pandas/NumPy effectively; implements statistical methods correctly with good interpretation

3 - Satisfactory	Performs adequate data analysis; uses basic pandas/NumPy functions; implements and interprets statistical methods appropriately
2 - Developing	Limited data analysis; basic use of pandas/NumPy with some errors; partial understanding of statistical methods
1 - Unsatisfactory	Insufficient data analysis; incorrect use of tools; poor understanding of statistical methods

Rubric 3: Visualization Skills (CLO 4)

Level	Criteria
5 - Excellent	Creates professional, publication-quality visualizations; excellent use of color, labels, and design principles; visualizations effectively communicate insights
4 - Good	Produces clear, well-designed visualizations; appropriate chart types; good labeling and formatting; effectively communicates data
3 - Satisfactory	Creates functional visualizations; appropriate chart selection; adequate labeling; communicates basic information
2 - Developing	Visualizations present but lack clarity; inappropriate chart types; incomplete labeling; limited effectiveness.
1 - Unsatisfactory	Poor or missing visualizations; incorrect chart types; inadequate labeling; fails to communicate information.

Rubric 4: Economic Application (CLO 5)

Level	Criteria
5 - Excellent	Demonstrates exceptional understanding of economic concepts; insightful interpretation of results; comprehensive analysis with nuanced economic reasoning
4 - Good	Shows strong understanding of economic concepts; clear interpretation of results; good application of economic theory to data
3 - Satisfactory	Demonstrates adequate understanding of economics; reasonable interpretation; appropriate application of economic concepts
2 - Developing	Limited economic understanding; basic interpretation; weak connection between analysis and economic theory
1 - Unsatisfactory	Poor understanding of economics; incorrect interpretation; fails to apply economic concepts appropriately.

Rubric 5: AI Tool Usage (CLO 6)

Level	Criteria
5 - Excellent	Strategic and effective use of AI tools; comprehensive documentation; demonstrates deep understanding of AI-generated code; significant improvements made.
4 - Good	Appropriate use of AI tools; good documentation; clear understanding of AI-generated code; meaningful modifications made
3 - Satisfactory	Acceptable use of AI tools; adequate documentation; basic understanding of AI-generated code; some modifications made

2 - Developing	Limited AI tool usage; incomplete documentation; partial understanding; minimal modifications
1 - Unsatisfactory	Inappropriate AI usage; poor or missing documentation; lacks understanding; no meaningful modifications.

COURSE SCHEDULE - WEEKLY TOPICS

Week 1 (Jan 9): Introduction to Python & Google Colab

- Course overview and setup Google Colab
- Python basics: variables, data types, operators
- Introduction to Google Gemini for coding assistance

Week 2 (Jan 16): Control Flow & Functions

- If-else statements, loops (for, while)
- Functions: definition, parameters, return values
- Economic application: compound interest calculator

Week 3 (Jan 23): Data Structures - Lists & Dictionaries

- Lists: creation, indexing, slicing, methods
- Dictionaries: key-value pairs, operations
- Economic application: GDP data management

Week 4 (Jan 30): NumPy Fundamentals

- Arrays: creation, operations, indexing
- Mathematical operations and statistical functions
- Economic application: time series calculations

Week 5 (Feb 6): Introduction to Pandas I

- DataFrames and Series
- Loading data from various sources
- **DUE: Assignment 1 - Python Fundamentals & Data Structures**

Week 6 (Feb 13): Introduction to Pandas II

- Data selection, filtering, sorting
- Basic data aggregation and groupby operations

Week 7 (Feb 20): Data Cleaning & Preparation

- Handling missing data
- Data type conversion and string operations
- Economic application: cleaning World Bank data

Week 8 (Feb 27): MID-TERM EXAMINATION WEEK

- **NO LECTURE - Take-home Midterm Released**

Week 9 (Mar 6): Data Visualization with Matplotlib

- Line plots, bar charts, histograms
- Customization: labels, titles, legends

Week 10 (Mar 13): Advanced Visualization with Seaborn & Plotly

- Statistical visualizations with Seaborn
- Interactive plots with Plotly
- **DUE: Assignment 2 - Data Analysis with Pandas**

Week 11 (Mar 20): Statistical Analysis with SciPy & Statsmodels

- Descriptive statistics and hypothesis testing
- Correlation and regression analysis

Week 12 (Mar 27): Econometric Analysis in Python

- OLS regression with statsmodels
- Diagnostics and interpretation

Week 13 (Apr 3): Time Series Analysis

- Time series decomposition
- ARIMA models basics

Week 14 (Apr 10): Panel Data Analysis

- Fixed effects and random effects models
- Economic application: labor economics analysis

Week 15 (Apr 24): Machine Learning Basics

- Introduction to scikit-learn
- Linear regression and classification
- **DUE: Assignment 3 - Econometric Analysis & Visualization**

Week 16 (May 1): Advanced Topics & Course Review

- API data access and web scraping basics
- Best practices and course review
- **Final Exam**

COURSE POLICIES

Academic Integrity
All work submitted must be your own. Plagiarism, cheating, or any form of academic dishonesty will result in an F grade for the course and possible disciplinary action. First offense: zero on assignment + warning. Second offense: F in course + disciplinary action.

AI Usage Guidelines
ACCEPTABLE:

- Using Gemini to learn new concepts and debug code
- Generating code snippets as starting points
- Understanding error messages

NOT ACCEPTABLE:

- Submitting AI-generated code without understanding it
- Not documenting AI assistance
- Using AI to complete entire assignments

Late Submission Policy

- Assignments: 10% deduction per day (max 3 days late)
- Exams: Late submissions only with documented emergency

Attendance and Participation
Regular attendance and active participation in live coding sessions are strongly encouraged. Students are responsible for all material covered in class.

TECHNICAL REQUIREMENTS

Required

- Google account (for Colab and Gemini)
- Stable internet connection
- Modern web browser (Chrome, Firefox, Safari, Edge)
- Computer or laptop (tablets not recommended)

Software Platform
Primary: Google Colab (cloud-based, no installation needed)

Python Packages (pre-installed in Colab): NumPy, Pandas, Matplotlib, Seaborn, Plotly, Statsmodels, SciPy, Scikit-learn

INSTRUCTOR'S EXPECTATIONS

The instructor expects you to:

- ✓ Attend classes regularly and participate actively
- ✓ Complete assignments honestly and on time
- ✓ Seek help when needed
- ✓ Practice coding regularly outside of class
- ✓ Apply programming skills to economic problems
- ✓ Use AI tools responsibly and ethically
- ✓ Maintain academic integrity
- ✓ Contribute to a positive learning environment

Final Note

Programming is a skill that improves with practice. Don't be discouraged by initial challenges - persistence and regular practice are key to success. Use Google Gemini and other AI tools as learning assistants, but always strive to understand the code you write.

Remember: The goal is not just to complete assignments, but to develop analytical and computational skills that will serve you throughout your career as an economist.

Good luck, and I look forward to working with you this semester!

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE431 Economics of Financial Markets and Financial Institutions

Semester 2/2025

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

Course description:

Money and capital markets at a micro-level; Financial assets, risks, and risk-bearing; The theory of equilibrium pricing of financial assets; Interest rate determination and structure of interest rates; Asymmetric information in financial markets; The study of financial institutions; Risk management of financial institutions; Behavior of financial institutions; Regulating financial institutions

Prerequisite: EE311

The objective of the course (CLOs):

- **CLO1**: Understand and explain the characteristics of financial assets, the concepts of risk and return at the microeconomic level, and the investment decision-making process in which investors aim to maximize expected utility. Analyze the importance of diversification and the role of financial institutions in mitigating asymmetric information in financial markets.
- **CLO2**: Identify and interpret the key determinants of financial asset prices, and assess the role and functions of financial intermediaries within the financial system.
- **CLO3**: Apply asset pricing models and financial economic theories to interpret asset prices and analyze real-world developments in financial markets, including the challenges and potential failures of financial intermediaries.
- **CLO4**: Effectively construct and communicate economic and financial analyses in both written and oral formats, adhering to academic standards of clarity, structure, and reasoning.
- **CLO5**: Demonstrate responsibility and accountability by completing individual and group assignments on time.

Evaluation

Homework*	**5%**
Quiz/In-class assignments**	**10%**
Mid-term exam	**35% (Topic 1 – Topic 3)**
Final exam	**50% (Topic 4 – Topic 8)**

***There will be a total of 12 homework assignments, approximately. For each student, we will drop the two assignments with the lowest scores. LATE submission is not counted.**

****There will typically be around two quizzes or in-class assignments per class, although this may vary. ** In some classes, there may be only one quiz. For each student, the SIX lowest quiz scores will be dropped, and the remaining scores will be counted toward the final grade. LATE submission is not counted. You must submit in-class assignment before I leave the room.**

Quizzes are not there to catch mistakes or force attendance. They are there to help you learn—by highlighting the main ideas, giving you quick feedback, and making the learning process more manageable and less stressful over the semester.

***, ** The idea behind dropping some quizzes/homework with the lowest scores is to accommodate students who may miss assignments for various reasons. Therefore, if a student happens to miss a quiz or a homework assignment, there won't be a makeup opportunity, as we've already factored this into the grading system.**

Please inform me at the beginning of the semester or as soon as possible if you have any medical condition or necessity that may prevent you from attending class for more than three weeks. In such cases, the quiz score will be proportionally transferred to the midterm and final exams, or, if necessary, the entire quiz score will be transferred to the final exam. In any case, there will be no makeup quiz.

Remarks:

1. Evaluation methods are subject to change.
2. More information will be announced in the Class, or Google Classroom or your@st.econ.tu.ac.th email.
3. When doing any essay exam or assignments, use graphs, mathematical expressions, or else to support your answer where appropriate. Marks depend on the quality of the explanation.

10. Grading Criteria:

Grading is conducted separately for each section. I generally adopt a mixed approach, combining both criteria-based and distribution-based methods. When criteria-based grading is appropriate and applicable, I follow the university's general guidelines outlined below. However, given the many factors that must be considered, I reserve the right to adjust the grading brackets, criteria, and final decisions as I deem appropriate.

A = 4.0 (85-100)	B+ = 3.5 (75-84)
B = 3.0 (70-74)	C + = 2.5 (65-69)
C = 2.0 (60-64)	D+ = 1.5 (50-59)
D = 1.0 (40-49)	F = 0 (0-39)

11. 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*.

The lecturer will provide a lecture presentation.

- The lecture presentation is designed to support learning in the class. Therefore, it is not sufficient for the exam.

Lecture/Schedule

Topics	Reading
Part I: Economic Analysis of Asset Prices	
Topic 1. Financial assets and the overview of financial market (1 time)	FM2009 Ch. 1-3
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	
Topic 2. Debt Market and Structure of interest rates (7 times)	FM2009 Ch.4-6
2.1 Measuring Interest Rates 2.2 Nominal Interest Rates and Real Interest Rates 2.3 The Behavior of Interest Rates 2.4 Risk and Term Structure of Interest Rates	
Topic 3. Mean-Variance Analysis (3 times)	Copeland2005 Ch.5
3.1 Measuring Risk and Returns for a Single Asset 3.2. Measuring Portfolio Risk and Returns 3.3. Efficient Frontier with Two Risky Assets 3.4. Efficient Frontier with One Risky and One Risk Free Asset 3.5. Optimal Portfolio Choice N Risky asset 3.6. Optimal Portfolio Choice N Risky asset and One Risk Free Asset	
Topic 4: Capital asset pricing model (CAPM) and Arbitrage Pricing Theory (APT) (4 times)	Copeland2005 Ch.6
4.1 Capital Asset Pricing Model • Portfolio Diversification and Individual Asset Risk • Assumptions	

Topics	Reading
• The Efficiency of Market Portfolio • Derivation of CAPM • Properties of CAPM 4.2 Arbitrage Pricing Theory	
Part II: Financial Institution, Financial Market and Asymmetric Information	
Topic 5. Financial institutions (2 times)	FM2009 Ch.9 -11 KM 2008 Ch.7
5.1 Introduction 5.2 Major risks faced by banks 5.3 Liquidity Management and The Role of Reserve 5.4 Interest Rate Risk Management 5.5 Credit Risk Management 5.6 Capital Adequacy Management	
Topic 6. Theory of financial intermediation (5 times)	PS2000 Ch.8 Diamond (1996)
6.1 Introduction 6.2 Shortcomings of direct finance 6.3 How banks help to resolve the problem? (a) Confidentiality and The Banking Relationship (b) Economies of Scale and Role of Diversification in Banking: Financial Intermediation as Delegated Monitoring	
Topic 7. Convexity, excessive risk, and bank regulation (5 times)	PS2000 Ch.9 KM 2008 Ch.8
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	

Topics	Reading
Topic 8. Bank runs, systemic risk and deposit insurance (4 times)	Diamond (2007)
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	

14. Expected Learning Outcomes

1. Morality and Ethics EE431

Applicability	Expected Learning Outcomes	Evaluation Method
●	16. Students demonstrate integrity.	Quizzes & HW / Exams
●	17. Students prioritize social and public benefits over personal ones.	
●	18. Students are punctual and comply with the code of conduct of the institution and society at large.	Observed class attendance / Quizzes & HW / Exams
●	19. Students are responsible and accountable to society, the nation, and the subject of economics.	
○	20. Students realize the cultural and environmental value of a sustainable society.	

2. Knowledge

Applicability	Expected Learning Outcomes	Evaluation Method
●	16. Students know and understand modern economics principles and theories, and are up to date with new developments.	In-class participations / Quizzes & HW / Exams
●	17. Students know and understand Thai and global economic structure and the importance of	In-class participations / Quizzes & HW / Exams

	major international economic events.	
○	18. Students know and understand the instruments of economic analysis.	In-class participations / Quizzes & HW / Exams
●	19. Students know and understand applied fields in economics, including monetary, public, international, business, natural resource, and environmental, industrial, agricultural, cooperative, political, developmental, and entrepreneurial economics as well as agribusiness.	In-class participations / Quizzes & HW / Exams
●	20. Students are informed about related fields including sociology, business administration, education, law policy, and science.	

3. Intellectual Development

Applicability	Expected Learning Outcomes	Evaluation Method
●	10. Students have developed individual critical thinking.	In-class participations / Quizzes & HW / Exams
●	11. Students are sufficiently trained in research skills.	In-class participations / Quizzes & HW / Exams
●	12. Students demonstrate an ability to analyze and synthesize data, as well as appropriately integrate economics concepts to understand the causes of current economic problems in Thailand. Based on analysis and synthesis, students demonstrate an ability to propose policy guidelines to resolve problems.	In-class participations / Quizzes & HW / Exams

4. Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes	Evaluation Method
●	16. Students are responsible for assigned tasks and work in groups effectively.	In-class participations / Quizzes& HW / Exams
●	17. Students have problem-solving skills.	In-class participations / Quizzes & HW / Exams
O	18. Students show leadership skills and team spirit.	
●	19. Students are always improving themselves.	In-class participations / Quizzes & HW / Exams
O	20. Students have good interpersonal skills, adapt, and work under different conditions.	

5. Quantitative Analysis, communication, and information technology

Applicability	Expected Learning Outcomes	Evaluation Method
O	10. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	
O	11. Students communicate effectively and select appropriate presentation methods.	
O	12. 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

Learning Plan

Categories	***Expected Learning Outcome*** ***(Applicable)***	***CLOs***	***Teaching Methods***	***Assessments methods***
Knowledge	K1. Demonstrate the ability to analyze and solve problems using economic theories and tools, and apply this knowledge effectively in practical work. K2. Ability to apply theoretical knowledge to analyze and provide practical suggestions for economic and social issues K3. Ability to appropriately integrate economic knowledge with other study fields K4. Ability to attain lifelong learning and thoroughly understand world economic and societal changes and impacts	CLO 1/ CLO2 / CLO3	Lecture/ Discussion in class,	In-class participations / Quizzes & HW / Exams

Categories	***Expected Learning Outcome*** ***(Applicable)***	***CLOs***	***Teaching Methods***	***Assessments methods***
Skills	S1. Select and apply economic principles, tools, and methods appropriately to solve economic and social challenges. S2. Acquire analytical and communication skills and ability to interpret data from different sources, analyze, and integrate knowledge to propose appropriate problem-solving guidelines for economic and social issues	CLO 1/ CLO2 / CLO3	Lecture/ Discussion in class,	In-class participations / Quizzes & HW / Exams
Ethics	E1. Uphold academic integrity and respect academic freedom E2. Showing self-discipline, social responsibility, and good citizenship E3. Recognize the ethical dimensions of economic decision-making and policy design, particularly in relation to social impacts, resource distribution, and	CLO3	Lecture/ Discussion in class,	In-class participations / Quizzes & HW / Exams

Categories	***Expected Learning Outcome*** ***(Applicable)***	***CLOs***	***Teaching Methods***	***Assessments methods***
	sustainability, with a focus on social responsibility.			
Character	C1. Ability to effectively complete assigned tasks and responsibilities C2. Demonstrate a commitment to lifelong learning, creative thinking, openness to diverse perspectives, systematic planning, and continuous self-improvement. C4. Show active learning characteristics and aspire to personal development	CLO 3 / CLO4 / CLO5	Lecture/ Discussion in class,	In-class participations / Quizzes & HW / Exams

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE432 Monetary Theory and Policy

Semester 2/2025

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

Prerequisite: EE312

Course Description:

The role of money in the economy; studying monetary policy's goals, tools, policy implementations, Transmission mechanisms of Monetary policy; Monetary policy and business cycles; monetary policy framework, exchange rate targeting and inflation targeting; The role of the Central Bank; The interaction between monetary and fiscal policies; The role of monetary policy in the open economy; Other contemporary issues and recent developments related to monetary policy

Course Objectives:

1. To develop knowledge and analytic skills 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 in individual assignments, in-class discussion and peer-to-peer learning.

Learning Management and Evaluation

CLO	Learning Management	Evaluation
K1	Acquiring and understanding monetary economics and fundamental financial theories	Mid-term & Final Exam
K2	Applying monetary policy and related-theoretical concepts to evaluate appropriate financial and economic measures and provide practical suggestions	Mid-term & Final Exam
K4	Utilizing real world economic and financial situations as case studies for students to enhance their analytical thinking skills	Participation, Mid-term & Final Exam
S1	Performing individual exercises using financial and economic data within defined problem-solving conditions	Classwork, Exercise
S2	Engaging in discussion and composing individual reports on financial and monetary economic issues to demonstrate critical thinking and communication skills	Participation, Essay Assignment

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
K4	Attendance and in-class participation	Week 1-15	10%
S1	Individual exercise	Week 10-12	10%
S2	Individual essay assignment	Week 13-15	10%

K1, K2	Mid-term examination	After Week 7	30%
K1, K2	Final examination	After Week 15	40%

Main Text:

Students are required to read all lecture notes and should have access to this online textbook. The primary textbook will be:

> Cecchetti, Stephen and Schoenholtz, Kermit. (2024) **Money, Banking, and Financial markets**. McGraw-Hill.

The electronic version of textbook is available via https://connect.mheducation.com

Recommended Texts & Materials

Students are required to read all lecture notes presented in class.

Suggested Readings:

Students should also study other related teaching materials, including case-based and topic-based articles, together with news clips and central banks' publications, posted on this subject's google classroom platform. These following articles are suggested.

Akerlof, G. A. (1970). The Market for" Lemons": Quality Uncertainty and the Market Mechanism. **The Quarterly Journal of Economics**, 84(3), 488-500

Bernanke, B. S. (1983). Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression. **The American Economic Review**, 73(3), 257-276.

Bernanke, B. S., & Gertler, M. (2001). Should Central Banks Respond to Movements in Asset Prices? **The American Economic Review**, 91(2), 253-257.

Bernanke, B. S., & Mishkin, F. S. (1997). Inflation Targeting: A New Framework for Monetary Policy? **Journal of Economic Perspectives**, 11(2), 97-116.

Calvo, G. A., Leiderman, L., & Reinhart, C. M. (1996). Inflows of Capital to Developing Countries in the 1990s. **Journal of Economic Perspectives**, 10(2), 123-139.

Campbell, J. Y. (1995). Some Lessons from the Yield Curve. **Journal of Economic Perspectives**, 9(3), 129-152.

Christiano, L. J., Eichenbaum, M., & Evans, C. L. (2005). Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy. **Journal of Political Economy**, 113(1), 1-45.

Diamond, D. W., & Dybvig, P. H. (1983). Bank Runs, Deposit Insurance, and Liquidity. **Journal of Political Economy**, 91(3), 401-419.

Estrella, A., & Mishkin, F. S. (1996). The Yield Curve as a Predictor of US Recessions. **Current Issues in Economics and Finance**, 2(7).

Hanson, S. G., Kashyap, A. K., & Stein, J. C. (2011). A Macroprudential Approach to Financial Regulation. **Journal of Economic Perspectives**, 25(1), 3-28.

Kiyotaki, N., & Wright, R. (1993). A search-theoretic Approach to Monetary Economics. **The American Economic Review**, 63-77.

Suggested Readings (Cont.):

Kydland, F. E., & Prescott, E. C. (1990). Business cycles: Real facts and a monetary myth. **Federal Reserve Bank of Minneapolis Quarterly Review**, 14(2), 3-18.

Lucas Jr, R. E. (1976). Econometric Policy Evaluation: A Critique. In **Carnegie-Rochester Conference Series on Public Policy** (Vol. 1, pp. 19-46). North-Holland.

Obstfeld, M., & Rogoff, K. (1995). The Mirage of Fixed Exchange Rates. **Journal of Economic Perspectives**, 9(4), 73-96.

Rogoff, K. (2017). Dealing with Monetary Paralysis at the Zero Bound. **Journal of Economic Perspectives**, 31(3), 47-66.

Taylor, J. B. (1993). Discretion versus Policy Rules in Practice. In **Carnegie-Rochester Conference Series on Public Policy** (Vol. 39, pp. 195-214). North-Holland.

Grading Criteria:

A	=	85 and above
B+	=	75 – 84.9
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

Tentative Class Schedule:

Week	Topic
1.	Financial instruments, financial markets, and financial institutions (Cecchetti & Schoenholtz Textbook Chapter 3)
2.	Understanding risk (Cecchetti & Schoenholtz Textbook Chapter 5)
3.	The risk and term structure of interest rates (Cecchetti & Schoenholtz Textbook Chapter 7)
4.	The economics of financial intermediation (Cecchetti & Schoenholtz Textbook Chapter 11)
5.	Depository institutions: banks and bank management (Cecchetti & Schoenholtz Textbook Chapter 12)
6.	Regulating the financial system (Cecchetti & Schoenholtz Textbook Chapter 14)
7.	Central banks in the world today (Cecchetti & Schoenholtz Textbook Chapter 15) & Mid-term exam revision
	Mid-term examination
8.	The central bank balance sheet and the money supply process (Cecchetti & Schoenholtz Textbook Chapter 17)
9.	Monetary policy: stabilizing the domestic economy (Cecchetti & Schoenholtz Textbook Chapter 18)
10.	Exchange rate policy (Cecchetti & Schoenholtz Textbook Chapter 19)
11.	Money growth and money demand (Cecchetti & Schoenholtz Textbook Chapter 20)
12.	Output, inflation, and monetary policy (Cecchetti & Schoenholtz Textbook Chapter 21)
13.	Understanding business cycle fluctuations (Cecchetti & Schoenholtz Textbook Chapter 22)

Week	Topic
14.	Modern monetary policy and the challenges (Cecchetti & Schoenholtz Textbook Chapter 23)
15.	Special topic: New Keynesian monetary economics & Final exam revision
	Final examination

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE433 Asset Pricing Theory

Semester 2/2025

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

Prerequisite: EE311 and EE320 (or EE421)

Course Description:

Study concepts and frameworks of asset pricing theory in the intermediate level; the theory of choice under uncertainty; classical asset pricing theory in the discrete time such as the Capital Asset Pricing Model (CAPM), The Arbitrage Pricing Theory (APT), and The Consumption Capital Asset Pricing Model (C-CAPM); Empirical puzzles in asset pricing/returns and proposed resolutions in the literature.

Course Objectives:

The aim of the course is to provide a broad understanding of the principles of asset pricing. In this class, I will start with a review of the theory of choice under uncertainty that you have learned in EE311. Then, we will develop classical asset pricing theory in the discrete time. In this class, the students will learn and discuss the empirical puzzles and recent theories that have been developed to try to solve these puzzles.

Learning Management and Evaluation

CLO	Learning Management	Evaluation
CLO 1: K1, K2, K3, S1, S2 Learning modern asset pricing theories and relevant empirical studies	• Lecture • Connecting theories with data using R	• Class participation and discussion • Midterm examination • Final examination • Assignments
CLO 2: K1, K2, K4, C1, C2, C4, S2 Initiate problem analysis in independent or group assignments	• Assignment • Replication of empirical studies	• Individual or group assignments • In-class presentation
CLO 3: E1 Acknowledge moral values and exhibit ethical traits embedded in the asset pricing thories	• Case study • Group discussion	• Class works evaluation

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
CLO 1	• Class participation • Midterm exam • Final exam • Assignments	1-15 8 16	10% 30% 40%

		Every 3rd week	20%
CLO 2	• Assignments	Every 3rd week	20%
CLO 3	• Class participatio	1-15	10%

Main Text:

1. Danthine, J.-P., and Donaldson J. B., & . (2014). *Intermediate financial theory* (3th ed.). Elsevier **(DD)**
2. Bodie, Z., Kane, A., and Marcus A. (2023). *Investments (13th ed.).* McGraww-Hill.

Recommended Texts:

1. Pennacchi, G. (2008). Theory of Asset Pricing. Pearsons

Grading Criteria

Raw Score	Grade
85-100	A
80-84	B+
75-79	B
70-74	C+
65-69	C
60-64	D+
55-59	D
<55	F

Assessment Component	Weight
Class Participation	10%
Midterm Exam	30%
Final Exam	40%
Assignments	20%
Total	**100%**

Tentative Class Schedule

Session	Topic	Reading
1-2	Expected Utility and Risk Aversion	DD Ch.3-4
3	Demand for Assets	DD Ch. 5
4	Modern Portfolio Theory and Mean-Variance Analysis	DD Ch. 6
5	The Capital Asset Pricing Model	DD Ch. 8
6	Arrow-Debreu Pricing	DD Ch. 9
7	Empirical Evidences	
Midterm exam		
9-10	The Consumption CAPM	DD Ch. 10
11-12	Options and Arrow-Debreu Pricing	DD Ch. 11
13-14	The Binomial Model and The Martingale Measures	DD Ch. 12-13
15	The Arbitrage Pricing Theory	DD Ch. 14
16	Review Session	
Final Exam		

Conduct and Manner

Ethics is all above everything, far more valuable than merely subject knowledge. Accordingly,
plagiarism and cheating, including any possible plagiarism and cheating, will be subject to
penalties as stated in the University Regulations. More importantly, to achieve overall objectives of learning, it is strongly advised that all students of EE433 classes behave in proper manner with socially acceptable and right conduct.

Below is advised code of conduct to be performed in EE433 class. Achieving and maintaining
the code of conduct throughout the course will surely be awarded.

1. No mobile phones used. This includes silent mode, message sending, LINE, and all social network communication that would interfere teaching and learning. Should any mobile phone ring, a pop-up closed-book quiz will be given to all students in the group. Score earned from the quiz will be counted toward the course evaluation.
2. Be punctual. Class starts at 09:00 am. Yet it is understood that students may have continuing classes that cause delay. It is acceptable if it is a few minutes late. But unnecessary delay should be avoided. Even if students are on time, they are advised not to leave the room without unnecessary purposes.
3. Behave. Everyone is expected to behave with basic politeness, civility, and respect for others. In particular, talking in class is allowed if it's part of a class discussion. Private communications are not, especially during quizzes. Neither are reading extraneous materials, using electronic equipment/s or sleeping. Other socially acceptable manner should be practiced here. For example, this is a classroom whereby food and drink is not allowed. This is the university whereby students wear proper dress

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE439 Seminar in Monetary and Financial Economics

Semester 2/2025

Number of Credit: 3

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

Note: Students should have no trouble with basic econometrics (e.g. multivariable OLS)

Course Description: Seminar and research on topics in Monetary and Financial Economics under the supervision of the lecturer

Course Objectives:

1. To get students to think critically and research systematically on the current issues in monetary and financial economics (e.g., central banking, financial markets, capital flows, exchange rate, and financial crises)
2. To apply economic theories and quantitative analyses to real-world questions of modern-day monetary and financial economics
3. To effectively transition students into a role of an active monetary and/or financial economist
4. To develop applied research skills, including data manipulation, econometric software proficiency (Eviews, Stata, Matlab, R-studio) and professional writing/presentation skills

Learning Management and Evaluation

CLO	Learning Management	Evaluation
CLO 1: K1, K2, K4, S2 Apply modern monetary and financial economic theories to analyze and interpret the causes of current Thai and global economic problems (e.g., central banking, crises, capital flows)	· **Seminar:** Leading discussions on current literature · **Lecture:** Review of theoretical frameworks · **Self-Study:** Literature review on chosen research topic	· **Leading discussion** (Assessing understanding of theory) · **Research Paper** (Assessing application of knowledge)
CLO 2: S3, C2 Conduct independent research by selecting appropriate statistical methods, using econometric software (e.g., Stata/Eviews) to process data, and synthesizing results to propose policy guidelines	· **Computer Lab:** Workshops on finding data and running regressions · **Research Workshop:** Brainstorming hypotheses and model specifications · **Supervision:** 1-on-1 feedback on methodology	· Research Proposal · 1st Result Presentation · Final Research Paper (Methodology & Results sections)
CLO 3: C1, C3, C5, E4 Communicate economic ideas effectively through professional writing and "top-notch" presentations, while demonstrating leadership and teamwork in academic discussions	· **Group Discussion:** Peer review sessions · **Presentation Coaching:** Q&A simulation	· **Leading discussion** (Presentation skills) · **Final Presentation** (Ability to answer Q&A)

	· **Writing Workshop:** Drafting and refining the research paper	· **Final Research Paper** (Writing quality)
CLO 4: E1, E3, C4 Demonstrate academic integrity (no plagiarism), punctuality, and social responsibility in conducting research and participating in the intellectual community	· **Class Policy:** Strict attendance and citation rules · **Ethics Discussion:** Proper handling of data and citations · **Active Participation:** Engaging in peer discussions	· **Class participation** (Punctuality & Engagement) · **Research Paper** (Proper citation and ethical data usage)

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
CLO 1: K1, K2, K4, S2 *(Knowledge)*	· Leading Discussion · Final Research Paper (Literature/Theory)	· Weeks 3-10 · Week 13	· 15% · 20%
CLO 2: S3, C2 *(Research Skills)*	· Research Proposal · 1st Result Presentation · Final Research Paper (Method/Analysis)	· Weeks 3-5 · Week 9 · Week 13	· 10% · 10% · 20%
CLO 3: C1, C3, C5, E4 *(Communication/ Character)*	· Final Presentation (Q&A) · Leading Discussion/Presentation · Final Research Paper (Writing)	· Week 13 · Weeks 3-10 · Week 13	· 20% · 15% · 20%
CLO 4: E1, E3, C4 *(Ethics/Character)*	· Class Participation & Contribution *(Punctuality, Ethics, Engagement)*	· Weeks 1-13	· 15%

Suggested Readings:

Becker, H. *Writing For Social Scientists* (University of Chicago Press, 1986).

Booth, W. and M. Gregory. *The Harper and Row Rhetoric: Writing As Thinking/Thinking As Writing* (Harper & Row, 1987).

Graves, R. and A. Hodge. *The Reader Over Your Shoulder* 2nd Edition, (Random House, 1979).

Horner, W.; S. Webb and R. Miller. *Harbrace College Handbook* 12th Edition, (Harcourt Brace, 1994).

McCloskey, D. *Economical Writing* (Waveland Press, 1999).

McCloskey, D. *The Rhetoric of Economics* (University of Wisconsin Press, 1985).

Pindyck, R. and D. Rubinfeld. *Econometric Models and Economic Forecasts* 4th Edition (Irwin, McGraw Hill, 1998).

Turabian, K. *A Manual for Writers of Research Papers, Theses, and Dissertations*, 7th edition (University of Chicago Press, 2007).

Strunk, W. and E. B. White. *Elements of Style* 3rd Edition (Macmillan, 1979).

Thomson, W. *A Guide for the Young Economist: Writing and Speaking Effectively about Economics* (MIT Press, 2001).

Williams, J. *Style: Ten Lessons in Clarity and Grace,* 2nd Edition (Scott, Foresman, 1985).

Wyrick, T. *The Economist's Handbook: A Guide To Research and Writing* (West Publishing, 1994).

Grading Criteria:

Seminar	**30%**
Leading discussion	15%
(overall understanding / presentation skills)	
Participating in class discussions	15%

Research Paper	**70%**
Proposal	10%
1st Result Presentation	10%
Final Presentation	20%
(Overall understanding of issue / discussion of methods and results / presentation skills, Q&A)	
Final draft	30%

Grade assignments follow the Thammasat grading system.

Tentative Class Schedule:

Week (date)	**Topic/Content**
Week 1	Introduction
Week 2	Recap: Econometrics 101
Week 3	Brainstorming on your research questions *Leading discussion (2 papers)*
Week 4	The role of economic models in empirical research; testable hypotheses *Leading discussion (2 papers)*
Week 5	Brainstorming on economic models *Leading discussion (2 papers)*
Week 6	Finding data *Leading discussion (2 papers)*
Week 7	Finding and formatting data; econometric modeling *Leading discussion (2 papers)*
Week 8	Finding and formatting data; econometric modeling *Leading discussion (2 papers)*
Week 9	1st result presentation
Week 10	Brainstorming on your research output *Leading discussion (2 papers)*
Week 11	Brainstorming on your research output
Week 12	Brainstorming on your research output
Week 13	Final presentation
Final paper submission	

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE451 International Trade Theory and Policy

Semester 2/2025

Number of credits: 3 credits (3-0-6)
Prerequisites: EE311
Course description:

This course aims to lay down foundation of basic international trade theories and its applications. In the theoretical part, international trade theory is emphasized. It aims to gain better understanding on the following questions; (1) When two countries trade with each other, what products should be exported and what to be imported; (2) What is the gain from trade countries benefit and share; and (3) Can a government play a role in nurturing certain products/industries?

In the application part, many current issues will be brought to the class. It includes trade protection, economic integration and global production sharing (alternatively known as global value chains), and foreign direct investment. In this part, issues relevant to developing countries are emphasized, using Thailand and other East Asian countries as the case study.

Course Objectives:

- To lay down analytical framework on international trade to students so that they can understand contemporary debates on international trade locally and worldwide.
- To enable students to properly apply the knowledge to current situations.
- To help students to formulate empirical questions to do research in international economics especially those who will enroll in international economic seminar (EE 459).
- To give better prospects to students especially those who want to pursue economics in graduate level on research areas.

Method of Instruction:

Class activities include lectures, discussions and homework. Students are expected to read before the class, and participate in class discussions.

Reading List and Textbooks:

The textbook is optional but strongly recommended.

Main textbooks:

Krugman, P., Obstfeld, M., and Melitz, M. (2018), International Economics: Theory and Policy, (11th Global ed), Pearson Education Ltd: Harlow UK.

Kohpaiboon, A. (2024), International Economics for Development, Thammasat University Press(in Thai)

The following is entirely optional but would be useful...

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

2. Krugman, P. (1997), 'What Should Trade Negotiators Negotiate About?', Journal of Economic Literature, 35(1): 113-120

3. Corden, M. (1986), Why Trade is not Free: Is There a Clash between Theory and Practice?', in H. Giersch (ed.) Free Trade in the World Economy: Towards an Opening of Markets, Kiel, J.C.B. Mohr Tübingen.

4. Corden, M. (1997), Trade Policy and Economic Welfare (2nd edition), Oxford University Press, New York.

5. Jongwanich, J. and A. Kohpaiboon (2007), 'Determinants of Protection in Thai Manufacturing', Economic Papers,26(3), 276-94.

6. Kohpaiboon, A. (2006), Multinational Enterprises and Industrial Transformation, Edward Elgar, Cheltenham.

7. Baldwin, R. (2008), The Development and Testing of Hecksher-Ohlin Trade Models: A Review: the Ohlin Lectures No.11 ¸ MIT Press, Cambridge.

8. Jongwanich, J., & Kohpaiboon, A. (2017). Exporter Responses to FTA Tariff Preferences: Evidence from Thailand. Asia Pacific Economic Literature, 55 (2), 130-157

9. Kohpaiboon, A., & Jongwanich, J. (2019). The Use of FTAs: the Thai Experience. In L. Ing, M. Richardson, & S. Urata (Eds.), East Asian Integration: Goods, Services and Investment. New York: Routledge

10. Krugman, P. (1996), 'Making Sense of the Competitiveness Debate', Oxford Review of Economic Policy, 12(3): 17-25.

11. Kohpaiboon, A. and J. Jongwanich (2013), 'International Production Network, Clusters and Industrial Upgrading: Evidence from Automotive and Hard Disk Drive Industries', Review of Policy Research 30(2): 211-239

12 Corden, W. M. (1966), 'The Structure of a Tariff System and the Effective Protective Rate', *Journal of Political Economy*, Vol.74, No.3, pp.221–37.

13 Krueger, A. (2020). *International Trade: what everyone needs to know*. Oxford: Oxford University Press.

14 Levinson, M. (2016), *The Box: How the shipping container made the world smaller and the world economy bigger*, Princeton, Princeton University Press.

15 Rodrik, D. (2018), 'What do trade agreements really do?', *Journal of Economic Perspectives* (2): 73-90.

16 Pham, T., & Riedel, J. (2013). An empirical analysis of comparative advantage dynamics. FREIT Working Paper. California.

17 Grossman, G.M. (1981), 'The theory of domestic content protection and content preference', *Quarterly Journal of Economics,* 96(4): 586-603.

18 Kohpaiboon,A. and J. Jongwanich (2021), 'The Effect of the COVID-19 Pandemic on Global Production Sharing in East Asia', ERIA Discussion Paper

19 Rajanakanoksak, K. (2014), 'Revisit of determinant of antidumping: Exporters' viewpoint', MA Thesis, Faculty of Economics, Thammasat University

20 Kohpaiboon, A. and J. Jongwanich (2013), 'Vertical and horizontal FDI technology spillovers: evidence from Thai Manufacturing', *Thailand and the World Economy,* 31(1): 60-108.

21 Navaretti, G. and A. Venables (2004), *Multinational Firms in the World Economy,* Princeton University Press, Princeton and Oxford.

Assessment:

Assessment task	**Value**	**Due date**
Mid-term exam	30%	25 Feb 2026 (9.00-11.00)
Final exam	50%	13 May 2026 (13.30-16.30)
HW/ Quiz I	10%	
HW/ Quiz II	10%	
Total	100%	

Grading Criteria:

Grading will be based on each student's total scores and relative scores within the class. The minimum score to pass the course is 45 (out of 100) whereas grade A will be given to students who obtain a score of at least 85 (out of 100).

Score	Grade
A	85 and over
B+	Based on the distribution of students' scores
B	
C+	
C	
D+	
D	
F	Less than 45

Tentative Class Schedule:

Lecture	Topics	Readings/materials
1	**1. Importance of international economics**	Lecture Note based on Kohpaiboon (2024: Ch 1).)
1-4	**2. INTERNATIONAL TRADE THEORY** **2.1 Classical Trade Theory (Market-driven)** 2.1.1 Mercantilism 2.1.2 Comparative Advantage 2.1.3 Specific factor model 2.1.4 The Heckscher-Ohlin trade model	Krugman et al. (2015: Ch.3)

5-7	2.2 **Role of government in trade patterns**; 2.2.1 New Trade Theory 2.2.2 Competitive Advantage concept (M. Porter's concept) 2.2.3 Latent Comparative Advantage (J. Lin's concept) 2.2.4 Flying geese hypothesis **2.3 Firm Heterogeneity** **2.4 Empirical evidence of international trade theory**	Krugman et al. (2015: Ch.4); *Lecture Note based on Kohpaiboon (2024: Ch 2); Pham, T., & Riedel, J. (2013)*
	Midterm exam	
9-12	3. Trade Policy 3.1. Tariffs 3.2. Non-tariffs 3.2.1. Import quota 3.2.2. Export subsidy 3.2.3. Dumping 3.2.4. Local content requirements 3.3. Effective rate of protection: 3.4. Political economy in protection	Krugman (1997); Corden (1986); Krugman et al. (2015: Ch.9); *Lecture Note based on Kohpaiboon (2024: Ch 3);* Corden (1966); Grossman (1981); Jongwanich and Kohpaiboon (2007); Rajanakanoksak, K. (2014)
13-14	**4. Economic Integration** 4.1 Type of economic integration 4.2 Free trade agreement (FTA): Impact and debate 4.3 Empirical issues on FTAs in East Asia	*Kohpaiboon (2024: Ch 4); Kohpaiboon and Jongwanich, 2015); Kohpaiboon and Jongwanich, 2017);* Rodrik (2018)

15	**5. Global Production Sharing** 5.1 Intra-industry vs intra-product trade 5.2 Motivation of sharing (Costs and benefits 5.3 Debate on developmental implications 5.3.1 Footloose development 5.3.2 Trapped into the low-end segments 5.3.3 FTAs and GPS participation 5.3.4 Supply chain resilience	*Kohpaiboon (2024: Ch 6);* Kohpaiboon and Jongwanich (2013); Kohpaiboon, and Jongwanich (2021)
16	**6. Foreign Direct Investment (FDI)** 6.1 Pre-requisite for investing abroad 6.2 Motivation to invest abroad 6.3 Host country effect 6.4 Home country effect	*Kohpaiboon (2024: Ch 5); Kohpaiboon (2006);* Kohpaiboon and Jongwanich (2013), *Navaretti and Venables (2004: Ch 6-9)*
	Final exam	

Expected Learning Outcomes:

1. Students understand and can contribute to debates of international trade
2. Students can formulate relevant empirical questions related to international trade.
3. Students gain more understanding about tools in international trade.

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE452 International Monetary and Financial Economics

Semester 2/2025

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

Prerequisite: EE312

Course Description:

The balance of payments adjustment mechanism. Foreign exchange markets. International capital flows. The evolution of an international monetary system. International monetary problems encountered by developing countries, including Thailand. Financial crises as experienced by Thailand and the rest of the world.

Course Objectives:

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

Expected Learning Outcomes

1. Morality and Ethics EE452

Applicability	Expected Learning Outcomes	Evaluation Method
●	21. Students demonstrate integrity.	Be evaluated by class attendant and class participation.
○	22. Students prioritize social and public benefits over personal ones.	Be evaluated by group assignments
●	23. Students are punctual and comply with the code of conduct of the institution and society at large.	Be evaluated by class attendant and class participation.
●	24. Students are responsible and accountable to society, the nation, and the subject of economics.	Be evaluated by class attendant and class participation.
○	25. Students realize the cultural and environmental value of a sustainable society.	Be evaluated by group assignments

2. Knowledge

Applicability	Expected Learning Outcomes	Evaluation Method
●	21. Students know and understand modern economics principles and theories, and are up to date with new developments.	Be evaluated by class participation, quiz, midterm and final exams
●	22. Students know and understand Thai and global economic structure and the importance of major international economic events.	Be evaluated by class participation, quiz, term paper(s), mid-term and final exams
○	23. Students know and understand the instruments of economic analysis.	Be evaluated by class participation, quiz, term paper(s), mid-term and final exams
●	24. Students know and understand applied fields in economics, including monetary, public, international, business, natural resource, and environmental, industrial, agricultural, cooperative, political, developmental, and entrepreneurial economics as well as agribusiness.	Be evaluated by class participation, quiz, term paper(s), mid-term and final exams

○	25. Students are informed about related fields including sociology, business administration, education, law policy, and science.	Class participation and term paper(s)

3. Intellectual Development

Applicability	Expected Learning Outcomes	Evaluation Method
●	13. Students have developed individual critical thinking.	Be evaluated by class participation and term paper(s).
●	14. Students are sufficiently trained in research skills.	Be evaluated by class participation and term paper(s).
●	15. Students demonstrate an ability to analyze and synthesize data, as well as appropriately integrate economics concepts to understand the causes of current economic problems in Thailand. Based on analysis and synthesis, students demonstrate an ability to propose policy guidelines to resolve problems.	Be evaluated by class participation and term paper(s).

4. Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes	Evaluation Method
●	21. Students are responsible for assigned tasks and work in groups effectively.	Be evaluated by class participation and term paper(s).
●	22. Students have problem-solving skills.	Be evaluated by class participation and term paper(s).
○	23. Students show leadership skills and team spirit.	
●	24. Students are always improving themselves.	Be evaluated by two term papers/class participation/mid-term and final exam.

O	25. Students have good interpersonal skills, adapt, and work under different conditions.	

5. Quantitative Analysis, communication, and information technology

Applicability	Expected Learning Outcomes	Evaluation Method
O	13. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	
O	14. Students communicate effectively and select appropriate presentation methods.	
O	15. 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

main text:

Krugman,P.R., M. Obstfeld., M. J. Melitz (2015), International Economics: Theory and Policy: 10th edition, Pearson
Krugman,P.R., M. Obstfeld., M. J. Melitz (2021), International Economics: Theory and Policy: 12th edition, Pearson

Recommended Texts & Materials

Sodersten, B. and G. Reed (1994), International Economics: Third edition, Macmillian, p. 512-24 Montiel, P.J. (2009), *International Macroeconomics,* Wiley-Blackwell, Sussex

Suggested Readings:

Ito, H. and M. Kawai (2024), 'Monetary and Fiscal Policies in Emerging Markets amid Heightened Uncertainty, 20-21 May 2024, Bangkok, Thailand.

Forbes, K.J and F.E. Warnock (2021), 'Capital Flow Waves – or Ripple? Extremem Capital Flow
Movements since the Crisis', Journal of International Money and Finance, 116 (2021): 102394.

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.

Grading Criteria:
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).

A = 4.0 (85-100)	B+ = 3.5 (75-84)
B = 3.0 (70-74)	C + = 2.5 (65-69)
C = 2.0 (60-64)	D+ = 1.5 (50-59)
D = 1.0 (40-49)	F = 0 (0-39)

Tentative 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 1.1.4 Implication of trade-tech war / geopolitical tensions/ Carry Trade	Montiel (2009): Ch 2; Krugman et.al (2015) Ch.13	Some parts are only in the lecture note
Test 1			

No.	Topic/Activities	Documents	Note
2	2. Exchange rate 2.1.1 Exchange rate system	Annual report on exchange arrangements and exchange restrictions, IMF (2021): p. 1-17	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): Ch 3; Krugman et.al (2015) Ch.14: 374-84	
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
5	2.1.3.2 Demand and Supply approach - Marshall-learner condition	Sodersten and Reed (1994): p. 512-24	Some parts are only in the lecture note
Test 2			
Mid-Term Examination: Wednesday, February 25, 2026 09.00-11.00 hrs.			
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

No.	Topic/Activities	Documents	Note
Test 3			
9	4. Determinants of real exchange rate	Jongwanich (2013)	Some parts are only in the lecture note
10	5. Exchange Rates vs Key Economic Variables 5.1 Exchange rate and trade 5.2 Exchange rate pass-through	Jongwanich (2010)	Some parts are only in the lecture note
11	6. Macroeconomic Model 6.1 Macroeconomic Model Setting	Montiel, 2009: Ch 4	
12	6.2 Fixed Exchange Rate and Perfect Capital Mobility	Montiel, 2009: Ch 6: p.130-145	
13	6.3 Fixed but Adjustable Exchange Rate and Imperfect Capital Mobility 6.4 Floating Exchange Rate and Perfect Capital Mobility	Montiel, 2009: Ch.7, and Ch. 8: p.177-187	
Test 4			
14	7. Crises 7.1 Asian financial crisis 7.2 Global financial 2008-09 and impacts on Asian countries 7.3 Trade-Tech war /After Covid-19	Krugman, 2015: Ch.22 and James, W., etc. 2008	Some parts are only in the lecture note
Presentation (29 April 2026)			
Final Exam			

Method of Instruction: There are a 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

EE463 Globalization and International Development

Semester 2/2025

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

Prerequisite: a) EE211 and EE212; or b) EE213 and EE214

Course Description and Objectives:

This course analyzes interactions between globalization and the economic development process. Students will practice skills required to research, write, and publish academic papers in refereed Economics' journals on these subjects. The emphasis will be on conducting "surveys of the literature" that summarize major findings of previous studies on a well-defined aspect of the globalization-development relationship. The main goal is to help students practice learn research, analytical, statistical, and writing techniques necessary to write a good thesis or dissertation, and eventually publish academically. These skills are also useful in business or government and other occupations.

COURSE EVALUATION: 70% of the evaluation will be based on a medium-length term paper (about 4000-5000 words or about 13-17 pages, double-spaced with 2.5cm margins and 12-point font, including footnotes and a list of at least 12 references). **Please submit term papers and all course assignments in MS Word docx files by email to the ramstmnc email address listed at the top of this page by 2 May 2026. The term paper will be a "literature review" summarizing previously published, academic evidence related to the student's chosen research question. The research question must focus on some aspect of the relationship between economic development and globalization. Term papers will review results from at least 12 previously published, refereed, academic papers published in one of 29 TERM-PAPER JOURNALS listed on p. 2 of this syllabus. 3 of the 12 required references must come from the Journal of Economic Literature and/or the Journal of Economic Surveys (JEL/JES) because they are good sources of previously published literature reviews. New (previously unpublished) analyses and data (tables, figures) should be excluded.** In your paper, **please use text paragraphs and maybe one or two text tables** summarizing major analytical results of previous studies. Please use **NO GRAPHICS** and submit the paper by email to **ramstmncATMARKgmail.com by Sat 22 Nov.** Please see pp. 6-9 for detailed guidelines.

All sources in the list of references must be cited and discussed at least one time in the paper. **Most (95%+) of the paragraphs in literature reviews require ONE OR MORE references. If you plagiarize or fail to cite references appropriately, you will FAIL THIS CLASS and may be subject to suspension or expulsion from the University for academic dishonesty. AI is often a plagiarist. Be careful to document your sources and avoid AI-induced plagiarism.** AI cannot write sentences for your term paper without plagiarizing unless you carefully double-check the sources of every sentence it writes. **In class 10, students will present a short (1-2 page), preliminary outline of their proposed term paper and a list of 12 or more potential references from TERM-PAPER journals**. The goal is to help students clarify analytical topics, organize their papers to be easier to write, and identify credible references.

30% of the evaluation will be based on student presentations and class participation. Polite attendance of all classes and paying close attention to presentations of fellow students is an important part of the participation grade. In classes 2-9 & 11-15, students will present **concise (2-3 pages), text-only (NO graphs, figures, tables) outlines** of assigned course readings. Presentations will be about 4-6 minutes. Please use text only, 12-point font, A4 paper, and MS-Word format. Please submit outlines by 5am the day of presentation. **If you take the time to read, understand, and follow the instructions in this syllabus carefully, you will earn high grades; if you do not follow directions carefully, your grades will be low.**

CONSULTATIONS: The instructor will be available for 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 “EE463”, use only one email address for class communications, and clearly state the email’s topic.

COURSE MATERIALS: Links to two folders with course materials will be sent to all students by email. The first “SyllabusEtc” folder will contain this syllabus, a list of reading assignments, a set of Lecture Notes, and all readings. The second “OutlinesEtc” will be used to store all student outlines for reference. Updates will be made as required. I will also provide a “Ref” directory with about 1500 references useful in EE463 term papers.

29 TERM-PAPER (subject-based) Journals: TERM-PAPERs must use 12 or more references to refereed, academic papers from the 29 TERM-PAPER journals listed below. 3 or more references more must come from *Journal of Economic Literature* (**JEL**) and/or *Journal of Economic Surveys* (**JES**).
IDEAS SIMPLE IMPACT FACTORS from
https://ideas.repec.org/top/top.journals.simple.html, 20250101
Ecological Economics IDEAS SIMPLE IMPACT FACTOR 16,344
https://www.sciencedirect.com/journal/ecological-economics
Economic Development and Cultural Change IDEAS SIMPLE IMPACT FACTOR 15.337
https://www.journals.uchicago.edu/toc/edcc/current
Energy Economics IDEAS SIMPLE IMPACT FACTOR 24.768
https://www.sciencedirect.com/journal/energy-economics
Energy Policy IDEAS SIMPLE IMPACT FACTOR 15.551
https://www.sciencedirect.com/journal/energy-policy
IMF Economic Review IDEAS SIMPLE IMPACT FACTOR 18.943
http://www.palgrave.com/gp/journal/41308
Industrial and Corporate Change (**ICC**) IDEAS SIMPLE IMPACT FACTOR 19.106
https://academic.oup.com/icc
International Journal of Industrial Organization **(IJIO)** IDEAS SIMPLE IMPACT FACTOR 18.436
https://www.sciencedirect.com/journal/international-journal-of-industrial-organization
Journal of Comparative Economics IDEAS SIMPLE IMPACT FACTOR 13.360
https://www.sciencedirect.com/journal/journal-of-comparative-economics
Journal of Development Economics (**JDE**) IDEAS SIMPLE IMPACT FACTOR 34.410
https://www.sciencedirect.com/journal/journal-of-development-economics
Journal of Economic Growth IDEAS IMPACT FACTOR 102.413
https://link.springer.com/journal/10887/volumes-and-issues
Journal of Economic Literature (**JEL**) IDEAS SIMPLE IMPACT FACTOR 124,262
https://www.aeaweb.org/journals/jel
Journal of Economic Perspectives IDEAS SIMPLE IMPACT FACTOR 83.433
https://www.aeaweb.org/journals/jel
Journal of Economic Surveys (**JES**) IDEAS SIMPLE IMPACT FACTOR 32.569
https://onlinelibrary.wiley.com/journal/14676419
Journal of Environmental Economics and Management IDEAS SIMPLE IMPACT FACTOR 30.202

https://www.sciencedirect.com/journal/journal-of-environmental-economics-and-management
Journal of Industrial Economics IDEAS SIMPLE IMPACT FACTOR 22.152
https://onlinelibrary.wiley.com/journal/14676451
Journal of International Business Studies (**JIBS**) IDEAS SIMPLE IMPACT FACTOR 37.614
https://www.sciencedirect.com/journal/journal-of-international-economics
Journal of International Economics (**JIE**) IDEAS SIMPLE IMPACT FACTOR 40.109
https://www.sciencedirect.com/journal/journal-of-international-economics
Journal of International Money and Finance IDEAS SIMPLE IMPACT FACTOR 23.892
https://www.sciencedirect.com/journal/journal-of-international-money-and-finance/issues
Journal of Labor Economics IDEAS SIMPLE IMPACT FACTOR 55.315
https://www.journals.uchicago.edu/loi/jole
Labour Economics IDEAS SIMPLE IMPACT FACTOR 19.506
https://www.sciencedirect.com/journal/labour-economics
Resource and Energy Economics IDEAS SIMPLE IMPACT FACTOR 16.403
https://www.sciencedirect.com/journal/resource-and-energy-economics
Review of Development Economics IDEAS SIMPLE IMPACT FACTOR 8.152
https://onlinelibrary.wiley.com/loi/14679361
Review of International Economics IDEAS SIMPLE IMPACT FACTOR 11.545
https://onlinelibrary.wiley.com/loi/14679396
Review of Industrial Organization (**RIO**) IDEAS SIMPLE IMPACT FACTOR 8.260
https://link.springer.com/journal/11151/volumes-and-issues
The Review of Economics and Statistics IDEAS SIMPLE IMPACT FACTOR 50.577
https://direct.mit.edu/rest
The World Bank Economic Review IDEAS IMPACT FACTOR 36.316
https://academic.oup.com/wber/issue
The World Bank Research Observer IDEAS IMPACT FACTOR 34.622
https://academic.oup.com/wbro
The World Economy IDEAS SIMPLE IMPACT FACTOR 9.436
https://onlinelibrary.wiley.com/journal/14679701
World Development (**WD**) IDEAS SIMPLE IMPACT FACTOR 16.719
https://www.sciencedirect.com/journal/world-development

CLASS SCHEDULE: Classes are scheduled on Wednesdays at 1300-1600. Information about makeup classes will be announced and this syllabus revised as early as possible.

Class 01-Thu 0108, Class 02-Thu 0115, Class 03-Thu 0123, Class04-Thu 0130, Class 05-Thu-0205
Class 06-Thu 0212, Class 07-Thu 0219, **Thu 0226-no class & no test during midterm week**
Class 08-Thu 0305, Class 09-Thu 0312, Class 10-Thu 0319, Class 11-Thu 0326, Class 12-Thu 0402
Class 13-Thu 0409, Class 14-Thu 0423, Class 15-Thu 0430, TERM-PAPERS DUE-Sat 0503

READING LIST, Classes 01 to 04; the list uses file names from the class' Google drive; files contain full bibliographic information necessary for TERM-PAPERs and other publications.

Readings with file names including "___Ref___" are supplemental readings for reference only.

TOPIC 1: ECONOMIC GROWTH, HUMAN DEVELOPMENT, AND INSTITUTIONS

Class 01-Syllabus Explanation; Introduction to Globalization and Economic Growth in Asia

01a-BloomEtal-2024-Health and economic growth, Reconciling the micro and macro evidence-WorldDev
01b-Stern&Stiglitz-2023-Climate Change and Growth-ICC
01Ref1_(a&b)-deJanvury&Sadoulet-2016-DevelopmentEconomics (in 2 files), 00-15, 16-22&index)
01Ref2-Hayami-2002-Development Economics
01Ref3-Soderbom&Tealetal-2015-Empirical Development Economics
01Ref4-Todaro&Smith-2015-Economic Development 12th Edition

Class 02-Determinants of Economic Growth and Catch-Up

02a-Johnson&Papageorgiou-2020-What Remains of Cross-Country Convergence-jel
02b-Irwin-2025-Does Trade Reform Promote Economic Growth, A Review of Recent Evidence-WBRO
02bRef-Singh-2010-Does International Trade Cause Economic Growth A Survey-World Economy
02bRef-AhmadEtal-2020-SYSTEMATIC LITERATURE REVIEW OF TOURISM GROWTH NEXUS AN OVERVIEW...-joes
02c-ArthurEtal-2025-Financial crimes in Africa and economic growth, Implications for achieving sustainable development goals (SDGs)-joesEBSCO
02d-FukaoEtal-2021-HUMAN CAPITAL AND ECONOMIC GROWTH IN JAPAN 1885 2015-joes

Class 03-Productivity Measurement, Firm Performance, Competition, and Policy

03a-BrandtEtal-2014-From Divergence to Convergence, Reevaluating the History Behind China's Economic Boom.jel

03b-DasEtal-2021-Economic Growth in India during 1950-2015, Nehruvian Socialism to Market Capitalism-joes

03c-AwEtal-2011-R&D Investment, Exporting, and Productivity Dynamics(Taiwan)-aer.101.4.1312

03d-BranstetterEtal-2023-Picking winners, Government subsidies and firm productivity in China-JCmEco

Class 04-Income and Wage Determinants

04a-deZwart-2025-The long-run evolution of global real wages-joesEBSCO

04b-Cortes&Pan-2023-Children and the Remaining Gender Gaps in the Labor Market-jel

04c-JongwanichEtal-2022-Technological advancement, import penetration and labour markets, Evidence from Thailand-WorldDev

04d-Amiti&Cameron-2012-Trade Liberalization and the Wage Skill Premium, Evidence from Indonesia-JIE

READING LIST, Classes 05 to 10; the list uses file names from the class' Google drive; files contain full bibliographic information necessary for TERM-PAPERs and other publications.

TOPIC 2: CONSEQUENCES OF MARKET POWER AND EXTERNALITIES

Class 05-Heterogeous Labor, Market Power, Economic Rents, Taxation, and Fraud in Finance

05a-Edmans&Gabaix-2016-Executive Compensation, A Modern Primer-JEL

05b-SchwerhoffEtal-2020-TAXATION OF ECONOMIC RENTS-joes

05c-WangEtal-2020-Corporate Tax Avoidance, A Literature Review and Research Agenda-joes

05d-Griffith-2021-Ten Years of Evidence, Was Fraud a Force in the Financial Crisis-jel

Class 06-Financial Crises, Monetary Policy, Business Groups, and Firms/Plants

06a-BhattaraiEtal-2022-An Analysis of the Literature on International Unconventional Monetary Policy-jel

06b-ChooEtal-2009-Changing Performance of Business Groups over 2 Decades (Tech & Investment) in Korean Chaebols-EDCC

06c-RasiahEtal-2014-Crisis Effects on the Electronics Industry in Southeast Asia-JCnAs

06d-Narjoko-2014-Did Better Firms Enter the Indonesian Manufacturing Sector after the 1997–98 Crisis-BIES

Class 07-Market Power and Externalities in Health Care and Education

07a-BanerjeeEtal-2024-Social Protection in the Developing World-jel
07b-Lakdawalla-2018-Economics of the Pharmaceutical Industry-jel
07c-Huang&Liu-2023-Early childhood exposure to health insurance and adolescent outcomes, Evidence from rural China-JDE
07d-KahnEtal-2021-Pollution's Role in Reducing Urban Quality of Life in the Developing World-joes

Class 08-Pollution Externalities, Environmental Expenditures, Worker Productivity and Incomes

08a-He,Liu&Salvo-2019-Severe Air Pollution and Labor Productivity, Evidence from Industrial Towns in China-app.20170286
08b-PangEtal-2023-Gasoline prices, traffic congestion, and carbon emissions(China)-RsEnEco
08c-LuoEtal-2024-Foreign shareholding and corporate environmental expenditure, Evidence from China-joesEBSCO
08d-WangEtal-2024-The dynamic impact of trade on environment (in China)-joesEBSCO

Class 09-Managing Pollution Externalities

09a-Zivin&Neidell-2013-Environment, Health, and Human Capital-jel
09b-ParryEtal-2007-Automobile Externalities and Policies-jel
09bRef-ChantithEtal-2020-Measure of productivity loss due to road traffic accidents in Thailand-IATSS
09c-Nordhaus-2019-Climate Change, The Ultimate Challenge for Economics-aer
09cRef-Kulp&Strauss-2019-New elevation data triple estimates of global vulnerability to sea-level rise&coastal flooding-NatureCom
09d-Felbermayr-2025-Trade and the environment, trade policies and environmental policies, How do they interact-joesEBSCO

Class 10-All students present a ½-page TERM-PAPER outline & preliminary list of 12 references from TERM-PAPER journals, including 3 from *Journal of Economic Literature* or *Journal of Economic Surveys*.

TOPIC 3: INTERNATIONAL ISSUES

Class 11-The GATT-WTO, International Trade, and Dominance of Large, Heterogeneous Firms

11a-Anderson-2016-CONTRIBUTIONS OF THE GATT-WTO TO GLOBAL ECONOMIC WELFARE, EMPIRICAL EVIDENCE-joes
11b-Irwin-2021-The Rise and Fall of Import Substitution-WorldDev
11c-Dai-2023-Recent Developments on Trade and Inequality-joes
11d-BernardEtal-2018-Global Firms-jel
11dRef-Kiyota&Urata-2008-The role of multinational firms in international trade, The case of Japan-JpWEc
11dRef-ApitanEtal-2019-Dissecting Thailand's International Trade, Evidence from 88 Million Export and Import Entries-ADR

Class 12-Costs of Import Protection and Benefits of Importing 1

12a-FlaaenEtal-2020-The Production Relocation and Price Effects of US Trade Policy, The Case of Washing Machines-aer
12b-Anderson-2020-Trade Protectionism in Australia, Its Growth and Dismantling-joes
12c-BirdEtal-2008-Making Trade Policy in a New Democracy after a Deep Crisis, Indonesia-WorldEcon
12d-NewmannEtal-2023-Imports, supply chains and firm productivity(Vietnam)-WorldDev

Class 13- Benefits of Importing 2

13a-Feng,Li,Swenson-2017-Trade policy uncertainty and exports, Evidence from China's WTO accession-JIE
13b-AmitiEtal-2020-How did China's WTO entry affect U.S. prices-JIE
13c-Amiti&Konings-2007-Trade Liberalization, Intermediate Inputs, and Productivity, Evidence from Indonesia, AER
13d-Imruno&Ketterer-2018-Energy efficiency gains from importing intermediate inputs, Firm-level evidence from Indonesia-JDE

Class 14-Multinational Firms

14a-SaittakariEtal-2023-A review of location, politics, and the multinational corporation, Bringing political geography into international business-JIBS
14aRef-Ramstetter-2011-Ranking Locations for Japan’s Manufacturing Multinationals in Asia, A Literature Survey Illustrated with Indexes-asej
14b-Wang&Wang-2015-Benefits of foreign ownership, Evidence from foreign direct investment in China-JIE
14c-Nguyen&Ramstetter-2019-Ownership-related Wage Differentials by Occupation in Vietnamese Manufacturing-SER

14d-BrucalEtal-2019-Good for the environment, good for business, Foreign acquisitions and energy intensity (in Indonesia)-JIE

Class 15-Immigration

15a-AlesinaEtal-2024-The Political Effects of Immigration, Culture or Economics-JEL
15b-Edo-2019-THE IMPACT OF IMMIGRATION ON THE LABOR MARKET-joes
15c-Kayaoglu-2022-Do refugees cause crime (Syrians in Turkey)-WorldDev
15d-Ramstetter-2016-23-Foreign Workers, Foreign Multinationals, and Wages by Occupation and Sex in Malaysia's Manufacturing Plants during the mid-1990s

TERM-PAPER Guidelines (1/4)

SUBMIT in one MS-Word (docx) file to "ramstmncATMARKgmail.com" (ATMARK=@) by SAT 2 MAY

IF A PAPER FOLLOWS INSTRUCTIONS CAREFULLY, THE GRADE WILL LIKELY BE HIGH.

IF A PAPER DOES NOT FOLLOW INSTRUCTIONS (THIS SYLLABUS pp.1, 6-9), REVISIONS MAY BE REQUIRED AND THE PAPER'S GRADE WILL BE RELATIVELY LOW.

70% of the evaluation will be based on a medium-length term paper (about 4000-5000 words or about 13-17 pages, double-spaced with 2.5cm margins and 12-point font, including footnotes and a list of at least 12 references used in the paper). **Please submit term papers and all course assignments in MS Word docx files by email to the ramstmnc email address** listed at the top of this page by Sat 10 May.

The term paper will be a "literature review" summarizing previously published, academic evidence related to the student's chosen research question about some aspect of the relationship between economic development and globalization. The paper will review results from at least 12 previously published, refereed, academic papers from one of 29 TERM-PAPER journals listed on p. 2. Three of the 12 references must come from the *Journal of Economic Literature* (JEL) or the *Journal of Economic Surveys* (JES) because they are good sources of previously published literature reviews. New (previously unpublished) analyses and data (tables, figures) should be excluded. In your paper, please use text paragraphs and maybe one or two text tables summarizing major analytical results of previous studies. In the bibliography, please FIRST list 12 or more papers from TERM-PAPER journals, including 3 or more from JEL/JES, and SECOND list other sources, if you have them. Detailed term-paper guidelines are on pp. 6-9 below. A summary of main points is on p. 1.

1. Topic: Students should choose a topic related to economic development and globalization. Most students choose topics that are too broad to review in a medium-length paper. Other students choose excessively narrow topics with little high-quality research to review. When choosing a topic students must insure it is broad enough to be the subject of at least part of 12 papers from TERM-PAPER journals. On the other hand, topics such as "Globalization in China" or "ASEAN Development and Globalization" are too broad to analyze meaningfully.

In class 10, students will present a short (1/2 page), preliminary outline of their proposed term paper and a list of 12 or more potential references from TERM-PAPER journals. The goal is to help students clarify analytical topics, organize their papers to be easier to write, and identify credible references.

2. Structure: In order to improve the quality of the paper and its grade, please use the following structure and write paragraphs of 3 to 7 sentences long. **Paragraphs shorter than 3 sentences are usually terrible academic English. Paragraphs longer than 7 sentences are often unnecessarily confusing.**

a. Introduction; 2 paragraphs, 1 explains main analytical question(s) and 1 explains the paper's organization.

b. Theory and Methodology; about 3-5pp; subsections b1=Theory & b2=Methodology might help.

c. Empirical Evidence; about 7-10pp; 2 to 5 subsections maybe useful; more than 5 subsections distracting.

d. Conclusions; about 1-3 paragraphs

e. References; about 1-2 pages, single-spaced, for 15-20 references

f. Tables; OPTIONAL 1-2 pages for tables summarizing major analytical results from previous literature

3. Text Citations: All sources of ideas and data that are not common knowledge to 95%+ of all Thammasat students must be clearly cited in the text, with publication details provided in the list of references (see pp. 7-9 below for details). All sources in the list of references must be cited and discussed at least one time in the paper. **Most (95%+) of the paragraphs in literature reviews require ONE OR MORE references.**

The simplest method of citation in the text is the author (year) system. For example, reading 05a can be referred to as "Schwerhoff et al. (2020)" in the text if a full citation is provided in the list of references. If paraphrasing, one could say: "Schwerhoff et al. (2020) emphasizes why economists often think taxation of economic rents can improve social welfare". If quoting directly, quotation marks and page references are required; Schwerhoff et al. (2020, 399) states "Rent taxation does not distort the supply of the tax base".

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. AI is often a plagiarist. Be careful to document your sources and avoid AI-induced plagiarism. AI cannot write sentences for your term paper without plagiarizing unless you carefully check the sources of every sentence.

TERM-PAPER Guidelines (2/4)

4. References: Please use the author (year) reference style similar to that described in #5 of these guidelines. **At least 12 references must be previously published, refereed papers from the 29 TERM-PAPER journals listed on p. 2 above. 3 of the 12 must come from the *Journal of Economic Literature* and/or the *Journal of Economic Surveys* (JEL/JES) because they are good sources of previously published literature reviews.** In the bibliography, please FIRST list 12 or more papers from TERM-PAPER journals, including 3 or more from JEL/JES. SECOND, list other sources, if you have them. The reading list for this class and the extensive library of reference papers provided by the instructor are good places to begin your literature search. The TU Library and its online databases are also valuable resources (see #6 below for details).

All sources in the list of references must be cited and discussed at least one time in the paper.

5. List of References, required details by type of publication: Please provide enough information for the reader to easily find every publication or reference cited, and easily understand how every cited reference is used in text. As explained above, it is easiest to use an author-date citation system. Then, the examples under 5a below can be cited as Bernard et al. (2018), Lopez (2005), and Ngyuen and Ramstetter (2019), respectively. The goal is to create a one-to-one correspondence between text citations and the list of references. If there are two or more publications in the same year, they can be distinguished them a, b, c, etc. to the end of the year number (e.g., Lopez 2005a, 2005b, 2005c for three different Lopez 2005 publications).

However, required bibliographic details differ depending on the type of publication. I provide examples of the required details and examples of full citations for five different types of publications below. Citation styles differ among publishers, but the required details (items) are standard. Internet URLs are helpful, but many internet links change or disappear over time. **A site called "doi.org" assigns fixed DOI numbers to "high quality" publications that can be tracked on the internet when their URLs change. Because DOI numbers are more useful than internet URLs, please use DOI numbers whenever possible.**

5a. Articles in academic journals Refereed, journal articles are considered to be the "highest quality" of academic publications, particularly if the journal is refereed and ranked highly.

Required Details: Authors, year, "article title", *journal title*, VolumeNo(IssueNo), pages or article number, DOI number (or URL).

Examples:

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.

Lopez, Ricardo (2005), "Trade and Growth: Reconciling the Macroeconomic and Microeconomic Evidence", *Journal of Economic Surveys*, 19(4), 623-648, https://doi.org/10.1111/j.0950-0804.2005.00264.x.

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.

5b. Books

Required Details: Authors, year, *book title*, city or cities of publication: publisher, DOI number (or URL).

Examples:

Caves, Richard E., 2007, *Multinational enterprise and economic analysis*, 3rd ed., Cambridge, UK: Cambridge University Press, https://doi.org/10.1017/CBO9780511619113.

Hayami, Yujiro and Yoshihisa Goto, 2005, *Development Economics: From the Poverty to the Wealth of Nations*, 3rd Ed, Oxford and New York: Oxford University Publishers, https://doi.org/10.1093/0199272700.001.0001.

Shen, Bo, Dina Azhgaliyeva, and Alfredo Bano Leal, eds., 2024, *Sustainable Cooling: How to Cool the World Without Warming the Planet*, Manila: Asian Development Bank and Tokyo: Asian Development Bank Institute, https://www.adb.org/publications/sustainable-cooling-how-to-cool-the-world-without-warming-the-planet.

TERM-PAPER Guidelines (3/4)

5c. Articles in books

Required Details: Authors, year, "article title", in book editors, *book title*, city or cities of publication: publisher, pages of the article, DOI number (or URL).

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.

5d. Working Papers, Government Documents, and Other Non-refereed publications

Required Details: Authors, year, "document title", document publication location: document publisher, other relevant details (e.g., working paper series name and number), DOI number (or URL) if available.

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., 2024, "Stories about Institutions and Patterns of Slow Economic Growth from 21st Century Thailand", Working Paper 2024-15, Kitakyushu: Asian Growth Research Institute, https://en.agi.or.jp/media/publications/workingpaper/WP2024-15.pdf.

5e. Internet or Electronic ONLY resources: for this category does NOT include publications with a printed version. In general, TERM-PAPERs should AVOID internet-only resources because they tend to be of low academic quality. As illustrated under 6a, 6b, 6c, and 6d, for publications available in print AND on the internet, the PRINT DETAILS must be provided, in addition to the URLs, or preferable DOI numbers. Print details and DOI numbers should be prioritized because they do not change, but other internet links often change.

Required Details: Document Author, YearPublished, "Title", City of Publisher, Name of Publisher, DOI number (or URL) if available.

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

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.

5f. 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 directly to citations in the text, which use family names. To illustrate, the 3rd example given under 5a above should not be referred to as Kien and Eric (2019), but rather as 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. This creates confusion and is common when English-language editors with limited understanding of these languages decide how to use Vietnamese and Chinese names in their journals. Korean names also create confusion but are easier to figure out. 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 the text and the bibliography in order to help your readers.

TERM-PAPER Guidelines (4/4)

6. Access to TERM-PAPER journals through the Thammasat University Library:

The Thammasat University Library has online access to many of TERM-PAPER journals and other useful references. To reiterate, when writing for this class, focus first and foremost on finding references from 12 papers previously published in the 29 TERM-PAPER journals on p. 2. Other academic journals and sources may also be useful but at least 1/2 of the paragraphs in your term paper should focus on summarizing

results from TERM-PAPER journals. Moreover, please DO NOT present data or analyses that have not been published previously in refereed papers in economics' journals. Data tables and figures from government websites, international organizations, and other non-academic sources are NOT APPROPRIATE in a literature review. Rather please focus on summarizing analytical results previously published in academic journals.

On the TU Library site, I find it easiest to access relevant journals through the database portals below. All of TU's online databases are easily accessed through the "Online Databases (A-Z)" page:
https://library.tu.ac.th/bbs/content/94_418
Scrolling down takes you to a list of all databases available. After clicking on a database, you will be prompted to login. I suggest you concentrate on 6a, 6b, and 6c for the easiest, most comprehensive access.

6a. ECONLIT WITH FULL TEXT

This portal has access to most TERM-PAPER journals and other good journals in economics. Scroll down to the database, click on it, and you will be prompted to login with your TU Library ID. When searching for relevant papers in TERM-PAPER journals, searching by journal first will be easiest. Some journals have recent papers but this portal often does not provide access to the newest papers less than 1 year old.

I strongly suggest reading ALL abstracts for the last 5-10 years from JEL & JES and at least 3-5 other TERM-PAPER journals most relevant for your topic. It will take 1-3 hrs per journal, but this basic research will help improve your paper, especially if you do the research BEFORE CHOOSING A TOPIC. When writing a literature review, a "good" topic is one that interests the writer AND is the subject of many papers in TERM-PAPER journals, making it an easy topic to review. For many journals, it will be easier to browse abstracts directly from journal websites (e.g., p. 2). Browsing abstracts is usually free.

6b. JSTOR

This portal is similar to ECONLIT WITH FULL TEXT, but focuses on older papers. This portal has many older papers that some journal portals on p. 2 exclude, for example.

6c. SCIENCEDIRECT and SCOPUS (ELSEVIER)

The TU Library has access to many important economics' journals on SCIENCEDIRECT and is quite convenient. SCOPUS is a related portal owned by the same publisher (Elsevier) and is used for journal rankings used by some TU Faculty. Elsevier is a good case study because my observations over five decades suggest that the company often exercises a lot of market power and tends to have high price-cost margins or profits.

6d. Other important publisher portals on the "Online Databases (A-Z)" page:

Other useful publisher databases on the TU Library site are listed below. The TU Library often does NOT have direct access to journals from these publishers or SCENCEDIRECT, but access often becomes available one year after publication through ECONLIT WITH FULL TEXT or JSTOR.

ELGAONLINE
EMERALD MANAGEMENT
OXFORD UNIVERSITY PRESS E-JOURNALS
SAGE JOURNALS
SPRINGER LINK
TAYLOR & FRANCIS
WILEY ONLINE LIBRARY

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline
EE465 Sustainable Development
Semester 2/2025

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

Prerequisite: EE212 (or EE214) and EE311

Course Description:

Development of sustainable development approach under context of socio-politico-economic development at different levels. Sustainable development crises at global level and in Thailand. Definitions and fundamental ideas regarding Sustainable Development and contemporary debates. Other approaches related to sustainable development and their critiques, such as Gross National Happiness (GNH), Sufficiency Economy Philosophy, Green Growth, etc. Economic theories related to sustainable development, such as the analysis of externalities, public goods, common-pool resources, ecological economics, Green Economy, and economic measures for sustainable development. Policies and indicators related to sustainable development at global level, particularly the Sustainable Development Goals (SDGs). Challenges and obstacles to achieve sustainable development.

Course Objectives:

1. To enable students to understand, explain, and apply definitions and principles related to sustainable development in distinguishing between sustainable and unsustainable policies and practices.
2. To provide students with knowledge and understanding of key issues in sustainable development, as well as the details of the Sustainable Development Goals (SDGs) and relevant driving mechanisms.
3. To equip students with the ability to understand, explain, apply, and analyze sustainable development issues from the perspective of basic economic frameworks and concepts.
4. To understand the limitations of mainstream economics and explore alternative economic concepts and measures, including transitioning various economic sectors toward sustainability.
5. To develop students' academic skills, particularly in writing, presenting, analyzing, synthesizing, and systematic thinking.

Learning Management and Evaluation

CLO	Learning Management	Evaluation
CLO1: Remember and understand concepts, theories, and frameworks in economics in the context of sustainable development. (K1)	• Lecture • Problem-based Learning	• Exams
CLO2: Apply relevant economic theories in the context of sustainable development and integrate with other social sciences disciplines (K2, K3)	• Problem-based Learning	• Exams • Assigned PBL tasks.
CLO3: Point out relevant economic theories and analyze the scenario(s) provided effectively and provide practical suggestions for relevant economic and social issues (K2)	• Problem-based Learning	• Exams • Assigned PBL tasks.
CLO4: Acquiring intellectual skill and ability to think systematically to identify research topics, perform research, process data, and evaluate findings. (S1)	• Problem-based Learning	• Observation of PBL participation. • Assigned PBL tasks.
CLO5: Acquire analytical and communication skills and ability to interpret data from different sources, analyze and integrate knowledge to propose appropriate problem-solving guidelines for economic and social issues (S2).	• Problem-based Learning	• Observation of PBL participation. • Assigned PBL tasks.
CLO6: Acknowledge moral values and exhibit ethical traits, including decency, selflessness, and integrity (E1)	• Problem-based Learning	• Observation of PBL participation.

CLO	Learning Management	Evaluation
CLO7: Showing self-discipline, social responsibility, and good citizenship. (E2)	• Lecture • Problem-based Learning	• Observation of PBL participation.
CLO8: Respect rights, opinions, values, and dignity of others. Obey organizational and societal rules and regulations. (E3)	• Problem-based Learning	• Observation of PBL participation.
CLO9: Ability to effectively complete assigned tasks and responsibilities. (C1)	• Problem-based Learning	• Assigned PBL tasks.
CLO10: Ability to initiate problem analysis independently and/or in teamwork. (C2)	• Problem-based Learning	• Assigned PBL tasks.
CLO11: Acquire leadership and collaborative skills and respect different viewpoints. (C3)	• Problem-based Learning	• Assigned PBL tasks. • Observation of PBL participation.

Learning Assessment Plan

Methods of Learning Assessment	Assessment Week	Proportion of Assessment	Relevant CLOs
• Midterm Exam • Final Exam	Feb 26 May 15	30% 40%	CLO1, CLO2
• Assigned PBL tasks.	Feb 2,16 Mar 9, 30 Apr 27	30% (5 PBLs, each for 6%)	CLO2, CLO3, CLO4, CLO5, CLO6, CLO7, CLO8, CLO9, CLO10, CLO11

Main Text:

Sachs, Jeffrey D. 2015. The Age of Sustainable Development. New York, NY: Columbia University Press.

Raworth, Kate. 2018. Doughnut Economics. London, England: Random House Business Books.

Recommended Texts & Materials:

Walker, Julia, Alma Pekmezovic, and Gordon Walker. 2019. *Sustainable Development Goals: Harnessing Business to Achieve the SDGs through Finance, Technology and Law Reform*.

Polasky, Stephen, Catherine L. Kling, Simon A. Levin, Stephen R. Carpenter, Gretchen C. Daily, Paul R. Ehrlich, Geoffrey M. Heal, and Jane Lubchenco. 2019. "Role of Economics in Analyzing the Environment and Sustainable Development." Proceedings of the National Academy of Sciences of the United States of America 116 (12): 5233–38.

Suggested Readings:

Brandon, Alec, John A. List, Robert D. Metcalfe, Michael K. Price, and Florian Rundhammer. 2019. "Testing for Crowd out in Social Nudges: Evidence from a Natural Field Experiment in the Market for Electricity." *Proceedings of the National Academy of Sciences of the United States of America* 116 (12): 5293–98.

Carlsson, Fredrik, and Olof Johansson-Stenman. 2012. "Behavioral Economics and Environmental Policy." *Annual Review of Resource Economics* 4 (1): 75–99.

Dodds, Felix, David Donoghue, and Jimena Leiva Roesch. 2016. *Negotiating the Sustainable Development Goals*. London, England: Routledge.

Kanie, Norichika, and Frank Biermann, eds. 2018. *Governing through Goals : Sustainable Development Goals as Governance Innovation*. Earth System Governance. London, England: MIT Press.

Kotchen, Matthew J., and Kathleen Segerson. 2019. "On the Use of Group Performance and Rights for Environmental Protection and Resource Management." *Proceedings of the National Academy of Sciences of the United States of America* 116 (12): 5285–92.

Monkelbaan, Joachim. 2019. *Governance for the Sustainable Development Goals: Exploring an Integrative Framework of Theories, Tools, and Competencies*. Springer, Singapore.

Ostrom, Elinor. 1990. *Governing the Commons*. Cambridge University Press.

Wright, Diana, and Donella H. Meadows. 2009. *Thinking in Systems*. London, England: Earthscan

Grading Criteria:

Grades	A	B+	B	C+	C	D+	D	F
Scores	> 90 (or no more than 15% of the class)	85	80	70	60	55	50	< 50

Tentative Class Schedule:

Date	Topics	Remarks
Jan 8	**Section 1: Key Concepts** - Development, - Sustainable Development, - Millennium Development Goals, and - Sustainable Development Goals.	
Jan 15	**Section 2: Economic theories and concepts in Sustainable Development** - Human Development and Human Security - Planetary Boundaries - Poverty & Inequality - Food Systems, Education and Health - Resilient Cities - Externalities, Polluter Pay Principle (PPP) and Payment for Ecosystem Service (PES) - Economics of Waste and Recycling - Economics for the Efficient Use of Resources - Economics of Public Goods and the Commons	
Jan 22		
Jan 29		
Feb 5		
Feb 12		
Feb 19		
Feb 26	Midterm	
Mar 5		

Date	Topics	Remarks
Mar 12	**Section 3: Explore alternative economic approaches** - Doughnut Economics, - Sufficiency Economy Philosophy - Gross National Happiness - Green Economy, Green and Inclusive Growth	
Mar 19		
Mar 26	**Section 4: Sustainable Development in Practice** - ESG & the Triple Bottom Line - Sustainability-related Trade Regulations - Development Finance - Research in Sustainable Development	
Apr 2		
Apr 9		
Apr 23	**Section 5: Sector-specific Sustainability Practice** - Group Presentations.	
Apr 30		

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE469 Seminar in Development Economics

Semester 2/2025

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

Prerequisite: Having completed at least two 400-level (or the above level) courses in Development Economics, excluding EE460 and EE468.

Course Description:

Seminar and research on topics in Development Economics under the supervision of the lecturer.

Course 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:

Time-keeping and Punctuality: 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.

Participation: 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.

Grading Criteria

Individual Term Paper	**60**	**percent**
Writing	30	percent
Presentation/Oral Exam	30	percent
Participation	**10**	**percent**
Research Proposal	**20**	**percent**
Assignments (Research Outline, Preliminary Results)	**10**	**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.

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.

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.
- Pitidol Thorn (2014). Communitarianism and the Expansion of Freedom, Book for V-Reform. Thai Health Foundaion. (in Thai: ธร ปีติดล (2557) ***แนวคิดเรื่องชุมชนนิยมกับการสร้างเสริมเสรีภาพ.*** ชุดหนังสือสำรวจองค์ความรู้เพื่อการปฏิรูปประเทศไทย มูลนิธิสาธารณสุขแห่งชาติ)

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.
- Pitidol, T. (2018). Changing Thailand’s Future with Tax Reform. Thammasat Review of Economic and Social Policy, 4(1), 26–54. https://doi.org/10.14456/tresp.2018.2

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.
- Pitidol Thorn (2021). The History of Thailand’s Welfare System: A Comparative Study of Factors and Paths of Welfare State Development. Faculty of Economics, Thammasat University (in Thai: ธร ปีติดล (2564) ***ประวัติศาสตร์ระบบสวัสดิการในประเทศไทย: การศึกษาเปรียบเทียบปัจจัยและเส้นทางพัฒนาการของระบบสวัสดิการไทยกับสากล*** คณะเศรษฐศาสตร์ มหาวิทยาลัยธรรมศาสตร์)

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 EE469

Applicability	Expected Learning Outcomes	Evaluation Method
●	6. Students demonstrate integrity.	Assignments and Class Participation
O	7. Students prioritize social and public benefits over personal ones.	
●	8. Students are punctual and comply with the code of conduct of the institution and society at large.	Assignments and Class Participation
●	9. Students are responsible and accountable to society, the nation, and the subject of economics.	Assignments and Class Participation
O	10. Students realize the cultural and environmental value of a sustainable society.	

2. Knowledge

Applicability	Expected Learning Outcomes	
●	6. Students know and understand modern economics principles and theories, and are up to date with new developments.	Research Proposal and Final Paper
●	7. Students know and understand Thai and global economic structure and the importance of major international economic events.	Research Proposal and Final Paper
●	8. Students know and understand the instruments of economic analysis.	Research Proposal and Final Paper
●	9. Students know and understand applied fields in economics, including monetary, public, international, business, natural resource, and environmental, industrial, agricultural, cooperative, political, developmental, and entrepreneurial economics as well as agribusiness.	Research Proposal and Final Paper
O	10. Students are informed about related fields including sociology, business administration, education, law policy, and science.	

3. Intellectual Development

Applicability	Expected Learning Outcomes	
●	4. Students have developed individual critical thinking.	Research Proposal and Final Paper
●	5. Students are sufficiently trained in research skills.	Research Proposal and Final Paper
●	6. Students demonstrate an ability to analyze and synthesize data, as well as appropriately integrate economics concepts to understand the causes of current economic problems in Thailand. Based on analysis and synthesis, students demonstrate an ability to propose policy guidelines to resolve problems.	Research Proposal and Final Paper

4. Interpersonal Skills and Responsibilities

Applicability	Expected Learning Outcomes	
●	6. Students are responsible for assigned tasks and work in groups effectively.	Assignments and Class Participation
●	7. Students have problem-solving skills.	Assignments and Class Participation
●	8. Students show leadership skills and team spirit.	Assignments and Class Participation
●	9. Students are always improving themselves.	Assignments and Class Participation
●	10. Students have good interpersonal skills, adapt, and work under different conditions.	Assignments and Class Participation

5. Quantitative Analysis, communication, and information technology

Applicability	Expected Learning Outcomes	
●	4. Students select and apply appropriate statistical and mathematical methods for data processing, interpretation, conclusions, and recommendations to resolve problems.	Research Proposal and Final Paper

●	5. Students communicate effectively and select appropriate presentation methods.	Research Proposal and Final Paper Presentations
●	6. Students use information and communication technologies appropriately to gather data as well as process, interpret, and present results.	Research Proposal and Final Paper

Remark: ● Primary expected outcome O Secondary expected

Learning Management and Evaluation

CLO	PLO	Learning Management	Evaluation
CLO1.1 Identify meaningful research questions	K1,K2,K3, K4, C2	Class discussions; individual meetings; review of past research topics.	Participation; early-stage written submissions.
CLO1.2 Critically review and summarize academic literature.	S1, S2	Assigned journal readings; student-led paper discussions.	Paper summary assignments; in-class discussions.
CLO1.3 Design appropriate methodology for empirical or theoretical analysis.	S2,S3	Lectures on research methods; proposal writing workshops; group consultations.	Midterm draft submissions; individual feedback meetings.
CLO2.1 Present research progress clearly and constructively engage with feedback.	E3, C1,C3 C5	Progress presentations; peer comments; individual meeting sessions.	Progress presentation; final presentation. Oral Examination
CLO2.2 Produce a well-structured research report with academic integrity.	E1,E3,E4, C1,C4	Step-by-step writing support; outline reviews; feedback on structure and argumentation.	Final seminar paper (8,000–12,000 words).

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
CLO1.1 Identify meaningful research questions	Class participation; initial topic proposals.	Weeks 1–3	10%
CLO1.2 Critically review and summarize academic literature.	Paper summary assignments; leading paper discussions.	Weeks 4–6, 9–11	10%
CLO1.3 Design appropriate methodology for empirical or theoretical analysis.	Rough draft submissions; methodology feedback sessions.	Weeks 6–7, 13	20%
CLO2.1 Present research progress clearly and constructively engage with feedback.	Progress presentation; peer feedback during class.	Week 12, 16	20%
CLO2.2 Produce a well-structured research report with academic integrity.	Final presentation/Oral Examination and final report.	Week 16 (presentation), Week 17 (report)	40%

Tentative Class Schedule:

Week	Agenda	Assignment
1	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		
3	Outlining the steps for research and group comment on past papers	Yes – Powerpoint presentation
4	Reviewing research question	Yes – Group Discussion
5	Literature review – individual consultation	Yes – Group Discussion
6	Research methods – individual consultation	Yes – Group Discussion
7	Workshop- How to write a good research paper	
8	Midterm Week, No Class.	
9	Presenting a proposal	Yes - Powerpoint presentation And a proposal paper
10	Consultation on progress	Yes – Group Discussion
11	Consultation on progress	Yes – Group Discussion

Week	Agenda	Assignment
12	Consultation on progress	Yes – Group Discussion
13	Consultation on progress	Yes – Group Discussion
14	Presenting preliminary results	Yes – Powerpoint Presentation
15	Final check	Yes – Group Discussion
16	Final Presentation – Results and Discussion	Submit your draft final
	Submit Your Final Paper	

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE474 Health Economics

Semester 2/2025

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

Prerequisite: EE 311 or EE 312 Course

Description:

Economic thought about health and health care services. Supply of and demand for health care. Market failure in the health care market and government intervention. Health insurance, fiscal policy on public health, factors of health service production, and efficiency and equality in the health care system. Evaluation of health care projects, asymmetric information in health insurance, health economics at the Macro level. Health service system reform in Thailand and abroad.

Course Objectives:

1. To give students an understanding of essential concepts and theories in health economics, as well as their applications to current health economics issues.
2. To provide students with economic tools in analyzing health economics problems.
3. To acquaint students with the literature in health economics, and to develop their critical thinking skill.

Main Text:

Folland, S., Goodman, A. C., and Stano, M. (2012). The Economics of Health and Health Care, Seventh Edition. Pearson. [FGS]

Recommended Texts & Materials

Phelps, C. (2010). Health Economics, Fourth Edition. Pearson.

Santerre, R.E., and Neun, S. P. (2007). Health Economics: Theories, Insights, and Industry Studies, Fourth Edition. Thompson. [S&N]

Bhattacharya, J., Hyde, T., & Tu, P. (2013). Health economics. Macmillan International Higher Education.

Assessment:	Score
Attendance	15 %
Class participation	15 %
Presentation	20 %
Midterm Exam	25 %
Final exam	25 %

Attendance (15%)

Regular attendance is required. Attendance will be checked 15 minutes after the class begins. Students arriving after this time will be marked absent. Consistent attendance is essential for successful participation and learning.

Class Participation (15%)

Class participation is group-based and evaluated during presentations and discussions. Each group is required to ask at least one relevant question during every presentation session. Active engagement, attentiveness, and meaningful contributions are expected from all group members.

Presentation (20%)

Presentations must be original and prepared by the students. The use of tools such as GPT or other AI assistance is permitted for support; however, students must fully understand their content and be able to answer questions confidently. Lack of understanding may affect the presentation score.

Suggested Readings: Text chapters and papers as specified in the reading references for each topic.

Learning Management and Evaluation

CLO (aligned PLOs)	Learning management (teaching & learning activities)	Evaluation method (% of total grade)
CLO-K1.1 (K1) — Explain core health economics concepts & models	Lectures + guided note-taking; assigned readings; short in-class checks	Midterm 25%, Final 25%, Class participation 15%
CLO-K1.2 (K1, K2) — Apply microeconomic reasoning to health markets	Lecture + worked examples; in-class problem solving; structured review questions	Midterm 25%, Final 25%
CLO-K2.1 (K2, K3, K4; S2) — Analyze policy issues & propose recommendations	Case discussions; policy framing exercises; debate (Thai vs global systems)	Presentation 20%, Class participation 15%, Final 25%
CLO-S1.1 (S1; K2) — Formulate a research question & feasible approach	Research-question workshop; scoping template; group coaching/feedback	Presentation 20%, Class participation 15%
CLO-S2.1 (S2; K1, K2) — Critically evaluate empirical studies	Paper discussion sessions; critique rubric; peer Q&A	Presentation 20%, Class participation 15%, Midterm 25% / Final 25%
CLO-S2.2 (S2; E3, C3) — Communicate arguments clearly (oral/written)	Structured presentations; short written outlines; moderated class discussion	Presentation 20%, Class participation 15%
CLO-S3.1 (S3; S2) — Use basic quantitative/IT tools for evidence (if included)	Simple data/table/figure exercises (interpret cost/outcome tables; basic plots/summaries)	Midterm 25% / Final 25% (Interpretation items), Presentation 20% (evidence slides)

CLO-E2/C1.1 (E2, E3, C1, C3, C4) — Professionalism, preparation, teamwork	Attendance policy; discussion norms; group coordination/accountability	Attendance 15%, Class participation 15%, Presentation 20%

Tentative Class Schedule:

Week	Topics
1	Course Introduction & Revision of Core Economic Models
2	Health as Behavior I: Inequality and Disparity in Health
3	Health as Behavior II: Education, Income, and Economic Determinants of Health
4	Health as Behavior III: Peer Effects and Social Interactions in Health
5	Health as Capital & Health Production
6	Demand for Health and Human Capital
7	Demand and Supply of Health Care
8	Midterm Examination (No Class)
9	Health Care Providers and Industry Structure
10	Health Insurance: Theory
11	Health Insurance: Evidence and Policy Design
12	Market Failure and Government Intervention in Health
13	Spare Week / Guest Lecture
14	Comparative Health Care Systems and Health Reform
15	Songkran Festival (No Class)
16	Economic Evaluation in Health Care & Course Wrap-up / group presentation

Grading

The BE program represents strict academic excellence. Although grades are assigned at the discretion of lecturers, it is best to follow the Thammasat grading system as found on the reverse side of student transcripts:

A = 4.0 (85–100)
B+ = 3.5 (75–84)
B = 3.0 (70–74)
C+ = 2.5 (65–69)
C = 2.0 (60–64)
D+ = 1.5 (50–59)
D = 1.0 (40–49)
F = 0 (0–39)

S = Satisfactory; U = Unsatisfactory
W = Withdrawn; I = Incomplete

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE475 Natural Resource Economics

Semester 2/2025

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

Prerequisite: EE311

Course Description:

Economic theories and tools used for natural resource allocation. Concepts of scarcity and economic rent of natural resources. Allocation of natural resource among current users as well as intertemporal allocation. Market failure due to deficiencies in the property rights system. Government policies and tools for natural resource management and their impacts.

Course Objectives:

- Explain how economic activity and human welfare depend upon and affect the natural environment.
- Describe how economists define and measure scarcity and sustainability.
- Explain under which conditions markets are efficient and identify instances of "market failure" as they relate to the management and use of natural resources.
- Determine the efficient allocation and use of natural resources in an economic framework with applications to exhaustible resources, fisheries and wildlife populations, and forests.
- Identify and classify available public policy approaches to improve natural resource management.
- Apply a benefit-cost analysis valuation framework to selected examples.

Main Text:

Field, B. (2023). Natural Resource Economics. Fourth Edition.

(More technical) Bergstrom, J. and A. Randall (2016). Resource Economics: An Economic Approach to Natural Resource and Environmental Policy. 4th Edition.

Dasgupta, P. (2021) The Economics of Biodiversity: The Dasgupta Review. Available online at https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review

Older versions of the textbooks work. You are responsible for checking in which chapters the materials covered in class appear in your editions. Copies of the textbooks are available in the Main Library.

Grading Criteria:

The grade for this class will be based on the curve system.

Evaluation:

Assignments	10%
Participations	10%
Group Project	10%
Midterm Exam	30%
Final Exam	40%

Tentative Class Schedule:

This course schedule is subject to change if necessary. But I try to closely follow this table. Any change in class scheduling (class cancellation/ makeup classes/ switching to online learning mode due to my health condition) will be announced either in class or by the BE program staff.

Week	Topic
1	Introduction
2	Basic Economic Concepts
3	Economic efficiency (Static and intertemporal)
4	Market Failures
5	Fundamentals of Benefit-Cost Analysis
6 - 7	Application for Benefit-Cost Analysis
Midterm Exam	
8 - 15	Applied Natural Resource Problems • Mineral Economics • Energy • Forest Economics

	• Fisheries and Marine Resource Economics • Land, Wildlife, and Recreation (If we have time)
Final Exam	

Learning Management and Evaluation

CLO	PLO	Learning Management	Evaluation
CLO1 Explain the relationship between economic activity, natural resources, and human welfare	K1, K2	Lectures on core theories; guided discussion using real-world natural resource cases	Midterm exam, Final exam
CLO2 Describe and measure scarcity and sustainability in natural resource use	K1, S1	Lecture on scarcity, rents, and sustainability indicators; problem-solving exercises	Assignments, Midterm exam
CLO3 Identify market failures and property-rights issues in natural resource management	K2, S1	Case-based learning; in-class discussion on common-pool resources and externalities	Participation, Midterm exam
CLO4 Determine efficient static and intertemporal allocation of natural resources	K1, K2, S1	Analytical lectures; graphical and numerical problem-solving; applied examples (minerals, fisheries, forests)	Midterm exam, Final exam
CLO5 Identify and evaluate public policy instruments for natural resource management	K2, S2, E1	Lectures on policy tools; applied discussions on energy, forestry, and fisheries policies	Participation, Group project (presentation), Final exam
CLO6 Apply benefit–cost analysis to natural resource and environmental problems	S1, S3, C1	Applied lectures; step-by-step BCA exercises; selected case applications	Assignments, Group project (presentation), Final exam

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
CLO1	In-class participation; short discussion questions; Midterm exam	Weeks 1–4; Midterm Week	10% (Participation) + included in Midterm (30%)
CLO2	Problem-solving assignments on scarcity, rents, and sustainability indicators; Midterm exam	Weeks 2–4; Midterm Week	10% (Assignments) + included in Midterm (30%)
CLO3	Case discussion participation; short written responses; Midterm exam	Weeks 3–4; Midterm Week	10% (Participation) + included in Midterm (30%)
CLO4	Analytical problems in class and exams (minerals, fisheries, forests); Midterm and Final exams	Weeks 3–15; Midterm & Final	included in Midterm (30%) + Final (40%)
CLO5	Group project (case study presentation on applied resource policy); class participation; Final exam	Weeks 8–14 (project); Final Week	10% (Group Project) + included in Final (40%)
CLO6	BCA assignments; applied exercises; Group project application; Final exam	Weeks 5–7; project Weeks 8–14; Final Week	10% (Assignments) + 10% (Group Project) + included in Final (40%)

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE481 Industrial Economics

Semester 2/2025

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

Prerequisite: EE311

Course Description:

This course studies behaviors of firms under imperfectly competitive markets. It covers the structure–conduct–performance (SCP) paradigm, which examines the relationship among market structure, firms' conducts and their performance. It also covers firms' decision on operation, resource allocation, as well as firm's strategic actions. Price theory and game theory will be used to analyze issues such as pricing, research and development, advertising, and firms' decision under imperfect information

Student Evaluation:

Assignments	10%
Project	15%
Mid-term examination	35%
Final examination	40%

Learning Management and Evaluation

CLOs	Learning Management	Evaluation Method
CLO K 1 K2 K4 Able to analyze and propose solutions to industry problems using economic theory and tools, and apply such	• Lecture • Case study • Self-directed learning through in-class activities and group reports	• Written exam (75%) • Analysis and recommendations in the group report (15%) • Analysis in weekly exercises (10%)

CLOs	Learning Management	Evaluation Method
knowledge effectively in practical work settings.		
CLO S 1 S2 Able to select and apply appropriate tools, such as price theory, game theory, and the Structure-Conduct-Performance (SCP) framework, to solve problems in markets and industrial sectors.	• Lecture • Case study • Self-directed learning through in-class activities and group reports	• Written exam (75%) • Selection and application of tools in group reports and responses during presentations (15%) • Selection and application of tools in weekly exercises (10%)
CLO E 1 Adheres to academic ethics and properly cites academic work.	• Self-directed learning through in-class activities and group reports	• Proper citation of sources in group reports and during presentations, and contribution of opinions on classmates' presentations (included in the 15%)
CLO E 3 Able to assess ethical impacts on society, resource distribution, and sustainability, and capable of recommending economic decisions and designing policies with social responsibility in mind.	• Lecture • Case study • Self-directed learning through in-class activities and group reports	• Written exam (75%) • Ethical analysis and recommendations in group reports (15%) • Ethical analysis and recommendations in weekly exercises (10%)
CLO C 1 Able to work in teams and demonstrate leadership in group tasks.	• Self-directed learning through in-class activities and group reports	• Appropriate division of responsibilities in group work and contribution of opinions on classmates' presentations (included in the 15%)
CLO C 2 C4 Possesses creativity, accepts differing opinions, plans work systematically, and	• Self-directed learning through in-class activities and group reports	• Development of the final group report based on feedback from the draft and responsiveness to peer feedback during

CLOs	Learning Management	Evaluation Method
continuously develops oneself.		presentations (included in the 15%)

Main Text:

1. Carlton, D.W. and J.M. Perloff, ***Modern Industrial Organization***, 4th ed., Addison-Wesley, 2005. **(CP)**
2. Recommended Texts & Materials: Church, J. and R. Ware, ***Industrial Organization: A Strategic Approach***, McGraw-Hill, 2000. **** Main Textbook for some chapters ** (CW)** (available online)

Suggested Readings:

1. Rasmusen, E., ***Games & Information***, 3rd. ed., Blackwell, 2001. **(R)**
2. Tirole, J., ***Industrial Organization***, The MIT Press, 1989.
3. Harvard Business Review (http:/hbr.org)
4. General Newspaper

Teaching Plan:

1. Introduction and Theory
   a) Overview — **CP 1** or CW 1
   b) The Firm and Cost / Theory of the Firm — **CP 2** or CW 3

2. Dominant Firm
   a) Dominant Firm — **CP 4**
   *You should have learned about Monopoly already from EE311.

3. Game Theory
   a) Static Games — **R 1, 2, 3**
   b) Dynamic Games — **R 4, 5, 6**

4. Oligopoly
   a) Cartel — **CP 5**
   b) Cournot model — **CP 6** or CW 8.2
   c) Bertrand model — **CP 6** or CW 8.3
   d) Multi-period Models of Oligopoly — **CP 6** or CW 10
   e) Industry Structure and Performance — **CP 8**

5. Business Practices Strategies and Conduct
   a) Price Discrimination — **CP 9**, CP 10
   b) Strategic Behavior — **CP 11**
   c) Vertical Integration and Vertical Restrictions — **CP 12**

6. Government Policies
   a) Antitrust — **CP 19** or CW 19
   b) Regulation — **CP 20** or CW 24

7. Other Issues (if time allows, we will study some of these topics)
   1. Production Differentiation — **CP 7** or CW 11
   2. Advertising — **CP 14** or CW 17
   3. Information — **CP 13**
   4. R&D and Patent — **CP 16** or CW 18

Tentative Learning Activities:

Class No.	Date	Topics
1	Jan 7	Introduction and Theory
2	Jan 14	Dominant Firm
3	Jan 21	Game Theory
4	Jan 28	Oligopoly
5	Feb 4	Industry Structure and Performance
6	Feb 11	Price Discrimination
7	Feb 18	Price Discrimination
Midterm Examination		
8	Mar 4	Strategic Behavior
9	Mar 11	Strategic Behavior
10	Mar 18	Vertical Integration and Vertical Restrictions
11	Mar 25	Production Differentiation
12	Apr 1	Information and Advertising
13	Apr 8	R&D and Patent
14	Apr 22	Student Presentation
15	Apr 29	Student Presentation
Final Examination		

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE482: Economics of Innovation and Industrial Development

Semester 2/2025

Number of Credits: 3 Credits (3-0-6)
Prerequisite:

- EE312 (Curriculum 2018)
- EE311 (Curriculum 2023)

Course Description

This course explores the economics of innovation and industrial development, focusing on theoretical foundations, policy frameworks, and empirical experiences across Asia. Drawing from growth theory, institutional economics, entrepreneurship, and industrial policy, the course prepares students to critically evaluate innovation systems, development strategies, and industrial transformation processes. Special emphasis is placed on the Thai innovation landscape and regional dynamics.

Learning Objectives

- Understand and apply economic theories of innovation and growth
- Analyze the role of institutions, geography, and entrepreneurship in development
- Evaluate industrial and innovation policies, including green and digital strategies
- Compare national innovation systems across Asia
- Explore innovative approaches to industrial and innovation policies in Thailand

---

Expected Learning Outcomes

By the end of the course, students will be able to:

1. Demonstrate Ethical and Social Responsibility
    - Uphold academic integrity and professionalism in individual and group work.
    - Evaluate the societal, environmental, and ethical implications of innovation and industrial policies.
    - Understand the role of inclusive innovation and sustainability in development.
2. Apply Economic Theories to Innovation and Development
    - Understand and utilize key economic frameworks including endogenous growth theory, Schumpeterian dynamics, new economic geography, and institutional analysis.
    - Critically assess the roles of entrepreneurship, institutions, and geography in shaping innovation outcomes.
3. Analyze Industrial and Innovation Policy
    - Evaluate policy tools and governance models for innovation, industrial transformation, and green transitions.
    - Compare national and regional innovation systems, with a focus on Asia and Thailand.
    - Design and propose context-sensitive policy responses to specific challenges in Thailand.
4. Develop Research and Analytical Skills o Conduct empirical and comparative analysis of innovation systems and policy outcomes.
    - Synthesize theoretical, institutional, and case study insights into coherent policy briefs or research projects.
    - Use appropriate data and indicators (e.g., innovation indices, governance scores, cluster maps) for policy evaluation.
5. Collaborate, Communicate, and Use Digital Tools Effectively o Work effectively in teams to analyze cases and present findings.
    - Communicate economic arguments and policy insights clearly through written and oral presentations.
    - Utilize ICT tools and platforms to collect, process, and visualize data relevant to innovation and development.

Weekly Schedule

PART I: Theoretical Foundations

Week 1: Innovation and Economic Growth

- Classical growth models: Solow's model
- Romer's endogenous growth and technology as an input
- Aghion & Howitt: creative destruction and Schumpeterian growth
- Comparative growth accounting with selected Asian countries

Week 2: New Economic Geography and Innovation Diffusion

- Krugman's core-periphery models and agglomeration
- Knowledge spillovers, innovation hubs, and regional clusters
- Technology diffusion models and S-curve dynamics
- Mapping key Asian innovation clusters and analyzing diffusion patterns

Week 3: Institutions and Innovation Systems

- North: institutions and economic performance
- Peter Evans: "embedded autonomy" and state capacity
- Innovation systems and institutional complementarities
- Institutional analysis using global governance and innovation indicators

Week 4: Innovation, Inequality, and Development

- Dual economy and labor market segmentation
- Technology-driven inequality (SBTC, routine-biased change, and automation)
- Inclusive and frugal innovation in the Global South
- Grassroots vs elite-led innovation pathways

PART II: Entrepreneurship and Origins of Ideas

Week 5: Economics of Entrepreneurship

- Schumpeterian vs. Kirznerian entrepreneurship
- Firm dynamics, lifecycle of startups and innovation bottlenecks
- Entrepreneurial ecosystems in Asia
- Comparative case study analysis of startups in Singapore, Indonesia, and Vietnam

Week 6: Where Do Good Ideas Come From?

- Steven Johnson: liquid networks and adjacent possible
- Von Hippel: user innovation and open innovation models
- Failure, bricolage, and serendipity in idea formation
- Ricardo Hausmann: The Atlas of Economic Complexity

Week 7: Digital Innovation and Platforms

- Network effects and two-sided markets

- Data-driven innovation and platform monopolies
- Challenges in regulating digital ecosystems
- Analysis of digital platforms in Southeast Asia (Grab, Gojek, Lazada)

PART III: Industrial Policy and Governance

Week 8: Modern Industrial Policy Theory

- Dani Rodrik: Growth diagnostics and pragmatic policy design
- Ha-Joon Chang: historical institutionalist perspective
- Keyu Jin: industrial policy in China's rise
- Policy design exercise for middle-income countries

Week 9: Green Industrial Policy and Sustainability

- Market failures in environmental innovation
- Industrial policy tools for decarbonization and green technologies
- Just transition strategies in manufacturing sectors
- Green innovation index and sustainability comparisons across Asia

Week 10: Innovation Governance and the Entrepreneurial State

- Mazzucato: mission-oriented innovation and the “Entrepreneurial State”
- Public-private partnerships and coordination problems
- Innovation agency design (e.g., DARPA, SPRING) • Evaluation of national Innovation policies in Asia.

PART IV: Innovation Experiences (ASEAN and the World)

Week 11: Case Study 1-Chinese Industrial Policy

- Made-in-China strategy: national plans for technological self-sufficiency
- Double circulation strategy: balancing domestic consumption with international trade
- Innovation in EVs (electric vehicles) and solar panels: state support and market development
- Comparative perspective: how China’s industrial policy differs from other innovation ecosystems

Week 12: Case Studies II- Singapore and Korea

- Singapore: innovation-led growth and foreign talent strategies
- South Korea: rapid industrial transformation, chaebol-led clusters, and coordinated innovation governance
- Regional competition and complementarities

PART V: Thailand Focus

Week 13: Thailand's Innovation System and Industrial Policy

- Thailand's industrial transformation: ISI → EOI → Thailand 4.0
- Structure and evolution of Thailand's National Innovation System (NIS)
- Eastern Economic Corridor (EEC) and high-tech zone strategy
- University–industry linkages and innovation capability-building
- BOI investment promotion schemes and SME support policies
- Institutional barriers and coordination failures in Thai innovation policy
- Comparative reflections on middle-income country governance

Week 14: Thailand's Electric Vehicle Industry and Green Transition

- Evolution of Thailand's automotive sector and strategic pivot to EVs
- Government incentive programs: EV3.0, EV3.5
- Global value chains and localization strategies
- Green industrial policy, circular economy, and workforce transition
- Policy coherence across energy, transport, and innovation
- Regional comparisons with Indonesia and Vietnam

PART VI: Presentations and Wrap-up

Week 15: Student Presentations and Synthesis

- Group presentations (15 mins each)
- Thematic synthesis and discussion
- Final course reflections and feedback

Learning Management and Evaluation

CLO	Learning Management	Evaluation
To be specified	Lectures, seminars, case studies, group work, presentations, policy design exercises, and problem sets	Quizzes, assignments, midterm essay, research project, final exam

---

Learning Assessment Plan

CLO	Methods of Learning	Assessment	Assessment Week	Proportion of Assessment
1	Problem Sets/Quizzes	Periodic	Periodic	30%
2	Midterm Essay	Written assignment	Week 8	15%
3	Final Exam	Exam	End of Semester	25%
4	Research Project	Project	Week 15	20%

CLO	Methods of Learning	Assessment	Assessment Week	Proportion of Assessment
5	Participation	Ongoing / Class Engagement	Throughout	10%

Main Text

To be announced and updated by the instructor.

Core Readings

- Romer, P. (1990). *Endogenous Technological Change*. Journal of Political Economy.
- Aghion, P., & Howitt, P. (2023). The creative destruction approach to growth economics. *European Review*, *31*(4), 312-325.
- Rodrik, D. (2007). *One Economics, Many Recipes: Globalization, Institutions, and Economic Growth*. Princeton University Press.
- Krugman, P. (1998). What's new about the new economic geography? *Oxford review of economic policy*, *14*(2), 7-17.
- Kirzner, I. M. (1999). Creativity and/or alertness: A reconsideration of the Schumpeterian entrepreneur. *The review of Austrian economics*, *11*(1), 5-17.
- North, D. (1990). *Institutions, Institutional Change and Economic Performance*.
- Suri, T., & Udry, C. (2022). Agricultural technology in Africa. *Journal of Economic Perspectives*, *36*(1), 33-56.
- Evans, P. (1995). *Embedded Autonomy: States and Industrial Transformation*.
- Aiginger, K., & Rodrik, D. (2020). Rebirth of industrial policy and an agenda for the twenty-first century. *Journal of industry, competition and trade*, *20*(2), 189-207.
- Chang, H.-J. (2002). *Kicking Away the Ladder: Development Strategy in Historical Perspective*.
- Jin, K. (2023). *The New China Playbook*.
- Mazzucato, M. (2013). *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*.
- Johnson, S. (2010). *Where Good Ideas Come From: The Natural History of Innovation*.

- Von Hippel, E. (2005). *Democratizing Innovation*.
- P. Intarakumnerd & P. Charoenporn (2023). *The Window of Opportunity: A Case Study of the Battery Electric Vehicle in Thailand*. *Asia Pacific Journal of Innovation and Entrepreneurship*, 18(4), 322–339.
- A. Kohpaiboon (2020). *Industry 4.0 Policies in Thailand*. ISEAS – Yusof Ishak Institute.
- Intarakumnerd, P., & Jutarosaga, A. (2023). *The Evolution of University–Industry Linkages in Thailand*. *Asian Economic Policy Review*, 18(2), 265–282.
- Kohpaiboon, A. (2024). Policies to promote EV uptakes in Thailand. *Journal of Southeast Asian Economies*, *41*(3), 221-244.

Course Policies

- Attendance is mandatory for lectures, seminars, and presentations.
- Academic integrity is strictly enforced; plagiarism results in failure.
- Extensions for assignments granted only with valid documentation.
- Active participation in group work and class discussions is expected.

Instructor Support

Office hours by appointment. Contact instructor by email for scheduling.

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

EE484

EMPIRICAL INDUSTRIAL ORGANIZATION

Semester 2/2025

COURSE INFORMATION

Course Code	EE484
Course Title	Empirical Industrial Organization for Economists
Section	046401
Credit Hours	3 Credits (3-0-6)
Prerequisites	EE325 Introductory Econometrics or equivalent

COURSE DESCRIPTION

This course provides students with a comprehensive understanding of empirical methods in industrial organization, combining economic theory with econometric techniques to analyze firm behavior, market structure, and competition policy. Students will learn to apply state-of-the-art empirical methods to study real-world industrial organization issues, with particular emphasis on structural estimation, market power analysis, and policy evaluation.

The course emphasizes hands-on data analysis using Stata, enabling students to develop practical skills in implementing econometric models for industrial organization research. Topics include demand estimation, production function estimation, market power measurement, entry and exit models, mergers and acquisitions analysis, and competition policy evaluation.

Software: Stata (required)

ALIGNMENT WITH PROGRAM LEARNING OUTCOMES

This course is designed to develop the following Program Learning Outcomes for the Bachelor of Economics (International Program) curriculum 2023:

Knowledge (K)

- K1: Acquire knowledge and understanding of economic theories, fundamental economic tools, theory development, and applied economics
- K2: Ability to apply theoretical knowledge to analyze and provide practical suggestions for economic and social issues
- K3: Ability to appropriately integrate economic knowledge with other study fields

Skills (S)

- S1: Acquire intellectual skills and ability to think systematically to identify research topics, perform research, process data, and evaluate findings
- S2: Acquire analytical and communication skills and ability to interpret data from different sources
- S3: Acquire quantitative and technological skills for research studies

Ethics (E) and Character (C)

- E4: Develop professional ethics
- C1: Ability to effectively complete assigned tasks and responsibilities
- C2: Ability to initiate problem analysis independently and/or in teamwork
- C4: Show active learning characteristics and aspire to personal development
- C5: Acquire interpersonal skills and ability to collaborate and adapt to changing circumstances

COURSE LEARNING OUTCOMES (CLOs)

Upon successful completion of this course, students will be able to:

CLO 1: Theoretical Understanding (Aligns with K1, K2, K3)

Demonstrate comprehensive understanding of industrial organization theory and its empirical applications, including market structure, firm conduct, and competitive dynamics.

CLO 2: Empirical Methods Proficiency (Aligns with S1, S3, C4)

Apply advanced econometric techniques including demand estimation, production function estimation, and structural models to analyze industrial organization problems using Stata.

CLO 3: Data Analysis and Interpretation (Aligns with S1, S2, S3, C2)

Collect, process, and analyze industry-level and firm-level data to test economic hypotheses and evaluate market outcomes.

CLO 4: Policy Evaluation (Aligns with K2, S2, E4)

Critically evaluate competition policies, merger decisions, and regulatory interventions using empirical evidence and economic reasoning.

CLO 5: Research Communication (Aligns with S2, C1, C5)

Effectively communicate empirical findings through written reports and presentations, demonstrating ability to translate complex econometric results into policy-relevant insights.

CLO 6: Professional Practice (Aligns with E4, C1, C2, C5)

Demonstrate ethical conduct in empirical research, including proper data handling, transparency in methodology, and acknowledgment of limitations.

LEARNING ASSESSMENT

Component	Weight	Due Date
Assignment 1: Data Analysis and Descriptive Statistics	15%	Week 5
Assignment 2: Demand Estimation Project	20%	Week 10
Assignment 3: Market Power Analysis	20%	Week 14
Mid-term Examination (Take-home)	20%	
Final Examination (Take-home)	25%	
Total	**100%**	

Grading Scale

Letter Grade	Percentage	Grade Points	
A	85-100	4.0	B+: 75-84 (3.5)
B	70-74	3.0	C+: 65-69 (2.5)
C	60-64	2.0	D+: 50-59 (1.5)
D	40-49	1.0	F: 0-39 (0.0)

AUNQA GRADING RUBRICS

Each assignment will be evaluated using the following AUNQA-aligned rubrics:

1. Theoretical Understanding (25%)

Level	Score	Criteria
Excellent	23-25	Demonstrates exceptional understanding of IO theory; correctly applies relevant theoretical frameworks; provides insightful economic interpretations
Good	20-22	Shows solid understanding of IO theory; applies theoretical frameworks appropriately; provides clear economic interpretations
Satisfactory	16-19	Demonstrates adequate understanding; applies theory with minor errors; provides basic economic interpretations
Needs Improvement	0-15	Limited understanding of theory; significant errors in application; weak or missing economic interpretations

2. Empirical Methods and Stata Implementation (30%)

Level	Score	Criteria
Excellent	27-30	Implements advanced econometric techniques correctly; Stata code is efficient, well-documented, and error-free; appropriate diagnostic tests conducted
Good	24-26	Implements econometric methods correctly; Stata code is functional and documented; conducts relevant diagnostic tests
Satisfactory	18-23	Implements basic methods with minor errors; Stata code works but lacks optimization; limited diagnostic testing
Needs Improvement	0-17	Significant errors in implementation; Stata code has major issues; inadequate or missing diagnostic tests

3. Data Analysis and Results (25%)

Level	Score	Criteria
Excellent	23-25	Comprehensive data analysis; results presented clearly with excellent visualizations; robust interpretation of findings
Good	20-22	Thorough data analysis; results well-presented; solid interpretation of findings
Satisfactory	16-19	Adequate data analysis; results presented but could be clearer; basic interpretation provided
Needs Improvement	0-15	Insufficient analysis; poor presentation of results; weak or incorrect interpretation

4. Critical Thinking and Policy Implications (15%)

Level	Score	Criteria
Excellent	14-15	Demonstrates exceptional critical analysis; provides nuanced policy recommendations; acknowledges limitations
Good	12-13	Shows strong critical thinking; offers relevant policy insights; recognizes key limitations
Satisfactory	9-11	Demonstrates adequate critical analysis; provides basic policy implications; limited discussion of limitations
Needs Improvement	0-8	Limited critical analysis; weak or missing policy discussion; fails to acknowledge limitations

5. Academic Writing and Presentation (5%)

Level	Score	Criteria
Excellent	5	Exceptional writing quality; perfect citation format; professional presentation; no grammatical errors
Good	4	Strong writing; proper citations; good presentation; minimal grammatical errors
Satisfactory	3	Adequate writing; citations mostly correct; acceptable presentation; some grammatical errors
Needs Improvement	0-2	Poor writing quality; citation errors; unprofessional presentation; numerous grammatical errors

COURSE SCHEDULE

Week 1: January 9, 2026 - Introduction to Empirical IO

- Course overview and expectations
- Review of econometric foundations
- Introduction to Stata for IO analysis
- Reading: Ackerberg et al. (2007) - Sections 1-2
- Lab: Stata refresher workshop

Week 2: January 16, 2026 - Market Structure and Concentration

- Market definition and industry classification
- Concentration indices (HHI, CR4)
- Lab: Computing concentration measures in Stata
- Stata Topic: Data manipulation, merge, collapse commands

Week 3: January 23, 2026 - Demand Estimation I

- Consumer choice theory and demand
- Identification in demand estimation
- Lab: IV estimation of demand
- Stata Topic: ivregress, ivreg2 commands

Week 4: January 30, 2026 - Demand Estimation II

- Logit and nested logit models
- BLP methodology introduction
- Lab: Estimating discrete choice models

Week 5: February 6, 2026 - Production Function Estimation I

- Endogeneity in production functions
- Olley-Pakes methodology
- **DUE: Assignment 1 - Data Analysis and Descriptive Statistics**

Week 6: February 13, 2026 - Production Function Estimation II

- Levinsohn-Petrin methodology
- Ackerberg-Caves-Frazer approach

Week 7: February 20, 2026 - Market Power and Markups

- Price-cost margins and Lerner index
- De Loecker & Warzynski approach

Week 8: February 27, 2026 - MID-TERM EXAMINATION WEEK

- **NO LECTURE - Take-home Mid-term Released**

Week 9: March 6, 2026 - Entry and Exit Models I

- Dynamic discrete choice framework
- Lab: Estimating entry models

Week 10: March 13, 2026 - Entry and Exit Models II

- Empirical models of entry and exit
- **DUE: Assignment 2 - Demand Estimation Project (March 20)**

Week 11: March 20, 2026 - Auctions and Bidding

Week 12: March 27, 2026 - Merger Analysis I

Week 13: April 3, 2026 - Merger Analysis II

Week 14: April 10, 2026 - Vertical Restraints

Week 15: April 24, 2026 - Platform Markets

- **DUE: Assignment 3 - Market Power Analysis**

Week 16: May 1, 2026 - Course Review

- **Final Examination**

COURSE POLICIES

Academic Integrity
All students must adhere to the highest standards of academic integrity. Academic misconduct will result in an F grade for the course and may lead to disciplinary action by the university.

Late Submission Policy

- Assignments: 10% deduction per 24-hour period (max 3 days late)
- Examinations: Late submissions accepted only with documented emergency

Attendance and Participation
Attendance is strongly encouraged but not mandatory. Students are responsible for all material covered in class.

BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Outline

EE489 Seminar in Industrial Economics

Semester 2/2025

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 under the supervision of the lecturer.

Course Objectives:

This course aims to equip students with the theoretical foundations and practical skills necessary to conduct independent research in industrial economics. Students will learn to formulate research questions, design methodologies, analyze data, and draw evidence-based conclusions. The course emphasizes critical thinking, empirical analysis, and the application of economic theory to real-world industrial contexts, preparing students to contribute to academic, policy, and business decision-making.

Expected Learning Outcomes

CLOs	PLOs	Activities	Assessment
CLO1 Understanding concepts and theories in industrial economics, how to conduct research and being able to discuss, initiate an effective research question and provide critical thinking on related issues to the research question.	K1, K2, K4; S1; E1; C1, C4	- Lectures - Essay on emerging technologies - Paper discussions - Class presentation - Seminar paper	Essay and Presentation 15% Final paper (report) 40% Class Presentation on seminar paper 20%
CLO2 Improving writing skills in summarizing comprehensive topics and explaining topics in industrial economics, including policy implementation suggestions	K1, K2; S1, S2; E1, E3; C1, C2, C4	-Essay on emerging technologies - Seminar paper - Paper summary	Essay and Presentation 15% Paper summary 10% Final paper (report) 40%
CLO3: Analyzing and using the data to support evidence and tell stories from the data, as well as being able to do a research project	K2, K4; S1, S2, S3; E1, E3; C1, C4	- Seminar paper	Final paper (report) 40%
CLO4: Presenting and communicating research ideas or innovations with framework background on industrial economics with a well story telling	K1, K2; S1, S2, S3; E3; C1, C2, C4	- Seminar Paper - Class presentation - Paper discussion	Essay and Presentation 15% Final paper (report) 40% Paper discussion and comments 10% Class Presentation on your Seminar paper 40%
CLO5: Evaluate the ethical considerations of economic decisions and policy designs, as well as academic integrity and professional codes of conduct	K1, K4; S1; E1, E2, E4; C3, C5	- Seminar Paper - Paper discussion - Class essay	Essay and Presentation 15% Seminar paper 40% Paper summary 10% - No copy-paste in assignments - No AI generating in all work submissions - Provide correct references

CLO6: Enjoy lifelong learning, demonstrate creativity, accept different opinions, be able to plan research systematically, and show self-improvement	K2; S2; E3; C2, C3, C4, C5	- Class discussion - Develop term paper	Seminar paper 40% Class Presentation on seminar paper 20% Paper discussion and comments 10%

Learning Management and Evaluation

CLO	Learning Management	Evaluation
CLO1 (K1, K2, K4; S1; E1; C1, C4) Understanding concepts and theories in industrial economics, how to conduct research, discuss and initiate an effective research question, and provide critical thinking on related issues.	• Lectures on industrial economics foundations and research design • Topic identification and individual meetings to refine research questions • Paper discussions (reading, critique, and positioning) • Class presentations to articulate research questions and motivation • Seminar paper development (iterative drafts)	• Group essay & presentation (emerging technologies) – 15% • Individual assignments (e.g., critical comment, literature review pieces) – 15% • Progress report & presentation – 20% • Final paper (report) & presentation – 50%
CLO2 (K1, K2; S1, S2; E1, E3; C1, C2, C4) Improving writing skills in summarizing comprehensive topics and explaining industrial economics issues, including policy implementation suggestions.	• Writing workshops (structure, argumentation, referencing) • Paper summary exercises (clarity, synthesis, and policy relevance) • Seminar paper drafting with feedback cycles (abstract → intro → lit review → methods) • Peer discussion to strengthen logic and readability	• Group essay & presentation (emerging technologies) – 15% • Individual assignments (paper summary / writing tasks) – 15% • Final paper (report) & presentation – 50%

CLO	Learning Management	Evaluation
CLO3 (K2, K4; S1, S2, S3; E1, E3; C1, C4) Analyzing and using data to support evidence and tell stories from the data, and being able to do a research project.	• Methodology clinics (data sources, identification, empirical strategy) • Individual meetings to finalize methodology • Methodology presentation (receive comments and revise) • Progress/preliminary findings presentations • Seminar paper: data analysis, results, and interpretation	• Progress report & presentation – 20% • Final paper (report) & presentation – 50% • Individual assignments (methodology/data tasks) – 15%
CLO4 (K1, K2; S1, S2, S3; E3; C1, C2, C4) Presenting and communicating research ideas/innovations with industrial economics framework and effective storytelling.	• Class presentations (research question, methodology, findings) • Paper discussions and structured commenting sessions • Presentation coaching (storyline, visuals, and academic style) • Final online presentation of seminar paper	• Group essay & presentation – 15% • Progress report & presentation – 20% • Final paper (report) & presentation – 50% • Individual assignments (discussion/comments) – 15%
CLO5 (K1, K4; S1; E1, E2, E4; C3, C5) Evaluate ethical considerations of economic decisions and policy designs, and demonstrate academic integrity and professional conduct.	• Academic integrity briefing (citation, plagiarism avoidance, proper referencing) • Ethics discussion embedded in paper discussions and policy implications • Required transparency in data/methods and responsible use of AI/tools • Reflection through class tasks and feedback on ethical issues	• Individual assignments (including integrity/ethics compliance) – 15% • Final paper (report) & presentation (integrity, transparency, referencing) – 50%

CLO	Learning Management	Evaluation
CLO6 (K2; S2; E3; C2, C3, C4, C5) Enjoy lifelong learning, demonstrate creativity, accept different opinions, plan research systematically, and show self-improvement.	• Class discussion and peer feedback culture • Step-by-step term paper planning (milestones and time management) • Iterative revision and self-improvement through feedback loops • Openness to alternative approaches and constructive critique	• Progress report & presentation – 20% • Final paper (report) & presentation – 50% • Individual assignments / participation elements – 15%

Learning Assessment Plan

CLO	Methods of Learning Assessment	Assessment Week	Proportion of Assessment
CLO1	• Individual assignments (topic draft, critical comment, literature review pieces) • Group essay & presentation (emerging technologies) • Progress report & presentation • Final paper (report) & presentation	• Weeks 1–6 • Week 11 • Weeks 12–14 • Week 15–end of semester	• 15% • 15% • 20% • 50%
CLO2	• Paper summary / writing assignments • Group essay & presentation • Final paper (report) & presentation	• Weeks 3–6 • Week 11 • Week 15–end of semester	• 15% • 15% • 50%
CLO3	• Methodology / data tasks (individual) • Progress report & presentation (preliminary findings) • Final paper (report) & presentation	• Weeks 7–10 • Weeks 12–14 • Week 15–end of semester	• 15% • 20% • 50%
CLO4	• Presentation performance (proposal/methodology/finding/final) • Paper discussion/comments • Final paper (report) & presentation	• Weeks 3, 6, 9, 12, 14, 15 • Throughout • Week 15–end of semester	• 20% + 50% • 15% • 50%

CLO5	• Integrity/ethics compliance in all submissions (references, transparency) • Ethics-related task (when assigned) • Final paper (report) & presentation	• Throughout • Weeks 1–15 (as assigned) • Week 15–end of semester	• (embedded) • 15% • 50%
CLO6	• Participation in discussion/peer feedback (incl. openness, respectful collaboration) • Progress report & presentation • Final paper (report) & presentation	• Weeks 1–15 • Weeks 12–14 • Week 15–end of semester	• (embedded) • 20% • 50%

Main Text: There is no specific textbook for this course. However, I will post journal papers and some good readings on "how to write" on Google Classroom.

Grading Criteria:

1. Group essay and presentation 15%
2. Individual Assignments 15%
3. Progress report and presentation 20%
4. Final paper (report) and presentation 50%

About the assignments:

1. **Group essay and presentation** – Your group must choose topics from the list on emerging technologies, write a 5-page essay on that topic and present to the class on week 11.
2. **Individual assignment**– Students will be assigned to submit various works such as paper summary, literature review and summary of methodology.
3. **Final research report (your seminar paper)** – **You can team up as a group with maximum of 3 group members.** The paper should be between 20-25 pages long (1.5 or double spaced), **excluding** graphs, tables and figure bibliography and appendices. The paper should be well-organized in different parts. For example, 1) introduction 2) literature review 3) theoretical framework and methodology and 4) findings 5) conclusion. We will discuss about each part in more details in class.

Tentative Class Schedule:

Week		Agenda	Assignment/Reading
1	5 Jan	Introduction - Review of Course and Research Resources. Identification of Topics.	Read the suggested readings and start thinking about your topic.
2	12 Jan	Individual Meetings to identify research topics, relevant literature	Prepare a list of your topics (2-3 topics) with some literature/background papers
3	19 Jan	Lecture on Writing, Literature review and tools and individual meeting	1) A rough draft of your topics with some literature review and general organization of your paper and research plan (1-2 pages) 2) 5-minute Powerpoint presentation
4	26 Jan	Workshop1 – Topic/Literature Review	Submit 1 page critical comment of your chosen paper that relates to your topics.. (Individual Assignment)
5	2 Feb	Individual meeting and progress on Literature review and Methodology	
6	9 Feb	Individual meeting on Literature review and Methodology	1) A draft of your topics, literature review and propose methodology of your paper (at least 4 pages) 2) 10-minute Powerpoint presentation
7	16 Feb	Workshop 2 – Topic/Literature Review/Methodology	Working on your methodology
	23 Feb	Midterm Week, No Class.	Work on your paper
8	2 Mar	Individual Meeting to Finalise your Methodology	
9	9 Mar	Methodology Presentation	Methodology Presentation (10-minute Powerpoint)
10	16 Mar	Individual Meeting	

Week		Agenda	Assignment/Reading
11	23 Mar	Presentation on Emerging technologies: AI, Algorithm, Blockchain, Big Data, Autonomation Individual meeting (Online class)	Submit 5 pages essay of the chosen topics on emerging technologies and 8-10 minutes presentation
12	30 Mar	Present your progress/ preliminary finding	
13	6 Apr	Public Holiday (No class)	
	13 Apr	Songkran Holiday, No Class	
14	20 Apr	Present your finding/ preparing final draft	Preliminary finding presentation (10-minute Powerpoint)
15	27 Apr	Submit an Online Presentation of your paper	Max. 20 minutes per group

List of essay topics on emerging technology:

1. The Impact of Artificial Intelligence on Market Competition and Regulation

   Explore how AI disrupts traditional markets and the regulatory challenges it poses.

2. Big Data: A Tool for Innovation or Market Domination?

   Discuss the competitive implications of big data and the role of regulation in preventing monopolistic behavior.

3. Blockchain and Decentralized Economies: Threats or Opportunities for Regulators?

   Examine how blockchain technology challenges traditional regulatory frameworks.

4. The Role of Regulation in Ensuring Fair Competition in the Gig Economy

   Analyze the balance between fostering innovation and protecting workers' rights.

5. Regulating Digital Platforms: Antitrust Issues in the Age of Tech Giants

   Evaluate cases of antitrust actions against major technology companies and their implications.

6. Emerging Technologies and Cross-Border Regulatory Challenges

Investigate how globalization and digital technologies complicate regulatory harmonization.

7. The Role of Competition Policy in the Development of Renewable Energy Technologies

Examine how competition policy can encourage innovation in clean energy markets.

8. The Future of Privacy Regulation in the Age of IoT

Discuss how IoT devices challenge traditional notions of privacy and competition.

9. Autonomous Vehicles and the New Competitive Landscape in Transportation

Explore the potential market changes and regulatory needs for autonomous transportation.

10. The Disruptive Power of Emerging Technologies on Traditional Market Structures

Analyze how technologies like AI, blockchain, or quantum computing are reshaping market dynamics.

11. The Rise of Platform Economies: Implications for Market Competition

Discuss how digital platforms (e.g., Amazon, Uber) dominate markets and the regulatory challenges they create.

12. Network Effects in Digital Markets: A Barrier to Entry or a Catalyst for Innovation?

Explore the role of network effects in strengthening market positions and their regulatory implications.

13. AI-Driven Marketplaces: Opportunities and Risks for Competition Policy

Evaluate the impact of AI-driven platforms on pricing, transparency, and market fairness.

14. The Economics of Subscription Platforms in Emerging Markets

Analyze the proliferation of subscription-based services (e.g., Netflix, Spotify) and their competitive impact in emerging economies.

15. Digital Payment Platforms: Fostering Financial Inclusion or Creating Monopolies?

Examine the role of fintech platforms in transforming payment systems and their regulatory implications.

16. Blockchain and Smart Contracts: Redefining Trust in Market Transactions

Explore how blockchain-based platforms are transforming market trust and disintermediating traditional players.

17. Data-Driven Markets: How Emerging Technologies Redefine Market Power

Discuss the relationship between data as a resource, emerging technologies, and market dominance.

18. Competition and Collaboration in the Era of Superapps

Investigate the rise of superapps (e.g., WeChat, Grab) as multi-service platforms and their impact on competition and innovation.