

Course Syllabus

EE 312 MACROECONOMIC THEORY

Semester 1/2022 (August 9th – November 26th, 2022)

1. **Number of credits:** 4 credits (4-0-8)
2. **Lecture Time:** Section 046401-2: Wednesday and Friday, **11.00 – 13.00 hours**
3. **Lecture Venue:** Section 046401: Onsite (Room 302)
Online LMS: Google Classroom
<https://classroom.google.com/c/NDk1NTA0ODc3MjA4?cjc=uij6ooq>

Section 046402: Onsite (Room 303)
Online LMS: Google Classroom
<https://classroom.google.com/c/NTI2MTc3NTk2OTky?cjc=xmmaxi>
4. **Contact:** Section 046401: Asst. Prof. Dr. Kittichai Saelee
Email: kittichai_lee@econ.tu.ac.th

Section 046402: Thanasak Jenmana
Email: jenmana@econ.tu.ac.th
5. **Office hours:** Section 046401: Wednesday 14.30 – 16.00
Room: 406 or BE office
Section 046402: By email appointments.
Room 428.

6. Course Description

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

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

8. Objective of the Course

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

9. Evaluations*:

Group assignments (5 assignments) 15 points

- You can have at most 4 members in your group.
- Submit the name lists of your group member by August 16th. Use the following links
 - Section 046401: <https://bit.ly/3boN9pS>
 - Section 046402: <https://forms.gle/GBaMaDehCSeA5M437>
- Student#1 will be treated as the head of your group. He or she will be responsible for uploading the answer to the Google classroom. Discuss with all group members before submitting the name list.
- To submit your group homework, please do the followings
 - Upload the answer to Google classroom. The required format of your filename Is G_x_hw_y when x is your group number, and y is the assignment number. If you do not follow this instruction, your marking score will be deducted by 50%.
 - No late homework will be accepted.

Mid-term exam	40	points
<i>Mid-term exam date:</i>	<i>Friday, September 30, 2022;</i>	
	<i>Time: 12.00 – 14.30 hrs (2.30 hours)</i>	
Final exam	45	points
<i>Final exam date:</i>	<i>Friday, December 7, 2022;</i>	
	<i>Time: 13:30 – 16:30 hrs (3.00 hours)</i>	
Total	<u>100</u>	points

Remarks: Evaluation methods and weights are subjected to changed.

10. Textbooks:

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

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

11. Expected Learning Outcomes:

11.1) Morality and Ethics

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

11.2) Knowledge

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

11.3) Intellectual Development

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

11.4) Interpersonal Skills and Responsibilities

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

11.5) Quantitative Analysis, Communication and Information Technology

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

12. Lecture / schedule:

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

Topics	Reading
4. Inflation and business cycles (3.5 lectures)	
4.1) Some stylized facts of inflation	
4.2) Long-run theory of inflation	<i>M. Ch. 5</i>
4.2.1) Quantity theory of money	
4.2.2) Cost and benefit of inflation	
4.3) Business cycles perspectives of inflation	<i>M. Ch. 14</i>
4.3.1) The Phillips curve and its derivation	
4.3.2) Short-run <i>and</i> Long-run Phillips curve	
4.4) Macroeconomic policy design	Assignment 2
Part II Open-economy business cycle fluctuations (4.5 lectures)	
5. International financial markets (1.5 lectures)	
5.1) Keep tracking in the globally connected economy: <i>international accounts</i>	<i>Self-study video clip</i>
5.1.1) Current account	<i>F. Ch 14</i>
5.1.2) Capital account	
5.1.3) Balance of payments account	
5.2) Foreign exchange market	<i>F. Ch 14</i>
5.2.1) Exchange rate determination: <i>Long-run PPP approach</i>	
5.2.2) Exchange rate determination: <i>Short-run approach</i>	
a) <i>Demand and Supply for foreign currency</i>	
b) <i>Equilibrium exchange rate and Balance of payments</i>	
5.2.3) Exchange rate economics	
a) <i>Flexible exchange rate regime</i>	
b) <i>Fixed exchange rate and Implementations</i>	
c) <i>Exchange rate policies and sterilizations</i>	
6. Framework for open-economy business cycle analysis (3 lectures)	
6.1) An open-economy macroeconomics model: <i>IS-LM-BP framework</i>	<i>F. Ch 15</i>
6.1.1) Open-economy IS curve	
6.1.2) Open-economy LM curve	
6.1.3) The balance of payment curve (BP curve)	Assignment 3
6.2) Disequilibrium and adjustments towards equilibrium	
6.2.1) Adjustments under flexible exchange rate	
6.2.2) Adjustments under fixed exchange rate	
6.3) Macroeconomic shocks and open-economy propagation mechanism	
6.3.1) Origin of the fluctuations	
6.3.2) Spill-over effect and international transmission of shocks	
6.3.3) Equilibrium adjustment under different exchange rate regimes	
6.3.4) The case of flexible exchange rate regime	
6.4) Macroeconomic policies under a small opened economy	

Topics	Reading
6.4.1) Macroeconomic imbalances and policy corrections	
6.4.2) Issues on policy effectiveness	
6.4.3) The impossibility trinity theorem	

Mid-term exam date: *Friday, September 30, 2022;*
Time: 12.00 – 14.30 hrs (2.30 hours)

Part III: Micro-foundation approach to macroeconomics

7. A Closed-Economy One-Period Macroeconomic Model (4 lectures)

- 7.1) General equilibrium macroeconomy and Circular flow of macroeconomy
- 7.2) Optimizing-agent decision
 - 7.2.1) Households *W. Ch 4*
 - a) *Preferences over consumption and leisure*
 - b) *Choice set and constraint*
 - c) *Work-leisure decision and labor supply*
 - 7.2.2) Firms
 - a) *Production and technology*
 - b) *Profit maximization problem and labour demand*
- 7.3) Competitive equilibrium and Pareto optimality
 - 7.3.1) Government and tax
 - 7.3.2) Equilibrium
 - 7.3.3) Pareto optimality *W. Ch 5*
- 7.4) Model applications
 - 7.4.1) Changes in government spending
 - 7.4.2) Changes in total factor productivity
- 7.5) How well does the model fit the data?

8. Two-Period model: the consumption-savings decision (3 lectures)

- 8.1) Credit market and allocation over time *W. Ch. 9*
- 8.2) Preference over life-time consumption
 - 8.2.1) Intertemporal life-time consumption problem
 - 8.2.2) Behaviour of current consumption and its determinants Assignment 4
 - a) *Effect of interest rate on consumption and saving behaviour*
 - b) *Effect of permanent and temporary increases in income*
- 8.3) Government sector and Competitive equilibrium
- 8.4) The Ricardian equivalence theorem

9. A Real Intertemporal Model with Investment (5 lectures)

- 9.1) Circular flow of a production economy over time *W. Ch.11*
- 9.2) Optimizing-agent decision under intertemporal environment

Topics	Reading
9.2.1) Consumer's problem a) <i>Current labour supply</i> b) <i>Demand for consumption goods</i>	
9.2.2) Consumer's problem a) <i>Current labour demand</i> b) <i>Investment decision</i>	
9.3) Competitive equilibrium	
9.4) Model applications	
9.4.1) Changes in government spending	
9.4.2) Change in capital stock	
9.4.3) Change in total factor productivity	
10. Long-term Economic Growth (4 lectures)	
10.1) Long-term growth stylized-facts	W. Ch.7
10.2) Growth accounting	
10.3) Solow growth model	W. Ch.8
10.4) Theory confronts with data	
10.5) Income disparities and Growth policies	Assignment 5

Final exam date:

Friday, December 7, 2022;

Time: 13:30 – 16:30 hrs (3.00 hours)

13. Important dates (tentative):

**ACADEMIC CALENDAR & HOLIDAY
SEMESTER 1/2022**

Semester 1/2022 (August 8 – November 26, 2022)	
Registration at REG TU (*ID.62-64)	July 11 - 14, 2022
Registration at REG TU (*ID.65)	July 26, 2022
Tuition Fee Payment Period (Via TU Greats App)	July 15 - 17, 2022
Classes Begin	August 8, 2022
Add-drop period	August 8 – 21, 2022 <i>(from 9.00 AM of August 8 to 10.30 PM of August 21)</i>
<i>H.M. Queen Sirikit The Queen Mother's Birthday*</i>	<i>August 12, 2022</i>
Tuition Fee Payment Period (Via TU Greats App)	August 22 – 24, 2022 <i>(9 AM - 10.30 PM)</i>
Mid-term Examination Period	September 25 – October 2, 2022
Withdrawal period with "W" on record	August 26 – October 16, 2022 <i>(from 9.00 AM of August 26 to 10.30 PM of October 16)</i>
<i>H.M. King Bhumibol Adulyadej The Great Memorial Day*</i>	<i>October 13, 2022</i>
<i>King Chulalongkorn's Day*</i>	<i>October 23, 2022</i>
<i>Substitution for King Chulalongkorn's Day*</i>	<i>October 24, 2022</i>
Last day of class for Semester 2/2021	November 26, 2022
Final exam period	November 28 – 30, December 1 – 4, 6 – 9, 13 – 16, 2022
<i>H.M. King Bhumibol Adulyadej The Great's Birthday*</i>	<i>December 5, 2022</i>
<i>Constitution Day*</i>	<i>December 10, 2022</i>
<i>Substitution for Constitution Day*</i>	<i>December 12, 2022</i>
Submitting Forms for Degree Conferral	August 8 – 21, 2022

Remark * Holiday, No classes during this period