



**Department of Economics
Hong Kong University of Science and Technology**

**Economics 3143
Macroeconomic Theory II
Spring 2022**

Lecture: Jenny Xu

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Time and Venue: Tuesdays/Thursday 3:00-4:20 through Zoom during the first two weeks of class, possibly on site in Room LSK 1007 afterwards

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Please go to Canvas to find course related material.

Office Hours:

**by appointment
through Zoom**

Teaching Assistant: Astor Fok, *Email:* ecastor@ust.hk
Office Hour: TBA.
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Required Textbook:

1. Garin, Julio, Robert Lester, and Eric Sims (2021). *Intermediate Macroeconomics* (here after, JLS)

For Long-run Growth, Microfoundation of Macroeconomics, Business Cycle

Textbook is available at

https://www3.nd.edu/~esims1/gls_textbook.html

2. Schmitt-Grohe, Stephanie, Martin Uribe and Michael Woodford, *International Macroeconomics*, (here after, SUW) for

Open Economy

textbook is available at

<http://www.columbia.edu/~mu2166/UIM/suw.pdf>

Teaching Arrangements:

- Following the current university's **guideline** ([Teaching Arrangements for Winter and Spring Terms 2021/22 | COVID-19 Info@HKUST](#)), the default mode of delivery for all classes will be real-time online during the Add-Drop period of the Spring term. The University management is closely monitoring the development of the pandemic, and will further communicate to all members of the community, if there are changes to Spring term arrangements.

- If the default teaching mode is changed to **in-person on site**. Then
 - (1) If any student cannot physically go back in Hong Kong after the add-drop period because of travel restrictions, the course will be conducted in the **mixed-mode lite**, which features **limited interaction with online students**.

 - (2) All **in-HK** students (students who are physically in HK), even if the course will be in mixed-mode, **according to the School policy, zoom class is not an option**. That means they cannot attend the online class. However, class recordings (either RVC or Zoom recording) will be available for all students to review after class.

 - (3) Proctored midterm and final **exams** will be held **on campus** for all students, except those who cannot be in Hong Kong. For those students, we will have a simultaneous online exam with Zoom proctoring with the same set of questions.

Pre-requisites

This course is for BSc degrees in Economics. It is also available to other students as permitted by the regulations. Therefore,

1. Students are expected to have completed Econ 3123 or an equivalent intermediate macroeconomic course.
2. According to a curriculum change effective since Fall 2021, Microeconomic Theory I (ECON 3113) is a prerequisite for taking ECON 3123 and 3143. Please refer to the following website for the suggested study pathway:

http://www.bm.ust.hk/econ/programs-n-courses/ugprograms/ecof/curriculum/bsc2019-2020_fall2021

3. This requirement will be waived for two years of the transition period until Spring 2023.

Course Description:

In Macroeconomics I (Econ 3123), we have studied the economies in the short and medium run. Specifically, we use the IS-LM model and the IS-LM-PC model to study how the output, the price level, and the employment are determined in the short-run and medium-run. We also examine the impact of various policies on the economy in the short run and in the medium run. In the short run, business cycles (fluctuations around the trend of growth) are important. In the medium run, we need to take the labor market into consideration. The IS-LM-PC framework provides a basic framework for economics and policy analysis. Then two extensions to the basic framework are analyzed. First, uncertainty and expectations into consideration. Expectations play a major role in most economic decisions, and by implication, play a major role in the determination of output. Second, the study is extended from closed economy to open economy models, and how openness in goods and financial market affect the output, price and exchange rate determination are explored.

Now you have some integrate view of macroeconomics, in this course we will have a formal examination of macroeconomic theory, which provides the foundations for macroeconomic analysis and the design of macroeconomic policies. The course aims to make students familiar with formal analytical tools in macroeconomics, particularly the dynamic general equilibrium approach. During the coursework, we apply these frameworks to explore quantitatively and empirically a broad set of economic questions regarding economic growth, real business cycles, current account dynamics, and fiscal and monetary policies.

After studying this course, students will have a general knowledge about the main questions (growth and fluctuations) in macroeconomics and understand the analytical tools and methods used in modern macroeconomic theory, which will help students to analyze the current macroeconomic events and policies and their impact on the business environment and the economy. It will also provide a bridge between UG-level macroeconomics and Master/PhD level macroeconomics and lay solid foundation for students who are interested in pursuing graduate studies in economics.

We will start with the economic growth, which determines the living standard in the long run. We will first explore the facts of growth, and then investigate the determinants of long-term economic growth, such as the role of capital formation and technological progress (Solow Model). Then we use the basic Solow model to study the large differences in standards of living across countries. We will find that to understand the observed facts, endogenous saving decisions should be considered, which provides a nice bridge to the following part of the course-the microfoundation of macroeconomic models.

A major achievement in economics over the last forty years has been to incorporate these microeconomic fundamentals into models designed to answer macroeconomic questions. We will first introduce of some basic tools, including the general equilibrium and simple 2-period dynamic models where consumers, workers and firms optimize. Then we will use this framework to analyze macroeconomic fluctuations (real business cycle theory) and the drivers of business cycles. We will also explore whether or not predictions from the neoclassical model can produce business cycles observe in the data.

We will then use the dynamic general equilibrium approach to study some important questions in open economy, including the including the current account dynamics and the determination of real exchange rate.

Finally, a treatment of the microeconomic foundations consumption and investment prepares the ground for a detailed analysis of macroeconomic policies. We will then go back to policy analysis, and use the micro-founded IS-LM-AD-AS framework to analyze yield curve, zero lower bound, fiscal stimulus and unconventional monetary policy that has been used by policy makers in the recent 2008 financial crisis.

Course Objective:

This course aims

- (i) to give formal examination of main macroeconomic questions by introducing the dynamic general equilibrium model and the microfoundation of macroeconomic analysis.
- (ii) to help students to develop the necessary analytical concepts and tools to analyze the current macroeconomic events and its impact on the business environment and the economy; and help students to lay solid foundation for graduate studies in economics.
- (iii) to enable students to understand and evaluate the effects of various government policies on the business environment and the economy;
- (iv) to encourage students to think critically and creatively when making effective economic decisions and policy suggestions supported by macroeconomic theories and analytical and quantitative techniques.

Learning Outcomes

Upon successful completion of this course, you should be able to:

1. Have a general knowledge of macroeconomics. Describe the main questions in macroeconomics and the main components of standard Macroeconomic theories. Understand the determinants of economic growth and drivers of business cycles, as well as the role of economic policies in promoting long run growth and stabilizing short run fluctuations.
2. Apply the macroeconomic concepts, principles, and models to analyze economic phenomena, conduct economic analysis of the economy and society, and carry out independently applied research in macroeconomic problems.
3. Analyze qualitatively and quantitatively basic macroeconomic problems, apply your knowledge to practical situations and make sound economic decisions, and adapt to changes in business and social environments and professional requirements.
4. Communicate effectively in oral and written English.
5. Locate, gather, organize and use appropriate information for macroeconomic studies.
6. Demonstrate an understanding of the determinants of long run growth and economic fluctuations and their application to policy analysis and evaluation.
7. Apply macroeconomics model to analyze macroeconomic issues and effects of conventional and unconventional monetary policies, fiscal stimulus, and current account imbalance.

Teaching Approach

This course is primarily delivered through lectures, tutorials, and class discussion.

Teaching and Learning Activities	Roles in the Course	Course Learning Outcome addressed
Lectures with in-class discussions	Explain key concepts and models to students	1, 2, 3, 4, 5, 6,7,8
Tutorials	Review basic model and concepts; Presenting answers to homework and exams; Review and introduction of empirical and quantitative tools; Presentation of Group Project;	3,4,5,7
Homework assignments and Essay Analysis	Practice problem solving, apply models to analyze current economic issues	3,4,5,6,7,8

Course Outline:

I Long-run Growth

1. Facts of Economic Growth (Notes, Chapter 4, GLS) -Week 1-2
2. The Basic Solow Model (Notes, Chapter 5, GLS) – Week 2-3

3. The Augmented Solow Model (Notes, Chapter 6, GLS) - Week 3-4
4. Understanding Cross-Country Income Differences (Notes, Chapter 7, GLS) -Week 4-5

II Microfoundation of Macroeconomics

1. A simple two-period model of consumption and saving (Notes, Chapter 9, GLS) -Week 5-6
2. Production Economy and General Equilibrium Approach (Notes, Chapter 11-12 GLS) – Week 6-7

We will have a midterm during class time in Week 6 or 7 (tentatively Wednesday, March 22th, 2022).

III Business Cycle

1. Real Business Cycle (Notes) - Week 7-8
2. New Keysian IS-LM-AS-AD Model (Notes,) – Week 8-9

Reference for Real Business Cycle is Chapter 18-20, GSL, and reference for New Keysian Model is Chapter 24-25. But these chapters are long and complicated. My notes will be simpler. You can focus on the notes.

IV Current Account Dynamics

1. Current account sustainability and an intertemporal theory of Current Account (Slides, SUW, Chapter 2 and 3) – Week 9-10
2. The Terms of Trade, the Interest Rate, and the Current Account (Slides, SUW, Chapter 4) Week 10-11

V Financial Market and Policy Discussion

1. Yield Curve and Monetary Policy (Blanchard Chapter 14.1-14.2, Chapter 34, GSL), Week 11-12
2. Financial Crisis and Policy Response (Chapter 36 and 37, GSL) Week 12-13

Remark: Depending on our progress, we may or may not cover all these topics. The associated chapters in GSL and SUW are in parentheses. You can focus on the class notes if you cannot read them all. But reading them is recommended for better understanding of the course material.

Grading Policy:

Problem Sets -----	25%
Midterm -----	30%
Final Exam -----	40%
 Class and Tutorial participation -----	 5%

Class participation -----3.5%
Tutorial participation -----1.5%

1. There will be **five** Problem Sets, each worth 5% of your final grade. Problem sets should be handed in through Canvas online (for all students, including those in HK) on or before the due date. In order to ensure the timely posting of the answer keys, **no late problem sets will be accepted.**
2. Midterm is tentatively scheduled in class on **Wednesday, March 22nd**. Venue to be announced later. There will be no lecture on **that day**. There will be no make-up midterm exams. If for any reason, you cannot write the exam, please let me know in advance and the weight for the midterm will be shifted to the final. The midterm might be an online midterm. If this is the case, details of the exam will be announced later. Measures will be conducted to ensure the fairness of the exam.
3. Exams are closed book and closed notes. You can request a review of the grade within two weeks after the exam is returned to you. After that period grades can NOT be revised.
4. Since we will have the class through zoom (at least) in the first few weeks, to encourage student participation, marks for zoom class and zoom tutorial participation will be decided mainly based on online attendance and online class participation (such as answer questions in the poll or in chat box, or participation in class discussion, as well as class attendance through zoom) during zoom class and zoom tutorial. Normal/mixed mode class participation mark will depend on attendance (IPRS questions answering) and discussion performance. Misconduct in class, such as late arrival, early leaving, chatting, surfing, and using mobile phones will result in losing part or all of class participation marks.

General Policies:

Lecture Notes: I will post power point slides for each chapter. However, during the lecture I will give more detailed explanation. Each student is responsible for lectures missed due to absences.

Academic Policy: Dishonesty or plagiarism will not be tolerated. Any student violating **HKUST Academic Integrity and Honor Code** (<http://www.ust.hk/vpaa0/integrity>) will be subjected to disciplinary procedure. Any student observed cheating on exams, or plagiarizing material, will receive an "X" for the course, to show that the grade resulted from cheating. This X grade stays with your record until graduation. If you cheat again and "earn" another X grade, you will be dismissed from the University.

Classroom Courtesy: Class discussions will be conducted in an orderly fashion. Late arrival and early leave will not be tolerated. You should ask for my permission first if you

have any emergent situation to attend. If a student must enter the classroom after class has begun, please do so as quickly and quietly as possible. You are welcome to bring your laptop to class in order to take notes. However, since we use a lot of graphs for illustration, it is recommended that you write notes down. **Note that you may not engage in distracting behavior such as using your laptop to surf the Web, to check e-mail, or to do instant-messaging. Chatting or using mobile phones in class is not allowed either.** Violators will lose part or all class participation marks. I will also reserve the rights to ask violators to leave the class room or not allowing violators to write the exams.

Please read the following files for good learning environment.
https://drive.google.com/file/d/1Dx8_zdqBkeBGyRjo1AUoJtUtMnOSmFPV/view?usp=sharing

Please read the following link for regulations of student conduct.

https://acadreg.ust.hk/A_Regulations_for_Student_Conduct_20190219.pdf

No Make-up of Course Requirements: No make-up examinations will be administered except under very unusual circumstances. If something prevents you from attending an exam or from turning in an assignment on time, you should notify me, and we can make alternative arrangements **BEFORE** the exam or class period during which the assignment is due. Note that outside activities or more than one exam in a day are not acceptable excuses for missing an exam or turning in an assignment late. (Please plan accordingly!) If I am not contacted in advance, where possible, I will reserve the right to assign a failing grade for the exam missed.

Student Counseling: Students who are experiencing difficulty with the course should visit the instructor during office hours or by appointment.

Final Notes:

Student feedback is essential for course improvement. I encourage continuous teaching evaluation. At any time during the semester you may orally or anonymously (e.g., via campus mail, or slip a note under my office door) give me an evaluation of my performance. This evaluation could include the following headings: 1) Things that I like; 2) Things that I dislike; and 3) Suggestions for improvements.