Course title: Macroeconomic Theory II – L1

Course code: ECON 3143

Provided by: Department of Economics

No. of credits: 3

Course Format

Lectures	**Instructor**	Zhesheng QIU (zheshqiu@ust.hk)
	Time and venue	16:30-17:50 Wed, 16:30-17:50 Fri, at LSK1034
	Office hour	13:00-14:50 Fri at 6083A LSK
Tutorials	**Teaching assistant**	Emily CHEN (eckuan@ust.hk)
	Time and venue	09:30-10:20 Wed at LSK1011
	Office hour	10:30-11:30 Wed (from week 3) at 6066 LSK

Required Learning Materials

- Garin, Julio, Robert Lester, and Eric Sims (2021). *Intermediate Macroeconomics* (here after, GLS): juliogarin.com/files/textbook/GLS_Intermediate_Macro.pdf
- Use the lecture notes as your main reference for assignments and preparation of exams. Detailed explanation of the lecture notes will be provided in class.
- The materials in the textbook not covered by the lecture notes are not required. The materials not in the textbook but have been discussed in class are required.

Pre-requisites

This course is for BSc degrees in Economics (including ECOF and MAEC students). 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: Study Pathway | HKUST Department of Economics

AACSB Assurance of Learning

- **Learning Goal 1**: Graduates will be critical and creative thinkers who make effective decisions supported by appropriate analytical techniques.

- **Learning Objectives:**
  - **Objective 1.1:** Analyze and solve problems using appropriate analytical techniques.
  - **Objective 1.2:** Demonstrate proficiency in using IT applications in business and management.
  - **Objective 1.3:** Locate, gather, organize and evaluate information using appropriate information technology and systems.

Program Intended Learning Outcomes (PILOs) for ECOF

- See the following link for PILOs:
  [The Curriculum | HKUST Department of Economics]

Course Intended Learning Outcomes (CILOs) and Mapped PILOs:

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. (PILO # 1 #3 #4)
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. (PILO #3, #4)
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. (PILO # 1 #3 #4)
4. Communicate effectively in oral and written English. (PILO # 2)
5. Locate, gather, organize and use appropriate information for macroeconomic studies. (PILO # 1)
6. Demonstrate an understanding of the determinants of long run growth and economic fluctuations and their application to policy analysis and evaluation. Apply macroeconomics model to analyze macroeconomic issues and effects of conventional and unconventional monetary policies, fiscal stimulus, and current account imbalance. (PILO # 1 #3 #4)

Course Description:

In Macroeconomics I (Econ 3123), we have studied 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 are taken 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 an integrated 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 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 micro-foundation 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 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 predictions from the neoclassical model can produce business cycles observed in the data.

A treatment of 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 have been used by policy makers in the recent 2008 financial crisis.

Finally, we can use the dynamic general equilibrium approach to study some important questions in the real world, including the relationship between yield curve, macroeconomy and monetary policy, and the policy response to financial crisis.

Course Objective:

- to give formal examination of main macroeconomic questions by introducing the dynamic general equilibrium model and the microfoundation of macroeconomic analysis.
- 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.
- to enable students to understand and evaluate the effects of various government policies on the business environment and the economy;
- 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.

Tentative Schedule

Date	Plan
	The Long Run
Sep 02 (Wed) & Sep 04 (Fri)	The facts about economic growth
Sep 09 (Wed) & Sep 11 (Fri)	The augmented Solow model
Sep 16 (Wed) & Sep 18 (Fri)	Income differences across time and space
	The Microfoundations
Sep 23 (Wed) & Sep 25 (Fri)	Individual optimization
Sep 30 (Wed) & Oct 02 (Fri)	General equilibrium
Oct 07 (Wed) & Oct 09 (Fri)	Review for midterm exam
Oct 14 (Wed)	Midterm exam (in class)
Oct 16 (Fri)	Midterm break
	The Medium Run
Oct 21 (Wed) & Oct 23 (Fri)	Shocks to RBC models
Oct 28 (Wed) & Oct 30 (Fri)	Mapping model to data
	The Short Run
Nov 04 (Wed) & Nov 06 (Fri)	Microfoundations for AD-AS
Nov 11 (Wed) & Nov 13 (Fri)	Shocks to NK models
Nov 18 (Wed) & Nov 20 (Fri)	Monetary policy
Nov 25 (Wed) & Nov 27 (Fri)	Review for final exam
To be announced	Final exam

Assessment Rule

- **Overall score** = 5% participation + 30% problem sets + 25% midterm + 40% final
- **Participation:** Occasional IPRS questions answering
- **Problem set:** Submit answers in Canvas by the due date. No late submission is accepted.
- **Midterm exams:** The midterm exam is closed book. No makeup midterm exam.
- **Final exam:** The final exam is closed book and cumulative. No make-up examinations will be administered except under very unusual circumstances. If something prevents you from attending an exam on time, you should notify the lecturer **BEFORE** the exam. 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.
- **Overall grade:** The final grade is based on absolute performance. There is no grading on the curve.

Mapping of CILOs to Assessment Tasks

Assessed Task	**Mapped CILOs**	**Explanation**
Problem sets	CILO1, CILO2, CILO3, CILO5, CILO6	Problem sets assess the understanding and application of macroeconomic models (CILOs 1 and 2), the ability to solve and interpret qualitative and quantitative problems (CILO 3), and the analysis of growth, fluctuations, and policy questions (CILO 6). A problem set assesses CILO 4 or CILO 5 only when its grading criteria explicitly evaluate written communication or require students to locate and use external information or data.
Midterm and Final Examinations	CILO1, CILO2, CILO3, CILO6	The two exams assess the understanding of core macroeconomic concepts and models (CILO 1), the ability to apply those models to macroeconomic questions (CILO 2), and the ability to conduct qualitative and quantitative analysis (CILO 3). The cumulative final exam also assesses the ability to integrate models when analyzing and evaluating policies (CILO 6).
Class and Tutorial Participation	CILO1; CILO4	In-class and tutorial participation primarily assesses the understanding of key concepts (CILO 1). Where students are required to explain or defend an answer orally, it also provides limited evidence of oral communication under CILO 4.

Final Grade Descriptors

Grade	**Short Description**	**Elaboration**
A	Excellent Performance	Students demonstrate a strong grasp of course materials, effectively utilize tools discussed, excel in problem sets, and perform exceptionally on exams. They exhibit exceptional analytical skills, critical thinking, and effective participation in class discussions.

B	Good Performance	Students exhibit a solid understanding of course materials, proficient use of tools, and competent completion of problem sets. They show commendable analytical skills, effective critical thinking, and participation in class discussions.
C	Satisfactory Performance	Students demonstrate an adequate understanding of course materials, satisfactory use of tools, and completion of problem sets. They display acceptable analytical skills and participation in class discussions.
D	Marginal Pass	Students show limited understanding of course materials, inconsistent use of tools, and incomplete performance in problem sets. Their participation in class discussions is minimal.
F	Fail	Students display a lack of understanding of course materials, inadequate use of tools, and unsuccessful completion of problem sets. They show little to no participation in class discussions.

Academic Integrity

Students are expected to adhere to the university's academic integrity policy. Students are expected to uphold HKUST's Academic Honor Code and to maintain the highest standards of academic integrity. The University has zero tolerance of academic misconduct. Please refer to Academic Integrity | HKUST – Academic Registry for the University's definition of plagiarism and ways to avoid cheating and plagiarism.

Regrading Policy

If you believe that there is an error in the grading, you can file a formal, typed regrading request to your TA. The request should list the questions you want to be regraded and an explanation of why. The request should be emailed to your TA within 7 days after the exam is returned. The TA reserves the right to regrade the entire exam. Scores may increase or decrease as a result.

Communication and Feedback

- **Email policy:** Please add [Econ 3143] in the title line of your email. It may take up to 2 or 3 days to respond in busy times like exam periods. You may resend the email if there happens to be no response after 48 hours. Questions asked right before the due dates of problem sets and exams may not be answered.
- **Office hours:** You are encouraged to utilize the office hours of both the instructor and the TA. Meetings outside of the office hour via appointment are possible if necessary.
- **Course feedback:** Early course feedback is appreciated. It could be sent to the mailbox of the instructor or from under the door of the instructor's office anonymously.