## HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY



Department of Economics ECON 6110T

INTERNATIONAL FINANCE & OPEN ECONOMY MACRO (Spring II, 2024-25)

#### Instructor

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#### **Class Schedule**

Lecture time is Wednesday 9:00 am–12:20 pm, unless stated otherwise and are held in LSK G003. Teaching mode is "face to face".

#### **Course Description**

This course presents a modern introduction to international finance and open economy macroeconomics based on a micro-founded, dynamic general equilibrium approach. We will cover basic international finance topics including global imbalances, current account sustainability, theories to explain the current account, determinants of real interest rates, and international capital integration. These foundation concepts, together with the knowledge you have gained in ECON 5140 are used to develop an understanding of modern graduate-level open economy macroeconomics. We will study international business cycles in data and models including the open economy real business cycle model, which will be solved in pen and paper as well as using numerical solution techniques in Matlab, Octave, and DYNARE, to compute the quantitative impact of economic shocks and policy events. Bonus workshops/tutorials will be provided. Applications to policy and real-world phenomena are emphasized throughout. Assumed knowledge is ECON 5140.

# Course Intended Learning Outcomes (CILO's)

After completing this course, students should be able to understand, explain and identify:

- 1. Fundamental concepts in international finance related to the current account, exchange rate determination, twin deficits and open economy business cycle models (**PILO 1**)
- 2. Solution, calibration, and simulation methods in a two-country RBC model to make predictions and inferences about economic shocks and policy events. (PILO 2, 5)
- 3. Open economy monetary policy issues related to numerous models. (PILO 1,2, 5, 13)

# Prerequisite

No formal prerequisite but ECON 5140 is assumed knowledge for this course.

# **Recommended Learning Resources**

There is no required textbook. A detailed and comprehensive list of references is provided at the end of this document. Some useful reference books may include: Schmitt-Grohé, S., Uribe, M., and Woodford, M. (2022). *International Macroeconomics: A modern approach*. Princeton University Press. This is a slightly lower technical level than this course. Uribe, M. and Schmitt-Grohé, S. (2017). *Open economy macroeconomics*. Princeton University Press and Walsh, C. E. (2017). *Monetary theory and policy*. MIT press, around the level used in the course or slightly more advanced.

## Homework

Students will be required to submit 2 short individual assignments for grading. Each assignment is worth 20% for a total of 40% of the total assessment. These will help prepare you for the exam. Students will be required to make a statement about the use of ChatGPT in assignments. See the policy on ChatGPT in this course outline. No ChatGPT is permitted in individual assignments. "Turnitin" is a requirement for submission of assignments. **No late homework will be accepted!** 

## **Assessment Scheme**

	Description	Weight
Final Exam	Examines all topics covered during the term	60%
2 Individual Assignments	Two assignments to be submitted for assessment	40%

### **Final Examination**

The final exam (closed book) will be held during class on May 21, starting around 9:00am. Location is Room 2, 31F, Tower 1, Millennity. There will NOT be make-up exams. Only serious medical or personal emergencies may be accepted as legitimate excuses for a missed exam. If you fail to attend an exam for medical reasons, you must present a doctor's note. If you miss an exam without a valid reason, then you will receive a zero. You will be permitted to have a 1-page A4 cheat sheet but otherwise, this exam is closed book. The final exam will be worth 60% of the total assessment in this course.

### **ChatGPT Policy**

ChatGPT is not permitted in this course. No use in exams or individual assignments is permitted. In your assignments students are required to make a statement as to whether they used ChatGPT and if they did to declare how they done so. Violation of this policy will be considered an academic integrity breach with potentially serious consequences.

### **Academic Integrity Policy**

Honesty and integrity is a central value in HKUST. Please be aware of the importance of maintaining a high standard of honesty in assignments and examinations in this course. Please familiarize yourself with the university rules and the HKUST academic honor code by visiting the following website: http://www.ust.hk/vpaao/integrity/

# **Course Syllabus**

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Please note this is a tentative schedule. Topic order may be changed and some topics may be removed or modified, based on time constraints, student progression, and continuous improvement.

Week	Date	Topics*	
1	Apr 2	Lecture 1 - Global imbalances, Current Account Sustainability and	
		an Intertemporal Theory of the Current Account - Global data on	
		trade, current account, capital account, and financial account imbal-	
		ance, including bilateral US-China imbalances. We explore the sus-	
		tainability of a CA or trade deficit in a 2-period model. Analyze the	
		current account in a small open, endowment economy.	
2	Apr 9	Lecture 2 - Current Account in a Production Economy - We extend	
		the small open endowment economy to include firms to analyze opti-	
		mal behavior for households and firms in an open economy. We study	
		the impact of productivity shocks on the current account and the link	
		between savings, investment, and the CA in the Metzler diagram. Fi-	
		nally, we study the impact of shocks on terms of trade and how this	
		impacts the real economy and imbalances.	
3	Apr 16	Lecture 3 - Real Exchange Rate and Purchasing Power Parity In data	
		and in theory we explore the theory of PPP and Relative-PPP. We	
		study several reasons why PPP may deviate from the data in the short-	
		run, including the role of non-tradable goods, trade barriers and home	
		bias.	
4	Apr 23	Lecture 4 - International Capital Market Integration We explore the	
		theory of uncovered and covered interest rate parity - in theory and	
		in data with analysis of the RMB covered interest rate parity, the role	
		of onshore and offshore rate differentials and the role of arbitrage. In	
		a small open economy with asset pricing, we study the role of interest	
		rate parity, carry trades, and the forward premium puzzle.	
5	Apr 30	Lecture 5 - Introduction to International Business Cycles We study	
		the techniques of analyzing the business cycle and then highlight 10	
		stylized facts in international business cycle data, distinguishing the	
		behavior of emerging and developed economies.	
6	May 7	Lecture 6 - The Open Economy Real Business Cycle (RBC) Model	
		We will study the open economy RBC model and solution techniques	
		to solve the model using pen and paper and computing techniques	
		using Matlab, Dynare and Octave.	
7	May 14	Lecture 7 - Monetary Model of Inflationary Finance: Fiscal Crises,	
		Hyperinflation and BOP Crises We study a monetary model with a	
		government sector, employing familiar theories in PPP and QTM to	
		analyze such topics as the fiscal implications of devaluation, the fiscal	
	M., 01	consequences of money creation and balance of payments crises.	
8	May 21	Final Exam - 9am. Location is Room 2, 31F, Tower 1, Millennity	

Lecture time is Wednesday 9:00 am – 12:20 pm, held in LSK G003, unless stated otherwise.

\*Additional references may be provided for certain topics on Canvas or in class.

Week	Date	Topics*	
1	Apr 2		
2	Apr 9	Assignment 1 posted	
3	Apr 16		
4	Apr 23	Assignment 1 deadline	
5	Apr 30	Assignment 2 posted	
6	May 7		
7	May 14	Assignment 2 deadline	
8	May 21	Final Exam - 9am. Location is Room 2, 31F, Tower 1, Millennity	
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### Assessment Timetable

\*Please note that the timetable is tentative and may change throughout the course.

#### **Rubrics for Final Grade**

After completing this course, students should be able to understand, explain and identify:

- 1. Excellent Performance (A range): Demonstrates a deep understanding of the macroeconomic models covered in the course. Exhibits exceptional skills in solving models analytically and using numerical methods. Is excellent in providing economic intuition to the results of the models studied. Performs very well in class participation and individual assignments and the final exam.
- 2. Good Performance (B range): Shows a solid grasp of the macroeconomic models covered in the course. Shows good skills in solving models analytically and using numerical methods Performs well in the final exam, assignments and contributes well in class participation.
- 3. Marginal Performance (B-, C+, C): Has basic knowledge of the macroeconomic models and solving models analytically and in numerical methods. Shows limited skills in utilizing them. Acceptable performance in assignments with limited class participation and has a solid performance in the exam.
- 4. Fail: Demonstrates insufficient understanding of the macroeconomic models in the courese. Lacks skills in solving and interpreting these models. Unsuccessful in the assignments and/or final exam with little or no class participation