

**UNIVERSITY OF TORONTO**  
**ECO2061H1: Economic Theory-Macroeconomics**  
**FALL 2019**

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<b>Class:</b>	MON 10:00 a.m.-12:00 p.m.	<b>Office Hour:</b>	MON 9:00 a.m.-10:00 a.m.
<b>Tutorial:</b>	TUE 9:00-11:00 a.m.		
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### Course Description and Learning Objectives

- The objective of this course is to introduce you to the study of macroeconomics at the advanced level. This means that we will use rigorous models and employ (dynamic) optimization techniques to present and analyze macroeconomic theories. A common theme across the models we will study is that economic aggregates are the equilibrium result of the optimizing decisions made by rational agents at the individual level. We will employ this rigorous approach, not as an end in itself, but as a means to obtain disciplined insights into the important questions that trouble macroeconomists. The topics we will cover include economic growth, business fluctuations, consumption and investment, modern financial system, monetary policy and macroprudential policy. We will also focus on issues related to credit market frictions and their consequences to the real sector of the economy, with direct application to the most recent financial crises.

### Textbook and Course Materials

- The textbook for this course is *Advanced Macroeconomics* (4th edition) by *David Romer* (2012, McGraw-Hill, ISBN: 9780073511375 , hereafter referred to as Romer). The book is available in U of T bookstore. Copies of the notes for the course would be available on the course website. These overheads will provide a brief outline of each topic, as well as graphs and formulas, but they are not meant to be comprehensive notes for the class.
- Other References: *Macroeconomics* (5th edition) by *Stephen D. Williamson* (2014, Pearson, ISBN: 9780132991339 , hereafter referred to as Williamson);  
*Financial Markets and Institutions* (8th edition) by *Frederic S. Mishkin and Stanley Eakins* (2015, Pearson, ISBN: 9780133423624 , hereafter referred to as Mishkin).
- I highly recommend that you keep up to date with the economic and financial news by reading the Economist, Wall Street Journal, Barron's, or the Financial Times (for a more global perspective).

## Assessment and Grade Composition

- There will be two assignments and two exams in this course, and they will be weighed as follows:
  - Two Assignments 20%
  - Midterm Exam 35%
  - Final Exam 45%
- The first assignments would be due on Oct 8th before the tutorial. The second assignments would be due on Nov 26th before the tutorial. Hard copy of the project must be submitted. However, for those who miss the class on that day for legitimate reasons, you will have to digitize your hardcopies (scan, etc.) and submit by email to the TA. Late assignments will be subject to a penalty of 50% deduction of total marks per day.

## Exam Policies

- All exams will be closed book and closed notes. You may only bring pens, pencils, erasers, and a calculator.
- Exam content will be based on assigned problems and examples in the class handouts.
- The exams must be taken at their scheduled times, unless you have a verifiable family or medical emergency. If you attempt to falsify an excuse, you will receive a zero for the exam. If you are caught cheating on an exam, you will receive a score of zero for the exam.
- Missing a Midterm: The Midterms are compulsory. Missing a midterm requires a legitimate medical excuse and the following of a specific protocol; details of the protocol and the make-up procedure are outlined in Appendix A of this syllabus.
- The final exam will be held at a date and location to be set by the University. The final exam will include all the material covered in the course.
- Note that for the protection of all students, the instructor retains photocopies of tests and assignments. If you appeal to re-grade one of the exam questions, the TA and I will re-grade the entire exam. Note that this may lead to a lower overall grade. Your complaint has to be in writing and justify in detail why you think that you deserve a higher mark. Incomplete requests will not be considered. You have up to one week from the date of return of the item to inquire about the mark.
- A simple pocket calculator is allowed during the exams. (no graphic or financial calculators are allowed).

## TA Support

- Your TAs will conduct tutorials and hold office hours. They would hold brief review sessions and office hours before the due date of assignments and before midterms and finals. They would also grade the homework and exams and respond to questions on the Blackboard System and Emails.

- **Email Communication:** Please read this section of the course outline prior to contacting the instructor by email. I will use Blackboard to send out messages and it is your responsibility that your account is set up to receive message from the UofT portal. Please be sensitive to the fact that it can take considerable time for the instructor to respond with the due care that each query deserves. With up to 50 registered students, if each student emails the TA 5 times and the TA spends 5 minutes reading the message, thinking about an answer, and replying, that can easily add up to more than 20 hours of TA time spent on email alone, which reduces the amount of time available to make the class exceptional in other meaningful ways. So please take advantage of the discussion board, office hours, and especially the many hours of class time we have together to ensure all of your questions are fully and carefully addressed. Do not email the TA about topics that are of general interest to the whole class (for example to ask for help with a textbook problem). Email is not a mechanism to receive private tutorials (especially prior to tests) or to explain material that was covered in lectures you missed. It is much more efficient and beneficial to the whole class's learning experience if you post such questions in the discussion board.
- After reading the above guidelines, if you do need to send email, to help prevent your message from being labelled as spam, be sure you indicate ECO2061 in the subject line.

### **Attendance and Class Participation**

- You are expected to attend all class meetings, and this is the most efficient way to do well in this course. Please let me know in advance if you will not be able to attend class. Note that you are still responsible for learning the materials covered in all class meetings, and your assignments are due on the announced dates. How useful this course is to you will depend not only on what I teach you, but also on your dedication, hard work and class participation. To this end, I will expect you to observe the following norms:
  - Come to class on time and stay the entire duration. Late arrival and early departure without my explicit prior approval is not acceptable.
  - Please turn off mobile phones during the duration of the class. If you are interviewing, recruiters will understand that they cannot reach you when you are in class. If some emergency requires you to leave your cell phone on, please let me know before the class begins.
  - Participate actively in class lectures and case discussions. This way you will get the most out of this course. If you are shy, now is your chance to get over it. I will systematically cold call on groups and individuals. So read up the suggested material before you come to class.
  - I will never view honest mistakes negatively. I will use them as valuable learning opportunities. Often, there is not even a “right” answer. I simply want to know where you are in the learning process and prefer you to make a mistake to you not answering at all.
  - Learn to challenge the ideas of your classmates, but be courteous. Always treat you fellow students with respect, listen to their answers and react to the issues raised by them. You will be surprised at how much you can learn from each other.

## Webpage

- The webpage for this course is on the U of T blackboard system. Any materials not handed out in class are posted on the site. In particular, the site contains the lecture notes for the course. You should print these out and bring them to class. You should check the website daily, and it should be the first place you want to look for course related information, or if you have questions regarding assignments.

## Course Outline

- This is a tentative course outline I would roughly follow this semester. The contents of each week are subject to change and will be updated on Blackboard as the term progresses.

Week	Class	Tutorial
1	<b>1.Introduction(Sept 9, Mon)</b>	
2	<b>2.Solow Model(Sept 16, Mon)</b>	Sept 17, Tue
3	<b>3.Neoclassical Growth Model(Sept 23, Mon)</b>	Sept 24, Tue
4	<b>3.Neoclassical Growth Model(Sept 30, Mon)</b>	Oct 1, Tue
5	<b>4.Endogenous Growth+OLG(Oct 7, Mon)</b>	Oct 8, Tue, hw1
6	Thanksgiving; University closed	Q&A
7	<b>5.Midterm Exam(Oct 21, Mon)</b>	
8	<b>6.RBC Theory(Oct 28,Mon)</b>	Oct 29, Tue
9	Fall reading week	
10	<b>7.Solving RBC using dynare+VFI(Nov 11 , Mon)</b>	Nov 12, Tue
	<b>8.Consumption-Savings Decision and Credit Markets (Nov 11, Mon)</b>	
11	<b>9.A Simple Model on Credit Market Imperfections(Nov 18, Mon)</b>	Nov 19, Tue
	<b>10.Money, Banking, and Monetary Policy(Nov 18, Mon)</b>	
12	<b>11.Overview of Modern Financial System(Nov 25, Mon)</b>	Nov 26, Tue , hw2
13	<b>12.Financial Institutions and Financial Crisis, Q&amp;A(Dec 02, Mon)</b>	Q&A
14*	<b>Final Exam(Date:TBA)</b>	

## Details

- Introduction and Modern Macroeconomics Framework
  - Prescott E.C., The Transformation of Macroeconomic Policy and Research, 2004 Nobel Prize Lecture.
  - Jesus Fernandez-Villaverde and Dirk Krueger, Macroeconomics Notes: Chapter 4 and Chapter 5.
  - Dirk Krueger, Macroeconomic Theory: Chapter 2
- Solow Growth Model
  - David Romer, Advanced Macroeconomics: Chapter 1
  - Mankiw, Gregory, David Romer, and David Weil (1992) "A Contribution to the Empirics of Economic Growth," Quarterly Journal of Economics, vol. 107, pp. 407-437
- Neoclassical growth model

- David Romer, Advanced Macroeconomics: Chapter 2
- Dirk Krueger, Macroeconomic Theory: Chapter 3 and Chapter 8
- Endogenous Growth Models: The AK Model, Human Capital Model, OLG Model
  - David Romer, Advanced Macroeconomics: Chapter 3
  - Jesus Fernandez-Villaverde and Dirk Krueger, Macroeconomics Notes: Chapter 9.
  - David Romer, Advanced Macroeconomics: Chapter 2
  - Dirk Krueger, Macroeconomic Theory: Chapter 3 and Chapter 8
- Real Business Cycle Theory
  - Dirk Krueger, Quantitative Macroeconomics: An Introduction
  - David Romer, Advanced Macroeconomics: Chapter 5
  - Cooley, Thomas, and Edward Prescott (1995), "Economic Growth and Business Cycles," Ch.1, in Frontiers of Business Cycle Research, by T.Cooley (ed), Princeton University Press.
  - Romer, Chapter 5.
- Real Business Cycle Theory, Value function iteration
  - Dynare User Guide, Tommaso Mancini-Griffoli
  - There is a small sub-section on value function iteration here: Dirk Krueger, Macroeconomic Theory: Chapter 3
  - Dirk Krueger, Quantitative Macroeconomics: An Introduction
  - Romer, Chapter 5.
- Consumption-Savings Decision and Credit Markets
  - Williamson, Chapter 9.
- A Simple Model on Credit Market Imperfections
  - Williamson, Chapter 10.
  - Kiyotaki and Moore(1997)\*
  - Bernanke and Gertler(1989)\*
- Money, Banking, and Monetary Policy
  - Williamson Chapter 12
  - Romer, Ch.11.1, 11.2
  - IMF (International Monetary Fund). 2013. "The Interaction of Monetary and Macroprudential Policies".
- Overview of Modern Financial System

- Slides
- Mishkin
- Financial Institutions and Financial Crisis
  - Slides
  - Mishkin
  - Romer, 9.1-9.3,9.9

## Appendix A: Policy on missing a Midterm

1. A student who does not feel able to write a test because of severe domestic affliction or other cause not related to his or her health should, unless the circumstances make this impossible, contact the instructor before the test. The instructor will always ask for adequate proof of the circumstances. If the student fails to contact the instructor before the test but, in the opinion of the instructor, could have, or if the student fails to provide adequate proof, then he or she will get zero for the test.

2. If you are sick you must contact me before the time of the exam. If you do not contact me before the exam, generally no medical note will be accepted, unless there were extraordinary circumstances (e.g., you were hospitalized and unconscious). Contact Option 1 (preferred): By email; write to both [xu.tian@utoronto.ca](mailto:xu.tian@utoronto.ca) and [g.hong@mail.utoronto.ca](mailto:g.hong@mail.utoronto.ca). Contact Option 2: By phone; call the department's office, 905-828-5257; they will give you my cell number and you can then leave me a voicemail.

3. You must provide a fully completed University of Toronto Medical Certificate, completed by a qualified medical doctor (e.g., not an acupuncturist, chiropractor, or other health care professional). The doctor's OHIP registration number must be provided and the doctor must indicate a phone number at which she can be reached. The note must be in original (not scanned, copied, or emailed), and must be presented in person with a valid U of T student card within three (3) business days of missing the test to me. Beyond three (3) business days from the test date, further documentation of continued illness or disability will be required from a physician. Please also complete the online special request application within 24 hours of the missed test.

4. You must see the doctor on the day of the exam or the next-I will not accept sick notes that are based on the doctor's best guess of what happened to you in the past. A statement from a physician that merely confirms a report of illness and/or disability made by the student is not acceptable. Documentation citing non-essential, preplanned medical procedures will not be acceptable. Sports injuries incurred within the last two days before the test are not considered to be valid excuses.

5. Provide a typed list of the other courses that you are taking, dates for tests and assignment due dates and the course instructor's contact information. The general rule is that if you are too ill to write an exam in my course, you will be unable to write exams or work on assignment in other courses. If you wrote a test in another course or show up in class in another course on the day of the midterm, your medical note will automatically be discarded. Using a fake medical note is a very serious academic offence. The case would be reported and further pursued by the university.

6. If I approve your medical or other reasons, the 35% weight of the midterm will be shift to a make-up exam or to the final exam.



## **Appendix B**

### **- Prerequisites**

See the Academic Calendar for prerequisites and exclusions. Prerequisites are strictly checked and enforced and must be completed before taking a course. By taking this course you acknowledge that you will be removed from the course at any time if you do not meet all requirements set by the Department of Economics.

### **-Academic Misconduct**

Copying, plagiarizing, or other forms of academic misconduct will not be tolerated. Any student caught engaging in such activities will be subject to academic discipline ranging from a mark of zero on the assignment, test or examination to dismissal from the university as outlined in the academic calendar. Any student abetting or otherwise assisting in such misconduct will also be subject to academic penalties. As a student it is your responsibility to ensure the integrity of your work and to understand what constitutes an academic offence. If you have any concerns that you may be crossing the line, always ask your instructor. Your instructor can explain, for example, the nuances of plagiarism and how to use secondary sources appropriately; he or she will also tell you what kinds of aids – calculators, dictionaries, etc. – are permitted in a test or exam. Ignorance of the rules does not excuse cheating or plagiarism. For more information regarding the Code of Behaviour please see the Academic Calendar.

### **-Turnitin**

Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site. If you refuse to use turnitin you must make alternative arrangements with me in advance.

### **-Equity Statement**

The University of Toronto is committed to equity and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect. As a course instructor, I will neither condone nor tolerate behaviour that undermines the dignity or self-esteem of any individual in this course and wish to be alerted to any attempt to create an intimidating or hostile environment. It is our collective responsibility to create a space that is inclusive and welcomes discussion. Discrimination, harassment and hate speech will not be tolerated.