

Economics 759: Advanced Macroeconomics Theory II

Instructor:	Kunio Tsuyuhara	Lecture Location:	Zoom Delivery
Email:	kunio.tsuyuhara@ucalgary.ca	Lecture Days/Time:	TR 15:30-16:45
Office Hours:	By appointment.	Tutorial Location:	Zoom Delivery
		Tutorial Day/Time:	TBD
		Winter 2021	

Course Description: This course is the second part of the advanced macroeconomics theory sequence for the Ph.D. level students offered at the Department of Economics. In the first part (Econ 709), the students have learned the foundations of modern dynamic macroeconomics analyses, which is mostly based on the neoclassical growth theory. Building on those foundations, we will explore the possibility of expanding the scope of our analysis by incorporating uncertainties, heterogeneous agents, and market frictions. We then apply the theory to macroeconomic policy related topics, such as public finance, education, trade, environment issues, and so on.

A key departure of macroeconomics study at the Ph.D. level from that of undergraduate/MA levels is its use and advancement of mathematical analysis. This course assumes the students' solid understanding of real analysis as well as some basic knowledge of dynamical system and the concepts of dynamic optimization at the level introduced during the math camp.

Course Objectives/Learning Outcomes: As the above Course Description suggests, this course is primarily about the advanced theory of macroeconomics modelling. Therefore, one of the major course learning outcomes are the students becoming able to describe the basic structure of the macroeconomics models, identify the important modelling assumptions, analyse/solve the models, and above all discuss the implications of the analysis (Learning Outcome 1). Especially for the purpose of this course, throughout the semester, I expect the students to learn how to critically analyse, evaluate and discuss published academic articles. This goal is mostly technical and methodological in nature.

However, for many students, this course will be challenging not only because it is highly mathematical but also because it asks you to actively engage in thinking about economic issues through the lens of (abstract) macroeconomic models. I will encourage the students' critical thinking rather than learning the materials and the models as indisputable truth set in stone. Throughout the course, I will challenge you to foster your intellectual maturity and curiosity. For this reason, even though the course is mostly based on the lectures, I would encourage student participation in the form of in-class questions and discussion (Learning Outcome 2).

Course Outline: The course will be divided into two parts (not of equal length). The first part is mostly for solidifying and extending what the students have learned in the first semester (Econ 709). We will go through more thorough mathematical underpinning of dynamic optimization theory (in both discrete- and continuous-time settings). We will then incorporate uncertainties, heterogeneous agents, and market frictions into the basic framework, which will be useful/required for more applied topics.

The second part will be more for the applications of the macroeconomic models. Typical topics include public finance, education, trade, environmental issues, and so on, but I am open to the students' suggestions based on their own interests.

Prerequisites: Econ 709

Required Textbook(s): None. However, since the students used Acemoglu (2008) as their main textbook in Econ 709, I will try to refer to it as much as possible.

Recommended Textbook(s): The following textbooks on macroeconomics theory and economic growth are useful references.

- Acemoglu, D. 2008. *Introduction to Modern Economic Growth*. Princeton.
- Blanchard, O.J., and S. Ficher. 1989. *Lectures on Macroeconomics*. MIT.
- Heer, B. and A. Maussner. 2009. *Dynamic General Equilibrium Modeling*. Springer.
- Jones. C.I. and D. Vollrath. 2013. *Introduction to Economic Growth*. Norton.
- Ljungqvist, L. and T.J. Sargent. 2004. *Recursive Macroeconomic Theory*. MIT.
- Stokey, N.L., and R.E. Lucas. 1989. *Recursive Methods in Economic Dynamics*. Harvard

Other useful readings are suggested in class and posted on D2L along the way.

Books on Reserve: None

Important Dates:

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| - January 12 (Tue) | First lecture (Do not miss this!) |
| - February 15-19 | Midterm Break (No lectures) |
| - March 1-2 (M-T) | Midterm test: Start at 16:45pm on 1st and end at 16:45pm on 2nd. |
| - April 15 (Thu) | Last lecture (Do not miss this!) |

Online Delivery: This course will be delivered online. Students are expected to be able to participate online in accordance with this Course Outline. Lectures, assignments, office hours, exams, readings and other course material, etc. all require online access and this access is the responsibility of the student. The instructor will make an effort to provide reasonable accommodations and flexibility as circumstances require. Students are expected to raise with the instructor at the beginning of the semester any potential concerns that require such accommodations.

In order to remotely participate in online courses, students will need to have: computer with a current and updated operating system (macOS or Windows will work with all university-supported online learning technologies), a current and updated web browser installed – the latest versions of Firefox, Safari, Chrome or Edge will help to avoid compatibility issues, secure and reliable internet, microphone / headphones, webcam (optional), scanner (or camera to scan your work).

Lectures: Lectures will be delivered online at the Registrar scheduled times and delivered using ZOOM. The lectures will be recorded and subsequently posted to D2L.

E-mail Policy: To avoid confusion that is often created by e-mail messages, please refrain from sending an e-mail asking about course contents, lecture materials, etc. Please contact me to arrange a virtual meeting over ZOOM (see below).

Office Hours: I do not have a scheduled office hour for our graduate students, and I will be available anytime by appointment instead. Please feel free to contact me to arrange a meeting. By the way, I cannot enough emphasize the importance of reaching out to me as soon as you can. Virtual meeting won't replace the effectiveness and vibes of in-person conversation, but definitely way better than e-mail

communication. I really encourage you to use this opportunity to talk with me directly. Please feel free to contact me even before you think you need one...

TA Sessions: There will be weekly tutorials by the TA (schedule TBD), where students will have the opportunity to review questions from assignments and exams and/or to go over or ask other practice questions as we move along. Regular attendance is strongly encouraged. As my E-mail policy implies, TA will not respond to your email communication regarding the course materials. In addition, TA is not responsible for your question outside of the office hours and TA sessions. You are advised to refrain from asking the TA regarding the course materials outside of designated occasions.

Desire2Learn: This course will make use of the Desire2Learn (D2L) platform. Students who are registered in the course can log on at <http://d2l.ucalgary.ca> through their student centre. Please note that D2L features a class e-mail list that may be used to distribute course-related information. These e-mails go to your University of Calgary e-mail addresses only.

Grade Determination/Assessment: Student performance will be evaluated through class participation (worth 15%), a collection of assignments/problem sets (worth in total 15%), one midterm (30%), and a final exam (40%). The problem sets, a midterm test and the final are to assess your learning outcome 1, mostly on problem solving skills. The in-class discussion and class participation are to assess your learning outcome 2.

Grade Determination and Final Examination Details: Department of Economics Criteria for Letter Grades. Economics professors use the following criteria when assigning letter grades:

Grade	Grade Point Value	Description
A+	4.00	Outstanding
A	4.00	Excellent-superior performance, showing-comprehensive understanding of subject matter
A-	3.70	Very good performance
B+	3.30	Good performance
B	3.00	Satisfactory performance
B-	2.70	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	All grades below "B-" are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements. Individual programs may require a higher passing grade.

Students must receive a passing grade on the final exam to pass the course.

The final examination will be take-home, comprehensive, and scheduled by the Registrar. Students will download the exam from D2L, complete the exam, scan it, and submit using Dropbox in D2L. Student will have 50% more time to complete the exam, at a time of their choosing, within the 24-hour period that begins 24 hours before the end date of the Registrar's scheduled final exam for this course. The exam is designed and intended to be completed in two hours. The exam will be open book.

Tests and exam will not involve multiple choice questions.

Absence from a Test/Exam:

THERE WILL BE NO MAKEUP OR DEFERRED QUIZZES under any circumstances, nor may the quizzes be written early. Students unable to write the quizzes because of documented illness, family emergency, religious observance, or university-sanctioned event will have the weight shifted to the final examination; otherwise a grade of zero will be assigned. If a student cannot write their final exam on the date assigned by the Department, they need to arrange for a deferred exam with the department.

Reappraisal of Grades and Intellectual Honesty:

For reappraisal of graded term work, see Calendar I.2

<http://www.ucalgary.ca/pubs/calendar/current/i-2.html>

For reappraisal of final grade, see Calendar I.3

<http://www.ucalgary.ca/pubs/calendar/current/i-3.html>

ACADEMIC MISCONDUCT:

Academic Misconduct refers to student behavior that compromises proper assessment of students' academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

Student committing academic misconduct during the final exam will not receive a passing grade on the course.

For information on the Student Academic Misconduct Policy and Procedure please visit:

- <https://ucalgary.ca/policies/files/policies/student-academic-misconduct-policy.pdf>
- <https://ucalgary.ca/policies/files/policies/student-academic-misconduct-procedure.pdf>

Additional information is available on the Academic Integrity Website at

- <https://ucalgary.ca/student-services/student-success/learning/academic-integrity>.

Academic Accommodations:

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at

- <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>.

Freedom of Information and Protection of Privacy (FOIP) Act:

Personal information is collected in accordance with FOIP. Assignments can only be returned to the student and will be accessible only to authorized faculty and staff. For more information, see

- <http://www.ucalgary.ca/legalservices/files/legalservices/faq-students.pdf>
- http://www.ucalgary.ca/legalservices/files/legalservices/faq-faculty_0.pdf.

Internet and Electronic Communication Device information:

The use of cell phones for any purpose in class is prohibited. Computers and tablets may be used for note taking only unless otherwise authorized by the instructor.

Copyright Legislation:

See the University of Calgary policy on Acceptable Use of Material Protected by Copyright at

- www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf.

Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

Recording of Lectures:

Recording of lectures is prohibited, except for audio recordings authorized as an accommodation by SAS or an audio recording for individual private study and only with the written permission of the instructor. Any unauthorized electronic or mechanical recording of lectures, their transcription, copying, or distribution, constitutes academic misconduct. See

- <https://www.ucalgary.ca/pubs/calendar/current/e-6.html>.

(More) Important Dates:

Please check: <http://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html>

Student Organizations:

- Faculty of Grad Studies website: <http://grad.ucalgary.ca/home>
- Graduate Students Association: <http://gsa.ucalgary.ca/>
- Professional Development for Grad Students
Workshops and resources can be found at <http://www.ucalgary.ca/mygradskills/>
- Economics Graduate Association: <http://econ.ucalgary.ca/ega/>

Student Support and Resources:

- See <https://www.ucalgary.ca/registrar/registration/course-outlines> for information on campus mental health resources, the Student Ombuds' Office, Student Success Centre, Safewalk, and Emergency Evacuation and Assembly.
- Online writing resources are available at <https://ucalgary.ca/student-services/student-success/writing-support>.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at 403-210-ROCK [7625] or visit them in the MacKimmie Library Block.

Notes:

1. Students are responsible for all assigned material, e.g., supplementary material posted on D2L, regardless of whether or not the material was covered in class.
2. Read this outline very carefully. If you ask me something that can be address simply by reading this outline, I will most likely not respond to such questions. If you doubt about your interpretation of the information outlined here, ask me clearly as such.

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2021-01-06