

ECON 450

Advanced Economic Theory 1 - Honours

Department of Economics
McGill University
Winter 2021

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Office hours: Mondays, 1pm-2.20pm, over Zoom (link in myCourses), or by email appointment. I will also make heavy use of the Discussion Board under myCourses, students are strongly encouraged to post questions about the course material.

Regular classes: Mondays and Wednesdays, 2.35pm-3.55pm, live over Zoom (link in myCourses). The vast majority of classes will have a fixed-time format (any exceptions will be announced later), and will be recorded to allow for subsequent flexible access time.

Teaching assistant: Jian Tang, jian.tang2@mail.mcgill.ca. Office hours: Thursdays 10am-11am and 3pm-4pm (link in myCourses).

Course Overview and Learning Outcomes

- This course introduces students to a formal treatment of modern Macroeconomic Theory. There are two main components, carefully building and understanding the basic economic model, and then applying it to address specific topics. We will examine the following substantive questions:
 - What are the determinants of sustained, long-run economic growth? Why are some countries so much poorer than others? Should we expect poorer countries to converge to richer ones?
 - Why are there business cycles over the short-run? What explains how income per capita, investment, and employment behave over the business cycle? Can a credit crunch lead to a recession? What role can economic policy play?
 - To what extent should the government redistribute income in society?
 - Why have real interest rates been so low for so long?

- Why are stock returns so much higher historically than the returns on government bonds?

While most topics might have been previously covered in other Macroeconomics courses, the emphasis will now be on a more rigorous treatment.

- The course is aimed at ambitious students wishing to further their understanding of Macroeconomics, and to enhance their ability to think critically about the current economic debate and policy evaluation. It will also provide a good bridge between undergraduate and graduate-level studies.
- A good knowledge of both Macroeconomic and Microeconomic Theory is critical, as well as proficiency in calculus and basic statistics. The formal prerequisites are ECON 250D1/D2 and ECON 352D1/D2.

Course Materials

There is no required course textbook. The outline follows Stephen Williamson's *Macroeconomics*, Fifth Canadian edition, Pearson Education Canada, 2018, which is highly recommended. Students are expected to have a good knowledge of the material contained in this book.

The course material expands upon Stephen Williamson's more advanced notes, available through myCourses. Most sections in the course content have a correspondence to these notes, and are indicated with a 'W' below. Further references will be added, mostly for further discussion and to highlight applications and related current events. Class attendance is extremely important.

Course Content

1. Introduction.
 - (a) Motivation and overview.
 - (b) Empirical facts.
2. Labor, consumption, and production decisions in a static model (W, Sections 1.1 and 5.1).
 - (a) Applications: government spending (W, Section 1.2), credit shocks, optimal redistribution.
3. Dynamic model without investment (W, Section 1.3).

- (a) Applications: permanent income hypothesis (W, Section 6.1), Ricardian equivalence (W, Section 1.3).
4. The neoclassical growth model without uncertainty (W, Chapter 3).
 - (a) Competitive equilibrium.
 - (b) Efficient allocation.
 - (c) Dynamic programming.
 - (d) Steady-state and dynamics.
 - (e) Applications: real interest rate determination, cross-country income differences.
 5. The neoclassical growth model with uncertainty (W, Section 5.2).
 - (a) Competitive equilibrium, efficient allocation, steady-state and dynamics.
 6. Endogenous growth (W, Section 4.2).
 7. Asset pricing (W, Section 6.2).
 - (a) Application: equity premium puzzle.

Evaluation

The final grade for the course will be based on:

1. Problem sets (25%), there will be three of them throughout the semester, only a random subset of the questions will be graded.
2. Midterm exam (30%) on Wednesday, February 24, mandatory, open-book, and based upon the material covered until then. It will be a (4 hour plus 30 minutes) timed exam accessible via myCourses during a 48 hour window starting at that day's regular class. The time for completing the exam won't exceed 3 hours.
3. Final exam (45%), mandatory, open-book, and covering all the course material. It will be a (4 hour plus 30 minutes) timed exam, accessible via myCourses during a 48 hour window starting at the time indicated in the McGill's official final exam schedule for this course. The time for completing the exam won't exceed 3 hours.

Notes:

- The weighting cannot be changed on the basis of performance. The weight of the midterm can be moved to the final only via properly justified (e.g. medical note) absences. Absences to the final exam also need to be properly justified, and need to be followed-up by an official request for a deferral on Minerva.
- Supplemental examination for those eligible will cover all the course material, and will count for 100% of the course grade.
- McGill is currently preparing the implementation of the plagiarism detection tool Urkund, a text-matching software (which includes formula-, equation-, and graph-matching). It is not certain at this point whether this will be functional during this term. If so, then work submitted for evaluation as part of this course may be checked with this text-matching software within myCourses.

McGill Policy Statements

- *Language of Submission:* In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

En français: Conformément à la Charte des droits de l'étudiant de l'Université McGill, chaque étudiant a le droit de soumettre en français ou en anglais tout travail écrit devant être noté (sauf dans le cas des cours dont l'un des objets est la maîtrise d'une langue).

- *Academic Integrity:* McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see <http://www.mcgill.ca/integrity> for more information).

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- *Copyright:* Instructor-generated course materials (e.g., handouts, notes, summaries, exam questions, etc.) are protected by law and may not be copied or distributed in any form or in any medium without explicit permission of the instructor. Note that infringements of copyright can be subject to follow up by the University under the Code of Student Conduct and Disciplinary Procedures.
- *Disabilities:* If you have a disability, please contact the instructor to arrange a time to discuss your situation. It would be helpful if you contact the Office for Students with Disabilities at 514-398-6009 before you do this.
- *Plagiarism:* Plagiarism is a serious academic offence. Please consult and read carefully McGill's Academic Integrity website at <http://www.mcgill.ca/integrity/studentguide/>. If you have any questions or uncertainties about what constitutes plagiarism, there are many resources at the University that can help you, including me.
- *Final Exams:* According to Senate regulations, instructors are not permitted to make special arrangements for final exams. Please consult the Calendar, section 4.7.2.1, General University Information and Regulations at www.mcgill.ca.

- *Other:* Additional policies governing academic issues which affect students can be found in the McGill Charter of Students' Rights (see <http://www.mcgill.ca/students/srr/>).