

**University of Waterloo**  
**Department of Economics**

**Syllabus**  
Economics 306  
Macroeconomics  
Spring 2023

**Instructor:** Matthew Doyle  
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**Meetings:** This class meets on Mondays and Wednesdays from 10:00-11:20am in AL 211.  
**Office Hours:** Mondays and Wednesdays from 1:30-3:30pm, in HH 132.

**Course description:**

This course introduces students to the analysis of inter-temporal trade-offs in macroeconomics. Its main objective is to show how economists use economic theory to analyze the role of incentives and general equilibrium considerations in the macro-economy. The course is intended to lay the theoretical foundations that underpin the upper year courses in Macroeconomics (Econ 406, 407, 408, 409, and 496).

**Outline of Topics:**

Introductory Class  
Labour-leisure  
Static General Equilibrium with Production (diagrams)

**Midterm 1**

Static General Equilibrium with Production (calculus)  
Government 1

**Midterm 2**

Consumption-savings  
Consumption under uncertainty  
Dynamic General Equilibrium with Production  
Government 2

**Delivery:**

This class will be taught in person. While I will be posting lecture notes, these are intended as a complement to, and not a substitute for, the in-class discussions. The class is expressly *not* designed to be followed remotely. Consequently, you should not take this class unless you are available to come to class regularly.

**Textbook:**

Since there is no textbook that closely fits the structure of this course, there will be no required textbook for the class. Instead, the main reference for this class will be the class notes that I will post on Learn.

If you would like a textbook reference for the course, the book I recommend is:

Williamson, Stephen. Macroeconomics.

Any edition will work. This book has chapters on many, but not all, of the topics we will cover in Econ 306. It does a good job with the diagrammatic treatments but relegates the calculus approaches to a mathematical appendix.

Some material (for example, consumption under uncertainty) is not covered by the Williamson book. If you would like a textbook reference for that material, I recommend:

Romer, David. Advanced Macroeconomics.

Be aware that this book is pitched at a slightly higher mathematical level than the course as a whole

**Grading:**

Assignments: 15%

Midterm 1: 25%

Midterm 2: 25%

Final exam: 35%

**Assessments and due dates:***1. Written assignments:*

I will assign readings for each topic. You will be expected to submit questions/comments about each of the readings prior to the in-class discussions via the dropbox on Learn.

There are 8 total assignments. You are required to submit 5 of the 8 assignments. Each assignment will be worth 3% of your final grade. If you submit more than 5 assignments, I will count the 5 highest assignment grades when calculating your final grade.

The due dates, and associated topics, are posted below—these due dates may be pushed back if needed but will not be moved forward. Note that assignment 3 is due shortly after our first midterm exam. Depending on your course workload, you may find it preferable to complete those assignments in advance.

Assignment due dates:

- May 11<sup>th</sup>: Assignment 1 (Labour-Leisure)
- May 18<sup>th</sup>: Assignment 2 (Static general equilibrium with production: diagrams)
- June 1<sup>st</sup>: Assignment 3 (Static general equilibrium with production: calculus)
- June 12<sup>th</sup>: Assignment 4 (Government 1)
- July 29<sup>th</sup>: Assignment 5 (Consumption and saving)
- July 6<sup>th</sup>: Assignment 6 (Consumption under uncertainty)
- July 17<sup>th</sup>: Assignment 7 (Dynamic general equilibrium)
- July 27<sup>th</sup>: Assignment 8 (Government 2)

The Learn Dropbox is scheduled to close at 11 pm on each due date. Ideally, you should prepare to submit your assignment prior to the closing of the Dropbox.

Note: These assignments are not substitutes for tests and are not intended to evaluate how well you understand the material. Instead, I will use them i) to provide an incentive for you to keep up with the course readings, and ii) to help shape the in-class discussion of each topic. For each assignment you are asked to list any technical/mathematical and conceptual questions you have about the material. Each assignment will be graded on the extent to which it demonstrates that you have read and thought about the assignment content in sufficient detail to have constructive comments and/or questions about it.

## 2. Midterms:

The midterms will be written tests and will take place in the regular classroom at the regular class times. The first midterm will take place on Wednesday, May 31<sup>st</sup> and the second midterm will take place on Monday, June 26<sup>th</sup>.

## 3. Final exam:

The final exam will be scheduled by the Registrar's Office during the final exam period.

## **Policy on Missed Exams and Assignments:**

### 1. Written assignments:

Since I need the assignments to structure class discussion, I will not accept late assignment submissions. As discussed above, in terms of grading, I will count the five highest assignment grades when calculating your grade. This will be done automatically. That means that you do not have to submit medical documentation or self-declare an illness if you miss up to 3 assignments.

Note that completion of the assignments prior to the in-class discussion is a central component of the course design. If it turns out that you are unable to complete at least 5 of the assignments, the appropriate accommodation will be to take a grade of WD in the course and to re-take it in another semester when you will be better able to complete the course work.

### 2. Midterms:

A student who misses a midterm for acceptable medical or personal reasons will have the weight of the missed midterm assigned to the final exam. To obtain approval for this accommodation, a student must provide appropriate documentation, such as the University's Verification of Illness Form completed by their physician in the case of medical issues. Documentation must be provided within 7 calendar days of the missed midterm.

### 3. Final exam:

The Department of Economics centralizes decisions on all missed final exams. Hence, a student who missed the final exam must apply to the Economics Department for permission to write a deferred final exam. Information about the deferred final exam procedure can be found here: [Deferred final exam policy | Economics | University of Waterloo \(uwaterloo.ca\)](#)

**Institutional-required statements for undergraduate course outlines approved by Senate Undergraduate Council, June 15, 2009 (updated June 2021)**

**Academic integrity:** In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check [the Office of Academic Integrity](#) for more information.]

**Grievance:** A student who believes that a decision affecting some aspect of their university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70, Student Petitions and Grievances, Section 4](#). When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

**Discipline:** A student is expected to know what constitutes academic integrity to avoid committing an academic offence, and to take responsibility for their actions. [Check [the Office of Academic Integrity](#) for more information.] A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate associate dean. For information on categories of offences and types of penalties, students should refer to [Policy 71, Student Discipline](#). For typical penalties, check [Guidelines for the Assessment of Penalties](#).

**Appeals:** A decision made or penalty imposed under [Policy 70, Student Petitions and Grievances](#) (other than a petition) or [Policy 71, Student Discipline](#) may be appealed if there is a ground. A student who believes they have a ground for an appeal should refer to [Policy 72, Student Appeals](#).

**Note for students with disabilities:** [AccessAbility Services](#), located in Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.