

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

**Syllabus**  
Economics 408  
Macroeconomics  
Fall 2020

**Instructor:** Matthew Doyle

**Office:** 132 Hagey Hall

**Phone:** 888-4567 ex. 35352

Please note that, at present, I do not have access to my office. As a result, the best way to contact me is through email, which I check regularly.

**Email:** m6doyle@uwaterloo.ca

**(Virtual) Office Hours:** Mondays: 1:30pm-3pm,  
Wednesdays: 9:30am-11am,  
and by appointment.

**Delivery:**

This class will be taught remotely. As a result, there will be no in class meetings.

The course content will be delivered primarily through course notes, which I will make available through Learn. I will supplement the notes with video lectures that will also be made available through Learn. The video lectures will not attempt to duplicate the format of an in person lecture. Instead, they will consist of a series of shorter videos, each covering a relatively narrow portion of the notes.

I will be holding virtual office hours via WebEx to facilitate student-instructor interaction. I will host office hours during the times indicated above, which will be exclusive to Econ 306. The link to the WebEx meeting room will be available through the course page on Learn. You do not need to schedule an appointment to access my scheduled office hours. You can simply click on the link to connect. If you would like office hour consultation outside of my scheduled hours then send me an email and we can arrange a different meeting time. I am also willing to attempt to answer questions through email, though I may request a WebEx meeting instead, as some questions are much easier to answer “face-to-face.”

During a normal semester, I have numerous conversations with students on topics that are not directly related to the course material. For example, students often drop by my office to inquire about graduate school, or to talk about newsworthy economic events. You should feel free to use office hours for this kind of interaction.

## **Course description:**

This course examines the issue of economic fluctuations. It begins with a discussion of some of the measurement issues that arise when we try to understand what is happening in the aggregate economy in the short run. This leads naturally into a discussion of the empirical regularities that motivate much of modern business cycle research.

From there, the course will pivot towards a discussion of the leading potential explanations of economic fluctuations. We will begin with a brief discussion of some of the history behind economists' thinking about business cycles. This will lead up to a discussion of the canonical real business cycle model, which is both of interest in its own right, and serves as a bridge between the general equilibrium theory of Econ 306 and modern business cycle theory.

As we will see, real business cycle theory is limited by the fact that monetary factors play no role in its explanation of business cycles. We will use this observation to analyze some of the evidence regarding the effects of money on the macroeconomy, and to see why the inclusion of money into the real business cycle framework requires more than a “quick fix.”

This leads naturally into a discussion of New Keynesian business cycle theory, which is possibly the framework most commonly used by academic economists and central bankers to understand business cycles. We will focus on the key ideas in New Keynesian business cycle theory, particularly as they contrast with the ideas of real business cycle theory.

Probably the most glaring omission from this list of topics is the issue of financial and banking crises and panics. Note that this topic will be covered extensively in the Winter 2021 offering of Econ 496.

## **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, I recommend:

Romer, David. Advanced Macroeconomics. Any edition will work.

Be aware that this book is pitched at a slightly higher mathematical level than the course as a whole, though it does cover most of the topics for the class.

For a textbook pitched at a level a bit below Econ 408, I recommend:

Williamson, Stephen. Macroeconomics. Any edition will work.

This book has chapters on some of the topics we will cover in Econ 408. It is also a good reference book if you need to catch up with some of the foundational models from Econ 306.

**Evaluation:**

The evaluation in Econ 408 will consist of four written assignments, each of which is worth 15% of your final grade, a data collection project, which is worth 20% of your grade, and a final term paper, which is worth 20% of your grade. The due dates for the assignments are as follows.

<b>Assignments</b>	<b>Due Date</b>
Assignment 1	Thursday, Oct. 1 <sup>st</sup> , 11 pm
Assignment 2	Thursday, Oct. 29 <sup>th</sup> , 11 pm
Assignment 3	Thursday, Nov. 19 <sup>th</sup> , 11 pm
Assignment 4	Monday, Dec. 7 <sup>th</sup> , 11 pm

Note that the final assignment is due on a Monday, rather than a Thursday. This is due to the fact that Monday, Dec. 7<sup>th</sup> is the last day of classes in the fall semester.

The dates for the data collection project and the term paper are as follows:

<b>Projects</b>	<b>Due Date</b>
Data project	Thursday, Oct. 22 <sup>nd</sup> , 11 pm
Term paper	Monday, Dec. 21 <sup>st</sup> , 11 pm

Note that the data project is due on the Thursday following reading week, rather than at the end of the semester. Given the schedule of the lecture material, this means that there are two assessments due at the end of October. You will have all of the information you need to complete the data project by the end of the first unit of the course (which ends on Sept. 25<sup>th</sup>), so take care to not leave the data project until the last minute.

**Assessments:**

All assessments are to be handed in via the Dropbox on Learn. Please include your name on your assignment, and check that all pages are correctly oriented. Students are expected to complete all assessments on their own. If you are stuck on an assignment or with one of your projects, you should get in touch with me, rather than collaborate with a classmate.

The Learn dropbox is scheduled to close at 11 pm for each assessment. It is a virtual certainty that someone will have an issue with technology failure at some point during the semester. Ideally, you should prepare to submit your assessments prior to the closing of the dropbox. Note, however, that I am typically still awake at 11pm, so if you are having problems with the dropbox, you can email me and we should be able to sort something out.

For the purposes of feedback I will be posting solutions to all of the assignments on the day after they are due. Naturally, I cannot accept late assignments once the solutions have been posted.

The assignments will be a mix of short answer questions and math problems. If you have to miss one assignment, I will calculate your grade on the assignments as the average of the remaining three. You do not have to submit any documentation to receive this consideration. If you are required to miss multiple assignments, you must submit documentation for all missed assignments in order to qualify for an alternate accomodation, which will take the form of a written exam with coverage of the missed topics. If needed, this exam will take place some time after the last day of classes (Dec. 7<sup>th</sup>).

More information about the data project and paper will be available on Learn. To summarize briefly, the data project will ask you to collect macroeconomic data on Canada, from the appropriate government websites (primarily Statistics Canada, and possible the Bank of Canada). You will have to manipulate and present this data to generate a statistical picture of what economic fluctuations look like in Canada.

The term paper will ask you to either read and discuss an academic paper in the area of business cycle research, where the paper you are to write about will be chosen from a list that I will provide, or to provide an exhaustive analysis of one recent recession. The academic papers will be chosen as either a more comprehensive treatment of one of the topics covered in Econ 408 this semester, or as an introduction to business cycle theories that we did not have time to cover. If you choose to write about a recent recession, a key element of the paper will be to discuss the extent to which the theories covered in Econ 408 do or do not help to understand the recession you have chosen.

Late projects and papers will be assessed a penalty of -5% for each day, or fraction of a day, that they are late, except in the case where late submission has been agreed to by the instructor in advance. If you are unable to submit a project on time for document medical reasons, the due deadline will be extended for a period coinciding with the duration of your illness.

### **Outline of Topics:**

<b>Date</b>	<b>Topic</b>	<b>Assignment Due</b>
Sept. 8 <sup>th</sup> - Sept. 25 <sup>th</sup>	1. Measurement and data	Oct. 1 <sup>st</sup>
Sept. 28 <sup>th</sup> - Oct. 23 <sup>rd</sup>	2. Real business cycle theory	Oct. 30 <sup>th</sup>
Note: Oct. 10 <sup>th</sup> - Oct. 18 <sup>th</sup> is reading week		
Oct. 26 <sup>th</sup> - Nov. 13 <sup>th</sup>	3. Money and business cycles	Nov. 19 <sup>th</sup>
Nov. 16 <sup>th</sup> - Dec 4 <sup>th</sup>	4. New Keynesian business cycle theory	Dec. 7 <sup>th</sup>

## Statements and links to be included on all course outlines:

### [Economics Department Deferred Final Exam Policy](#)

#### **Cross-listed course**

Please note that a cross-listed course will count in all respective averages no matter under which rubric it has been taken. For example, a PHIL/PSCI cross-list will count in a Philosophy major average, even if the course was taken under the Political Science rubric.

#### **Academic Integrity**

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

**Discipline:** A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. 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 professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to [Policy 71 - Student Discipline](#). For typical penalties check [Guidelines for the Assessment of Penalties](#).

**Grievance:** A student who believes that a decision affecting some aspect of his/her 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.

**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 he/she has a ground for an appeal should refer to [Policy 72 - Student Appeals](#).

#### **Accommodation for Students with Disabilities**

**Note for students with disabilities:** [The AccessAbility Services office](#), located on the first floor of the Needles Hall extension (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 the AS office at the beginning of each academic term.

## Recommended statements to be included on course outlines

#### **Mental Health Support**

All of us need a support system. The faculty and staff in Arts encourage students to seek out mental health supports if they are needed.

### **On Campus**

- 🕒 Counselling Services: [counselling.services@uwaterloo.ca](mailto:counselling.services@uwaterloo.ca) / 519-888-4567 ext 32655
- 🕒 **MATES**: one-to-one peer support program offered by Federation of Students (FEDS) and Counselling Services
- 🕒 Health Services Emergency service: located across the creek from Student Life Centre

### **Off campus, 24/7**

- 🕒 **Good2Talk**: Free confidential help line for post-secondary students. Phone: 1-866-925-5454
- 🕒 Grand River Hospital: Emergency care for mental health crisis. Phone: 519-749-433 ext. 6880
- 🕒 **Here 24/7**: Mental Health and Crisis Service Team. Phone: 1-844-437-3247
- 🕒 **OK2BME**: set of support services for lesbian, gay, bisexual, transgender or questioning teens in Waterloo. Phone: 519-884-0000 extension 213

Full details can be found online at the Faculty of ARTS [website](#)

Download [UWaterloo and regional mental health resources \(PDF\)](#)

Download the [WatSafe](#) app to your phone to quickly access mental health support information

### **Territorial Acknowledgement**

We acknowledge that we are living and working on the traditional territory of the Attawandaron (also known as Neutral), Anishinaabeg and Haudenosaunee peoples. The University of Waterloo is situated on the Haldimand Tract, the land promised to the Six Nations that includes six miles on each side of the Grand River.