# University of Waterloo Department of Economics ECON 306 Macroeconomics Winter 2022

### Instructor and T.A. Information

Instructor: Derek Stacey Office Phone: 519-888-4567, ext. 46825 Office Hours: Tuesdays 11:00 – 12:00 and Thursdays 3:30 – 4:30

• Virtual office hours will be held using Zoom. These meetings are listed in the Upcoming Meetings tab in the Zoom widget on LEARN.

Email: dstacey@uwaterloo.ca

• When sending email, "ECON 306" must appear in the subject line and the message must include your full name and ID number.

T.A. XXXXXXXX XXXXXX

Email xxxxxxxxxx.xxxx@uwaterloo.ca

Office Hours XXXdays X:XX – X:XX

• Virtual office hours will be held using Zoom. These meetings are listed in the Upcoming Meetings tab in the Zoom widget on LEARN.

# **Course Description**

This course introduces students to the analysis of inter-temporal trade-offs in macroeconomics and macroeconomic policy. 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.

### **Course Goals and Learning Outcomes**

Upon completion of this course, students should be able to:

- A. Apply dynamic optimization to solve dynamic economic models
  - Set up and solve dynamic optimization problems to study, for example, the consumptionsavings decision
- B. Explain the permanent income hypothesis
  - Understand the role of uncertainty in the consumption-savings problem
  - Contrast the permanent income hypothesis with the Keynesian consumption function
- C. Apply an equilibrium concept to study the interactions of multiple decision-makers
  - Define and characterize a competitive equilibrium for static and dynamic economies
  - Derive and interpret asset prices from a macroeconomic model
  - Consider the implications for the aggregate production of goods and services when examining an economic issue
- D. Advance an economic model of a frictional labour market
  - Describe an economic environment with search frictions
  - Show that a search-theoretic model predicts equilibrium unemployment

#### **Recommended Text**

Williamson, Stephen D. (2018). Macroeconomics, 6th Edition. Pearson.

Williamson's textbook has chapters on many of the topics we will cover in ECON 306. I have not read previous editions of this textbook, but I would guess that any edition is fine for this course. Some material is not covered in Williamson's textbook, and I will be posting supplementary material to LEARN.

### **Readings Available on LEARN**

Lecture notes, short videos, practice problems and other course materials will be posted on LEARN. The course is divided into six 2-week modules (see *Course Outline* below for module dates and topics). For each module I will post the course materials and problem set on the Wednesday of the first week. Students should check LEARN regularly for course materials and announcements.

Assessment	Due Date	Weighting
Problem Set 1	January 18 January 25	(100/6) %
Problem Set 2	February 1	(100/6) %
Problem Set 3	February 15	(100/6) %
Problem Set 4	March 8	(100/6) %
Problem Set 5	March 22	(100/6) %
Problem Set 6	April 5	(100/6) %
Total		100%

#### **Course Requirements and Assessment**

#### **Problem Sets**

Six problem sets related to class material will be assigned during the course. Each student must complete the problem sets independently and submit their own solutions. We will use the dropbox feature on LEARN for submitting solutions to the assigned problem sets. You can submit typed or handwritten solutions, but please (i) submit all your work in one document (PDF or MS Word), (ii) check that the pages are in the correct order and properly oriented, (iii) ensure that your work is legible, (iv) double-check and re-submit if you do not receive the Email Confirmation Receipt, and (v) keep all your Email Confirmation Receipts until the end of the course as proof of submission. Problem sets are due by 11:59 pm (EST) on the posted due date. Late submissions will not be accepted – missing a deadline will result in a grade of zero. Your final grade in ECON 306 will be the equal-weighted average of all six problem sets.

#### **Course Outline**

Week	Date	Торіс	Readings	Assessments
1	Jan 5 – 11	Consumption and Savings I	Williamson	Problem Set 1
2	Jan 12 – 18	Consumption and Savings II	Ch. 9	
3	Jan 19 – 25	Consumption Under Uncertainty I	Notes	Problem Set 2
4	Jan 26 – Feb 1	Consumption Under Uncertainty II		
5	Feb 2 – 8	Dynamic General Equilibrium I	Notes	Problem Set 3
6	Feb 9 – 15	Dynamic General Equilibrium II		
	Feb 16 – 22	Reading Week		
7	Feb 23 – Mar 1	Static GE with Production I	Williamson	Problem Set 4
8	Mar 2 – 8	Static GE with Production II	Ch. 4 & 5	

Week	Date	Торіс	Readings	Assessments
9	Mar 9 – 15	Dynamic GE with Production I	Williamson	Problem Set 5
10	Mar 16 – 22	Dynamic GE with Production II	Ch. 11	
11	Mar 23 – 29	Search and Unemployment I	Williamson	Problem Set 6
12	Mar 30 – Apr 5	Search and Unemployment II	Ch. 6	

### **Intellectual Property**

Students should be aware that this course contains the intellectual property of their instructor, TA, and/or the University of Waterloo.

Intellectual property includes items such as:

- Lecture content, spoken and written (and any audio/video recording thereof);
- Lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides);
- Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and
- Work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student's educational experience. However, sharing this intellectual property without the intellectual property owner's permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository).

Permission from an instructor, TA or the University is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many cases, instructors might be happy to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights.

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent).

# **Chosen/Preferred First Name**

Do you want professors and interviewers to call you by a different first name? Take a minute now to verify or tell us your chosen/preferred first name by logging into <u>WatIAM</u>.

Why? Starting in winter 2020, your chosen/preferred first name listed in WatIAM will be used broadly across campus (e.g., LEARN, Quest, WaterlooWorks, WatCard, etc). Note: Your legal first name will always be used on certain official documents. For more details, visit <u>Updating Personal Information</u>.

#### Important notes

• If you included a preferred name on your OUAC application, it will be used as your chosen/preferred name unless you make a change now.

• If you don't provide a chosen/preferred name, your legal first name will continue to be used.

### **Mental Health Support**

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

#### **On Campus**

#### Due to COVID-19 and campus closures, services are available only online or by phone.

- Counselling Services: <u>counselling.services@uwaterloo.ca</u> / 519-888-4567 ext. 32655
- <u>MATES</u>: one-to-one peer support program offered by the Waterloo Undergraduate Student Association (WUSA) and Counselling Services

#### Off campus, 24/7

- <u>Good2Talk</u>: Free confidential help line for post-secondary students. Phone: 1-866-925-5454
- Grand River Hospital: Emergency care for mental health crisis. Phone: 519-749-4300 ext. 6880
- <u>Here 24/7</u>: Mental Health and Crisis Service Team. Phone: 1-844-437-3247
- <u>OK2BME</u>: 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 on the Faculty of Arts website

Download <u>UWaterloo and regional mental health resources (PDF)</u>

Download the <u>WatSafe app</u> 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), Anishinaabe and Haudenosaunee peoples. The University of Waterloo is situated on the Haldimand Tract, the land promised to the Six Nations that includes ten kilometres on each side of the Grand River.

For more information about the purpose of territorial acknowledgements, please see the <u>CAUT Guide to</u> <u>Acknowledging Traditional Territory</u>.

### Academic freedom at the University of Waterloo

<u>Policy 33, Ethical Behaviour</u> states, as one of its general principles (Section 1), "The University supports academic freedom for all members of the University community. Academic freedom carries with it the duty to use that freedom in a manner consistent with the scholarly obligation to base teaching and research on an honest and ethical quest for knowledge. In the context of this policy, 'academic freedom' refers to academic activities, including teaching and scholarship, as is articulated in the principles set out in the Memorandum of Agreement between the FAUW and the University of Waterloo, 1998 (Article 6). The academic environment which fosters free debate may from time to time include the presentation or discussion of unpopular opinions or controversial material. Such material shall be dealt with as openly,

respectfully and sensitively as possible." This definition is repeated in Policies 70 and 71, and in the Memorandum of Agreement, Section 6

### Institutional-required statements:

## **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. Check the <u>Office of Academic Integrity</u> <u>webpage</u> for more information.

### Discipline

A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for their actions. Check <u>the Office of Academic Integrity</u> 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 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 <u>Policy 71 - Student Discipline</u>. For typical penalties check <u>Guidelines for the Assessment of Penalties</u>.

#### 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 <u>Policy 70 - Student Petitions and</u> <u>Grievances</u>, 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 they have a ground for an appeal should refer to Policy 72 - Student Appeals.

### Note for Students with Disabilities

The <u>AccessAbility Services</u> office, located on the first floor of the Needles Hall extension (NH 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.

# If Using Turnitin in your Course

**Turnitin.com:** Text matching software (Turnitin<sup>®</sup>) may be used to screen assignments in this course. Turnitin<sup>®</sup> is used to verify that all materials and sources in assignments are documented. Students'

submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit alternate assignment.