

University of Waterloo
Department of Economics
ECON 491
Advanced Microeconomics
Fall 2021
Remote Delivery

Instructor Information

Instructor: Phil Curry
Office Hours: Via the LEARN Discussion Forum and TBD
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Course Description

This course examines how societies allocate scarce resources. At its heart is the Walrasian equilibrium, which we study in some detail addressing both positive issues (does the equilibrium exist? is it unique/stable?) and normative issues (is the resulting allocation desirable?). We shall also consider alternatives to the market mechanism. This question is central to the theory of mechanism design. We look at the tools a policy maker has at her disposal if she wants to implement a socially desirable allocation (but lacks some relevant knowledge). Since the analysis in this section is primarily game theoretic, we will spend some time developing the necessary tools.

Course Goals and Learning Outcomes

This course is a required course for those students doing the Intensive Specialization and is designed as preparation for graduate programs in Economics. Strong mathematical skills are required.

Textbooks

- There is no required text for this course as the material will be based exclusively on lecture notes. These notes will be available on LEARN. For those who would like a textbook for supplementary reading, two good texts are
Geoffrey A. Jehle and Philip J. Reny, *Advanced Microeconomic Theory*, 3rd edition, Toronto: Pearson, 2011
Hal R. Varian, *Microeconomic Analysis*, 3rd edition, New York: W. W. Norton and Co., 1992.
The standard textbook at the graduate level is
Mas-Colell, A. Whinston, M.D. and Green, J.R., *Microeconomic Theory*, Oxford University Press, 1995.
Note that this book is available through the UW online store as an e-book. Here is the link:
<https://uwaterloo-store.vitalsource.com/products/microeconomic-theory-andreu-mas-colell-michael-d-v9780197546185?term=9780195073409>

Course Requirements and Assessment

Assessment	Date of Evaluation (if known)	Weighting
4 Assignments	To be determined	30% total
Midterm	Week of Oct 25-29	30%

Final Exam	To be determined	40%
Total		100%

Assignments

For your assignments, you will be asked to solve mathematical problems based on the material covered. The marking scheme will be as follows. Each question (or subquestion) is worth 1 mark. If you get the answer correct, you get 1 mark. If you get the answer incorrect, you get 0.5 marks. If you do not attempt the question, you get 0 marks.

Course Material and Office Hours

I will be releasing course notes on the material below in two-week segments (schedule subject to change). I will open the Discussion Forum on LEARN, which I will monitor frequently. This will be a good place to ask questions. I will also arrange for office hours to be held on Teams. Please do not email questions to me. Please be respectful to one another at all times in the forum.

Course Outline

Week	Date	Topic	Readings Available
1	Sep 8 - 10	Introduction	Sep 8
2	Sep 13 – 17	Pareto Efficiency and the Contract Curve	Sep 8
3	Sep 20 - 24	General Equilibrium	Sep 20
4	Sep 27 - Oct 1	Efficiency and Existence	Sep 20
5	Oct 4 - 8	Other Properties of Walrasian Equilibria	Oct 4
6	Oct 18 - 22	Asymmetric Information	Oct 4
7	Oct 25 - 29	Midterm Exam	
8	Nov 1 - 5	Game Theory and Mechanism Design	Nov 1
9	Nov 8 - 12	Mechanism Design and Implementation	Nov 1
10	Nov 15 - 19	Auctions	Nov 15
11	Nov 22 – 26	Optimal Selling Mechanisms	Nov 15
12	Nov 29 – Dec 3	Public Goods	Nov 29

Late Work

Assignments and written assignments are due in the dropbox on LEARN on the due date given. Late work will be assessed a 25% penalty per day. Please make sure your assignments are submitted as a single file with the pages in the correct order.

The midterm and final exam will be take home exams and also due in the dropbox on LEARN by the due date given. Late exams will not be marked, so it is imperative that you submit them on time.

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.

Turnitin.com: Text matching software (Turnitin®) will be used to screen assignments in this course. This is being done to verify that use of all material and sources in assignments is documented. Students will be given an option if they do not want to have their assignment screened by Turnitin®. In the first week of the term, details will be provided about arrangements and alternatives for the use of Turnitin® in this course.

Note: students must be given a reasonable option if they do not want to have their assignment screened by Turnitin®. See [guidelines for instructors](#) for more information.

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 / 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.