University of Waterloo Department of Economics ECON 392 Strategic Situations and Welfare Economics Winter 2020 T Th 11:30AM - 12:50PM, HH 1108

Instructor Information

Instructor: Phil Curry Office: HH 126 Office Phone: 519-888-4567 x32644 Office Hours: 10:00-11:00am Tuesdays and Thursdays, or by appointment Email: pacurry@uwaterloo.ca

Course Description

Many economic decisions are made in circumstances where there are no competitive markets. This course introduces students to individual and group choice in such settings. It covers how to model such settings as "games" in both the extensive and strategic form, and introduces the key equilibrium concepts associated with these models. An introduction to considerations in group decision making via cooperative game theory and welfare economics is provided in the last part of the course.

Course Goals and Learning Outcomes

This course is a required course for those students doing the Intensive Specialization. As such, we will be developing the mathematical foundations of game theory and social choice. Strong mathematical skills are required.

Recommended Text

• Osborne, Martin J., An Introduction to Game Theory, New York: Oxford University Press, 2004.

Note that this text is recommended, not required. The course material will follow along with the text somewhat, but will be presented quite differently. A good set of lecture notes is what is really required to do well in this course. In particular, this text does not cover all of the material on welfare economics.

Course Requirements and Assessment

Assessment	Date of Evaluation (if known)	Weighting
Assignment 1	Jan. 23	10%
Assignment 2	Feb. 13	10%
Assignment 3	Mar. 26	10%
Midterm	Feb. 27	30%
Final Exam	TBD	40%
Total		100%

Assignments

For your assignments, you will be asked to solve mathematical problems pertaining to the material covered in the lectures.

Midterm Exams

Your midterm exam will be comprised of problems as in the assignments.

Final Exam

Your final exam will be the same format as the midterms: problems as in the assignments.

Course Outline

The table below represents how I expect the course will proceed. We may take more or less time on any topic, as appropriate.

Week	Date	Торіс	Readings Due
1	Jan 7, 9	The strategic form	TBD
2	Jan 14, 16	Nash equilibrium	TBD
3	Jan 21, 23	Mixed strategies	TBD
4	Jan 28, 30	Refinements	TBD
5	Feb 4, 6	The extensive form	TBD
6	Feb 11, 13	Subgame Perfection	TBD
7	Feb 25, 27	Review and Midterm	TBD
8	Mar 3, 5	Games with imperfect information	TBD
9	Mar 10, 12	Imperfect Info cont'd	TBD
10	Mar 17, 19	Social Choice	TBD
11	Mar 24, 26	Social Choice cont'd, Bargaining games	TBD
12	Nov 25, 27, 29	Bargaining games cont'd	TBD

Late Work

Assignments are due by the end of class on the due date given. Late assignments received less than 24 hours after the deadline will be given a 25% penalty. Assignments received after 24 hours will not be marked.

No make-up tests will be provided for the midterm exam. Students who do not have a relevant medical certificate or other documentation will receive a mark of zero. Students with a valid documented reason for missing the exam will have the weight of the midterm added to their final.

Electronic Device Policy

It is acceptable for students to bring laptops to class, especially for the purposes of taking notes. Please make sure your cell phones are on silent, however.

Attendance Policy

While the recommended textbook covers most of the material of this course, it does so in a manner that is different (and complementary) to the lectures. The assignments and exams will be based on the

material as it is presented in the lectures. As such, students are strongly encouraged to attend all classes and take good notes.

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 <u>UWaterloo Academic Integritity</u> webpage and the <u>Arts Academic Integrity</u> 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 <u>Policy 71 - Student</u> <u>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. <u>Read Policy 70 - Student</u> <u>Petitions and 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 he/she has a ground for an appeal should refer to <u>Policy 72 - Student Appeals</u>.

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.

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

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: 519-749-433 ext. 6880
- Here 24/7: 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 at the Faculty of ARTS <u>website</u> Download <u>UWaterloo and regional mental health resources (PDF)</u> Download the <u>WatSafe</u> 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.