

**University of Waterloo**  
**Department of Economics**  
**ECON 392**  
**Strategic Situations and Welfare Economics**  
**Winter 2017**  
**T Th 2:30 – 3:50PM, AL 211**

**Instructor Information**

Instructor: Phil Curry  
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Office Phone: 519-888-4567 x32644  
Office Hours: 4:00-5:00pm Tuesdays and Thursdays, or by appointment  
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**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. 19	10%
Assignment 2	Feb. 2	10%
Assignment 3	Mar. 16	10%
Midterm	Feb. 16	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	Topic	Readings Due
1	Jan 3, 5	The strategic form	TBD
2	Jan 10, 12	Nash equilibrium	TBD
3	Jan 17, 19	Mixed strategies	TBD
4	Jan 24, 26	The extensive form	TBD
5	Jan 31, Feb 2	Refinements	TBD
6	Feb 7, 9	Refinements cont'd	TBD
7	Feb 14, 16	Review and midterm	TBD
8	Feb 28, Mar 2	Games with imperfect information	TBD
9	Mar 7, 9	The core	TBD
10	Mar 14, 16	Nash bargaining	TBD
11	Mar 21, 23	Social choice	TBD
12	Mar 28, 30	Social choice and review	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.

## **Institutional-required statements for undergraduate course outlines approved by Senate Undergraduate Council, April 14, 2009**

### **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. 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 \(https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/guidelines/guidelines-assessment-penalties\)](https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/guidelines/guidelines-assessment-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 (<https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70>). 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 \(https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-72\)](#).

### **Note for Students with Disabilities**

The [AccessAbility Services](#) 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.