

University of Waterloo
Department of Economics
Economics 701
Microeconomic Theory II
Winter 2023
MW 4-5:20PM, HH 2107

Instructor Information

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Course Description

Two Nobel prizes have been awarded in general equilibrium: Kenneth Arrow in 1972 and Gerard Debreu in 1983. It began as a key pillar of microeconomics, and now manifests itself in almost all of theoretical macroeconomics. Its earlier focus was on commodity markets, and has more recently shifted to financial markets. What makes the equilibrium “general” is the simultaneous consideration of two or more markets; for example, peanut butter and jelly or a bond and a stock. We will consider perfectly competitive markets; prices will be set in such a way to ensure market clearing. Common questions we will answer in these settings concern the existence and Pareto efficiency of equilibria.

There are two things you need to do to be successful in this course: come to lecture and do your homework (well, these are necessary but not sufficient conditions). Unlike other courses you may be used to, there will be very little reading. Why? I will cover some advanced topics directly from a combination of books and papers, which I list below but do not expect you to read. Lecture notes should be sufficient for full understanding of the course material. Try to expose yourself to the course material in as many ways as you can; this includes asking questions in lecture, emailing questions, coming to office hours, and forming study groups.

Readings

Lecture notes will be posted several days after each class. The following readings are optional:

- A. Mas-Colell, M. Whinston, and J. Green. *Microeconomic Theory*. Oxford University Press, 1995.
- M. Magill and M. Quinzii. *Theory of Incomplete Markets*. MIT Press, 1996.
- R. Radner. Rational Expectations Equilibrium: Generic Existence and the Information Revealed by Prices. *Econometrica*, 47(3): 655-678, 1979.
- P. Dubey, J. Geanakoplos, and M. Shubik. Default and Punishment in General Equilibrium. *Econometrica*, 73(1): 1-37, 2005.

- A. Araujo, F. Kubler, and S. Schommer. Regulating Collateral Requirements when Markets are Incomplete. *Journal of Economic Theory*, 147: 450-476, 2012.

Course Requirements and Assessment

Assessment	Date of Evaluation	Weighting
Ten homework assignments	Due in lecture Wednesdays	30%
Midterm	February 15 in lecture	30%
Comprehensive final	TBD	40%
Total		100%

- Homework will be graded on effort only (work in groups OK, submit a copy for each individual).

Course Outline

I have picked out what I think are the “main pillars” of general equilibrium and listed them in the course outline below. There will be a lot of problem solving, as these are theoretical/ mathematical models. I will be using calculus and linear algebra without review; expect a rigorous treatment of these topics below.

Exchange and production (finish this before Midterm 1)

- Edgeworth box
- Walras’ Law
- Fixed points
- Existence
- First fundamental welfare theorem
- The core
- Externalities
- Production and the second fundamental welfare theorem

Incomplete markets

- Arrow securities
- Fundamental theorem of asset pricing
- Existence
- First fundamental welfare theorem
- Rational expectations
- Strategic default
- Unintentional default

Late Work

Assume I will not accept it. Email me well before the exam (not previous day) for illness or special accommodations.

Information on Plagiarism Detection

I don't see this being an issue.

Electronic Device Policy

No problem, just don't bother the rest of the class.

Attendance Policy

You should show up to get your in-class poll credit.

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 [Office of Academic Integrity webpage](#) for more information.

Discipline

A student is expected to know what constitutes academic integrity to avoid committing an academic offence and to take responsibility for his/her actions. Check [the Office of Academic Integrity](#) 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 [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 their 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](#).

Note for Students with Disabilities

[AccessAbility Services](#), located in Needles Hall, Room 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 AccessAbility Services at the beginning of each academic term.

Turnitin.com

Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® 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.