



Econ 4710.01
Advanced Topics in
Microeconomics
Fall 2024
0.5 Credits

General Course Information

Instructor: Y. Jeff Qiu
Email yjqiu@uoguelph.ca
Office Location MacKinnon 703
Office Hours Appointment only
Department/School Department of Economics and Finance

Class Schedule: Monday, Wednesday 2:30-3:50pm ROZH 107

Pre-requisites: (ECON3710)

Course Description

This course covers advanced topics in the economics of innovation, antitrust, and empirical industrial organization. The first part reviews key concepts in industrial organization, including Cournot and Bertrand competition, and differentiated products market. The second part introduces concepts in the economics of innovation, including patents, licensing, and incentive to innovate. The third part focuses on antitrust issues, including horizontal and vertical mergers, and collusion. The last part introduces empirical industrial organization methods used in antitrust practice.

Course Learning Outcomes

Upon successfully completing this course, you will:

Skills

Numerical Problem Solving: Students will learn basic problem solving techniques used in economics. This includes maximization in one and many variables with constraints. This will be tested in problem sets and exams.

Analytical Problem Solving: Students will use algebraic and graphical analysis to demonstrate and interpret various economic models, and most importantly to take a given situation (in words) and create the

best mathematical model to depict it; then solve the problem using numerical solving methods, and finally explain the solution intuitively. This will also be tested in problem sets and exams.

Problem Solving in a Real-World Context: Students will apply the principles learned in this course to critically examine everyday economic situations.

Summary of Course Content and Materials

Tentative Course Content

Part I. A Review of Industrial Organization

1. Monopoly
2. Cournot competition
3. Bertrand competition
4. Differentiated products

Part II. Introduction to the Economics of Innovation

5. Dynamic Oligopoly
6. Patent
7. Measuring Incentives to Innovate

Part III. Antitrust

8. Horizontal Merger
9. Vertical Merger
10. Collusion

Part IV. Empirical Antitrust in Practice

11. Herfindahl-Hirschman Index
12. Upward Pricing Pressure
13. Demand Estimation
14. Merger Simulation

Course Assessment

		Associated Learning Outcomes	Due Date/ location
Problem Sets:	20%	All.	<i>09/23/2024; 10/04/2024; 10/28/2024; 11/06/2024; 11/25/2024;</i>
Midterm 1:	25%	All.	<i>10/07/2024 in class</i>

Midterm 2:	25%	All.	11/11/2024 in class
Final Exam:	30%	All.	12/11/2024
Total	100%		

Course Resources

Recommended Texts:

Luis Cabral, *Introduction to Industrial Organization* (MIT Press, 2nd edition, 2017)

Jean Tirole, *The Theory of Industrial Organization* (MIT Press, 1988)

Kip Viscusi, Joseph Harrington, David Sappington, *Economics of Regulation and Antitrust* (MIT Press, 5th edition, 2018)

Church and Ware, *Industrial organization: A Strategic Approach* (McGraw-Hill, 2000)

Course Policies

Grading Policies

Problem sets and their due dates will be announced in lectures. Problem sets must be received in class by the end of lecture on the day the problem set is due. Unless you have discussed an extension well ahead of the due date with the instructor, late problem sets will not be accepted and a grade of zero will be assigned. Extensions will only be granted on the basis of valid medical or personal reasons, and need to be requested via email to the instructor as soon as possible. In addition, one of the problems in a problem set will be randomly selected to be graded. When computing the average problem set score to enter your grade, your lowest individual score will be dropped.

Students who find themselves unable to meet course requirements by the deadlines or the criteria expected because of medical or personal reasons, should review the regulations on academic consideration in the Academic Calendar and discuss their situation with the instructor, program counselor or other academic counselor as appropriate.

Please read your Undergraduate Calendar for the regulations regarding illness and compassionate grounds. Please note, vacation travel, moving house, or outside work commitments will not be accepted as valid reasons for missing deadlines.

If you have religious observances which conflict with the course schedule or if you are registered with Student Accessibility Services, please contact the course instructor in order to make arrangements for your assessment if appropriate.

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for Academic Consideration:

<https://www.uoguelph.ca/registrar/calendars/graduate/current/>

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Graduate Calendar:

<https://calendar.uoguelph.ca/graduate-calendar/general-regulations/academic-misconduct/>

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Student Accessibility Services as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email sas@uoguelph.ca or see the website: <https://wellness.uoguelph.ca/accessibility/>

Course Evaluation Information

Please refer to the [Blue by Explorance system](#).

Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

Drop date

The last date to drop one-semester courses, without academic penalty, is **Friday November 29, 2024**. For regulations and procedures for Dropping Courses, see the Academic Calendar:

<https://calendar.uoguelph.ca/graduate-calendar/general-regulations/>