

Economics 471 (L01) (Industrial Organization)

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Lecture Location: ST 130
Lecture Days/Time: TR 14:00-15:15

Office: SS 442
Office Hours: TR 15:30-16:30

Fall 2022

Course Description:

“Rents—how to spot them, grab them, hang onto them. That’s what strategy should be.” The objective of this course is to introduce theory of industrial organization. Industrial organization is concerned with the functioning of imperfectly competitive markets and the behaviour of firms in these markets. The course is organized around market power: its exercise, creation, enhancement, maintenance, and effects. The focus is on the strategic behaviour of firms. How can firms create monopoly rents or profits and maintain them? What are the social implications of this kind of behaviour? The last question naturally leads to issues of economic regulation and antitrust policy. Econ 477 is a course in regulatory economics and Econ 571 is a course in competition policy. Econ 471 is a prerequisite to both.

Course Learning Outcomes:

- (i) Know and understand the sources of market power and the methodologies used to assess whether firms have market power, including market definition.
- (ii) Know the effect on efficiency of the exercise of market power and the normative foundations for the control of its exercise and prohibitions on conduct that creates, enhances, or maintains market power.
- (iii) Know and understand the requirements for price discrimination, the incentive for price discrimination, its effects and recognize it in practice.
- (iv) Know and understand the effects of competitor supply and durability on the exercise of market power by a dominant firm, including the Coase conjecture and conduct that mitigates its effect on market power.
- (v) Know and be able to apply the following game theoretic solution concepts: dominant strategies, iterated elimination of dominated strategies, rationalizability, Nash equilibrium subgame perfect Nash equilibrium, Bayesian Nash equilibrium, Perfect Bayesian equilibrium.
- (vi) Demonstrate familiarity with classic oligopoly models and the factors responsible for the

- exercise of market power in oligopoly,
- (vii) Differentiate between noncredible threats and credible threats and the role of a strategic move in converting noncredible threats to credible threats.
 - (viii) Recognize and differentiate between barriers to entry and profitable entry deterrence; be able to assess the effect of firm conduct on entry deterrence.
 - (ix) Differentiate between the unilateral and coordinated exercise of market power and determine the likelihood of the coordinated exercise of market power.
 - (x) Analyse conduct for its effect on market power, differentiating between the exercise of market power and conduct that creates, enhances, and maintains market power.
 - (xi) Develop a basic familiarity with antitrust laws, enforcement, and institutions; regulation of pipelines, electricity, and telecom in Canada.

Course Outline:

- (1) Foundations
 - (a) Introduction
 - (b) Welfare economics of market power
- (2) Monopoly
 - (a) Market power and dominant Firms
 - (b) Non-Linear pricing and price discrimination
 - (c) Two-sided platforms and credit cards
- (3) Oligopoly
 - (a) Nash equilibrium
 - (b) Classic oligopoly
 - i) Cournot
 - (1) Free entry
 - ii) Bertrand
 - (1) Capacity Constraints
 - (2) Product Differentiation
 - (c) Market definition and identifying market power
- (4) Strategic Behaviour
 - (a) Commitments, threats, strategic moves, and subgame perfection
 - (b) Entry deterrence
 - (c) Coordinated behaviour and collusion
- (5) Transaction Costs, Vertical Control, and Profit-Maximization [Time Permitting]
 - (a) The Economics of Coordinating Economic Activities: Firms and Markets
 - (b) Inside the Black Box of the Firm: Incentives and Profit Maximization

Prerequisites/corequisites:

Econ 357 and Econ 359

Required Textbook:

Church, J., and R. Ware. 2000. *Industrial Organization: A Strategic Approach*. San Francisco: McGraw-Hill. Available online at https://works.bepress.com/jeffrey_church/23/.

Recommended Textbook:

Eichenwald, K. 2000. *The Informant*. New York: Broadway Books. (Recommended)

Books on Reserve:

The list of reserve titles, if any, is posted at the course D2L site.

Desire2Learn:

This course will make use of the Desire2Learn (D2L) platform. Students who are registered in the course can log on at <http://d2l.ucalgary.ca> through their student centre. Please note that D2L features a class e-mail list that may be used to distribute course-related information. These e-mails go to your University of Calgary e-mail addresses only.

Summer Internship in Regulatory Economics:

Students who complete Econ 471 and Econ 477 may be eligible for the Summer Internship Program in Regulatory Economics. This program has placed students with regulated firms and regulators since the summer of 2000.

See <https://arts.ucalgary.ca/economics/current-students/undergraduate/opportunities>.

Grade Determination:

MIDTERM EXAM	20%
FINAL EXAMINATION	50%
Assignments	<u>30%</u>
	100%

Examination Details:

Tests and exams WILL NOT involve multiple choice questions.

Programmable calculators, cellphones, textbooks, course notes, and other electronic devices will not be allowed during the writing of tests or final examinations. [You can edit the list of aids not allowed during the writing of exams.] Students are reminded that simply being able to access their cellphone during an exam is academic misconduct.

The exact date for the in-class midterm will be announced at least one week in advance.

Grading Policies:

The official grading system will be used. See <http://www.ucalgary.ca/pubs/calendar/current/f-1-1.html>.

Students must receive a passing grade on the final exam to pass the course. Students committing academic misconduct during the final exam will not receive a passing grade for the course.

If a student's letter grade on the final exam exceeds their midterm(s) letter grade, the weight of the midterm(s) is (are) transferred to the final exam. The student must have written the midterm(s) or provided supporting documentation for the absence(s).

As per the Writing Across the Curriculum Statement in the Calendar, writing and grading thereof will be a factor in the evaluation of student work. [See https://www.ucalgary.ca/pubs/calendar/current/e-2.html](https://www.ucalgary.ca/pubs/calendar/current/e-2.html).

Any student work which remains undistributed after the last day of classes will be available to students through the instructor's office during the instructor's office hours.

The final examination will be comprehensive, scheduled by the Registrar, held in a classroom, and last 2 hours. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam <https://www.ucalgary.ca/pubs/calendar/current/g-6.html>. Under no circumstance will this be accommodated by the Department.

THERE WILL BE NO MAKEUP OR DEFERRED QUIZZES/TESTS/EXAMS under any circumstances, nor may the quizzes/tests/exams be written early. Students unable to write the quizzes/tests/exams because of documented illness, family emergency, religious observance, or university-sanctioned event will have the weight shifted to the final examination; otherwise a grade of zero will be assigned.

Reappraisal of Grades:

For Reappraisal of Graded Term Work, see Calendar I.2

<http://www.ucalgary.ca/pubs/calendar/current/i-2.html>

For Reappraisal of Final Grade, see Calendar I.3

<http://www.ucalgary.ca/pubs/calendar/current/i-3.html>

Academic Misconduct and Intellectual Honesty:

Academic Misconduct refers to student behavior that compromises proper assessment of students' academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

Statement of Intellectual Honesty, see Calendar K.4

<https://www.ucalgary.ca/pubs/calendar/current/k-3.html>

Plagiarism and Other Academic Misconduct

<https://ucalgary.ca/student-services/student-success/learning/academic-integrity>

Academic Accommodations:

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services. SAS will process the request and issue letters of accommodation to instructors. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policies on Student Accommodations are available at <https://www.ucalgary.ca/legal->

[services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf](#) and <https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Accommodation-Policy.pdf>.

Freedom of Information and Protection of Privacy (FOIP) Act:

Personal information is collected in accordance with FOIP. Assignments can only be returned to the student and will be accessible only to authorized faculty and staff. For more information, see <https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/faq-privacy-faculty-members.pdf> and <https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/faq-privacy-students.pdf>

Internet and Electronic Communication Device information:

The use of cell phones for any purpose in class is prohibited. Computers and tablets may be used for note taking only unless otherwise authorized by the instructor.

Copyright Legislation:

See the University of Calgary policy on Acceptable Use of Material Protected by Copyright at <https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Acceptable-Use-of-Material-Protected-by-Copyright-Policy.pdf>. Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

Recording of Lectures:

Recording of lectures is prohibited, except for audio recordings authorized as an accommodation by SAS or an audio recording for individual private study and only with the written permission of the instructor. Any unauthorized electronic or mechanical recording of lectures, their transcription, copying, or distribution, constitutes academic misconduct. See <https://www.ucalgary.ca/pubs/calendar/current/e-6.html>.

Instructor Intellectual Property:

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed, or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

Important Dates:

Please check: <http://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html>.

Student Organizations:

Faculty of Arts Students' Association (F.A.S.A.):

Economics Department Representative

Office: SS 803, E-mail: econrep@fasaucalgary.ca and Web: www.fasaucalgary.ca.

Society of Undergraduates in Economics:

<https://www.ucalgarysue.com/>.

Society of Undergraduates in Economics is a student run organization whose main purpose is to assist undergraduate economics students to succeed both academically and socially at the University of Calgary. Services include access to the exam bank, career events such as Industry Night and information sessions, mentorship programs, and social events for members. They invite you to join by contacting SUE at sue@ucalgarysue.com.

Faculty of Arts Program Advising and Student Information Resources:

- Have a question, but not sure where to start? The Arts Students' Centre is your information resource for everything in Arts! Drop in at SS102, call them at 403-220-3580, or email them at artsads@ucalgary.ca. You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate> which has detailed information on common academic concerns, including program planning and advice.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at 403-210-ROCK [7625] or visit them in the MacKimmie Library Block.

Student Support and Resources:

- See <https://www.ucalgary.ca/registrar/registration/course-outlines> for information on campus mental health resources, the Student Ombuds' Office, Student Success Centre, Safewalk, and Emergency Evacuation and Assembly.
- Online writing resources are available at <https://ucalgary.ca/student-services/student-success/writing-support>.

Notes:

1. Students are responsible for all assigned material, e.g., supplementary material posted on D2L, regardless of whether or not the material was covered in class.
2. A detailed list of topics and readings will be provided. Required and recommended readings will be drawn from the textbooks, from titles on reserve in the library, online, and handouts posted to D2L.

JRC
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