ECO 310Y
INDUSTRIAL ORGANIZATION AND PUBLIC POLICY

DEPARTMENT OF ECONOMICS. UNIVERSITY OF TORONTO. YEAR 2010-11

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Lectures: Tuesdays 10-12 at SS1085.   Tutorials: Fridays 10-12 at SS1087.

COURSE DESCRIPTION

This course is an introduction to Industrial Organization (IO). IO studies how markets work, how firms compete or collude with each other, and how these interactions determine market structure, firms' performance, and social welfare. IO emphasizes the interdependence in the decisions of firms operating in a market. For instance, when a firm chooses prices of its products it should take into account how these prices affect profits of other firms competing in the same market and that these competitors may react by changing their respective prices. This type of interdependences underlie most firms' decisions such us prices, product design, investment in R&D, advertising campaigns, location of outlets, or mergers. In this course, we will study these topics.

Firms' decisions involve many different factors. As Economics in general, Industrial organization deals with this complexity by constructing analytical models. A model is a deliberate simplification that captures the essential features of a problem and omits other less relevant features. The emphasis of this course is on analytical models. You will have to understand the structure of these models. However, we will also see case studies of some specific firms and industries, e.g., airlines, banks, software, or restaurants, among others. Some examples of the type of questions that this course deals with are: Which factors determine the number of firms in a market and the degree of market power of these firms? Why do firms price discriminate among consumers? How can a firm discourage other firms from entering in a market? Which are the consequences of market concentration for consumer welfare? Do vertical contracts between a manufacturer and its retailers hurt consumers? Is price discrimination good or bad for consumers? We will also study the effects of alternative government interventions in markets: what practices should antitrust law prohibit? Which are the effects of patent regulation on investment in R&D and on consumer welfare?

Two thirds of the course stress basic understanding of IO theory, including extensions and modern developments. The last third of the course will examine selected empirical applications.

COURSE PREREQUISITES

ECO200Y or ECO204Y or ECO206Y, and ECO220Y or ECO227Y, or equivalents. It is the student's responsibility to ensure they have met the prerequisites for this course.

CLASS MEETINGS

We will be meeting once a week on Tuesdays from 10 to 12 at Sidney Smith Hall, Room SS1085. The Tutorial class is on Fridays 10-11 at Sidney Smith Hall, Room SS1087. The tutorial will be used to go over examples from lectures, for review sessions, and for midterm exams. Tutorial dates will be announced on the course website.

COURSE WEB SITES

Fall semester: http://dimitrid.webs.com/eco310.htm
Winter semester: http://individual.utoronto.ca/vaguirre/eco310.html

EVALUATION

The final grade will be based on the evaluation of problem sets, two midterm exams, and two final-term exams according to the following weighting:

Problem sets (4 sets):	20%	Final-term Exam - Fall:	20%
Midterm Exam - Fall:	20%	Final-term Exam - Winter:	20%
Midterm Exam - Winter:	20%		

Midterm exams will take place during the Tutorial class on Fridays. All the exams are closed-book, and they are not cumulative.

EXAM DATES

Midterm Exam – Fall:	Friday, October 22, in tutorial class, on material until October 22.
Final-term Exam – Fall:	To Be Announced.
Midterm Exam – Winter:	Friday, February 18, in tutorial class, on material until February 18.
Final-term Exam – Winter:	To Be Announced.

There will be no makeup exams, neither midterms nor final. Students who miss an exam without an appropriate University of Toronto Medical Certificate will receive a zero grade in that exam.

REQUIRED TEXTBOOK

Pepall, Richards, and Norman (2008): *"Industrial Organization: Contemporary Theory and Empirical Applications,"* 4th Edition. Wiley-Blackwell Publishers.

<u>Other Related Textbooks:</u>

- Brock, J. (2004): *"The Structure of the American Industry,"* Prentice Hall.
- Cabral, L. (2003): *"Introduction to Industrial Organization,"* MIT Press.
- Carlton, Dennis, and Jeffrey Perloff (1989): "*Modern Industrial Organization*," Glenview, IL: Scott Foresman.
- Posner, R. and F. Easterbrook (1981): "*Antitrust Cases, Economic Notes and Other Materials,"* St. Paul, MN: West.
- Tirole, Jean (1988): "*The Theory of Industrial Organization*," Cambridge: MIT Press.

REQUIRED READING (EMPIRICAL PAPERS)

- Berry, Steven (1994): "Estimating Discrete-Choice Models of Product Differentiation," *RAND Journal of Economics*, vol. 25(2), 242-262.
- Bresnahan, Timothy (1982): "The Oligopoly Solution Concept is Identified," *Economics Letters*, vol. 10, 87-92.
- Bresnahan, Timothy (1987): "Competition and Collusion in the American Automobile Industry: The 1955 Price War," *Journal of Industrial Economics*, June 1987, 457-482.
- Ellison, Glenn and Sara Ellison (2007) : "Strategic Entry Deterrence and the Behavior of Pharmaceutical Incumbents Prior to Patent Expiration," NBER Working Paper #13069.
- Graddy, Kathryn (1995): "Testing for Imperfect Competition at the Fulton Fish Market," *RAND Journal of Economics*, Spring 1995. 75-92.
- Leslie, Phillip (2004): "Price Discrimination in Broadway Theater," *RAND Journal of Economics*, Autumn 2004. 520-541.
- Porter, Robert (1983): "A Study of Cartel Stability: The Joint Executive Committee, 1990-1886," Bell Journal of Economics, Autumn 1983, 301-314.

PROBLEM SETS

There will be four problem sets uniformly distributed over the course. You can download the problem sets from the course web page. Late homework will not count. Problem sets should be written individually.

ACADEMIC CONDUCT

It is the responsibility of the students to know and understand the provisions of the University of Toronto's *Code of Behaviour on Academic Matters.* We will refer every case of suspected academic misconduct to the Dean's office
(http://www.governingcouncil.utoronto.ca/policies/behaveac.htm).

DISCLAIMER

Course requirements are subject to change. In any case, we will inform students of changes during class time. It is the responsibility of the students to be aware of any changes.

COURSE OUTLINE

Fall Semester

Lecture 1. Sep. 14.	Introduction to the course	PRN Chapter 1 & 3
Lecture 2. Sep. 21.	Technology and Cost	PRN Chapter 4
Lecture 3. Sep. 28.	Review of Basic Microeconomics	PRN Chapter 2
Lecture 4. Oct. 5.	Monopoly - Basic Theory	PRN Chapter 2
Lecture 5. Oct. 12.	Topics in Monopoly - Price Discrimination (1st & 3rd)	PRN Chapter 5
Lecture 6. Oct. 19.	Topics in Monopoly - Price Discrimination (2nd)	PRN Chapter 6

Friday, Oct. 22: Midterm Exam – Fall. In tutorial class.

Lecture 7. Oct. 26.	Topics in Monopoly – Product Variety	PRN Chapter 7
Lecture 8. Nov. 2.	Advertising	PRN Chapter 20
[November 9: No Classes]		
Lecture 9. Nov. 16.	Game Theory I - Static Games	PRN Chapter 9
Lecture 10. Nov. 23.	Oligopoly – Cournot Quantity Competition	PRN Chapter 9
Lecture 11. Nov. 30.	Oligopoly - Bertrand Price Competition	PRN Chapter 10
Lecture 12. Dec. 7.	Oligopoly - Price Competition in a Spatial Setting	PRN Chapter 10

Winter Semester

Lecture 1. Jan. 11.	Introduction to the second part of the course	Class Notes
Lecture 2. Jan. 18.	Game Theory II - Dynamic Games	PRN Chapter 11
Lecture 3. Jan. 25.	Market Entry and Entry Deterrence	PRN Chapter 12
Lecture 4. Feb. 1.	Predatory Conduct	PRN Chapter 13
Lecture 5. Feb. 8.	Collusion and Repeated Games	PRN Chapter 14
Lecture 6. Feb. 15.	Collusion: Detection and Public Policy	PRN Chapter 15

Friday, Feb. 18: Midterm Exam – Winter. In tutorial class.

[February 22: No Classes]		
Lecture 7. Mar. 1.	Review of Basic Econometrics	Class Notes
Lecture 8. Mar. 8.	Estimating the Nature of Competition	Bresnahan, 1982
Lecture 9. Mar. 15.	Estimating Demand of differentiated products	Berry, 1994
Lecture 10. Mar. 22.	Empirical Applications on Price Discrimination	Graddy-95 & Leslie-04
Lecture 11. Mar. 29.	Empirical Applications on Collusion	Bresnahan-87 & Porter-83
Lecture 12. Apr. 5.	Empirical Applications on Entry Deterrence	Ellison & Ellison-07