ECONOMICS 310: INDUSTRIAL ORGANIZATION AND PUBLIC POLICY Department of Economics University of Toronto

Summer 2013

Instructor

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Office Hours:

May/Jun: Thursday 1-2:00pm (No office hours for the first week, appointment by Email.)

Jul/Aug: Thursday 2-3:00pm

Location: After class (SS1074), GE78 (Andre), or GE72 (Zhe). Check Blackboard.

NOTE: When sending me an email, please include "ECO310" in the subject line. Also include your full name and student number in the body of the message. Due to spam filters, it is best to use a *mail.utoronto.ca* address if possible. Questions about exercises can be addressed during regular lectures or office hours. I will not discuss mathematical problems via email.

Website

<u>Blackboard</u>. Announcements will be posted on blackboard and communicated to you via email, so please make sure that you have a valid utoronto.ca e-mail address.

Schedule

Lectures will be held in SS1074 on Tuesdays and Thursdays from 11AM to 2PM.

(Tentatively) Assignment 1 will be due Thursday, May 23.

(Tentatively) Term Test One will be held on Thursday, May 30th from 11:00AM to 1:00PM, in SS1074 (regular classroom).

(Tentatively) Assignment 2 will be due Tuesday, June 11.

(Tentatively) Term Test Two will be held on Thursday, June 20th from 11:00AM to 1:00PM, in SS1074 (regular classroom).

(Tentatively) Assignment 3 will be due Tuesday, July 16.

(Tentatively) Term Test Three will be held on Thursday, July 25th from 11:00AM to 1:00PM, in SS1074 (regular classroom).

Final Exam: During the exam period, to be announced.

Course Description

Industrial Organization (IO) is the field of economics concerned with imperfectly competitive markets and how firms behave in these markets. Motivated by real world examples, we will explore how firms behave strategically to achieve and maintain monopoly rents and discuss the social welfare implications of this behaviour. Due to the emphasis on the strategic behaviour of firms, we will learn and make use of game theory to explore competition, collusion, entry deterrence, and strategic contracts. The appropriate role of competition/antitrust policy will be discussed throughout the course, especially regarding horizontal mergers. The final part of the course will discuss vertical arrangements among firms, and empirical IO topics including demand estimation.

Text

The course textbook is Church, J. and R. Ware (2000): *Industrial Organization: A Strategic approach*. San Francisco: McGraw-Hill. This textbook is available for free online at http://works.bepress.com/jeffrey_church/23/

Consult chapters 1-12 of the textbook for an idea of what will be covered.

Aguirregabiria, V. (2012). Empirical Industrial Organization: Models, Methods, and Applications. Manuscript. Available at: http://www.aguirregabiria.org/barcelona/book_dynamic_io.pdf We may cover chapter 1 and 3

Other supplementary materials will be provided on Blackboard.

Prerequisites

Prerequisites: ECO200Y1/ECO204Y1/ECO206Y1. ECO220Y1/ECO227Y1 or equivalents.

Note: Students are responsible for ensuring they meet the prerequisites for this course.

Topics

There are two instructors for this course. The first half is taught by Andre Boik and the second by Zhe Yuan. The topics discussed will include:

I. Basics/Review

- 1. Monopoly
- 2. Perfect competition benchmark

- 3. Welfare
- 4. Why firms?

II. Price discrimination

- 1. First, second, and third degree price discrimination
- 2. Welfare

III. Oligopoly

- 1. Game theory (I)
- 2. Bertrand competition
- 3. Cournot competition
- 4. Address models of competition
- 5. Mergers, Competition Policy & Welfare (I)
- 6. Mergers, Competition Policy & Welfare (II)

IV. Dynamic Oligopoly

- 1. Game theory (II)
- 2. Repeated games
- 3. Collusion, Stackelberg
- 4. Entry Deterrence, Strategic Investment

V. Vertical Relationship

- 1. Double marginalization
- 2. Vertical contracts

VI. Empirical IO

- 1. Introduction to New Empirical IO
- 2. Estimating Demand, Supply and Market Power
- 3. Estimating Demand for Differentiated Goods
- 4. Estimating Static Games of Market Entry

Evaluation

There will be three assignments, three term tests, and a three-hour final exam. Non-graphing calculators are permitted but will not be necessary.

The final exam will count for 45% of the final mark and will last 3 hours. The term tests account for a combined 45%, with 10% allocated to the three assignments. The assignments are designed to encourage working through the models presented in lecture, and will be representative of the term tests they precede.

If you miss a test due to sickness, you must notify me (via email or in person) within one week of the missed test and arrange to provide me with a doctor's note. If you satisfy these criteria, the weight assigned to the missing term test will be added to that of the final exam. The final exam will be comprehensive and challenging, so students are encouraged not to miss term tests. If you miss a second term test, a grade of zero will be awarded. Late assignments will not be accepted.

Grade appeals must be submitted within two weeks of the date the work is returned. The specific reason for the appeal must be in writing. The assignment or test in question will be reviewed in its entirety and the final grade may go up or down.

Accessibility Needs

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible: <u>disability.services@utoronto.ca</u> or <u>http://studentlife.utoronto.ca/accessibility</u>.

Academic (and non-academic) Misconduct

Working together on assignments is not only permitted, but encouraged. However, all students must submit their own assignments.