ECO 310H
EMPIRICAL INDUSTRIAL ORGANIZATION

UNIVERSITY OF TORONTO
DEPARTMENT OF ECONOMICS
SUMMER 2014

Course Instructor: Dimitri Dimitropoulos — E-Mail: d.dimitropoulos@utoronto.ca
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Lectures: Tuesday and Thursday, 11:00am - 1:00pm. LM 158
Tutorials: Tuesday and Thursday, 1:00 - 2:00pm. LM 158.
Office Hours: Tuesday and Thursdays, 1:00 - 3:00pm. Location TBA.

COURSE DESCRIPTION

Industrial Organization (IO) is the field of economics that is concerned with the structure of markets and the behavior of firms in these markets. This course will study the specification and estimation of models of consumer and firm behavior in oligopoly industries. We will see how these models can be used to understand and quantify firms' market power and its sources, the determinants of market structure, or the implications of exogenous technological and institutional factors on consumer and social welfare in a particular industry. We will examine in detail recent empirical studies that have applied these models and techniques in the context of specific industries. The course emphasizes the importance of combining economic theory and econometric techniques to answer empirical questions in Industrial Organization. Students will gain practical experience working with economic data, and making use of the STATA Data Analysis and Statistical Software package.

Prerequisites: ECO200Y1/ECO204Y1/ECO206Y1. ECO220Y1/ECO227Y1 or equivalents. *Note: It is the student's responsibility to ensure they have met the prerequisites for this course.*

Recommended Preparation: ECO380H1F: Markets, Competition, and Strategy. This course, taught by Zhe Yuan in the first half of the Summer, covers the theory of Industrial Organization.

MEETINGS

We will be meeting twice each week. On Tuesday lectures are schedule from 11:00am - 2:00pm. On Thursday, lectures are schedule from 11:00am - 1:00pm

Lectures will be held at LM 158. Lectures most often consist of lecture slide presentations with participation opportunities. You may visit the course website, print out the lecture slides, and bring them to class. Note: lecture slides are not a substitute for lecture notes.

Periodically, there will be a one-hour tutorial session following lecture, from 1:00 - 2:00pm, held in the same location as lecture. Tutorials will be used to go over examples from lecture, for exam review sessions, and for instruction on the use of STATA. Tutorial material will be posted on the course website as we proceed.

EVALUATION

There are three components to your grade: problem sets (30%), a midterm test (30%), and a final exam (40%).

There will be two problem sets, each worth 15%. Both problem sets will make use of the STATA Data Analysis and Statistical Software package. Problem Set #1 will be handed out on Tuesday, July 15, and will be due by Thursday, July 24. Problem Set #2 will be handed out on Thursday, July 31, and will be due by Tuesday, August 12. Late assignments will not be accepted without a University of Toronto Medical Certificate.

The midterm test is worth 30% of the course grade, and will take place on Tuesday, July 29. The test will be 100 minutes in duration, and will take place during regularly scheduled lecture-time, but not in the same room as lecture. If a student is ill for the midterm test, the student must provide me with a copy of a University of Toronto Medical Certificate. Once the appropriate documentation is submitted, the student will have to write a make-up test.

The final exam is cumulative, and worth 40% of the course grade. The exam will be offered during the August examination period at the end of the summer, and will be scheduled by the Faculty of Arts & Science.

COURSE MATERIAL

There is no text book. The course is organized around a set of recent surveys on Empirical IO and Structural Econometrics (see Main References below). These surveys are key references for this course. The course is also based on published and working academic papers. You are expected to read the assigned papers papers, and participate in the class discussion of these papers.

However, you are required to have access to the STATA software package. You can get the student version inexpensively from the software licensing office in Robarts library: http://www.utoronto.ca/ic/software/detail/stata.html. The six month license of STATA IC is sufficient for this course.

MAIN REFERENCES

- [ABBP] Ackerberg, D., Benkard, L., Berry, S., & Pakes, A. (2007). "Econometric Tools for Analyzing Market Outcomes," in Handbook of Econometrics, Volume 6, pp. 4171-4276. Available on the authors' website at http://www.stanford.edu/~lanierb/research/tools8l-6-8.pdf
- [BR] Berry, S., & Reiss, P. (2007). "Empirical Models of Entry and Market Structure," in Handbook of Industrial Organization, Volume 3, pp. 1845-1886. Available on the authors' website at http://www.stanford.edu/~preiss/hand-entry.pdf
- [RW] Reiss, P., and Wolak, F. (2007). "Structural Econometric Modeling: Rationales and Examples from Industrial Organization," in Handbook of Econometrics, Volume 6, pp. 4277-4415. Available on the authors' website at http://www.stanford.edu/~preiss/makeit.pdf

WEBSITE

The course web-site is accessible through **http://dimitrid.webs.com/eco310.htm**, as well as through the University of Toronto Learning Portal. I will use the course web-site as a means of communication with the class, so I recommend you check the announcements regularly. In addition, I will periodically post the lecture slides online. Some of the on-line material will be password protected; I will announce the course password during the first lecture.

E – MAIL POLICY

Use e-mails for appointments, administrative matters or urgent issues. Questions about the course, lectures and tutorial material, etc., are more appropriate for office hours. I will normally reply to e-mails within 24 hours. You must use your UofT e-mail address, and include the course number "ECO 310" in the subject line, otherwise your e-mail may be automatically quarantined as "junk e-mail".

ACADEMIC CONDUCT

It is the responsibility of the students to know and understand the provisions of the University of Toronto's Code of Behavior on Academic Matters. (http://www.governingcouncil.utoronto.ca/policies/behaveac.htm). All cases of suspected academic misconduct will be referred to the Dean's office.

LIST OF TOPICS

1. Introduction to the Course. Review of Econometrics (1 class).
2. Estimation of Demand, Supply, and Market Power (2 classes).
3. Estimation of Demand for Differentiated Products (3 classes).
4. Estimation of Production and Cost Functions (3 classes).
5. Estimation of Static Games of Oligopoly Competition (3 classes).

REFERENCES

1. Introduction to the Course. Review of Econometrics

   - RW. Sections 1 to 5.
   - Church, J., and Ware, R. (2000). "Chapter 12: Identifying and Measuring Market Power," in Industrial Organization: A Strategic Approach.
   - Epple, D., and McCallum, B. (2006). "Simultaneous Equation Econometrics: The Missing Example." Economic Inquiry, Vol. 44(2), pp. 374-384.

2. Estimation of Demand, Supply, and Market Power

   - RW Section 6
   - Bresnahan, T. (1982). "The Oligopoly Solution Concept is Identified," Economics Letters, Vol. 10, pp. 87-92.
   - Genesove, D., and Mullin, W. (1998). "Testing static oligopoly models: Conduct and Cost in the Sugar Industry," RAND Journal of Economics, Vol. 29(2), pp. 355-377.

3. Estimation of Demand for Differentiated Products

   - RW.Section 7.
   - ABBP. Section 1.
   - Berry, S. (1994). "Estimating Discrete-Choice Models of Product Differentiation," RAND Journal of Economics, 25(2), 242-262.
   - Berry, S., Levinsohn, J., and Pakes A. (1995). "Automobile Prices in Market Equilibrium," Econometrica, 63(4), 841-890.
   - Deaton, A., and Muellbauer J. (1980). "An Almost Ideal Demand System," American Economic Review, Vol. 70(3), pp. 312-326
   - Hausman, J., and Leonard, G.K. (2002). "The Competitive Effects of a New Product Introduction: A Case Study," Journal of Industrial Economics, Vol. 50(3), pp. 237-263.

4. Estimation of Production and Cost Functions

   - ABBP. Section 2.
   - Olley, G., and Pakes, A. (1996). "The Dynamics of Productivity in the Telecommunications Equipment Industry". Econometrica 64 (6), 1263–1298.
   - Christensen, L., and Greene, W. (1976). "Economies of Scale in U. S. Electric Power Generation." Journal of Political Economy, 84(4), 655-676.

5. Estimation of Static Games of Oligopoly Competition

   - BR. All sections.
   - RW Section 10
   - Bresnahan, T., and Reiss, P. (1990): "Entry in monopoly markets", Review of Economic Studies, 57, 531-553.
   - Bresnahan, T., and Reiss, P. (1991): "Entry and Competition in Concentrated Markets," Journal of Political Economy, 99, 977-1009.
   - Seim, K. (2006). "An Empirical Model of Firm Entry with Endogenous Product-Type Choices," RAND Journal of Economics, 37(3), 619-640.