220A- Industrial Organization

This course provides a graduate-level introduction to Industrial Organization (IO), with a focus on empirical methods and applications. It is designed to introduce Ph.D. students to a variety of methods, topics, and industries in the field with the goal of preparing them to conduct thesis research in this area. The methods and topics may be of interest to graduate students in other sub-fields of economics. Students interested in this class should also strongly consider taking ECO 220C, a second empirical industrial organization class, taught this semester.

Lectures: Tuesday 10 AM – 12 PM, 648 Evans

There is no required textbook for the course, as most readings are academic journal articles that you should be able to access online. One textbook that might be useful as general reference on IO theory and classical work in IO is:


Another valuable resource for surveys of different IO topics is the *Handbook of Industrial Organization* (HIO1, 2, 3) published by Elsevier-North Holland in 1987 (1 and 2) and 2007 (3). These books and the Tirole book are simply potential background references and don’t enter into the primary course readings, so don’t feel obligated to buy them.

Here are some details on the main course logistics:

**Course Requirements:** Grading for the course will be based on two (maybe three) problem sets (30%), two referee reports (20%), one research proposal (40%) and class participation (10%). Students should attend the ECO 221 IO seminar series whenever possible: this is a great way to learn about current research in IO.

The problem sets will be primarily computational exercises that will require you to write code in STATA and MATLAB in order to answer empirical economic questions that follow the course material. Problem Set 1 will be due on **Friday, February 26**. Problem Set 2 will be due on **Friday, April 8**. Problem Set 3, if given, will be due on **Friday, May 6**. These problem sets can be done in up to groups of three (working in a group is encouraged).

The referee reports will require you to critically evaluate recent research papers in IO. The first report will be due on **Friday, February 12**. The second will be due on **Friday, March 11**. Students will receive a list of five potential papers to choose from for each report. Additional papers will be allowed on request. Two classes in IO 220A will be set aside for students to present their reports to the class, while two classes in IO 220C will also be set aside for these presentations. IO 220C will have a similar assignment, and presentations will be given jointly across both classes (if you are in both classes, you can turn in the same report for each class).

Your research proposal will be a clearly-defined original research project that builds on the material discussed in the course or closely related material. Each student will schedule a meeting with me in the first two weeks of April to discuss their proposal (with a short outline of what they’re planning to do). After receiving comments, your final proposal will be due on **Wednesday, May 11**. This can be done in groups of up to three. Detailed instructions will be provided.

In the reading list that follows each section contains starred items which are especially important and will generally be covered in class. The week for that reading is listed next to the star, and I’ll also bring up required readings in class the week before. The reading list is extensive and most of it is meant to be a reference in case you’re interested in work in a particular area. You should read at least one or two starred papers per week in advance of class in order to benefit the most from the course.
The following abbreviations are used for journal titles:

AER American Economic Review
BJE Bell Journal of Economics
EMA Econometrica
EJ Economic Journal
IJO International Journal of Industrial Organization
JE Journal of Econometrics
JEH Journal of Economic History
JEL Journal of Economic Literature
JEMS Journal of Economics & Management Strategy
JEP Journal of Economic Perspectives
JET Journal of Economic Theory
JIE Journal of Industrial Economics
JLE Journal of Law and Economics
JPE Journal of Political Economy
QJE Quarterly Journal of Economics
ReStat Review of Economics and Statistics
ReStud Review of Economic Studies

Outline of Topics by Week

Week 1 (January 19)  Introduction to Empirical Industrial Organization
Week 2 (January 26)  Empirical Studies of Pricing and Demand (Differentiated Products)
Week 3 (February 2)  Empirical Studies of Pricing and Demand (Differentiated Products)
Week 4 (February 9)  Vertical Market Structure
Week 5 (February 16) Price Discrimination (Dynamic)
Week 6 (February 23) Presentations from Referee Report # 1 in IO 220A
Week 7 (March 1)    Insurance Markets
Week 8 (March 8)    Insurance Markets

***Thursday March 12th 10 AM: Referee Presentations in IO 220C

Week 9 (March 15)    Insurance Markets & Inertia
Week 10 (March 29)   Presentations from Referee Report # 2 in IO 220C
Week 11 (April 5)    Entry
Week 12 (April 12)   Search Costs

***Thursday April 14th 10 AM: Referee Presentations in IO 220C

Week 13 (April 19)   Behavioral IO
Week 14 (April 26)   Open Class: Health Care, Vertical Market Structure 2, IO and IT, Energy, IO and Development, Other
I. Introduction to Empirical Industrial Organization


II. Empirical Studies of Pricing and Demand

Static Models


Tirole, chap. 5, Section 2.1 (pp. 96–100); Sections 7.1, 7.2, 7.5 (pp. 279–88, 296–300).


Repeated Interaction


Differentiated Products


Welfare Measures Computed From Estimated Demand Systems


Price Discrimination – Static


L. Stole, “Price Discrimination and Competition,” HIO3, Chapter 34.

H. Varian, “Price Discrimination,” HIO1, Chapter 10.

**Price Discrimination – Dynamic**


III. Market Structure and Competition

**Horizontal Market Structure & Antitrust**


**Vertical Market Structure**


T. Bresnahan and J. Levin “Vertical Integration and Market Structure,” in preparation for the *Handbook of Organizational Economics*.


S. Tadelis, “Complexity, Flexibility, and the Make-or-Buy Decision” *AER*, 2002, 433-437


O. Williamson “The Vertical Integration of Production: Market Failure Considerations,” *AER*, May 1971, pp. 112-123.

Entry


IV. Insurance Markets


A. Kowalski, Censored Quantile Instrumental Variable Estimates of the Price Elasticity of Expenditure on Medical Care, Yale University working paper, 2010.


V. Choice Frictions: Search Costs and Switching Costs

Search Costs


Switching Costs


VI. Asymmetric Information and Product Quality


**VII. Behavioral IO**

**Consumers**


Firms


VIII. Special Topics

Health Care Markets


K. Ho, “Insurer-Provider Networks in the Medical Care Market,” AER, 2009, 393-430.


**Auctions**


Kei Kawai, “Detecting Large-Scale Collusion in Procurement Auctions,” NYU working paper.

**Development and IO**


**Internet Markets**


**Education and Industrial Organization**

Christopher Nielsen, “Targeted Vouchers, Competition Among Schools, and the Academic Achievement of Poor Students,” Yale University working paper, 2013.