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.

Lectures: Wednesday 10 AM – 12 PM, 639 Evans

There is no required textbook for the course, as most readings are academic journal articles that you should be able to access online. A recommended reference that discusses many theoretical underpinnings of these empirical papers is:


Another valuable resource that there will be readings from is the *Handbook of Industrial Organization* (HIO1, 2, 3) published by Elsevier-North Holland in 1987 (1 and 2) and 2007 (3).

Course Requirements: Grading for the course will be based on two problem sets (25%), two referee reports (25%), and one research proposal (50%). Students should attend the ECO 221 IO seminar series.

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, March 1. Problem Set 2 will be due on Friday, April 5. These problem sets can be done in up to groups of three.

The referee reports will require you to critically evaluate recent research papers in IO. The first report will be due on Friday, February 15. The second will be due on Friday, March 15. Students will receive a list of five potential papers to choose from for each report. Additional papers will be allowed on request. Reports will be distributed to the class, and two classes will be set aside for students to present their reports to the 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 Friday, May 3. This can be done in groups of up to three. Students will present their ongoing proposals in class in April. 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 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
- IJIO: 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
- RJE: Rand Journal of Economics
- ReStud: Review of Economic Studies
Outline of Topics by Week

Week 1 (January 23)  Introduction to Empirical Industrial Organization
Week 2 (January 30)  Empirical Studies of Pricing and Demand (Differentiated Products)
Week 3 (February 6)  Empirical Studies of Pricing and Demand (Diff. Products & Welfare)
Week 4 (February 13)  Price Discrimination (Dynamic)
Week 5 (February 20)  Vertical Market Structure
Week 6 (February 27)  Entry
Week 7 (March 6)  Presentations from Referee Report # 1
Week 8 (March 13)  Insurance Markets
Week 9 (March 20)  Insurance Markets
Week 10 (April 3)  Insurance Markets / Inertia
Week 11 (April 10)  Search Costs
Week 12 (April 17)  IO & Non-Traditional Foundations
Week 13 (April 24)  Special Topics (Health Care, Energy and/or Development)
Week 14 (May 1)  Presentations from Referee Report # 2
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**


I. 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**


A. Sorensen, “Equilibrium Price Dispersion in Retail Markets for Prescription Drugs,” JPE, 833-850.


**Switching Costs**


VI. Asymmetric Information and Product Quality


VII. IO and Non-Traditional Foundations

Consumers


**Firms**


**VIII. Special Topics**

**Health Care Markets**


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


**Auctions**


**Development and IO**


**Energy Markets**


**Internet Markets**

Productivity and Industrial Organization