Economics 258 Winter 2024
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Industrial Organization II: Syllabus

Class Description

This course is the second of three courses in the Ph.D. sequence in Industrial Organization in the economics department (257, 258, and 260). The goal of the sequence, and especially the first two quarters, is to provide broad general training in the field, introducing you to the central questions around imperfect competition, market structure, innovation and regulation, as well as the models and empirical methods commonly used to tackle these questions. The third quarter provides an opportunity for students to write a supervised research paper, and gain experience presenting their work.

Students in the Economics PhD program who intend to take IO as a field must take 257 and 258, and students who further intend to write theses in IO are strongly recommended to continue through 260. All three classes are also open to students in other fields and Stanford departments, and traditionally many students in 257 fall into this category. All students taking 257, however, should have taken the first-year graduate sequence in Economics, or have equivalent preparation in microeconomics and econometrics.

Course Requirements

The specific requirements are:

a) *2 Problem Sets.* These will entail substantial empirical and computational exercises.

b) *2 Written Assignments.* This will focus on critically reading and evaluating the literature.

c) *Class Preparation*. Before most classes, we will assign one or two papers, and **students will be expected to familiarize themselves with this material**.

Class grades will be based on problem sets (60%), written assignments (20%), and class participation (20%). All three are essential parts of the course and we expect students to take them seriously.

Tentative Class Schedule

Part 1: Antitrust and regulatory issues

Mon, Jan 8: Antitrust and Regulation: Overview and Basic Theory (AY)
Wed, Jan 10: Antitrust and Regulation: Empirical Horizontal Mergers and Collusion (AY)
Wed, Jan 17: Vertical Relations and Bargaining (AY)
Mon, Jan 22: Vertical Relations and Bargaining (AY)
Wed, Jan 24: Markups and Concentration (AY)
Mon, Jan 29: Markups and Concentration (MG)

Problem set 1 due Jan 29

Part 2: Applications

Wed, Jan 31: Platforms (MG)
Mon, Feb 5: Platforms (MG)
Wed, Feb 7: Selection markets (NM)
Mon, Feb 12: Selection markets (NM)
Wed, Feb 14: Selection markets (NM)

Written assignment 1 due Feb 14

Wed, Feb 21: Selection markets (NM)
Mon, Feb 26: Behavioral IO (MG)
Wed, Feb 28: Behavioral IO (MG)

Part 3: Dynamics

Mon, Mar 4: Single Agent Dynamics (AY)

Written assignment 2 due Mar 4

Wed, Mar 6: Dynamics (Industry Dynamics) (AY)
Mon, Mar 11: Dynamics (Applications to Regulation) (AY)
Wed, Mar 13: Dynamics (Applications to Innovation) (AY)

Problem set 2 due Mar 13

Tentative Reading List

Jan 8: Antitrust and Regulation: Overview and Basic Theory (AY)

Read:	Concentration Screens for Horizontal Mergers by Nocke and Whinston
	DoJ/FTC Horizontal Merger Guidelines
	Does Merger Simulation Work? By Bjornstedt and Verboven

Jan 10: Antitrust and Regulation: Empirical Horizontal Mergers and Collusion (AY)

Read:	Killer Acquisitions by Cunningham, Ederer, and Ma
	Algorithmic Pricing and Competition: Empirical Evidence from the German Retail Gasoline Market by Assad, Clark, Ershov, and Xu

Jan 17: Vertical Relations and Bargaining (AY)

Read:	Handbook of IO chapter by Lee, Whinston, and Yurukoglu
Will also cover:	Lectures on Antitrust Economics, Chapter 3, by Whinston

Jan 22: Vertical Relations and Bargaining (AY)

Read:	The Welfare Effects of Vertical Integration in Multichannel Television by Crawford, Lee, Whinston, Yurukoglu
Will also cover:	The Welfare Effects of Bundling in Multichannel Television by Crawford and Yurukoglu
	Equilibrium Provider Networks: Bargaining and Exclusion in Health Care Markets by Ho and Lee

Jan 24: Markups and Concentration (AY)

Read:	The Rise of Market Power by de Loecker, Eeckhout and Unger
Will also cover:	The Evolution of Market Power in the US Automobile Industry by Grieco, Murry, and Yurukoglu

Jan 29: Markups and Concentration (MG)

Read:	Macroeconomics and Market Power: Context, Implications, and Open Questions by Syverson
	The Fall of the Labor Share and the Rise of Superstar Firms by Autor et al.

Jan 31: Platforms (MG)

Read:	TBD

Feb 5: Platforms (MG)

Read:	TBD

Feb 7: Selection Markets (NM)

Read:	TBD

Feb 12: Selection Markets (NM)

Read:	TBD

Feb 14: Selection Markets (NM)

Read:	TBD

Feb 21: Selection Markets (NM)

Read:	TBD

Feb 26: Behavioral IO (MG)

Read:	Contract Design & Self Control by DellaVigna & Malmendier
	Fungibility & Consumer Choice by Hastings & Shapiro

Feb 28: Behavioral IO (MG)

Read:	Uniform Pricing in US Retail Chains by DellaVigna & Gentzkow
	Strategic Bidding in Multi-Unit Auctions by Hortaçsu and Puller

Mar 4: Single Agent Dynamics (AY)

Read:	Optimal Replacement of GMC Bus Engines: An Empirical Model of Harold Zurcher by Rust
	Measuring the Dynamic Efficiency Costs of Regulators' Preferences: Municipal Water Utilities in the Arid West by Timmins
Will also cover:	Patents as Options by Pakes

Mar 6: Dynamics (Industry Dynamics) (AY)

Read:	Markov-perfect Industry Dynamics: A Framework for Empirical Work by Ericson and Pakes
	Estimating Dynamic Models of Imperfect Competition by Bajari, Benkard, and Levin
Will also cover:	Selection and the Evolution of Industry by Jovanovic
	Entry, Exit, and Firm Dynamics in Long Run Equilibrium by Hopenhayn
	A Dynamic Analysis of the Market for Wide-bodied Commercial Aircraft by Benkard
	Dynamics of Consumer Demand for New Durable Goods by Gowrisankaran and Rysman
	Measuring the Implications of Sales and Consumer Inventory Behavior by Hendel and Nevo

Mar 11: Dynamics (Applications to Regulation) (AY)

Read: Market-Based Emissions Regulation and Industry Dynamics by Fowlie, Reguant, and Ryan

Dynamic Natural Monopoly Regulation: Time Inconsistency, Moral Hazard, and Political Environments by Lim and Yurukoglu

Mar 13: Dynamics (Applications to Innovation) (AY)

Read: Does AMD Spur Intel to Innovate More? By Goettler and Gordon

Estimating the Innovator's Dilemma: Structural Analysis of Creative Destruction in the Hard Disk Drive Industry, 1981–1998 by Igami