Econ 712: Empirical Industrial Organization

The course provides a graduate-level introduction to the topics and methods of Empirical Industrial Organization (IO). It is designed to provide a broad introduction to topics and industries that current researchers are studying as well as to expose students to a wide variety of techniques. It will start the process of preparing economics Ph.D. students to conduct thesis research in the area and may also be of interest to doctoral students in other fields.

**Lectures:** Tuesday/Thursday 1:45-3:15, PCPE 101
- All lectures will be live, unless the university policy will change.
- You MUST wear a mask to enter the classroom and keep it on throughout the lecture. More generally, you must follow the university rules regarding Covid.
- I will distribute slides, via Canvas, in advance of each lecture. My hope is to have a “preliminary” version a day or two before the lecture. In some cases, I might need to revise/edit the slides as I make final preparation for the lecture, in which case I will update the slides.
- In addition to the slides I will at times distribute notes or ask you to read a paper in advance of the lecture.
- I might post recording from last year when I taught on Zoom. The material might differ a bit, and therefore I encourage you to try to participate live.
- Q+A are a very important part of the class, especially in the current format. Question help slow me down and make the class livelier. You need to do your part and come prepared to participate.
- This is my first time teaching with a mask and therefore I might need to make adjustments. For example, we might need to take a break in the middle of class. I might also resort to some pre-recorded lectures (with live Q+A) if it ends up that teaching with a mask is unclear.
- This plan might change as we go along, so please send me your feedback.

**Office Hours:** By appointment (likely via Zoom)

**TA:** Felipe Kup Barbieri de Matos (kupf@sas.upenn.edu)

**Evaluation:** Grading will be based on several problem sets. The problem sets will be mostly empirical but will also ask you to review some papers and write a short research proposal.

**Textbooks:** There is no textbook for this course.
For coverage of theoretical principles (that I will rely on, but not cover in any detail) see:
For a broader coverage of empirical and public policy issues, you should also read:
You also might want to read several of the surveys in:
The two chapters from the *Handbook of Econometrics*, in the first section below, are probably the closest thing to a textbook for the material I will cover.

The reading list below covers a variety of topics. We will not have time to cover all these topics, or to cover all the papers in the topics we do cover. The list is meant as a future reference guide as much as it is meant as a guide to what we will cover. Starred items are most likely going to be covered in class (or are the place to start for topics we will not cover). We will not discuss all of the papers on the reading list, however, *I expect you to read all of the papers we discuss in detail in class.*

The following abbreviations are used for journal titles:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Journal Title</th>
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<tbody>
<tr>
<td>AER</td>
<td>American Economic Review</td>
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<tr>
<td>BJE</td>
<td>Bell Journal of Economics</td>
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<tr>
<td>EMA</td>
<td>Econometrica</td>
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<td>EJ</td>
<td>Economic Journal</td>
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<tr>
<td>IJIO</td>
<td>International Journal of Industrial Organization</td>
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<tr>
<td>JE</td>
<td>Journal of Econometrics</td>
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<td>JEH</td>
<td>Journal of Economic History</td>
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<tr>
<td>JEL</td>
<td>Journal of Economic Literature</td>
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<tr>
<td>JEMS</td>
<td>Journal of Economics &amp; Management Strategy</td>
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<tr>
<td>JET</td>
<td>Journal of Economic Theory</td>
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<tr>
<td>JIE</td>
<td>Journal of Industrial Economics</td>
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<tr>
<td>JLE</td>
<td>Journal of Law and</td>
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<td>JPE</td>
<td>Journal of Political Economy</td>
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<tr>
<td>QJE</td>
<td>Quarterly Journal of Economics</td>
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<tr>
<td>RJE</td>
<td>Rand Journal of Economics</td>
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<tr>
<td>ReStat</td>
<td>Review of Economics and Statistics</td>
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</tbody>
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I. Introduction


II. Production, Technology and Industry Structure


III. Empirical Studies of Pricing

1. Static Models


R. Schmalensee, “Inter-industry Studies of Structure and Performance,” in HIO2, Chapter 16.


2. **Repeated Interaction**

V. Aguirregabiria, “The Dynamics of Markups and Inventories in Retail Firms,” ReStud, April 1999, 275-308.


3. **Differentiated Products Industries**


(*) S. Berry, 1994, "Estimating Discrete-Choice Models of Product Differentiation," RJE, Summer 1994,
242-62.


**Computational, Instruments and Identification**


Mathias Reynaert and Frank Verboven. 2014. “Improving the Performance of Random Coefficients
Demand Models – the Role of Optimal Instruments.” JE, 179(1), 83-98.


Some Recent Papers


4. Welfare and Hedonic Prices

Hedonic Price Regressions and Price Indices


Welfare Measures Computed from Estimated Demand Systems


5. **Markups, Competition and Welfare**


**IV. Vertical Relations, Empirical Models of Bargaining and Related Topics**


M. Sinkinson, “Pricing and Entry Incentives with Exclusive Contracts: Evidence from Smartphones” mimeo


Jason Allen, Robert C. Clark, Jean-François Houde. “Search frictions and market power in price negotiated markets”
V. Dynamic (Demand) Models

Methods


Applications


Identification


VI. Market Structure

1. Entry Models


2. **Entry, Growth, and Turnover**


VII. Dynamic Games

Methods


Applications


VIII. Antitrust

1. Introduction

(*) Whinston, Lectures on Antitrust Economics, Chapter 1
General readings


2. Horizontal Mergers

(*) Department of Justice and Federal Trade Commission *Merger Guidelines*. Available at:


Kuhn, K.-U., “The Coordinated Effects of Mergers,” Chapter 3 in *Handbook of Antitrust Economics*.

Theory of Merger Policy


**Prospective Merger Analysis**


**Evidence on Merger Effects**


### 3. Vertical Mergers

**Theory**


**Empirical Evidence**


