The course provides a graduate-level introduction to 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. The course covers both theoretical models and empirical studies.

Lectures: Tuesday/Thursday 1-2:45, Andersen 3245 (plus one make-up lecture TBA)

Course Web Page: http://www.faculty.econ.northwestern.edu/faculty/nevo/teaching/450-1.html

The required text for this course concentrates on theoretical principles:


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:


Grading will be based on several problem sets and two exams. The first exam, covering theory will be held in the regular class time on Tuesday October 31. The second, covering the empirical part, will be a take-home exam handed out the afternoon of Friday, December 1 and due the morning of Monday, December 4.

In the list that follows starred items are especially important. We will not discuss all of the papers on the reading list, however, we 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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<tr>
<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>
</tr>
<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>
</table>
I. Introduction

* Scherer and Ross, Chaps. 1 and 3

* Tirole, Introduction

Carlton and Perloff, pp. 2-6, 157-61.


II. Theory

A. Monopoly

1. Price Discrimination

* Tirole, chap. 3 (including the appendix).


2. **Durable Goods**

* Tirole, chap. 1, Section 1.5 (pp. 79-88) and the appendix (pp. 91-92)


B. **Oligopoly Price/Quantity Competition**

1. **Static Models**

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


* **The Cournot Model**


**Price Competition with Product Differentiation**


2. **Dynamic Models**

* Tirole, Chapter 6.


**Collusion with Observable Demand Variation**


**Collusion with Capacity Constraints**


**Multimarket Contact**


**Collusion with Unobservable Demand Variation (Imperfect Monitoring)**


**Collusion with Private Types**


**Staggered Price Setting**

Collusion and Antitrust Enforcement

* Whinston, M.D. [2006], Lectures on Antitrust Economics, Chapters 1(*) and 2 (no *), Cambridge: MIT Press. (Preliminary versions are CSIO Working papers #’s 39 and 40.)


Switching Costs


Durable Goods


3. Price Discrimination in Oligopoly

Stole, L., “Price Discrimination and Imperfect Competition,” forthcoming in Handbook of


### C. Behavioral IO


III. Empirical


A. Production, Technology and Industry Structure


B. Empirical Studies of Pricing

1. Static Models


September 1988, 283-300.


2. Repeated Interaction

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


3. **Differentiated Products Industries**


4. Welfare and Hedonic Prices

**Hedonic Price Regressions and Price Indices**


**Welfare Measures Computed from Estimated Demand Systems**


5. **Price Discrimination**


C. **Dynamics**

1. **Single Agent**


2. Multi-Agent Models


A. Collard-Wexler, “Demand Fluctuations and Plant Turnover in Ready-Mix Concrete,” 2005 NYU.


