

**ECONOMICS 220A  
INDUSTRIAL ORGANIZATION**

This is the first course in the graduate sequence on industrial organization and regulation. Among the topics we will study are the determinants of market structure, strategic interactions among firms, the effects of structure and conduct on prices and non-price dimensions of market performance, economics of R&D, and network effects. The class will cover both general theoretical principles and empirical approaches.

The course will be taught in two parts. Professor Richard Gilbert will lecture for the first half of the course. Professor Joseph Farrell will lecture for the second half. This syllabus is for the first half of the course only.

You are expected to have a background in price and game theory at the level of Econ 201A and 201B. This course is preparation for Economics 220B (Regulation and Public Policy) and Economics 220C (Empirical Methods in Industrial Organization).

My office hours are Tuesdays 2:00-3:30 in 591 Evans, and by appointment. You can reach me at 642-1507, or (preferably) e-mail gilbert@econ.

There will be occasional problem sets. You can choose to write a final paper or take the final exam. The paper should be on an issue directly related to a topic covered in the course. The issue may be a theoretical point in industrial organization, an empirical study or an analysis of a market institution.

Recommended text: J. Tirole, *The Theory of Industrial Organization*, MIT Press, 1997.

Other useful texts are:

Scherer & Ross, *Industrial Market Structure and Economic Performance*, Houghton Mifflin, third edition, 1990. (empirical and institutional detail)

J. Kwoka & L. White, *The Antitrust Revolution: Economics, Competition and Policy*, Oxford Press, 1999. ("real world" applications of industrial organization)

Gibbons, Robert, *Game Theory for Applied Economists*. Princeton: Princeton University Press, 1992.

Assignments and Grading:

Problem sets	25%
Classroom participation	25%
Final paper/final exam	50%

## COURSE OUTLINE

- \* readings are optional
- # class presentation paper

### I. Paradigms and methodologies (week 1)

Tirole, *The Theory of the Firm*.

- \*Camerer, "Progress in behavioral game theory," *Journal of Economic Perspectives*, Vol. 11, Autumn, 1997, pp. 167-188.

### II. Monopoly, price discrimination and product differentiation (weeks 2 and 3)

Tirole, Ch. 2 and 7.

Klemperer, "Competition when consumers have switching costs," *Review of Economic Studies*, vol. 62, 1995, pp. 515-539.

- \*Fudenberg & Tirole, "Customer poaching and brand switching," *RAND Journal of Economics*, Vol. 31, No. 4 (Winter, 2000), 634-657.

#Berry & Waldfogel, "Do mergers increase product variety? Evidence from radio broadcasting," *Quarterly Journal of Economics*, vol. 116, 2001, pp. 1009-25.

### III. Cartel Stability (weeks 3 and 4)

Tirole, Ch. 5 and 6.

Corts, "Conduct parameters and the measurement of market power," *Journal of Econometrics*, vol. 88, 1999, pp. 227-250.

Porter, "A study of cartel stability; the joint executive committee, 1880-1886," *Bell Journal of Economics*, vol. 14, Autumn, 1983, pp. 301-314.

Rotemberg & Saloner, "A supergame-theoretic model of price wars during booms," *American Economic Review*, vol. 76, June, 1986, pp. 390-407.

- \*Cabral, Collusion Theory: Where to Go Next?, *Journal of Industry, Competition and Trade*, vol. 5 (2005), pp. 199-206.

\*Ellison, "Theories of cartel stability and the Joint Executive Committee," *Rand Journal of Economics*, vol. 25, Spring, 1994, pp. 37-57.

\*Genesove & Mullin, "Testing static oligopoly models: conduct and cost in the sugar industry, 1890-1914," *Rand Journal of Economics*, vol. 29, Summer, 1998, pp. 355-77.

#Bresnahan, "Competition and collusion in the American automobile market: The 1955 price war," *Journal of Industrial Economics*, vol. 35, June, 1987, pp. 457-482.

### IV. Entry and Multi-Market Behavior (week 5)

Tirole, Ch. 8.

Aghion & Bolton, "Contracts as a barrier to entry," *American Economic Review*, vol. 77, June 1987, pp. 388-401.

- Bresnahan & Reiss, "Entry and competition in concentrated markets," *Journal of Political Economy*, vol. 99, 1991, pp. 977-1009.
- Bernheim & Whinston, "Multi-market contact and collusive behavior," *Rand Journal of Economics*, vol. 21, Spring, 1990, pp. 1-26.
- Bulow, Geanakopolis & Klemperer, "Multi-market oligopoly: strategic substitutes and complements," *Journal of Political Economy*, vol. 93, June, 1985.
- Fumagalli and Motta, "Exclusive Dealing and Entry, when Buyers Compete," *Am Econ Rev*, vol. 96, no. 3, June 2006, pp. 785-795.
- Segal & Whinston, "Naked exclusion: comment," *Am Econ Rev*, vol. 90, 2000.
- #Evans & Kessides, "Living by the Golden Rule: multimarket contact in the U.S. airline industry," *Quarterly Journal of Economics*, vol. 109, No. 2 (May, 1994), pp. 341-366.

#### **IV. How to analyze a (horizontal) merger: homogeneous products (week 6)**

- Farrell & Shapiro, "Horizontal mergers: an equilibrium analysis," *American Economic Review*, vol. 80, March, 1990, pp. 107-126.
- \*Berry & Waldfogel, "Free entry and social inefficiency in radio broadcasting," *Rand Journal of Economics*, vol. 30, Autumn, 1999, pp. 397-420.
- \*Deneckere & Davidson, "Incentives to form coalitions with Bertrand competition," *Rand Journal of Economics*, vol. 16, Winter, 1985, pp. 473-86.
- \*DOJ & FTC, *Horizontal Merger Guidelines*, 1992. (available at <http://www.usdoj.gov/atr/public/guidelines/hmg.htm>)
- \*Salant, Switzer & Reynolds, "Losses from horizontal merger: the effects of an exogenous change in industry structure on Cournot-Nash equilibrium," *Quarterly Journal of Economics*, v. 98, May, 1983, pp. 185-99.
- #Pesendorfer (2003), "Horizontal mergers in the paper Industry," *Rand Journal of Economics*, 34(3), 495-515.

#### **V. How to analyze a (horizontal) merger: differentiated products (week 7)**

- \*Berry, "Estimating discrete-choice models of product differentiation," *Rand Journal of Economics*, vol. 25, Summer, 1994.
- \*Nevo, "A practitioner's guide to estimation of random coefficients Logit models of demand," *Journal of Econ. & Management Strategy*, vol. 9, 2000.
- \*Shapiro, "Mergers with Differentiated Products," *Antitrust*, Spring, 1997.
- \*Train, *Discrete Choice Methods with Simulation*, 2003, pp. 38-64, 80-92.
- \*U.S. v. Oracle (available at: <http://www.usdoj.gov/atr/cases/f205300/205388.htm>)
- #Nevo, "Mergers with differentiated products: the case of the ready-to-eat cereal industry," *Rand Journal of Economics*, vol. 31, Autumn, 2000, pp. 395-421.
- Add DirecTV – EchoStar merger