

Econ 673: Theory of Industrial Organization
Fall 2008
Concordia University

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The purpose of this course is to introduce the theory of industrial organization at the graduate level. The field of industrial organization studies the behavior of firms in the market.

The primary texts for the course are:

- JT: Jean Tirole, *The Theory of Industrial Organization*, Cambridge: MIT Press, 1988.
- OS: Oz Shy, *Industrial Organization*, Cambridge: MIT Press, 1996.

Interested students may also refer to

- Stephen Martin, *Advanced Industrial Economics*, 2nd ed., Blackwell, 2002.

There are also occasional supplemental papers and book chapters. You may also look for related papers in the references of the two textbooks. I have listed some papers, with hyperlinks included. However, some hyperlinks only work on computers on the campus network, while in some cases they may work on your home computer if you are logged onto your Concordia library account.

The course is divided into two parts: the first part does not involve strategic interactions, while the second part does.

Students are presumed to be familiar with multivariate calculus and basic optimization theory. For the second part of the course, knowledge about game theory is useful. Students are strongly encouraged to take or audit a game theory course. Although I will cover some of the game theory to be used, students are suggested to

read Chapter 11 of JT, “Noncooperative Game Theory: A User’s Manual,” before we begin the second part of the course.

The course grade consists of five problem sets (5 points each), a midterm (35 points), and a final exam (40 points).

The course outline below is tentative and the materials covered are subject to deletion and order change.

Course Outline

1. Introduction

- JT, Introduction and The Theory of the Firm
- Holmström, B. and J. Tirole (1987), “The Theory of the Firm,” in *Handbook of Industrial Organization*, Vol. 1, eds. Schmalensee R. and R. Willig, Amsterdam: North Holland.

Part I: Monopoly

2. Monopoly Pricing

- JT, Chapter 1
- Coase, Ronald H. (1972), “Durability and Monopoly,” *Journal of Law and Economics*, 15: 143-149.
- Bulow, Jeremy (1982), “Durable Goods Monopolists,” *Journal of Political Economy*, 90(2): 314-332.
- Bagnoli, M., S. Salant, and J. Swierzbinski (1989), “Durable-Goods Monopoly with Discrete Demand,” *Journal of Political Economy*, 97: 1459-1478.

3. Product Selection and Quality

- JT, Chapter 2
- Spence, M. (1975), “Product Differentiation and Welfare,” *American Economic Review*, 66: 407-414.
- Shapiro, C. (1983), “Premiums for High Quality Products as Rents to Reputation,” *Quarterly Journal of Economics*, 98: 659-680.

4. Price Discrimination

- JT, Chapter 3
- Varian, H. (1987), “Price Discrimination,” in *Handbook of Industrial Organization*, eds. Schmalensee R. and R. Willig, Amsterdam: North Holland.

Part II: Strategic Interaction between Firms

5. Overview of Game Theory

- JT, Chapter 11
- Gibbons, R. (1992), *Game Theory for Applied Economists*, Princeton: Princeton University Press, Chapters 1 and 2.

6. Oligopoly

- JT, Chapter 5
- OS, Chapter 6
- Kreps, David M. and José A. Scheinkman (1983), “Quantity Precommitment and Bertrand Competition Yield Cournot Outcomes,” *Bell Journal of Economics*, 14(2), 326-337.
- Osborne, Martin and Carolyn Pitchik (1986), “Price Competition in a Capacity-Constrained Duopoly,” *Journal of Economic Theory*, 38(2), 238-260.
- Dixit, Avinash (1979), “Quality and Quantity Competition,” *Review of Economic Studies*, 46(4), 587-599.

7. Product Differentiation

- JT, Chapter 7
- OS, Chapter 7
- Klemperer, Paul (1987), “The Competitiveness of Markets with Switching Costs,” *RAND Journal of Economics*, 18(1), 138-150.

- Shaked, Avner and John Sutton (1982), “Relaxing Price Competition through Product Differentiation,” *Review of Economic Studies*, 49(1), 3-13.
- Drew Fudenberg and Jean Tirole, “Customer Poaching and Brand Switching,” *RAND Journal of Economics*, 31(4), 634-657.

8. Entry, Accommodation, and Exit

- JT, Chapter 8
- OS, Chapter 8
- Fudenberg, Drew and Tirole, Jean (1984), “The Fat Cat, The Puppy Dog Ploy and the Lean and Hungry Look,” *American Economic Review: Papers and Proceedings*, 74, 361-368.
- Migrom, Paul and John Roberts (1982), “Limit Pricing and Entry under Incomplete Information: An Equilibrium Analysis,” *Econometrica*, 50(2), (Mar., 1982), pp. 443-459.

9. Price Dispersion

- Varian, H. (1980) “A Model of Sales,” *American Economic Review*, 70(4): 651-659. (ERRATA: 71(3): 517).
- Baye, M. and J. Morgan (2001), “Information Gatekeepers on the Internet and the Competitiveness of Homogeneous Product Markets,” *American Economic Review*, 91(3), 454-474.

10. Advertising

- OS, Chapter 11
- Bagwell, Kyle (2005), “Economic Analysis of Advertising,” in *Handbook of Industrial Organization*, Vol. 3, eds Armstrong M. and R. Porter, Amsterdam: North Holland.

- Gary S. Becker and Kevin M. Murphy (1993), “A Simple Theory of Advertising as a Good or Bad,” *Quarterly Journal of Economics*, 108(4), 941-964.
- Anderson, Simon P. and Stephen Coate (2005), “Market Provision of Broadcasting: A Welfare Analysis,” *Review of Economic Studies*, 72(4), 947-972.
- Bloch, Francis and Delphine Manceau (1999), “Persuasive Advertising in Hotellings Model of Product Differentiation,” *International Journal of Industrial Organization*, 17(4), 557-574. (Corrigendum: 2000, 18(6), 993.)

11. Network Industries

- OS, Chapter 10
- Shy, Oz (2001), *The Economics of Network Industries*, Cambridge University Press.
- Farrell, Joseph and Garth Saloner (1985), “Standardization, Compatibility, and Innovation,” *RAND Journal of Economics*, 16(1), 70-83.
- Katz, Michael L. and Carl Shapiro (1986), “Technology Adoption in the Presence of Network Externalities,” *Journal of Political Economy*, 94(4), 822-841.
- Rochet, Jean-Charles and Jean Tirole (2003), “Platform Competition in Two-Sided Markets,” *Journal of the European Economic Association*, 1(4), 990-1029.
- Rochet, Jean-Charles and Jean Tirole (2006), “Two-Sided Markets: A Progress Report,” *RAND Journal of Economics*, 37(3), 645-667.

12. Research and Development

- JT, Chapter 10
- OS, Chapter 9