

ECON 5313
INDUSTRIAL ORGANIZATION
Professor Georgia Kosmopoulou

Fall 2007

This course is designed to provide a rigorous background in the theory of Industrial Organization. It covers theoretical work (and a few empirical papers) related to the structure, behavior, and performance of firms and markets. Topics include the organization of the firm, monopoly, price discrimination, oligopoly, and auctions. The course will be based on readings from books and articles.

Texts:

Required:

- Tirole J.: *The Theory of Industrial Organization*, MIT Press, 1988.
- Klemperer P.: *Auctions: Theory and Practice*, Princeton University Press, 2003.

Recommended:

- Vives X.: *Oligopoly Pricing. Old Ideas and New Tools*, MIT Press, 1999.
- Krishna, V.: *Auction Theory*, Academic Press, 2002.
- Fundenberg, D. and J. Tirole: *Game Theory*, Cambridge, MIT Press, 1991.

Grading Policy:

Your grade will be based on your performance in an exam, the discussion of a couple of papers in class and the preparation of a research paper due at the end of the semester. The exam will count for 40% of your grade, the discussions for 20% of your grade and the paper for the remaining 40% of your grade.

Office Hours:

I will hold office hours every Monday 4:00-5:00pm and Friday 1:30-2:30pm. My office is in 318 Hester Hall. My phone number is 325-3083 and my e-mail is: georgiak@ou.edu.

Reading List:

I. Noncooperative Game Theory

Text material: Tirole, Chapter 11, Fundenberg, D. and J. Tirole Chapters 1, 6.

II. Monopoly:

Text material: Tirole, Chapter 1.

Other readings:

1. Bulow, J., (1982): "Durable Goods Monopolists," *JPE*, 90, pp. 314-332. (JSTOR)
2. Coase R., (1972): "Durability and Monopoly," *Journal of Law and Economics*, 15, pp. 143-149. (ILL)
3. Ottaviani M. and A. Pratt (2001): "The Value of (Public) Private Information in Monopoly," *Econometrica* 69,(6), pp.1673-1683. (JSTOR)

4. Posner, R., (1975): "The Social Cost of Monopoly and Regulation", *JPE*, 83 pp. 807-827. (JSTOR)
5. Mussa, M. and S. Rosen (1978): "Monopoly and Product Quality," *JET*, 18, pp.301-317. (HB 1 .J645)

III. Strategic Interaction

Text material: Tirole, Chapter 5.

Other readings:

1. Bulow, J., J. Geanakoplos, and P. Klemperer, (1985): "Multimarket Oligopoly: Strategic Substitutes and Complements," *JPE*, 93, pp. 438-511. (JSTOR)
2. Bulow J, Huang M, Klemperer P, (1999): "Toeholds and Takeovers", *Journal of Political Economy*, 107 (3): 427-454. (Econlit)
3. Kreps, D., and J. Scheinkman, (1983): "Quantity Precommitment and Bertrand Competition Yield Cournot Outcomes", *Bell Journal of Economics*, 14, pp.326-337. (JSTOR)
4. Shaked A. and J. Sutton, (1982): "Relaxing Price Competition through Product Differentiation," *Review of Economic Studies*, 49, pp. 3-13. (JSTOR)

IV. Entry Accommodation, and Exit

Text material: Tirole, Chapters 8 and 9.

Other readings:

1. Aghion P., and Bolton P. (1987): "Contracts as Barriers to Entry", *AER*, 77 (3): 388-401. (Econlit)
2. Dixit, A., (1979): "A Model of Duopoly Suggesting a Theory of Entry Barriers," *Bell Journal of Economics*, 10, pp. 20-32. (JSTOR)
3. Dixit, A., (1980): "The Role of Investment in Entry Deterrence", *Economic Journal*, 90, pp.95-106. (JSTOR)
4. Fudenberg D, and Tirole J. (1984): "The Fat-cat effect, the puppy-dog ploy and the lean and hungry look", *AER*, 74 (2): 361-366. (JSTOR)
5. Schmalensee, R., (1981): "Economies of Scale and Barriers to Entry," *JPE*, 89, pp. 1228-1238. (JSTOR)
6. Spence, A. M. (1983): "Contestable Markets and the Theory of Industry Structure: A Review Article." *Journal of Economic Literature*, 21, pp. 981-990. (JSTOR)

V. Product Differentiation- Spatial Competition

Text material: Tirole, Chapters 7.

Other readings:

1. Dearmon J., and G. Kosmopoulou (2007) "Sequential Location and Price Choices in Two-Dimensional Spatial Competition", working paper. (NA)
2. Dixit, A. K., and J. E. Stiglitz, (1977): "Monopolistic Competition and Optimal Product Diversity," *AER*, 67, pp. 297-308. (JSTOR)
3. de Palma, A., Ginsburg V., Papageorgiou Y., Thisse, J., (1985): "The principle of minimum differentiation holds under sufficient heterogeneity", *Econometrica* 53, 767-782. (JSTOR)
4. Economides, N., (1986) Nash equilibrium in duopoly with products defined by two characteristics. *RAND Journal of Economics* 17, 431-439. (Econlit)

5. Economides, N., Howell, J., Meza, S., (2004) "Does it pay to be first? Sequential locational choice and foreclosure" working paper. (Econlit)
<http://www.stern.nyu.edu/eco/wkpapers/workingpapers02/02-19Economides.pdf>
6. Gal-Or, E., (1985) "First mover and second mover advantages" *International Economic Review* 26, 649-653. (Econlit)
7. Hart, O. D., (1979): "Monopolistic Competition in a Large Economy with Differentiated Commodities," *Review of Economic Studies*, 46, pp. 1-30. (JSTOR)
8. Hotelling, H., (1929): "Stability in Competition". *Economic Journal*, 39, pp. 41-57. (JSTOR)
9. Neven D., (1987) "Endogenous sequential entry in a spatial model" *International Journal of Industrial Organization* 5, 419-434. (HD 28 .I525)
10. Perlof J.M. and Salop S.C. (1985) "Equilibrium with Product Differentiation", *Review of Economic Studies*, 52 (1): 107-120. (Econlit)
11. Veendorp E., Majeed A., (1995) "Differentiation in a two-dimensional market," *Regional Science and Urban Economics* 25 75-83 (1995). (HB 9 .R33)
12. Liu and Serfes, "Imperfect Price Discrimination in a Vertical Differentiation Model", *International Journal of Industrial Organization*, v23, 341-354 (2005). (HD 28 .I525)
13. Anderson and dePalma, "Product Diversity in Asymmetric Oligopoly: Is the Quality of Consumer Goods Too Low?," *Journal of Industrial Economics*, Vol. 49, No. 2, 2001. (Econlit)

VI. Vertical Control

Text material: Tirole, Chapters 4.

Other readings:

1. Coase, (1937): "Nature of the Firm," *Economica*, 4, pp. 386-405. (JSTOR)
2. Grossman, S. and O. Hart, (1986) "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration," *JPE*, 94, pp. 691-719. (JSTOR)
3. Holmstrom, B., (1979): "Moral Hazard and Observability," *Bell Journal of Economics*, 10, pp. 74-91. (JSTOR)
4. Ross, S., (1973): "The Economic Theory of Agency: The Principal's Problem," *AER, Papers and Proceedings*, 63, pp. 134-139. (JSTOR)

VII. Price Discrimination

Text material: Tirole, Chapters 3.

Other readings:

1. Armstrong and Vickers (2001), "Competitive Price Discrimination", *Rand Journal of Economics*, pp. 579-605. (HD 2763.A2 B4)
2. Chen (1997), "Paying Customers to Switch", *Journal of Economics and Management Strategy*, pp. 877-897. (JSTOR)
3. Economides (1989), "Desirability of Compatibility in the Absence of Network Externalities", *American Economic Review*, pp. 1165-1181. (JSTOR)
4. Fudenberg and Tirole (2000), "Customer Poaching and Brand Switching", *Rand Journal of Economics*, pp. 634-657. (HD 2763.A2B4)
5. Matutes and Regibeau (1988), "Mix and Match: Product Compatibility without Network Externalities", *Rand Journal of Economics*, pp. 221-234. (JSTOR)

6. Taylor CR, (2004) "Consumer Privacy and the market for customer information", *Rand Journal of Economics*, 35 (4): 631-650. (JSTOR)
7. Thisse and Vives (1988), "On the Strategic Choice of Spatial Price Policy", *American Economic Review*, pp. 122-137. (JSTOR)
8. Whinston (1990), "Tying, Foreclosure and Exclusion", *American Economic Review*, pp. 837-859. (JSTOR)

VIII. Advertising, Search and Price Dispersion

Text material: Tirole, Chapters 2.

Other readings:

1. Becker G., and Murphy, (1993): "A Simple Theory of Advertising as Good (or Bad)," *Quarterly Journal of Economics*, 108, pp. 941-964. (JSTOR)
2. Butters, (1977): "Equilibrium Distribution of Prices and Advertising," *Review of Economic Studies*, pp. 465-492. (JSTOR)
3. Diamond, (1971): "A Model of Price Adjustment," *Journal of Economic Theory*, pp. 156-68. (HB1 J645)
4. Dranove, D., and M. Satterthwaite, (1992): "Monopolistic Competition when Price and Quality are Imperfectly Observable," 23, *RAND*, pp. 518-534. (JSTOR)
5. Dukes A.(2004):"The advertising market in a product oligopoly" *Journal of Industrial Economics*, 52 (3): 327-348. (Econlit)
6. Grossman, G., and C. Shapiro, (1984): "Informative Advertising with Differentiated Products," *Review of Economic Studies*, pp. 63-82. (JSTOR)
7. Milgrom P., and J. Roberts, (1986): "Price and Advertising Signals of Product Quality," *Journal of Political Economy*, 94, pp.796-821. (JSTOR).
8. Pastine I, Pastine T: (2002): "Consumption externalities, coordination and advertising", *International Economic Review*, 43 (3): 919-943. (Econlit)
9. Reinganum J., (1979): "A Simple Model of Equilibrium Price Dispersion," *JPE*, 87, pp. 851-858. (JSTOR)
10. Salop and Stiglitz, (1977): "Bargains and Ripoffs: A Model of Monopolistically Competitive Price Dispersion," 44, *Review of Economic Studies*, pp. 493-510. (JSTOR)
11. Stahl (1989): "Oligopolistic Pricing with Sequential Consumer Search," *American Economic Review*, pp. 700-712. (JSTOR)
12. Varian (1980), "A Model of Sales," *American Economic Review*, pp. 651-659. (JSTOR)

IX. Imperfect Information in the Product Market

Text material: Vives, Chapter 8.

Readings:

1. Akerlof, G.A., (1970): "The Market for Lemons: Qualitative Uncertainty and the Market Mechanism," *Quarterly Journal of Economics*, 84, pp. 488-500. (JSTOR)
2. Levin J.(2001): "Information and the market for lemons" *Rand Journal of Economics* 32 (4): 657-666. (Econlit)
3. Spence, A.M., (1973): "Job Market Signaling," *Quarterly Journal of Economics* 87, pp. 355-374. (JSTOR)

X. Research and Development, Industry Evolution and Technical Change

Text material: Tirole, Chapters 10.

Other readings:

1. Denicolo, V., (1996): "Patent Races and Optimal Patent Length and Breadth," *Journal of Industrial Economics*, pp. 249-265. (JSTOR)
2. Bloch F., (1995): "Endogenous structures of association in oligopolies", *Rand Journal of Economics*, 26 (3): 537-556. (Econlit)
3. Gallini N. and B. Wright, (1990): "Technology Transfer Under Asymmetric Information," 21, *RAND*, pp. 147-160. (JSTOR)
4. Gilbert, R. and D. Newbery, (1982): "Preemptive Patenting and the Persistence of Monopoly," *American Economic Review*, pp. 514-527. (JSTOR).
5. Jensen R (2003): "Innovative leadership: First-mover advantages in new product adoption", *Economic Theory*, 21 (1): 97-116. (Econlit)
6. Kutsoati E. and Zabojnik J. (2005): "The effects of learning-by-doing on product innovation by a durable good monopolist" *International Journal of Industrial Organization*, 23 (1-2): 83-108. (HD 28 .I525)
7. Reinganum J. (1983): "Uncertainty Innovation and the Persistence of Monopoly," *American Economic Review*, pp.741-748. (JSTOR)
8. Spence A. M., (1984): "Cost Reduction, Competition and Industry Performance," *Econometrica*, 52, pp. 101-121. (JSTOR)

XI. Dynamic Competition and Tacit Collusion

Text material: Tirole, Chapters 6, Vives, Chapter 9.

Other readings:

1. Abreu D., D. Pearce and E. Stachetti (1986): Optimal Cartel Equilibria with Imperfect monitoring," *Journal of Economic Theory*, 39, pp. 251-269. (HB1 J645)
2. Athey S. And K. Bagwell (2001): "Optimal Collusion with Private Information" *RAND*, pp. 428-465. (JSTOR)
3. Athey S, Bagwell K, Sanchirico C(2004):"Collusion and price rigidity", *Review of Economic Studies*, 71 (2): 317-349. (Econlit)
4. Benoit , J.P. and V. Krishna, (1987): "Dynamic Duopoly: Prices and Quantities", *Review of Economic Studies*, 54, pp. 23-36. (JSTOR)
5. Bernheim and Whinston (1990): "Multimarket Contract and Collusive Behavior," *RAND*, 21 pp.1-26. (JSTOR)
6. Fershtman C, Pakes A (2000) "A dynamic oligopoly with collusion and price wars", *Rand Journal of Economics*, 31 (2): 207-236. (Econlit)
7. Green E. and R. Porter, (1984): "Noncooperative Collusion Under Imperfect Price Information," *Econometrica*, pp. 87-100. (JSTOR)
8. Porter R. (1983): "A Study of Cartel Stability," *Bell Journal of Economics*, 14, 2, pp. 301-314. (JSTOR)
9. Porter, R., (1983): "Optimal Cartel Trigger Price Strategies," *Journal of Economic Theory* 29, pp. 313-338. (HB1 J645)
10. Skrzypacz A, Hopenhayn H. (2004): Tacit collusion in repeated auctions, *Journal of Economic Theory*, 114 (1): 153-169. (HB 1 .J645)

XII. Mechanism Design, Auction Theory and Applications.

Text material: Klemperer, Chapters 1-8, Krishna, Chapters 1-11.

Other readings:

1. Ashenfelter, O. (1989): "How Auctions Work for Wine and Art," *Journal of Economic Perspectives*, 3, pp. 23-36. (JSTOR).
2. Bajari, Patrick and Ali Hortacsu, 2002, "Cyberspace Auctions and Pricing Issues: A Review of Empirical Findings," Working Papers 02005, Stanford University, Department of "Economics (Google). (NA)
3. Bajari, Patrick and Ali Hortacsu, 2004, "Economic Insights from Internet Auctions", *Journal of Economic Literature*, v. 42, 2, pp. 457-86. (OU Electronic Library)
4. Bajari, Patrick and Steve Tadelis, 2001, "Incentives versus Transaction Costs: A Theory of Procurement Contracts", *The Rand Journal of Economics*, 32(3), 287:307. (OU Electronic Library).
5. Cremer, J., and R. McLean (1988): "Full Extraction of the Surplus in Bayesian and Dominant Strategy Auctions," *Econometrica*, 56, pp. 1247-1257. (JSTOR)
6. Deltas, G. and G. Kosmopoulou, (2004): "Bidding in Sequential Auctions: 'Catalogue' vs. 'Order-of-Sale' Effects," *Economic Journal* 114, 2004, p. 28-54. (Econlit)
7. De Silva D.G., T. Dunne, A. Kankanamge and G. Kosmopoulou, "The Impact of Public Information on Bidding in Highway Procurement Auctions" forthcoming in the *European Economic Review*. (NA)
8. De Silva D.G., Kosmopoulou G., and C. Lamarche (2007) "The Effect of Information on the Bidding and Survival of Entrants in Procurement Auctions" working paper. (NA)
9. Kosmopoulou G. and S. R. Williams, (1998): "The Robustness of the Independent Private value Model in Bayesian Mechanism Design," *Economic Theory* 12, (2), pp. 393-421. (Econlit)
10. Lucking-Reiley David, 2000, "Auctions on the Internet: What's Being Auctioned and How?" *Journal of Industrial Economics*, vol. 48, 3, pp. 227-252. (OU Electronic Library)
11. Maskin E., and J. Riley, (2000a): "Asymmetric Auctions," *Review of Economic Studies*, 67, pp. 413-438. (HB1.R4)
12. Maskin E., and J. Riley, (2000b): "Equilibrium in Sealed High Bid auctions," *Review of Economic Studies*, 67, pp. 439-454. (HB1.R4)
13. McAfee, P., and P. Reny (1992): "Correlated Information and Mechanism Design," *Econometrica*, 60, pp. 395-421. (JSTOR)
14. McAfee, P., and J. McMillan, (1987): "Auctions and Bidding," *Journal of Economic Literature*, 25, pp. 699-738. (JSTOR)
15. Milgrom, P., (1989): "Auctions and Bidding: A Primer," *Journal of Economic Perspectives*, 3, pp. 3-22. (JSTOR)
16. Milgrom, Paul R., and Robert J. Weber, (1982): "A Theory of Auctions and Competitive Bidding," *Econometrica*, 50, pp. 1089-1122. (JSTOR)
17. Myerson, R., (1981): "Optimal Auction Design," *Mathematics of Operation Research*, 6, pp. 58-73. (T57.6.A1 M38)
18. Myerson, R., and M. Satterthwaite (1983): "Efficient Mechanisms for Bilateral Trading," *Journal of Economic Theory*, 28, pp. 265-281. (HB1 J645)