
SYLLABUS FOR ECONOMICS 220A

INDUSTRIAL ORGANIZATION

DEPARTMENT OF ECONOMICS, UNIVERSITY OF CALIFORNIA, BERKELEY

Overview

This is the first course in the graduate sequence on industrial organization and regulation. The course and the readings apply price theory and game-theoretic techniques to explain industry structure, conduct, and performance. Among the topics we will study are the determinants of market structure, strategic interactions among firms, the effects of structure and conduct on prices, non-price dimensions of market performance, vertical organization, and network effects. The emphasis is on general theoretical principles. Students are expected to have a background in price and game theory at the level of Economics 201A and 201B. This course is preparation for Economics 220B (Regulation and Public Policy) and Economics 220C (Empirical Methods in Industrial Organization).

Office Hours and Contact information

Professor: Ben Hermalin

Office: Evans 531 (if open, enter through Evans 533)

Phone: (510) 642-7575

email: hermalin@econ.berkeley.edu

Office Hours: Wednesdays 10:00–11:00 (except October 5th) and by appointment.

Class Meetings

Wednesdays, 8:00–10:00 (except October 5th), in Room 608–7.

Web-based Material

Course materials can be found at <http://faculty.haas.berkeley.edu/hermalin/econ220a.html>

Texts and Other Readings

Required Text

Jean Tirole, *The Theory of Industrial Organization*, MIT Press, 1988. Hereafter “Tirole”

Other Readings

Other readings can be found on JSTOR, through the electronic collection of the Long Library (<http://www.lib.berkeley.edu/BUSI/ejournals.html>)—hereafter, denoted LONG—or on the course web page as indicated below.

Some students may wish to explore the material covered in greater depth. I am happy to supply additional references for those students upon request.

Grading and Exams

Grades will be based on three assignments and a takehome final exam. Each assignment counts towards a sixth of your grade. The final counts for the remaining half. If you wish, you can write an original research paper in lieu of the last assignment and the final exam. Please talk to me no later than October 12th if you wish to take this option. If you do, the research paper will count for 2/3rds of your grade.

Lectures, Readings, and Assignments

Assignments

On the course web site you will find three assignments (or, at the very least, the first). These are essentially problem sets. On the assignments, *but not the takehome final*, you may consult with your fellow classmates. Each student, however, is responsible for turning in his or her own completed assignment. The first assignment covers pricing and quality. The second assignment covers Bertrand and Cournot competition. The third assignment covers vertical control.

Tentative Lecture Schedule and Assignment Due Dates

Disclaimer: This is a *plan*. It is potentially subject to change. Any changes will be announced with as much advanced notice as possible. It is more important to me that you understand what is covered, then that I cover everything.

8/31

1. Introduction and Review of Pricing and Perfect Competition

- Tirole, §1.1.1–1.1.2 and pages 133–152 (you may omit §3.3.2)
- B. Hermalin, *Lecture Notes for Economics*, Part I (on class web site)*

*This overlaps considerably with the Tirole reading for this lecture; you probably only want to read one or the other (but skim through the one you don't read for non-overlap material).

- 9/7 **2. Product Selection, Quality, and Advertising**
- Tirole, Chapter 2
 - Y. Fong, “When do experts cheat and whom do they target?,” *RAND Journal of Economics*, **36**(1): 113–130, Spring 2005 (http://www.kellogg.northwestern.edu/faculty/fong/htm/RAND_final.pdf)[†]
- 9/14 **3. Bertrand Competition**
- Tirole, §5.1–5.3, §6.3, §6.7
- 9/21 **4. Cournot and Product Differentiation**
- Tirole, §5.4–5, §5.7, Chapter 7
 - Assignment #1 due
- 9/28 **5. More on Competition**
- A. Mas-Colell, M. Whinston, and J. Green, *Microeconomic Theory*, §10.F
- 10/12 **6. Vertical Control I**
- Tirole, Chapter 4
 - Assignment #2 due
- 10/19 **7. Vertical Control II**
- 10/26 **8. Entry Deterrence I**
- Tirole, Chapter 8
- 11/2 **9. Entry Deterrence II**
- Tirole, Chapter 9
 - Assignment #3 due
- 11/9 **10. Research and Development**
- Tirole, §10.1–10.5
- 11/16 **11. Network Economics**
- Tirole, §10.6

[†]Let me know if this URL doesn’t work—I have alternative means of distributing the paper.

- 11/23 **12. Two-sided Markets**
- J-C. Rochet and J. Tirole, “Two-Sided Markets: An Overview,” Working Paper, IDEI Toulouse, 2004 (on class web site)
 - J-C. Rochet and J. Tirole, “Platform Competition in Two-Sided Markets,” *Journal of the European Economic Association*, **1**(4): 990-1029, 2003 (LONG)
 - M. Armstrong, “Competition in Two-Sided Markets,” Working Paper, University College London, 2005 (on class web site)
 - B. Hermalin and M. Katz, “Sender or receiver: who should pay to exchange an electronic message?,” *RAND Journal of Economics*, **35**(3): 423-448, Autumn 2004 (on class web site)
 - J-J. Laffont *et al.*, “Internet interconnection and the off-net-cost pricing principle,” *RAND Journal of Economics* **34**(2): 370-390, Summer 2003[‡]
- 11/30 **13. IO and Internal Organization**
- C. Fershtman and K. Judd, “Equilibrium Managerial Incentives in Oligopoly,” , *American Economic Review*, **77**: 927-940, December 1987 (on JSTOR)
 - M. Katz, “Game-Playing Agents: Unobservable Contracts as Precommitments,” *RAND Journal of Economics*, **22**(3), Autumn 1991 (on JSTOR)
 - B. Caillaud & B. Hermalin, “The Use of an Agent in a Signalling Model,” *Journal of Economic Theory*, **60**: 83-113, 1993 (LONG)
 - B. Hermalin, “The Effects of Competition on Executive Behavior,” *RAND Journal of Economics*, **23**: 350-365, 1992 (on JSTOR)
 - B. Hermalin “Heterogeneity in Organizational Form: Why Otherwise Identical Firms Choose Different Incentives for their Managers,” *RAND Journal of Economics*, **25**: 518-537, 1994 (on JSTOR)
- 12/7 **14. IO and Finance (and Review)**
- P. Bolton & D. Scharfstein, “A Theory of Predation Based on Agency Problems in Financial Contracting,” *American Economic Review* **80**(1): 93-106, March 1990 (on JSTOR)
 - A. Faure-Grimaud, “Product market competition and optimal debt contracts: The limited liability effect revisited,” *European Economic Review*, **44**(10): 1823-1840, December 2000 (LONG)
 - P. Povel & M. Raith, “Financial constraints and product market competition: ex ante vs. ex post incentives,” *International Journal of Industrial Organization*, **22**(7): 917-949, September 2004 (LONG)[‡]
 - L. Zingales, “The Survival of the Fittest or the Fattest: Exit and Financing in the Trucking Industry,” *Journal of Finance* **53**: 905-938, 1998[‡]

[‡]Optional Reading.