

14.20: Industrial Organization and Competitive Strategy Spring 2008

Lectures: Monday and Wednesday, 1-2:30 p.m., Room E51-395

Recitation: Friday, 1-2:00 p.m., Room E51-335

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<http://stellar.mit.edu/S/course/14/sp08/14.20/>

Industrial organization economists study firm behavior in imperfectly competitive markets, which are far more common than the perfectly competitive markets that were the focus of your introductory microeconomics course. 14.20 analyzes the acquisition and use of market power by firms, strategic interactions among firms, and the role of government competition policy. We will approach this subject from both theoretical and applied perspectives. Students must have completed at least an introductory semester of microeconomics at the level of 14.01 before enrolling in 14.20.

Readings:

Text: The required text for this course is Industrial Organization: A Strategic Approach, by Jeffrey Church and Roger Ware. This is intended to provide more detailed development of the analytic concepts and models covered in the course. The first edition is no longer in print, but the authors generously have made an electronic version accessible at no charge to registered students through a link on the Stellar website. Please comply with all restrictions noted on the link.

Applications: Application readings are crucial to this course. These include a mix of academic journal articles, news articles, case documents, and the like. Most are available on-line as noted in the syllabus. **A Harvard Business School case, *GE & Westinghouse*, is required for lecture 5 and is available for purchase online through HBS Publishing (www.hbsp.harvard.edu).** Occasional additional readings (typically short news articles) may be handed out in the lecture preceding their discussion. I encourage you to scan the *Wall Street Journal*, *Financial Times*, business section of the *New York Times*, or *The Economist* magazine for articles relevant to the topics we're studying.

You are responsible for ALL assigned readings. It is particularly important that you do the application readings and prepare any discussion questions BEFORE CLASS. These form the basis of class discussion, in which you are expected to participate and which will be graded.

14.20 – Requirements & Expectations

Requirements: The requirements for this class include:

- Attendance and participation in class discussion
- Timely completion of 4 graded problem sets
- Team participation in and write-up based on Competitive Strategy Game
- A midterm exam on the Wednesday before Spring Break and a final examination to be scheduled during finals week.

Please read the requirements and expectations statements that follow, and ask if you're confused about anything.

NOTE: This course requires consistent and sustained work over the term, on a weekly or more frequent basis. It is not suited to occasional class attendance or a “let it ride, cram before the exam” strategy. If that's what you need to make your schedule work, this isn't the course for you.

Required assignments and their weight for determining your final 14.20 grade:

<u>Weight in Final Grade</u>	<u>Required Assignment</u>
10%	Participation in class discussion (cumulated over term) <ul style="list-style-type: none">• This is based on your participation in lectures, requiring your attendance at lectures and completing readings in advance! There will often be discussion questions handed out prior to a lecture. I may ask to see your responses to them on a spot basis.
15%	Group project: Competitive Strategy Game <ul style="list-style-type: none">• Weekly (Feb- March)/Bi-weekly (April) strategy submissions• Final write-up due Friday, May 2, by 1 p.m.
20%	4 problem sets handed out during the term You may discuss problem sets and work out solutions together, however: <ul style="list-style-type: none">• PROBLEM SETS MUST BE WRITTEN UP INDIVIDUALLY• <u>ALL</u> problem sets containing segments of identical write-ups will be given “0” credit
20%	Midterm exam (closed book) on March 19 in class. Covers material through March 14. Don't plan to leave early for Spring Break!
35%	Final Exam (closed book): comprehensive Scheduled during Finals Week. Don't schedule travel until this is set.

The success of this class depends on you! Your enrollment in 14.20 signifies your agreement to attend all lectures, participate actively in the discussions, and complete all required assignments.

14.20 Expectations

Please read this carefully. Your enrollment in this class signifies your agreement to abide by all expectations. Ask if you are uncertain about any.

1. This is not a correspondence course! A substantial part of the learning in this class takes place during class discussions. You are expected to be present and to participate in the discussions.
2. The name(s) on the top of an assignment records everyone who has contributed to that assignment. If yours is the only name (e.g. on exams or problem sets), you affirm that the work is yours alone.

Discussing problem sets with other students, or seeking help from the TA or professor, is permitted and encouraged, but you must write up the solution yourself in your own words. If you do discuss problem sets with other student(s), you should record their name(s) as part of your "Study Group" for that problem set.

3. Copying from another student's assignment, permitting another student to copy from your assignment, or jointly writing up answers to all or part of an assignment will result in a "0" for the entire assignment for all involved students. Repeat offenses will be referred to the Committee on Discipline and given a course grade of "F."
4. Giving or obtaining help during an exam from any source other than the instructor or teaching assistant, including but not limited to discussing, sharing, or copying exam answers, or changing exam answers at any time after the time has been called on an exam will result in FAILING the course and referral to the Committee on Discipline.
5. Late assignments will NOT be accepted.
6. Requests to re-grade an assignment must be made in writing to Professor Rose within 3 days of receiving your graded work. For requests other than correcting addition errors in totaling points the entire assignment will be re-graded. This may result in a higher or lower grade.

I expect MIT undergraduates to understand the importance of academic integrity and conform to these expectations. If you have any questions about the interpretation of any of these requirements or expectations, ask in advance.

14.20 – Spring 2008 Course Outline and Assigned Readings

Introduction

1. Overview of Course and Review of Basic Microeconomics
 - * [C&W](#), ch. 1, 2, 3.1
 - Autoworkers Jobs Bank: [NPR Story on Auto Workers Jobs Bank](#)

Monopoly

2. Monopoly and Dominant Firms
 - C&W, ch. 4
 - P. Fritsch, "[Hard Profits: A Cement Titan in Mexico Thrives by Selling to the Poor—Cemex's Huge Market Share Lets It Keep Prices High, Expand Around the Globe.](#)" *Wall Street Journal*, April 22, 2002, A1.
 - D. Luhnnow, "[The Secrets of the World's Richest Man. Mexico's Carlos Slim makes his billions the old-fashioned way: monopolies.](#)" *Wall Street Journal*, August 4, 2007, A1.

Oligopoly Markets

3. Game Theory Introduction and Non-cooperative Oligopoly: Static Models
 - C&W, ch. 7 & 8
4. Non-cooperative Oligopoly: Dynamic Models
 - C&W, ch. 9, 10.3-10.4
 - S. Borenstein and A. Shepard, "[Dynamic Pricing in Retail Gasoline Markets.](#)" *RAND Journal of Economics*, 27 (Autumn 1996): 429-51.
 - M. Noel, "[Edgeworth Price Cycles: Evidence from the Toronto Retail Gasoline Market.](#)" *Journal of Industrial Economics*, 55 (March 2007): 69-92.
5. Cooperative Oligopoly and Tacit Collusion
 - C&W, ch. 10 (remainder)
 - Harvard Business School Case, "General Electric v. Westinghouse in Large Turbine Generators," 9-380-128. **To be purchased from HBS Publishing.** Register on the site www.hbsp.harvard.edu. For access to 14.20 information go to <http://harvardbusinessonline.hbsp.harvard.edu/relay.jhtml?name=cp&c=c64086>
 - S. Albæk, P. Møllgaard, and P. B. Overgaard, "[Government-Assisted Oligopoly Coordination? A Concrete Case.](#)" *Journal of Industrial Economics* XLV (December 1997): 429-443.
6. Cartels & Price-fixing
 - C&W, appendix (antitrust)

- **One of:**
 - DOJ Guidelines:
<http://www.usdoj.gov/atr/public/guidelines/211578.pdf>
 - R. Porter, "[Detecting Collusion](#)" *Review of Industrial Organization* 26 (2005): 147-167.
 - M. P. Schinkel, "[Effective Cartel Enforcement in Europe](#)," Amsterdam Center for Law & Economics Working Paper 2006-14, January 2007.
 - Archers Daniel Midland lysine cartel:
At least one of the following background readings
 - J. M. Connor, "[Our Customers are Our Enemies: The Lysine Cartel of 1992-1995](#)," *Review of Industrial Organization* 18 (2001): 5-21.
 - OR**
 - U.S. 7th [Circuit Court of Appeals decision](#) in *U.S. v. Michael D. Andreas and Terrance S. Wilson*, Decided June 26, 2000.**And reading for class presentation:**
 - J. Griffin, "[An Inside Look at a Cartel at Work: Common Characteristics of International Cartels](#)," Presentation to the American Bar Association, April 6, 2000. Presentation and transcripts accompanying video.**In-class:** U.S. Department of Justice Antitrust Division, "The International Lysine Cartel at Work," video, March 28, 2000.
 - Optional:
 - This American Life: "The Fix is In". February 13, 2004. Audio report on price-fixing & ADM case. Go to archives at <http://www.thislife.org>
 - "Commission fines members of ... switchgear cartel," [EC Press Release](#)., January 24, 2007.
 - M. C. Levenstein and V. Suslow, "[What Determines Cartel Success?](#)" *Journal of Economic Literature* 44 (March 2006) 43-95.
7. Horizontal Antitrust Policy: Mergers, Alliances, and Joint Ventures
- C&W, ch. 23, 19 (skim)
 - U.S. Council of Economic Advisors, "Realizing Gains from Competition," in [The Economic Report of the President](#), January 2002, chapter 3, pp. 99-143. (this reads quickly!).
8. Measuring Market Power
- C&W, ch. 12

Strategic Behavior in Oligopoly Markets

Overview: C&W, ch. 5

9. Pricing and Price Discrimination
- C&W, ch. 5
 - T. Aeppel, "[Changing the Formula: Seeking Perfect Prices, CEO Tears up the Rules](#)," *Wall Street Journal*, March 27, 2007, A1.

- C. Cabolis et al., [“A Textbook Example of International Price Discrimination.”](#) *Economic Letters*, 95 (April 2007): 91-95.
 - F. Scott Morton, F. Zettelmeyer, and J. Silva-Risso, [“Consumer Information and Discrimination: Does the Internet Affect the Pricing of New Cars to Women and Minorities?.”](#) *Quantitative Marketing and Economics*, 1 (2003): 65-92.
 - OPTIONAL:
 - S. Borenstein and N. L. Rose, [“Competition and Price Dispersion in the US Airline Industry,”](#) *Journal of Political Economy*, 102 (1994, 4): 653- 683.
 - A. Shepard, [“Price Discrimination and Retail Configuration,”](#) *Journal of Political Economy*, 99 (1991, 1): 30-53.
 - G. Ellison, [“Bounded Rationality in Industrial Organization,”](#) in *Advances in Economics and Econometrics, Theory and Applications: Ninth World Congress of the Econometric Society: Volume 2*, forthcoming.
10. Entry and Entry Deterrence
- C&W, ch. 14, 15, 16.1,20, 21
 - R.P. McAfee et al. [“What is a Barrier to Entry?”](#) *American Economic Review*, 94: 2 (May 2004): 461-465.
 - Pankaj Ghemawat, [“Capacity Expansion in the Titanium Dioxide Industry,”](#) *Journal of Industrial Economics*, 33:2 (December 1984), 145-63.
11. Product Choice: Location and Differentiation
- C&W, 11 (differentiation),
 - Chang-Tai Hsieh and Enrico Moretti, [“Can Free Entry Be Inefficient? Fixed Commissions and Social Waste in the Real Estate Industry.”](#) *Journal of Political Economy*, October 2003, 111(5): 1076-1122. *Read for main points (especially sections 1 and 2).*
 - J. Hagarty, [“Feet in the Door: As Home Sales Cool, Ranks Of Realtors Grow Crowded,”](#) *Wall Street Journal*, 20 January 2004, A1.
 - NPR : High-Def DVDs Usher in New Format War, September 2006. <http://www.npr.org/templates/story/story.php?storyId=6095931&sc=emaf>
 - Optional:
 - Aviv Nevo, [“Measuring Market Power in the Ready-to-Eat Cereal Industry,”](#) *Econometrica*, March 2001, 69: 307-342.
 - M. T. Clements and H. Ohashi, [“Indirect Network Effects and the Product Cycle: Video Games in the U.S., 1994-2002,”](#) *Journal of Industrial Economics*, 53:4 (December 2005): 515-542.
12. Product Choice: Quality and Asymmetric Information
- C&W ch. 4.3 (durability), 6 (quality), 16.2 (switching costs)
 - GM unveils new warranty, [Press Release](#) and [Edmunds Report](#)
13. Advertising
- C&W, ch. 17

- M. Shum, "[Does Advertising Overcome Brand Loyalty? Evidence from the Breakfast-Cereals Market](#)," *Journal of Economics & Management Strategy*, 13:2 (Summer 2004): 241-272.

14. R&D and Intellectual Property

- C&W, ch. 18
- F. Ahrens, "So Google Is No Brand X, but What Is 'Genericide'?" *Washington Post*, Saturday August 5, 2006; [Page D01](#)
- "[Leading the News: Drug Study Finds Little Innovation](#)," *Wall Street Journal*, May 29, 2002, A3.
- C. S. Hemphill, "[Drug Patent Settlements Between Rivals: A Survey](#)," March 12, 2007.

Internal Organization, Vertical Structure and Vertical Relations

15. Internal Organization and Theory of the Firm

- C&W, ch. 3.2-3.4
- F. Lafontaine and M. Slade, "[Vertical Integration and Firm Boundaries: The Evidence](#)," *Journal of Economic Literature* XLV (September 2007): 629-685.
- L. Johannes and J. Hechinger, "[Why A Brokerage Giant Pushes Some Mediocre Mutual Funds](#)," *Wall Street Journal*, January 9, 2004, A1.

16. Vertical Integration and Vertical Restraints

- C&W, ch. 16.3-16.4, 22
- "[Big Tooth? Suit Says Dentsply has a Monopoly](#)," *Wall Street Journal*, April 12, 2002, A13
- **One of:**
 - U.S. v. Dentsply, Third Circuit Court of Appeals, [Brief for the United States](#), January 2004.
 - OR
 - S. Sher and S. D. Russell, "[Adding Bite to Exclusive Dealing](#)," *The Antitrust Source*, www.antitrustsource.com, May 2005.