

The George Washington University  
Department of Economics  
Fall Semester 2005

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Office Hours: Monday 2:00-3:00  
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and by appointment

### EC158: Industrial Organization

**Class Meetings:** Monday and Friday, 11:10 am to 12:25 pm, Monroe 101A

**Readings:** Two required texts: Lynne Pepall, Daniel J. Richards, and George Norman, **Industrial Organization: Contemporary Theory and Practice**, Third Edition (South-western, 2005), and William Breit and Kenneth Elzinga, **The Antitrust Casebook**, Third Edition (Dryden Press, 1996). Other supplementary readings will be made available as needed on reserve in the library or via Blackboard.

The two required textbooks are complementary. Pepall, Richards and Norman (PRN below) a very thorough theoretical framework for understanding business practices and market performance. Breit and Elzinga (B & E below) is a collection of decisions in antitrust cases. The cases will serve both as an introduction to U.S. antitrust policy and as illustrations of real world business practices.

**Overview and Philosophy:** Industrial organization is a subfield of microeconomics devoted to the study of firms and markets, focusing in particular on how firms acquire market power, how firms use this power once acquired, and how competing firms interact strategically. The development of noncooperative game theory over the past several decades has provided new, formal tools to study these issues and has led to an explosion of interest in industrial organization. Many of the lectures will be theoretical, but there will also be discussions of policy issues and empirical methods.

**Course requirements:** Principles of Economics is the prerequisite for this course.

Three problem sets will be assigned. Student solutions will not be collected and graded. Instead, I will distribute detailed answers to the problem sets, which may be reviewed in class or in office hours. A series of three exams will be given, each covering corresponding subject areas. The lowest exam grade can be dropped. The last of these three exams will be given on the final exam date scheduled by the registrar, tentatively set for 80 minutes. The tentative date of exam 3 is Friday December 16 at 12:40 pm. Although scheduled during the final exam period, this exam will be similar to the earlier two: it will not be cumulative and will receive the same weight as the others.

Attendance and regular participation in the 25 class sessions are required. Students are expected to prepare for class by reading the assigned material ahead of time, and be ready for class lectures and discussions. Attendance and participation does not receive a formal

weight in the grading scheme, but may matter in subjective determination of where grade cutoffs fall for students on the margin.

**Grading and Academic Integrity:** Students must abide by the George Washington University Code of Academic Integrity. Collaboration on the examinations is prohibited. Students can work together on the problem sets—and indeed are encouraged to form study groups to work on problem sets and review the class material—although students tend to derive the most benefit from the problem sets if the final solutions are written up independently. There are no makeups for exams. A missed exam can be counted as the dropped grade. If you have any questions whether a certain action may violate the academic integrity policy, please ask first before taking the action.

Course grades are based on the following weighting scheme. I drop the lowest exam score out of the three exams, so the course grade is based upon the total points on each student's two highest exam scores.

Any student who feels she or he may need an accommodation based on the impact of a disability should contact Disability Support Services, Marvin Center 242, 994-8250, to have the disability documented and reasonable accommodations coordinated.

1. Introduction

PRN Chapter 1, pp. 3-16.

2. Competition and Monopoly: Comparative Benchmarks, and the Foundation of Antitrust Policy

A. Perfect Competition, Monopoly, Efficiency and Deadweight Loss

PRN Chapter 2, pp. 20-40

B. Introduction to Antitrust Policy

B & E Part 1

PRN Chapter 1, Appendix, pp. 17-19

C. Review of Cost Concepts, and Market Structure

PRN Chapter 3, pp. 46-58, Chapter 4, pp. 59-69

3. Monopolization and the Dominant Firm

B & E Part 4: United States v. Aluminum Company of America et al. (1945), United States v. United Shoe Machinery Corporation (1953), Berkey Photo, Inc. v. Eastman Kodak Company (1979)

B & E Part 5: Aspen Skiing Company v. Aspen Highlands Skiing Corporation (1985)

4. Oligopoly Theory and Collusion

A. Oligopoly Theory and an Introduction to Game Theory: Imperfect Competition Among Competitors

PRN Chapters 9 and 10 (and 11)

Dixit and Nalebuff, **Thinking Strategically**, Chapter 1, on reserve

B. Cartels: Collusive Agreements Among Competitors

PRN Chapters 14 and 15

B & E Part 2:

Price Fixing Agreements:

United States v. Addyston Pipe & Steel Company et al. (1898) United States v. Socony Vacuum Oil Company, Inc. et al. (1940) National Collegiate Athletic Association v. Board of Regents of the University of Oklahoma et al. (1984), Arizona vs. Maricopa County Medical Society et al. (1982)

Conscious Parallelism:

Interstate Circuit, Inc. et al. v. United States (1939) Theatre Enterprises, Inc. v. Paramount Distributing Corp. et al. (1954) E.I. du Pont de Nemours & Company v. Federal Trade Commission; Ethyl Corporation v. Federal Trade Commission (1984)

5. Strategic Behavior, Price Discrimination and Exclusionary Practices

A. Price Discrimination and Optimal Pricing

PRN Chapter 5, pp. 85-111; PRN Chapter 6, pp. 112-132, Chapter 8, pp. 165-192

B. Strategic Behavior

PRN Chapter 11, pp. 257-262 on credible threats, also pages 260-262.

C. Exclusionary Practices

Predatory Pricing:

PRN Chapter 13, pp. 298-314, 320-329.

Genesove and Mullin "Predation and Its Rate of Return", on reserve.

B & E Part 5: Matsushita Electric Industrial Co., Ltd. et al. v. Zenith Radio Corporation et al. (1986), Brooke Group Ltd. v. Brown and Williamson Tobacco Corp. (1993)

Tying: Jefferson Parish Hospital District No. 2 et al. v. Hyde (1984), International Salt Company, Inc. v. United States (1947) Siegal et al. v. Chicken Delight, Inc. et al. (1971)

6. Mergers

PRN Chapter 17, pp. 425-433 on double-marginalization, initially skip rest of mergers.

B & E Appendix: Excerpts from the Merger Guidelines (1992)

B & E Part 3: Brown Shoe Company, Inc. v. United States (1962), United States v. Von's Grocery Company et al. (1966), Federal Trade Commission: In the matter of the Coca Cola Company of the Southwest (1994).

7. Vertical Integration and Vertical Restrictions

PRN Chapter 18, pp. 453-472, maybe Chapter 19, pp. 482-500 if time permits.

8. Current Critical issues: Network Externalities, Microsoft

PRN Chapter 24, pp. 615-634

## Schedule

<b>Date</b>	<b>Topic</b>	<b>Assignment Notes</b>
Sep. 2	Introduction	
Sep. 5	No class (Labor Day Holiday)	
Sep. 9	Welfare Effects of Market Power	
Sep. 12	Antitrust Introduction	Problem Set 1 Out
Sep. 16	Cost Concepts, Market Structure	
Sep. 19	Monopoly	
Sep. 23	Monopoly	
Sep. 26	Oligopoly Pricing	
Sep. 30	Oligopoly Pricing	
Oct. 3	Oligopoly Pricing	
Oct. 7	Review for Exam 1	Problem Set 1 Due
<b>Oct. 10</b>	<b>Exam 1</b>	
Oct. 14	Oligopoly Pricing	Problem Set 2 Out
Oct. 17	Oligopoly Pricing	
Oct. 21	Price Discrimination	
Oct. 24	Price Discrimination	
Oct. 28	Price Discrimination	
Oct. 31	Strategic Behavior	
Nov. 4	Strategic Behavior	
Nov. 7	Review for Exam 2	Problem Set 2 Due
<b>Nov. 11</b>	<b>Exam 2</b>	
Nov. 14	Predation	Problem Set 3 Out
Nov. 18	Predation	
Nov. 21	Tying	
Nov. 25	No class (Thanksgiving Break)	
Nov. 28	Mergers	
Dec. 2	Vertical Integration/Restrains	
Dec. 5	Vertical Integration/Restrains	
Dec. 7	(Wednesday) Microsoft and Network externalities	
Dec. 9	Review for Exam 3	Problem Set 3 Due
Dec. 10	Make-up Day – no class currently scheduled	
<b>Dec. 16 12:40 pm</b>	<b>Final Exam (Exam 3)</b>	