

**Economics 445
Industrial Organization
Fall 2008**

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Class location & time: We meet on Tuesdays and Thursdays in Gardner 106
Section 1: 12:30 - 1:45
Section 2: 8:00 - 9:15

Midterm Exams: Midterm 1: Tuesday, September 23, in class
Midterm 2: Thursday, October 30, in class

Final Exams: Section 1: Friday December 12, 12:00PM
Section 2: Saturday December 6, 8:00AM

Office Hours: Mondays 3:00-5:00 and by appointment in Gardner 208A

Course goals and approach

We will study the causes and consequences of firms' strategic behavior, focusing on situations in which the assumptions behind perfect competition do not hold. Our main analytical tools will be microeconomic theory and game theory. We will supplement our theoretical work with empirical evidence from academic research and the popular press.

The topics we will study include: pricing, product design, imperfect competition, collusion and cartels, mergers, network effects, and advertising. Within each topic we will consider the impact of firms' actions on consumer welfare. We will also consider the motivation for and impact of US antitrust law on these settings.

Economics is more a way of thinking rather than a collection of facts, and industrial organization (IO) is no exception. While some historical information is important to IO, our main objective is to develop your ability to use economic models to understand a broad range of problems. These models, when constructed well, can be both simple and powerful. Your ability to construct, analyze, and interpret models is best developed through practice, and our class meetings, assignments, and exams will focus on providing this practice.

I will require you to use basic calculus during this course. If you remember what a derivative is and how to obtain one, you will not have any problems with the math that we use here.

Readings

You are required to buy the text *Industrial Organization: Contemporary Theory and Empirical Applications* (4th edition, Blackwell) by Pepall, Richards, and Norman. The text is available in the UNC bookstore, and I also encourage you to shop pursue other outlets to purchase the book.

I expect you to read ahead of our class discussions. I will make announcements in class or through email about the sections of text you should be reading. If you are uncertain about what to read, please refer to the course outline in this syllabus.

We will supplement the material from the text with readings collected from the popular press (newspapers, magazines, etc.). Our approach to these readings will be more casual than our treatment of the text. We will use the readings to reinforce the relevance of the (sometimes abstract) models we will encounter in class and in the text.

I encourage you to stay abreast of current economics-related events. Good popular press sources include the New York Times, the Wall Street Journal, the Economist, and Business Week. There are also several entertaining economics-oriented blogs that are worth reading. See http://www.26econ.com/?page_id=25 for a recent list of the most popular economics blogs.

I encourage you to read articles from across the spectrum of microeconomics. Even if articles do not explicitly mention Industrial Organization topics, they are likely to provide interesting opportunities to think about the incentives common to IO and other microeconomics areas.

Grading

Your grade will be based on three exams and your homework assignments. The course grade is divided as follows:

Exam 1	20%
Exam 2	20%
Final	40%
Homework assignments	20%

Grades will be curved so that final course grades have a similar distribution to previous versions of this class. Participating in class discussions can add up to 5% to your (curved) grade.

Blackboard

I will use Blackboard to distribute notes, readings, homework assignments, etc. UNC has set up separate Blackboard sites for our two sections, but I will combine them about one week after the semester begins. Until they are combined I will post duplicate class information on both sections' sites. Please verify that you can log on to Blackboard and access the information for this class.

All grades for the course will be stored and displayed on the Blackboard course page. It is your responsibility to insure that the grades on this course page are accurate.

Exams

There will be two midterm exams and a final exam. The exams are open-note, open-book. We have this policy to emphasize that your main task is to develop strong intuition about economic incentives and activity rather than memorizing terms or formulas.

There will be no make-up exams. If you want to avoid penalty for missing an exam, you must provide documentation that this occurred for an acceptable reason, such as personal illness or a serious illness or emergency within your immediate family. Excused absences will result in a re-weighting of your other grades. Unexcused absences will result in a grade of zero.

Re-grade policy: For simple scoring or adding-up mistakes, return the exam to me with a brief explanation. For more substantial cases where you think that you deserve credit for an answer, write a single paragraph explaining why you think your answer was correct, and give it to me (along with your exam) within two weeks of when I return the graded exams. No re-grade requests will be accepted after this period. If you submit a re-grade request and I do not change your exam grade as a result, you will lose one point from your exam score.

Homework assignments

I will post assignments to Blackboard one week before they are due. You are welcome to work with other students on the assignments, but everyone must turn in his or her own version of the homework. Your assignment must clearly reflect your own work and cannot contain verbatim passages from your classmates' assignments. Late work can be turned in within a week of the due date for half credit. I will provide brief answers to the assignments one week after they are due.

Classroom etiquette

My goal is to maintain a classroom environment that provides a good learning environment for everyone. To minimize distractions, you must turn off all cell phones, laptops, and other electronic devices during class. I expect you to arrive on time and prepared for the day's class.

Teaching assistants

We will have a teaching assistant for the class. He or she will assist me in grading your work and hold occasional office hours. These office hours generally will be held during the weeks of your exams. A TA has not yet been assigned to this class, but once this occurs I will post his or her contact information to Blackboard.

Academic integrity

You are encouraged to work together with other students on the homework. However, each student must write up his or her own version of the homework assignment. Exams are taken individually, without any help from other students or unapproved resources.

Each student is expected to maintain academic integrity and follow the UNC Honor System.

Course Outline

PRN = Pepall, Richards, and Norman. The number in parentheses is the approximate number of class meetings we will spend on a topic. The class lectures and slides provide a guide to what topics are important within in each chapter of PRN. You are not responsible for sections of PRN we do not discuss in class.

0. Course introduction, objectives, historical perspective (1). Readings: PRN 1.
1. Review of perfect competition and monopoly (2). PRN 2.
2. Production and costs (1). PRN 4.
3. Monopoly product and pricing strategies (4).
 - a. Price discrimination. PRN 5-6.
 - b. Bundling. PRN 8.
 - c. Multiproduct firms. PRN 7.
 - d. Spatial markets. PRN 7.
4. Game theory: Assumptions and solution concepts (1). PRN 9.1-9.3.

Midterm 1 approximately here.

5. Oligopoly markets (4).
 - a. Cournot competition. PRN 9.4-9.6
 - b. Bertrand competition. PRN 10.1-10.2.
 - c. Spatial markets. PRN 10.3.
6. Oligopoly markets, extensions (3)
 - a. Stackelberg competition. PRN 11.1
 - b. Dynamic interaction. PRN 11.2-11.3
 - c. Entry deterrence. PRN 12.
7. Cartels and collusion (2). PRN 14-15.

Midterm 2 approximately here.

8. Horizontal mergers (2). PRN 16.
9. Vertical relationships (2)
 - a. Mergers. PRN 17.1-17.2
 - b. Price restrictions. PRN 18.1-18.4.
10. Assorted topics (4)
 - a. Advertising. PRN 20.
 - b. Innovation. PRN 22.
 - c. Networks. PRN 24.

Final exam