Professor Robert Porter KGH 3351; 1-3491 r-porter@northwestern.edu

## Economics 349 Industrial Economics Winter 2019

This is an advanced undergraduate course in industrial organization. We will study the behavior of firms and the structure of markets. The first goal is to apply microeconomic theory to understand when and how firms exercise market power and the impact of market power on market efficiency and consumer welfare. The second goal is to apply these insights to analyze antitrust cases.

The text for this course is by Lynne Pepall, Dan Richards and George Norman, *Industrial Organization: Contemporary Theory and Empirical Applications*, 5th edition, Wiley, 2014 (ISBN: 978-1-118-25030-3). This book provides a description of the basic theory and it contains many illustrative examples. The level of the exposition is similar to that of the class lectures. Further readings on some of the antitrust cases discussed in class are contained in *The Antitrust Revolution*, edited by John Kwoka and Lawrence White, 7th edition, Oxford, 2019 (ISBN: 978-0-190-66885-3). Additional readings will also be posted on Canvas. The books can be ordered in a variety of formats here: https://tinyurl.com/NW-W19-ECON-349-0-20

There will be weekly problem sets. Problem sets must be submitted in class on their due dates. Late problem sets will not be accepted. You may work in groups on problem sets, but each student must turn in their own answers. If you miss class you can send your answers by email to me or to the TA. The best way to learn the material is by doing the problems.

In addition, there will be one midterm exam and a final. The midterm will be an in-class exam, on Monday, February 11. The final is scheduled for Monday, March 18 at 9 AM. The approximate weighting scheme for the final grade will be:

| Problem Sets  | 25% |
|---------------|-----|
| Midterm Exams | 30% |
| Final Exam    | 45% |

Any student who misses the midterm or final without a good reason will receive no credit for the exam. Medical reasons require written confirmation from the Student Health service or your doctor. Non-medical reasons require a written excuse from the WCAS Office of Studies. A makeup for the midterms will be permitted only if there is a good reason for missing the exam. Suspicion of academic dishonesty will be immediately referred to the Dean's office.

Any student with a documented disability needing accommodations is requested to register with the Accessible NU office, and provide professors with an accommodation notification from Accessible NU, preferably within the first two weeks of class. All information will remain confidential.

The Teaching Assistant for the course is Richard Peck, RichardPeck2021@u.northwestern.edu . Rich will hold a discussion section each week, on Fridays at 9:30, in which he will discuss the problem sets, review class material and cover some supplemental material. His office hours will be Tuesdays 3:30-4:30 and Thursdays 3:30-5:00, both in KGH 3198.

## Course Outline

Class discussion will cover the following topics. The chapters and sections referred to are those in Pepall, Richards and Norman (PRN) and Kwoka and White (KW), unless noted otherwise.

1. Introduction

Overview: PRN Chapter 1
"Benefits of Competition and Indicators of Market Power," Council of Economic Advisors Issue Brief, April 2016.
Firms, production and cost functions: PRN, Sections 4.1, 4.3, 4.4
Perfect competition and monopoly: PRN, Chapter 2

- 2. Market Definition and Durable Goods PRN, Section 3.1
- 3. Price Discrimination

Third degree: PRN Chapter 5 First and second degree: PRN Sections 6.1-6.3 Bundling: PRN Section 8.1

- 4. Oligopoly Competition with Homogeneous Products: PRN Chapter 9 & Section 10.1
- 5. Oligopoly Competition with Differentiated Products: PRN Sections 10.2-10.5
- 6. Collusion and Pricing in Repeated Games
  - PRN Chapter 14
  - KW (6<sup>th</sup> edition) Case 11: "Global Cartels Redux: The Lysine Antitrust Litigation (1996)"
  - KW Case 14: "The LCD Conspiracy: The Sherman Act, Beyond a Reasonable Doubt, and Issues of Extraterritoriality (2014)"
  - W. Christie and P. Schultz, "Did Nasdaq Market Makers Implicitly Collude?" Journal of Economic Perspectives, Summer 1995.
- 7. Product Differentiation: PRN Chapter 7
- 8. Entry

PRN Sections 12.2-12.4 & Chapter 13 KW Case 16: "Predatory Pricing in the Airline Industry: Spirit vs. Northwest (2005)"

9. Horizontal Mergers PRN Chapter 15

- "Horizontal Merger Guidelines," US Department of Justice and Federal Trade Commission, August 2010.
- KW Case 6: "The Proposed Merger of AT&T and T-Mobile: Rethinking Possible (2011)"
- KW Case 8: "Rockonomics: The Ticketmaster-Live Nation Merger and the Rock Concert Business (2010)"
- KW Case 9: "Prices, Market Definition and the Effects of Merger: Staples, Office Depot and Office Max"
- KW Case 19: "End of an Era: The American Airlines-US Airways Merger (2014)"
- 10. Vertical Price Restraints and Vertical Mergers
  - PRN Chapters 16, 17 & 18
  - KW (6<sup>th</sup> edition) Case 17: "A Vertical Merger in the Video Programming and Distribution Industry: Comcast-NBCU (2011)"
  - KW Case 20: "Cartel Ringmaster or Competition Creator? The Ebooks Case against Apple (2013)"
- 11. Advertising: PRN Chapter 19
- 12. Research and Development PRN Chapters 20 & 21 KW Case 15: "Pharmaceutical Patents and Pay-for-Delay: Actavis (2013)"