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Economics 349  
Industrial Economics  
Fall 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 Luis Cabral, *Introduction to Industrial Organization*, 2nd edition, MIT Press, 2017 (ISBN: 978-0-262-03594-1). 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.

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, and turn in your answers as a group, as long as the group has no more than three people. If you miss class you can send your answers by email 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, October 28. The final is scheduled for Thursday, December 12 at noon. The approximate weighting scheme for the final grade will be:

Problem Sets	25%
Midterm Exam	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 requesting accommodations related to a disability or other condition is required to register with AccessibleNU ([accessiblenu@northwestern.edu](mailto:accessiblenu@northwestern.edu); 847-467-5530) and provide professors with an accommodation notice from AccessibleNU, preferably within the first two weeks of class. All information will remain confidential.

The Teaching Assistant for the course is Tai Lam, tai.lam@u.northwestern.edu. Tai will hold a discussion section each week, on Fridays at 12:30, in which he will discuss the problem sets, review class material and cover some supplemental material. His office hours will be Tuesdays and Thursdays 3:00-4:00 in KGH 3496.

## Course Outline

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

### 1. Introduction and Review

Overview: Cabral, Chapter 1

“Benefits of Competition and Indicators of Market Power,” Council of Economic Advisors Issue Brief, April 2016.

N. Lamoreaux, “The Problem of Bigness: From Standard Oil to Google,” *Journal of Economic Perspectives*, Summer 2019.

C. Shapiro, “Antitrust in a Time of Populism,” *International Journal of Industrial Organization*, 2018.

Firms, production and cost functions: Cabral, Chapter 3

Perfect competition: Cabral, Chapter 4

Monopoly: Cabral, Chapter 5

### 2. Market Definition and Durable Goods

### 3. Price Discrimination

Cabral, Chapter 6

### 4. Oligopoly Competition with Homogeneous Products

Cabral, Chapter 8

### 6. Collusion and Pricing in Repeated Games

Cabral, Chapter 9

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

Cabral, Chapter 14

### 8. Entry and Market Structure

Cabral, Chapters 10 and 12

KW Case 16: “Predatory Pricing in the Airline Industry: Spirit vs. Northwest (2005)”

## 9. Horizontal Mergers

Cabral, Chapter 11

“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)”

M. Gaynor, “Examining the Impact of Health Care Consolidation,” Statement before the Committee on Energy and Commerce Oversight and Investigations Subcommittee, U.S. House of Representatives, 2018.

## 10. Vertical Price Restraints and Vertical Mergers

Cabral, Chapter 13

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

Cabral, Section 14.3

## 12. Research and Development and Innovation

Cabral, Chapter 15

KW Case 15: “Pharmaceutical Patents and Pay-for-Delay: Actavis (2013)”

## 13. Networks

Cabral, Chapter 16