### Economics 460 – Industrial Organization

University of Arizona, Winter 2014 Monday-Friday, 9:00-11:50am, Modern Languages 411

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Class Website: https://blackboard.eller.arizona.edu

# **Course Summary**

Industrial organization is the study of industry and firm behavior. Using the basic tools of microeconomic theory and game theory, this course explores the relationships among firms in an industry or across industries by examining the nature of strategic interaction among firms. The central issues concern firms' choices of prices, quantities and qualities in markets where the assumptions behind perfect competition do not hold.

Topics to be covered include: monopoly pricing, collusion and cartels, oligopoly behavior, product differentiation, price discrimination, mergers, and non-price competition. We will also consider public policies that affect the structure of markets and the behavior of firms, particularly the antitrust laws which try to create a balance between the benefits of coordination and consolidation and the detriments of market power.

Classes will be a mixture of theory and case studies with an emphasis on the theory.

**Necessary Background:** Intermediate microeconomics is a prerequisite. You must also be comfortable enough with calculus to be able to differentiate fairly simple functions, such as polynomials and exponentials.

#### **Textbook**

Recommended: Industrial Organization: Contemporary Theory and Empirical Applications by Pepall, Richards, and Norman

### **Grading Policy**

The assessment is a combination of quizzes and exams as follows:

- 20% Quizzes (To Be Announced)
- 80% 3 exams (December 29, January 7 and January 13)
- There will be periodic quizzes which will be announced either in the previous class or on Blackboard. I will drop your lowest quiz score. Excused absences on quizzes result in the corresponding quiz being dropped, with the total quiz grade being computed based on the remaining quizzes.
- Excused absences for the first two exams result in the total exam grade being determined by the average of the other two exams. Excused absences for the final result in a make-up exam.
- If you plan to have an excused absence, please contact me via email prior to the start of class. In case of an emergency preventing you from doing so, please contact me within 24 hours of the missed class. Missing an exam or quiz without an approved excuse will result in a grade of zero.
- If you would like a re-grade on a quiz or exam, please contact me via email within 48 hours of the graded item being returned and its score being posted on Blackboard. After 48 hours, no re-grades will be considered. Naturally, re-grades may result in the score increasing or decreasing.

<sup>&</sup>lt;sup>1</sup>Legitimate reasons for absence include severe illness, family emergency, etc. Accommodations will not be made for travel arrangements, so please plan any travel accordingly.

• Problem sets will be given throughout the course. These problem sets will not be graded but you are encouraged to work through the problem sets and see me during office hours if you would like additional help with them. Questions on quizzes and exams will cover concepts similar to those on problem sets.

### Classroom Policy

- You are expected to maintain regular attendance. Please arrive early and be ready to begin on time.
- During lecture, please refrain from using anything which may distract your fellow classmates. This includes, but is not limited to, noisy food or drinks, personal computers, cell phones, tablets, newspapers, etc. Please turn off cell phones and any other devices that may generate sound when you enter the classroom.
- Cheating on an exams and quizzes will not be tolerated. Any student caught cheating will be reported to the dean and receive a failing grade in the course.

### Students with Disabilities

If special accommodations are required, students are encouraged to contact the Disability Resource Center (DRC) office to begin the accommodation request process. Appropriate medical documentation will be required to determine eligibility to receive accommodations.

# Lecture Outline<sup>2</sup> (Subject to Change)

#### **Foundations**

- Chapter 1 Overview (Sections 1-1.3.2, pp. 1-13)
- Chapter 2 Basic Microeconomics (Sections 2-2.3.1, pp. 19-36)
- Chapter 3 Market Structure and Market Power (Sections 3-3.2, pp. 47-58)
- Chapter 4 Technology and Cost (Sections 4-4.5.3, pp. 64-83)

#### Monopoly Power

- Chapter 5 Price Discrimination and Monopoly: Linear Pricing (Sections 5-5.5, pp. 91-112)
- Chapter 6 Price Discrimination and Monopoly: Nonlinear Pricing (Sections 6-6.3, pp. 119-136)
- Chapter 7 Product Variety and Quality Under Monopoly (Sections 7-7.5.1, pp. 142-161)

### Strategic Interaction

- Chapter 9 Static Games and Cournot Competition (Sections 9-9.6, pp. 214-235)
- Chapter 10 Oligopolistic Price Competition (Sections 10-10.4, pp. 242-257)
- Chapter 11 Dynamic Games and First and Second Movers (Sections 11-11.4, pp. 264-277)

#### **Anti-Competitive Behavior**

• Chapter 14 – Price Fixing, Repeated Games and Antitrust Policy (Sections 14-14.4.3, pp. 349-377)

 $<sup>^{2}</sup>$ The pages and section numbers correspond to the fifth edition of Pepall, Richards, and Norman. Feel free to visit during office hours if you are using a different edition.

## **Contractual Relations**

- Chapter 15 Horizontal Mergers (Sections 15-15.6, pp. 387-414)
- Chapter 16<sup>3</sup> Vertical and Conglomerate Mergers (Sections 16-16.3.1, pp. 427-441)
- Chapter 17<sup>3</sup> Vertical Price Restraints (Sections 17-17.4.4, pp. 459-472)

# Non-Price Competition

- Chapter 19<sup>3</sup> Advertising, Market Power and Information (Sections 19-19.4.2, pp. 515-535)
- $\bullet$  Chapter  $20^3$  Research and Development (Sections 20-20.4, pp. 548-562)
- Chapter 21<sup>3</sup> Patents and Patent Policy (Sections 21-21.6, pp. 578-604)

<sup>&</sup>lt;sup>3</sup>Time permitting.