

ECON 35  
Industrial Organization  
MW, 2-3:30, McNeil 285

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**Course Description:**

Industrial organization is a branch of microeconomics that studies the functioning of markets, in particular business behavior and strategy, as well as their implications for economic efficiency. It also studies the role of public policies in promoting efficiency. We will use the tools of microeconomics and game theory to examine the nature of strategic interaction among firms. Some of the topics we will cover include business practices like mergers and acquisition, advertising, product selection, innovation, vertical restraints, cartels, and exclusionary conduct. Though this course is theoretical, one should be able to apply the economic concepts to real-world examples.

**Prerequisite(s):** ECON 1 or ECON 10. Knowledge of calculus is advised.

**Recommended Text:** *Industrial Organization: Contemporary Theory and Empirical Applications*, 5<sup>th</sup> (or older) Edition **Author(s):** Pepall, Richards, and Norman; **ISBN-13:** 978-1118476031

Other suggested textbooks:

- Modern Industrial Organization: Harper/Collins, by D. Carlton and J. Perloff
- Introduction to Industrial Organization: MIT Press, by L. Cabral
- Industrial Organization: Theory and Applications: MIT Press, by Oz Shy,
- The Theory of Industrial Organization: MIT Press, by Jean Tirole (more advanced and technical)

**Canvas:** We will use Canvas to distribute lecture outlines, readings, homework assignments, etc. We will also post all grades on Canvas. Please verify that you can log on to Canvas and access the information for this class.

**Grade Distribution:**

In class participation	5%
Homework assignments	15%
End of the term paper	15%
Midterm Exam (best of the two - other is dropped)	30%
Final Exam	35%

## **Exam Dates:**

Midterm 1:	February 17 (in class)
Midterm 2:	March 30 (in class)
Final Exam:	May 5 (9am-11am)

## **Other Important Dates:**

January 13	First day of class
February 19	Last day to drop the course
March 25	Last day to withdraw from the course
April 27	Last day of class

## **Readings:**

The course outline at the end of the syllabus lists the chapters in the textbook which we will cover. The textbook provides important background information and motivation for the topics we will cover, and includes numerous real world examples and applications. You are expected to read the assigned chapter before coming to class to get an overview of what is contained in the chapter. It is often beneficial to read the chapter before class.

Additional readings from the press will be listed throughout the semester. We will discuss these readings in class. If you come across an article that you find relevant, you are most encouraged to send us the link.

## **End of the term paper:**

You are required to write a report (approximately 5 pages) on the firm or industry of your choice. You will need to collect articles to research your paper, which can be from The Economist, NY Times, Wall Street Journal, New Yorker, Business Week or other reputable papers or journals. In the paper, you need to summarize the information you obtained from your articles, and describe the industry in question with reference to the models discussed in class. We expect more than merely a description: you should show that you are able to apply the models to gain a better understanding on the structure of the industry, conduct of firms and performance/efficiency implications. More information on this will be provided during the semester.

## **Homework Assignments:**

Periodically, you will be assigned homework assignments to practice and review the tools and theory of IO. All assignments will be posted on Canvas one week prior to the due dates. You must submit your answers on Canvas. Please do not email your assignments. You are encouraged to form study groups to discuss homework and lecture materials, but each student must do his/her own work on written assignments and exams. This means that you are allowed to solve the problems with a study group, but when it comes time to write up your answers, this should be done on your own.

You will learn much more from challenging yourself than from transcribing a classmate's problem set.

### **In Class Participation:**

Throughout the course I expect active class participation; 5 percent of your grade will be based on it. You should plan to speak up during class at all times.

### **Course Policies:**

- **General**

- The Economics Departmental Course Policies outline rules about academic integrity, final exam attendance, grading requests, etc. You are responsible for familiarizing yourself with these policies.
- In order to avoid unnecessary distractions, please mute your cellphone while in the classroom. This includes the time immediately before and after the class ends.
- All exams are cumulative of the material covered in the course. They are all closed book, closed notes.
- **No makeup exams will be given for the midterms.** A missed midterm will result in a zero so that midterm grade will be dropped and the other midterm grade will count toward your final grade. If you miss the final exam with a valid excuse, you will be allowed to take a makeup exam.
- Special needs/arrangements: Reasonable accommodation will be made for those with special needs. Anyone eligible for special arrangements on examinations must make sure I get notification from the Student Disability Services (SDS).

- **Late / Missed work No late assignments will be accepted under any circumstances.**

- **Attendance** Every student is expected to attend class and participate in class. Please arrive to class on time. Entering after a lecture has begun is distracting to your classmates and to me, and you should avoid it as a courtesy. If you arrive late, please enter the room quietly and sit near the door. If you miss class, you are responsible for obtaining class notes, assignments, etc. I will post lecture notes on Canvas as a courtesy, but don't only rely on them.

- **Regrading Requests** No regrading is possible for exams written in pencil, only with pens. Requests must be made to us within a week after the exam is returned. We will regrade your entire exam, so your grade might go up or down. The University allows us to keep copies of exams for our records, to assure academic integrity. Any sign of academic dishonesty will be pursued.

- **Integrity** Penn has a clear Code of Academic Integrity. It is your responsibility to familiarize yourself with the code, and to follow it to the letter. In particular, you are expected to maintain a professional, respectful environment, be courteous to me and the TA, not disrupt class (be quiet if entering class late, turn off electronic devices, do not chat). Never present work that is not your own.

### Tentative Course Outline:

The chapter numbers refer to those in the textbook. There can be changes to this schedule during the semester, which will be announced in classes. It is your responsibility to update your information about the course according to announcements made in class.

Week	Content
Week 1	<ul style="list-style-type: none"><li>• Introduction</li><li>• Readings: Ch. 1</li></ul>
Week 2	<ul style="list-style-type: none"><li>• Basic Microeconomics Tools</li><li>• Readings: Ch. 2</li></ul>
Week 3	<ul style="list-style-type: none"><li>• Market Structure and Market Power</li><li>• Readings: Ch. 3</li></ul>
Week 4	<ul style="list-style-type: none"><li>• Monopoly</li><li>• Readings: Ch. 5, 6, 8</li></ul>
Week 5	<ul style="list-style-type: none"><li>• Monopoly (cont'd)</li><li>• Readings: Ch. 5, 6, 8</li></ul>
Week 6	<ul style="list-style-type: none"><li>• Catch up (Monday)</li><li>• Midterm 1 exam on Wednesday, Feb. 17 (in class)</li></ul>
Week 7	<ul style="list-style-type: none"><li>• Game Theory and Oligopoly Markets: Basic Concepts and Solutions</li><li>• Readings: Ch. 9</li></ul>
Week 8	<ul style="list-style-type: none"><li>• Price Competition</li><li>• Readings: Ch. 10</li></ul>
Week 9	No class (Spring Break)
Week 10	<ul style="list-style-type: none"><li>• Dynamic Games and Competition</li><li>• Readings: Ch. 11</li></ul>
Week 11	<ul style="list-style-type: none"><li>• Price-Fixing, Repeated Games, and Collusion</li><li>• Readings: Ch. 14</li></ul>
Week 12	<ul style="list-style-type: none"><li>• Catch up (Monday)</li><li>• Midterm 2 exam on Wednesday, Mar. 30 (in class)</li></ul>
Week 13	<ul style="list-style-type: none"><li>• Horizontal Mergers</li><li>• Readings: Ch. 15</li></ul>
Week 14	<ul style="list-style-type: none"><li>• Vertical Relationships</li><li>• Readings: Ch. 16-17</li></ul>
Week 15	<ul style="list-style-type: none"><li>• Advertising and Information</li><li>• Readings: Ch. 19</li></ul>
Week 16	<ul style="list-style-type: none"><li>• Research and Development</li><li>• Readings: Ch. 20</li></ul>
Week 17	Final Exam: Thursday, May 5, 9-11am