

Industrial Organization
Graduate School of Economics & Graduate School of Public Policy
University of Tokyo

Term: Summer 2008

Instructor: Joe Chen, Faculty of Economics, joechen@e.u-tokyo.ac.jp

Class Meetings: section IV (15:00 – 16:40), Tuesday

Lecture Room: Seminar room #13, Economics Building

Office Hours: Room 801, Economics Research Bldg, 18:30 - 20:00, Wednesday

Course Description

- Industrial Organization (IO) studies firm and industry behavior. IO distinguishes itself from other fields in economics in that it emphasizes the interaction among firms in markets characterized by imperfect competition. The subject is important in its own right, and it also provides the analytical foundation for many issues in strategic management and economic policy.
- The purpose of this course is to provide you with a theoretical background in the IO discipline. My objectives are to stimulate thinking based on the IO framework, and to prepare you to do independent research in IO.

Class Materials

- Required textbook: *The Theory of Industrial Organization*, Jean Tirole, MIT Press, 1988.
- To build up a systematic introduction to the IO framework, I decided to use the text by Tirole (1988). It has been around for some time, but still the best textbook in IO. It covers various topics with just enough depth. At the end of the syllabus you will find a list of some of the more recent IO textbooks. I might take materials from some of these other textbooks (the library should have all the textbooks).
- The class will be in the format of lectures. I will put my lecture notes (based on the required textbook) on my website [<http://www.e.u-tokyo.ac.jp/~joechen/index.html>].

Course Requirements

- You should not worry about your grade too much. Tentatively, I propose 50% of your final grade to be based on your performance in a final exam on 29 July 2007. 40% of the grade will depend on an IO-related research proposal (see the next bullet item) due by the end of February. The rest of your grade depends on my subject perception of your performance in the class.
- Writing a research proposal can be an exasperating experience for even the most experienced researcher. For the beginning researcher, it can be frustrating and discouraging and even turn the novice off of a research project. But do not be afraid to try. The research proposal that I want you to write involves a few pages (preferably, no more than 3 pages) proposing an IO-related research project. It must be an original contribution which means either that you've proposed an original research question, or you've proposed a new approach to tackling an existing research question. It must have the following three components :
 - Motivation and statement of the research question(s);
 - Description of the theoretical and/or empirical strategy;
 - How you plan to address the research question(s) (that is, the types of results you plan to derive, e.g., comparative statics).

Course Outline

The lectures are organized according to the framework laid out in the required text book. They cover the following topics:

- I. Introduction and Monopoly Pricing
- II. Product Selection, Quality, and Advertisement
- III. Price Discrimination
- IV. Static Oligopoly Pricing
- V. Dynamic Oligopoly Pricing
- VI. Product Differentiation
- VII. Entry and Exit
- VIII. Information and Strategic Behavior

The first 3 lectures look into the subject – monopoly power (I-III). For there is only a single firm in the market, the concept of market power is easy to grasp. Understanding the existence and source of market power is important before we move on to the more complicated oligopolistic environment. In an oligopolistic structure, the pure market power is “contaminated” by the competition (strategic interaction) among firms. In the short run, (given product characteristics and the cost structure), firms engage in price or quantity competition (IV). In a somewhat longer run, one should take into account the dynamic nature (repeated interaction) of price and quantity competition (V). In the long run, product characteristic (e.g., quality and product design) can be changed, firms can engage in competition with rivals through product differentiation (VI). Moreover, the cost structure may change due to the availability of new technology; consumers’ perception of products can also be modified by advertisement. Ultimately, a firm face the problem of whether to enter the market at all (VII).

Tentative Class Calendar

8 April	Lecture I	3 June	Lecture V-2
15 April	no class	10 June	Lecture VI-1
22 April	Lecture II	17 June	Lecture VI-2
29 April	no class	24 June	no class
6 May	no class	1 July	Lecture VII-1
13 May	Lecture III	8 July	Lecture VII-2
20 May	Lecture IV	15 July	Lecture VIII-1
27 May	Lecture V-1	22 July	Lecture VIII-2

Major IO Textbooks

1. *Industrial Organization: Contemporary Theory and Practice* (3rd Edition), Lynne Pepall, Daniel J. Richards, and George Norman, South-Western Educational Publishing, January, 2005, ISBN: 0324224745.
2. *Industrial Organization: Contemporary Theory and Practice with Economic Applications*, Lynne Pepall, Daniel J. Richards, and George Norman, South-Western College Pub., August, 2004, ISBN: 0324261306.
3. *Modern Industrial Organization* (4th Edition), Dennis W. Carlton and Jeffrey M. Perloff, Addison Wesley, May, 2004, ISBN: 0321180232.
4. *Advanced Industrial Economics* (2nd Edition), Stephen Martin, Blackwell Publishers, May, 2001, ISBN: 0631217568.

5. *Introduction to Industrial Organization*, Lus M. B. Cabral, The MIT Press, August, 2000, ISBN: 0262032864.
6. *Industrial Organization: A Strategic Approach*, Jeffrey Church and Roger Ware, Irwin / McGraw-Hill, December, 1999, ISBN: 025620571X.
7. *Oligopoly Pricing: Old Ideas and New Tools*, Vives, Xavier, 1999, ISBN: 0262220601.
8. *Industrial Organization: Theory and Applications*, Oz Shy, The MIT Press, January, 1996, ISBN: 0262691795.
9. *The Theory of Industrial Organization*, Jean Tirole, The MIT Press, January, 1988, ISBN: 0262200716.