

Industrial Organization  
Department of Public Finance  
National Chengchi University

Term: Spring 2009 (98-2)

Instructor: Joe Chen, Department of Public Finance, joe@nccu.edu.tw

Class Meetings: Sections 5, 6, and 7 (14:10 – 15:00), Thursday

Room: 270209, South Wing, General Building of Colleges, College of Social Sciences

Office Hours: 10:45 – 12:15, Friday, Room 270943, same building

### 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, in particular, IO projects with clear implications on public policies.
- Some of you may question yourselves in mind: “What is the relationship between Public Finance and IO?” It is an excellent question! To the best of my knowledge, this is the first IO class ever offered in this Department. *I believe* Public Finance is not all about taxation and government expenditures. It is a field asking questions on what the government should do or are doing, and questions on how to pay for those activities. In light of this, topics in IO concerning public policies such as antitrust, regulation, deregulation, public enterprise, and privatization, are essential and necessary tasks for students and researchers in Public Finance.

### 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 mainly in the format of lectures. I will put my lecture notes (based on the required textbook) on the course website at: <http://www3.nccu.edu.tw/~joe/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 June 25, 2007. We can talk more about the type of the exam (in class, open book, take home, etc.) and the kind of questions later.
- 40% of the grade will depend on an IO-related research proposal and its presentation (5 to 10 minutes) on either the 11<sup>th</sup> or the 18<sup>th</sup> of June. You are required to email me the draft of your research proposal and presentation slides on Monday of the week of your presentation. For example, suppose you are told to present on June 18. You are required to email me the draft your research proposal and presentation slides on June 15. The final proposal is due by the end of July.
- Nonetheless, presentations may be cancelled when time does not allow. If that is the case, please email me the draft of your research proposal before the end of June. The final proposal is again due by the end of July.
- The rest of your grade (10%) 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).

- (More on the research proposal.) Please be aware that:
  - I really welcome that you discuss your research ideas with your fellow classmates. However, your research proposal is supposed to be yours, not a group work;
  - Unless you have received my permission in advance, I would like to hear your presentation in English. Consider it a training.

## Course Outline

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

1. Introduction and Monopoly Pricing
2. Product Selection, Quality, and Advertisement
3. Price Discrimination
4. Vertical Control
5. Static Oligopoly Pricing
6. Dynamic Oligopoly Pricing
7. Product Differentiation
8. Entry and Exit
9. Information and Strategic Behavior

The first 4 lectures look into the subject – monopoly power (1-4). 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 (5). In a somewhat longer run, one should take into account the dynamic nature (repeated interaction) of price and quantity competition (6). 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 (7). 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 (8).

### Tentative Class Calendar

Feb. 26	Lecture 1	April 30	Lecture 7-2
March 5	Lecture 2	May 7	Lecture 8-1
March 12	Lecture 3	May 14	Lecture 8-2
March 19	Lecture 4	May 21	Lecture 9-1
March 26	Lecture 5-1	May 28	No class
April 2	Lecture 5-2	June 4	Lecture 9-2
April 9	Lecture 6-1	June 11	Presentations
April 16	Lecture 6-2	June 18	Presentations
April 23	Lecture 7-1	June 25	Final exam

### Major IO Textbooks

- Undergraduate level:

1. *Industrial Organization: Contemporary Theory and Practice* (3<sup>rd</sup> 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* (4<sup>th</sup> Edition), Dennis W. Carlton and Jeffrey M. Perloff, Addison Wesley, May, 2004, ISBN: 0321180232.
4. *Introduction to Industrial Organization*, Lus M. B. Cabral, The MIT Press, August, 2000, ISBN: 0262032864.
5. *Industrial Organization: A Strategic Approach*, Jeffrey Church and Roger Ware, Irwin / McGraw-Hill, December, 1999, ISBN: 025620571X. (You may download this book for free at: <http://homepages.ucalgary.ca/~jrchurch/page4/page5/files/PostedIOSA.pdf>)

- Advanced undergraduate and/or graduate levels:

1. *Advanced Industrial Economics* (2<sup>nd</sup> Edition), Stephen Martin, Blackwell Publishers, May, 2001, ISBN: 0631217568.
2. *Oligopoly Pricing: Old Ideas and New Tools*, Vives, Xavier, 1999, ISBN: 0262220601.
3. *Industrial Organization: Theory and Applications*, Oz Shy, The MIT Press, January, 1996, ISBN: 0262691795.

4. *Lectures in Industrial Organization Theory*, Kaushik Basu, Blackwell Publishers, December, 1992, ISBN: 1557861110.
5. *The Theory of Industrial Organization*, Jean Tirole, The MIT Press, January, 1988, ISBN: 0262200716.