

產業組織實證方法  
ECON 7201  
黃景沂

Time and Location: Fridays, 9:30 – 11:20 at 社科604

Office: 社會科學院 (頤賢館) 857

Office Hour: Thursdays, 10:30 – 11:30

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## Course Description

The goal of this course is to familiarize students with empirical analysis in industrial organization. Specifically, we will talk about the development of **New Empirical Industrial Organization** in the past two decades.

From the view of antitrust, we want to estimate market power. (For example, the regulator wants to know whether a proposed merger should be allowed.) Since products in most industries are horizontally differentiated, we will spend most of the time on consumer's discrete choice of products in a differentiated market. We will introduce the BLP's (Berry, Levinsohn, and Pakes) framework to empirically analyze this discrete choice problem. We then apply this framework to study various issues, such as price discrimination, competition of durable products, environmental policies. We will also teach Matlab programming to apply these empirical methods.

There is no formal prerequisite. However, you should have learned some econometrics. You are expected to have known OLS, IV estimation, MLE, and GMM. Basic knowledge of theoretical Industrial Organization is helpful.

Note: This course is in complementary with Empirical Game Theory Analysis (offered in the Fall Semester). In that course, I focus on a firm's entry/exit decisions in an oligopoly game.

## Reference Books

There is no required textbook for the course. Most of our course materials are journal articles. Please refer to the reading list for all the references. The following survey article provides a good summary on recent development of empirical methods on industrial organization.

Akerberg, D., L. Benkard, S. Berry and A. Pakes (2007). “Econometric Tools for Analyzing Market Outcomes,” in J. J. Heckman and E. E. Leamer (eds.), *Handbook of Econometrics*, Volume 6A, Chapter 63. 4171-4276. North Holland.

Besides, the following two books are recommended references.

*Estimating Market Power and Strategies*, by Jeffrey M. Perloff, Larry S. Karp, and Amos Golan (An electric version is available at the NTU Library.)

## Grades

Grades will be determined by classroom participation (20%), one classroom presentation (30%), a take-home midterm exam (25%), and a take-home final exam (25%). You will have 7 days to complete the take-home exams by yourself. There will be no make-up exam. Please make sure you can take the exams (due on **April 15** and **June 10**, respectively) before enrolling this course.

In the class presentation, you are going to present an assigned paper which empirically analyzes some IO issue. You should introduce the motivation of its research, outline the research approach, and show the empirical results. The presentation time for each paper is about 30–40 minutes. In order to prepare the assignment list, send me your preferences over the papers with a # mark on the reading list.

## Topics

- Introduction (2/18)
- Market Power with Homogeneous Products (2/25, 3/4)
- Differentiated Product Industries (3/11, 3/18)
- Price Discrimination (3/25, 4/1)
- Take-home Midterm Exam, no class (4/8)
- Using Softwares to Apply the BLP Method (4/15, 4/22)
- Other Applications of the BLP Approach (4/29, 5/6)
- Advertising and Information (5/13)
- Network Effects and Two-Sided Markets (5/20, 5/27)
- Take-home Final Exam, no class (6/3, holiday)