ECS6322: Advanced Industrial Organization

This course provides a graduate-level introduction to modern empirical industrial organization. Some basic theory will be covered, but theory will mostly serve as motivation for the empirical models that we review. Some of the topics to be covered include estimating market power, hedonic analysis, differentiated goods markets, productivity, and single-agent dynamic models. We will discuss papers, paying particular attention to the modeling approach, identification, and estimation techniques used. This class should help improve students understanding of empirical research in general and particularly in regards to understanding the advantages and disadvantages of structural modeling (modeling based on theoretical models or first principles) versus reduced-form analysis (regression models).

Lectures: Monday, 3-6pm, AS1-0201

Office hours: After class and by appointment

Grades:

- Problem sets (25%)
- Class participation and presentation of 2 papers. The papers marked with a ★ are suggested presentation papers. You can choose different papers conditional on my approval. (25%)
- Final exam (50%) 25 November 2011 (Fri), 2.30PM
TENTATIVE COURSE OUTLINE

The papers marked with a ▶ are the papers that I will discuss in class. For some papers, you will not be expected to read the whole paper. I will let you know a week in advance what you should read for the next class. We will spend little time on the ● papers, but you may find them useful as supplemental reading.

Anything presented in lecture is fair game for the final exam, including papers presented by students.

1 Structural Modeling


● M. Keane, “Structural vs. Atheoretical Approaches to Econometrics,” *Journal of Econometrics*, Vol. 80, 1, 3 - 20


2 Market Power


3 Hedonic Models


## 4 Differentiated Products and Static Oligopoly

### 4.1 Discrete Choice Models - Probit, Logit, Conditional Logit, Nested Logit, Multinomial Probit, Random Coefficients Logit


Any graduate econometrics text such as

- Wooldridge, *Econometric Analysis of Cross Section and Panel Data*
- Greene, *Econometric Analysis*

### 4.2 BLP methodology


- J-P Dube, J. Fox and C-L Su “Improving the Numerical Performance of BLP Static and Dynamic Discrete Choice Random Coefficients Demand Estimation,” *working paper*
- C. R. Knittel and K. Metaxoglou “Estimation of Random Coefficient Demand Models: Challenges, Difficulties and Warnings,” *working paper*

### 4.3 Applications

5 Student Presentations I

Possible papers to choose from:


6 Single-agent Dynamic Models


7 Auctions


8 Student Presentations II

Possible papers to choose from:


