

Economics 7112: Industrial Organization II
Spring 2012

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IMPORTANT NOTE: Please carefully read the syllabus, course notes and reference materials for answers to your questions before asking me questions about them. If you still have questions you can ask them before/after the class or you are welcome to visit me during my office hours. Throughout the semester, no student is allowed to ask a personal negotiation on grade. Finally, the syllabus is subject to change as the semester progresses if I believe that this will enhance student learning and the overall quality of the course.

Course Objectives

The objective of this course is to provide you with the tools, techniques, and intuition underlying some of the important concepts in empirical industrial organization. The emphasis is given on market structures and strategic behavior of firms, competition, market power identification, market power measurement, the interplay between market power and efficiency, the relationship between price discrimination/price dispersion with market power, mergers, R&D, and adoption of new technologies. The students will work on a project which potentially involves data collection, (two) presentations, and a referee report. Hence, I aim to improve the students' research related skills such as data collection, criticizing and understanding research papers, and writing their own research papers. Finally, the students will improve their understanding of two widely used econometrics programming languages: Matlab and Stata. I will use the homework assignments and my lecture notes to facilitate this learning process.

T-Square

I will use t-square (www.t-square.gatech.edu/portal) to post announcements, distribute class notes and readings, practice quizzes, etc. You need to have a GaTech email account to use T-square. Please verify that you can log on to T-Square and access the information for this class.

Grading

There will be three homework assignments. The referee report will be evaluated based on your ability to criticize the relevant paper. A good referee report not only finds the weak points of a paper but also suggests feasible and reasonable improvements for the paper. The referee report is expected to be between 1-2 pages but can be longer if necessary. Note that not the number of pages but the content is important! The midterm presentations should be made as if the student were presenting their work at an academic seminar. The student's performance will be evaluated based on their ability to perform a good presentation. This includes understanding and clearly explaining the key points of the paper as well as answering the questions. The final project and presentation will be evaluated based on both the presentation and the hard copy of the project. I will give equal weight to these. The final project is expected to be at least 8-10 pages (this includes figures, references etc.)

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Homework	30 points (Three homework assignments each 10 points)
Referee report	10 points
Presentations	20 points
Final Project	40 points

Course requirements

- There is no exam!
- Homework assignments.
- You will be asked to provide a referee report to a fictitious editor (it would be me) on an empirical IO paper that is published in a respectable journal of your choice such as AER, QJE, JPE, or RAND. Deadline May 1st 2012.
- Instead of a midterm you will present a paper from the following subject list. Presentations will be made on **28th of February, 1st of March 2012, 6st of March 2012, and 8st of March 2012.** Each presentation will be 40 minutes. The last 10 minutes of the presentations are reserved for questions. The subjects for the presentations are:
 - o Mergers (3 papers) (28th of February, 1st of March 2012)
 - o R&D and/or Adoption of new technologies (3 papers) (6st and 8st of March 2012)
- By the end of course (last week) you will prepare an empirical project and present it in the class. The deadline for hard-copy submission is **May 1st 2012.**

Assignments

All assignments will have a *firm due date*. You can work on the assignment any time before the due date has passed. Once the due date has passed, the grade will be recorded and it will not be possible to change your answers or complete the assignment at this point. In other words, assignments must be completed by the due date. **No excuses are allowed.** So even if you were sick or you had Georgia Tech business you have to submit the homework on time. These assignments are posted in advance. Do them early to avoid any emergencies preventing your completion before the due date. Finally, for the assignments you will be using Matlab and Stata as statistical tools.

Participation and Attendance

Your success in the course will depend on your class participation and fulfillment of out of class readings and assignments.

Class Conduct

Please turn off all pagers, music players, cell phones, and laptops during class. If you must leave early or arrive late, please sit in one of the two back rows in order to avoid inconveniencing others. If you are found listening to music, watching a movie, playing a videogame or any such activity that may distract other students you will be asked to leave the class. For every two times you were asked to leave the class during the semester, your grade will be lowered to the next grade level, for example, from an A to a B level.

Reading List

Books:

- Perloff, J.M., Karp, L.S., and Golan, A. (2007): Estimating Market Power and Strategies, Cambridge University Press.
- Commandeur, J.J.F. and Koopman, S.J. (2007): State Space Time Series Analysis, Oxford University Press.
- Durbin, J. and Koopman, S.J. (2001): Time Series Analysis by State Space Methods, Oxford University Press.
- Kumbhakar, S.C. and Lovell, C.A.K (2000): Stochastic Frontier Analysis, Cambridge University Press.

Introduction and overview

- Bresnahan (1989), Studies of Industries with Market Power, The Handbook of Industrial Organization, vol. II, chap 17.
- Perloff, J.M., Karp, L.S., and Golan, A. (2007): Estimating Market Power and Strategies, Cambridge University Press.

Market Power Identification

- Bresnahan, T.F. (1982): The oligopoly solution is identified, *Economics Letters*, 10, 87-92.
- Lau, L.J. (1982): On identifying the degree of competitiveness from industry price and output data, *Economic Letters*, 10, 93-99.
- Perloff, J.M., and Shen, E.Z. (2001): Collinearity in linear structural models of market power, Working paper.

Static/Dynamic Games

- Perloff, J.M., Karp, L.S., and Golan, A. (2007)
- Corts, K.S. (1999): Conduct parameters and the measurement of market power, *Journal of Econometrics*, 88, 227-250.
- Puller, S.L. (2007): Pricing and firm conduct in California's deregulated electricity market, *The Review of Economics and Statistics*, 89, 75-87.
- Puller, S.L. (2009): Estimation of competitive conduct when firms are efficiently colluding: addressing the Corts critique, *Applied Economics Letters*, 16, 1497-1500.

Mergers

- Farrell, J. and Shapiro, C. (1990), Horizontal Mergers: An Equilibrium Analysis, *American Economic Review*, 80, 107-126.
- Nevo, A. (2000): Mergers and Differentiated Products: The Case of the Ready –to-eat Cereal industry, *The Rand Journal of Economics*, 31, 395-421.

R&D/Innovation

- Marim, P.L. and Siotis, Georges (2007): Innovation and Market Structure: An Empirical Evaluation of The 'Bounds Approach' in the Chemical Industry, *The Journal of Industrial Economics*, 55, 93-111.
- Gugler, K. and Siebert, R. (2007): Market Power versus Efficiency Effects of Mergers and Research Joint Ventures Evidence from the Semiconductor Industry, *Review of Economics and Statistics*, 89, 659.

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Production, Technology, and Market Power

- Commandeur, J.J.F. and Koopman, S.J. (2007)
- Durbin, J. and Koopman, S.J. (2001)
- Kumbhakar, S.C. and Lovell, C.A.K (2000)
- Chirstensen, L. and Greene, W. (1976), Economics of Scale in U.S. Electric Power Generation, *Journal of Political Economy*, 84, 655-676.
- Kutlu, L. and Sickles, R.C. (2011): Estimation of market power in the presence of firm level inefficiencies, *Journal of Econometrics*, Forthcoming.

Price Discrimination

- Borenstein, S. and N.L. Rose (1994): Competition and Price Dispersion in the U.S. Airline Industry, *Journal of Political Economy*, 102, 653-683.
- Stavins, J. (2001): Discrimination in the Airline Market: The Effect of Market Concentration, *The Review of Economics and Statistics*, 83, 200-202.
- Gerardi, K.S. and Shapiro, A.H. (2009): Does Competition Reduce Price Dispersion New Evidence from the Airline Industry, *Journal of Political Economy*, 117, 1-37.

Price/Quantity Competition in Homogenous Products Industries

- Porter, R. (1983): A study of cartel stability the joint executive committee 1880-1886, *The Bell Journal of Economics*, 14, 301-314.
- Graddy, K (1995): Testing for Imperfect Competition at the Fulton Fish Market, *The Rand Journal of Economics*, 25, 37-57.

Price/Quantity Competition in Differentiated Products Industries

- Borenstein, S. (1989): Hubs and high fares: Dominance and market power in the U.S. airline industry, *The RAND Journal of Economics*, 20, 344-365.
- Bresnahan, T. (1987): Competition and Collusion in the American Automobile Industry: The 1955 Price War, *Journal of Industrial Economics*, 2, 344-365.
- Nevo, A. (2001): Measuring Market Power in the Ready-to-Eat Cereal Industry, *Econometrica* 69, 307-322.

Regulations

- Borenstein and Rose (2011): How Airline Markets Work...Or Do They? Regulatory Reform in the Airline Industry, Chapter 2 of *Economic Regulation and Its Reform What Have We Learned*.

Special Accommodations

Students requesting academic accommodations based on a documented disability are required to register with the Access Disabled Assistance Program for Tech Students (ADAPTS). Please obtain a form from the ADAPTS office and turn it in to me during my office hours in the beginning of the semester. The ADAPTS Office is located in the Smithgall Student Services Building, Suite 220. The phone number is 404-894-2563 (V). <http://www.adapts.gatech.edu/index.html>

Academic Integrity

You are encouraged to work together with other students on the homework. Exams are taken individually, without any help from other students or any resources. Each student is expected to maintain academic integrity and to report violations to me or to the office of the Dean of Students.