

Syllabus - Graduate IO I (Fall 2016)

September 11, 2016

1 Course Info

- Course Name: Graduate IO I [Code: 310293], Fall 2015
- Time: Monday 8:55-11:45am (16 Weeks, First Class: Sept 12, 2016)
- Location: No. 4 Building, Room 208
- Course Page: http://zhentonglu.com/GradIO_Fall2016
- Instructor: Zhentong Lu
 - Office: Room 719, School of Economics
 - Office Hours: Monday 2:00 - 4:00pm
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 - Website: <http://zhentonglu.com>
- Teaching Assistant: Jian Hong
 - Email: lemon_hong12@163.com

2 Course Description

This course provides a graduate-level introduction to (Empirical) Industrial Organization. It is designed to expose students to a wide range of topics, industries, as well as techniques that the current researchers are studying and developing. Students are expected to know how to think about issues in specific industries and master the basic tools for analyzing market outcomes. Rigorous training in advanced microeconomics/econometrics and basic programming skills in Matlab/Stata are required. Research experience (e.g., data collection and analysis) in certain industries would be very helpful.

3 Course Outline and Reading List

Books

- J. Tirole, *The Theory of Industrial Organization*, MIT, 1988. [Tirole]
- D. Carlton and J. Perloff, *Modern Industrial Organization*, 3rd ed., Addison-Wesley, 1999.
- R. Schmalensee and R. Willig, eds., *Handbook of Industrial Organization*, Volumes 1 and 2, North-Holland, 1989.

- M. Armstrong and R. Porter, eds., *Handbook of Industrial Organization*, Volume 3, North-Holland, 2007.

3.0 Background Readings

- Tirole, Introduction
- F. Fisher, “Games Economists Play: A Noncooperative View”, *Rand Journal of Economics*, Spring 1989, 113-24.
- C. Shapiro, “The Theory of Business Strategy”, *Rand Journal of Economics*, Spring 1989, 125-137.
- K. Bagwell and A. Wolinksy, “Game Theory and Industrial Organization,” *Handbook of Industrial Organization*, Vol. 3.
- T. Bresnahan, “Empirical Studies with Market Power,” *Handbook of Industrial Organization*, Vol. 2.
- L. Einav and J. Levin, “Empirical Industrial Organization: A Progress Report,” *Journal of Economic Perspectives*, Spring 2010, 145-62.
- D. Akerberg, L. Benkard, S. Berry and A. Pakes, “Econometric Tools for Analyzing Market Outcomes,” *Handbook of Econometrics*, Volume 6A.
- P. Reiss and F. Wolak, “Structural Econometric Modeling: Rationales and Examples from Industrial Organization,” *Handbook of Econometrics*, Volume 6A.

3.1 Static Models of Competition in Homogenous Good Markets

Theory

- Tirole, Chapter 5
- D. Kreps and J. Scheinkman, “Quantity Precommitment and Bertrand Competition Yield Cournot Outcomes,” *Bell Journal of Economics*, 1983.
- C. Shapiro, “Theories of Oligopoly Behavior,” *Handbook of Industrial Organization*, Vol. 1.

Empirical

- Porter, R. “A Study of Cartel Stability: The Joint Executive Committee, 1880-1886”, *Bell Journal of Economics*, 1983.
- Genesove, D. and W. Mullin, “Testing Static Oligopoly Models: Conduct and Cost in the Sugar Industry, 1890-1914,” *RAND Journal of Economics*, 1998.
- S. Borenstein, “Hubs and High Fares: Dominance and Market Power in the U.S. Airline Industry,” *RAND Journal of Economics*, 1989.
- S. Borenstein, J. Bushnell and F. Wolak, “Measuring Market Inefficiencies in California’s Restructured Wholesale Electricity Market,” *American Economic Review*, 2002.

3.2 Product Differentiation

Theory

- Tirole, Chapter 7
- H. Hotelling, “Stability in Competition,” *The Economic Journal*, 1929.
- Shaked, A. and J. Sutton, “Relaxing Price Competition through Product Differentiation”, *Review of Economics Studies*, 1982.
- Caplin, A., and B. Nalebuff, “Aggregation and Imperfect Competition: On the Existence of Equilibrium,” *Econometrica*, 1991.
- Eaton and R. Lipsey, “Product Differentiation,” *Handbook of Industrial Organization*, Vol. 1.
- S. Rosen, “Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition,” *Journal of Political Economy*, 1974.

Empirical

- Deaton, A., and J. Muellbauer, “An Almost Ideal Demand System,” *American Economic Review*, 1980.
- P. Goldberg, “Product Differentiation and Oligopoly in International Markets: The Case of the U.S. Automobile Industry,” *Econometrica*, 1995.
- T. Bresnahan, “Competition and Collusion in the American Automobile Oligopoly: The 1955 Price War,” *Journal of Industrial Economics*, 1987.
- S. Berry, “Estimating Discrete Choice Models of Oligopoly Product Differentiation”, *RAND Journal of Economics*, 1994.
- Berry, S., J. Levinsohn, and A. Pakes, “Automobile Prices in Market Equilibrium”, *Econometrica*, 1995.
- A. Nevo, “A Practitioner’s Guide to Estimation of Random-Coefficient Logit Models of Demand”, *Journal of Economics and Management Strategy*, 2000.
- A. Nevo, “Measuring Market Power in the Ready-to-Eat Cereal Industry,” *Econometrica*, 2001.
- Benkard, C. L., and P. Bajari, “Demand Estimation with Heterogeneous Consumers and Unobserved Product Characteristics: A Hedonic Approach,” *Journal of Political Economy*, 2006.

3.3 Price Discrimination

Theory

- Tirole, Chapter 3
- Varian, H.R., “Price Discrimination,” *Handbook of Industrial Organization*, Volume 1.
- Stole, L., “Price Discrimination and Competition,” *Handbook of Industrial Organization*, Volume 3.
- Ellison, G., “A Model of Add-on Pricing,” *Quarterly Journal of Economics*, 2005.
- Armstrong, M. and J. Vickers, “Competitive Price Discrimination,” *RAND Journal of Economics*, 2006.

- I. Aguirre, S. Cowan and J. Vickers, “Monopoly Price Discrimination and Demand Curvature,” *American Economic Review*, 2010.

Empirical

- M. Busse and M. Rysman, “Competition and Price Discrimination in Yellow Pages Advertising,” *RAND Journal of Economics*, 2005
- C. Chu, P. Leslie and A. Sorensen, “Bundle-Size Pricing as an Approximation to Mixed Bundling,” *American Economic Review*, 2011.
- P. Leslie, “Price Discrimination in Broadway Theater,” *RAND Journal of Economics*, 2004.
- A. Nevo and C. Wolfram, “Why Do Manufacturers Issue Coupons? An Empirical Analysis of Breakfast Cereals,” *RAND Journal of Economics*, 2002.
- J. Mortimer, “Price Discrimination, Copyright Law and Technological Innovation: Evidence from the Introduction of DVDs,” *Quarterly Journal of Economics*, 2007
- S. Villas-Boas, “An Empirical Investigation of the Welfare Effects of Banning Wholesale Price Discrimination,” *RAND Journal of Economics*, 2009.

3.4 Market Structure and Entry

Theory

- Dixit, A. and J. Stiglitz, “Monopolistic Competition and Optimal Product Diversity,” *American Economic Review*, 1977
- Bulow, J., J. Geanakoplos, and P. Klemperer, “Multimarket Oligopoly: Strategic Substitutes and Complements”, *Journal of Political Economy*, 1985.
- Mankiw, N.G. and M.D. Whinston, “Free Entry and Social Efficiency”, *RAND Journal of Economics*, 1986.
- J. Sutton, “Market Structure: Theory and Evidence,” *Handbook of Industrial Organization*, Volume 3.

Empirical

- Berry, S., “Estimation of a Model of Entry in the Airline Industry”, *Econometrica*, 1992.
- Bresnahan, T. and P. Reiss, “Entry in Monopoly Markets”, *Review of Economic Studies*, 1990.
- Berry, S. T. and J. Waldfogel. “Free entry and social inefficiency in radio broadcasting,” *RAND Journal of Economics*, 1999.
- K. Seim, “An Empirical Model of Firm Entry with Endogenous Product-Type Choices,” *RAND Journal of Economics*, 2006
- Ciliberto, F. and E. Tamer, “Market structure and multiple equilibria in airline markets,” *Econometrica*, 2007.
- S. Berry and P. Reiss, “Empirical Models of Entry and Market Structure,” *Handbook of Industrial Organization*, Volume 3.
- P. Jia, “What Happens When Wal-Mart Comes to Town: An Empirical Analysis of the Discount Retail Industry,” *Econometrica*, 2008.

3.5 Price Dispersion and Search

Theory

- Varian, H. (1980) “A Model of Sales”, *American Economic Review*, 1980.
- D. O. Stahl, “Oligopolistic Pricing with Sequential Search”, *American Economic Review*, 1989.
- Hendricks, K., Sorensen, A., and Wiseman, T. “Observational Learning and Demand for Search Goods”, *American Economic Journal: Microeconomics*, 2012.
- M. Baye and John Morgan, “Information Gatekeepers on the Internet and the Competitiveness of Homogenous Product Markets”, *American Economic Review*, 2001.

Empirical

- Sorensen, A. “Equilibrium Price Dispersion in Retail Markets for Prescription Drugs”, *Journal of Political Economy*, 2000.
- Hortacsu and C. Syverson, “Product Differentiation, Search Costs and Competition in the Mutual Fund Industry”, *Quarterly Journal of Economics*, 2004.
- Hendricks, K. and A. Sorensen, “Information and Skewness in Music Sales”, *Journal of Political Economy*, 2009.
- G. Ellison, S. F. Ellison, “Search, Obfuscation, and Price Elasticities on the Internet”, *Econometrica*, 2009.
- Hortascu, A., B. Santos and M. Wildenbeest, “Testing Models of Consumer Search Using Data on Web Browsing and Purchases”, *American Economic Review*, 2012.

3.6 Advertising

Theory

- Tirole, Chapters 2 and 7.
- Bagwell, K., “The Economic Analysis of Advertising”, *Handbook of Industrial Organization*, Vol. 3.
- R. Dorfman, and P. O. Steiner, “Optimal advertising and optimal quality,” *American Economic Review*, 1954.
- M. Piccione and R. Spiegler, “Price Competition under Limited Comparability”, *Quarterly Journal of Economics*, 2012.
- Eliaz, K. and R. Spiegler, (2008), “Consideration Sets and Competitive Marketing”, *Review of Economic Studies*, 2011.

Empirical

- J. Rizzo and R. Zeckhauser, “Advertising and Entry: The Case of Physician Services,” *Journal of Political Economy*, 1990.
- R. Sauer and K. Leffler, “Did the Federal Trade Commission’s Advertising Substantiation Program Promote More Credible Advertising?”, *American Economic Review*, 1990.

- Akerberg, D., “Empirically Distinguishing Informative and Prestige Effects of Advertising”, *RAND Journal of Economics*, 2001.
- M. Goeree, “Limited Information and Advertising in the US Personal Computer Industry,” *Econometrica*, 2008.

3.7 Vertical Contracts and Integration

Theory

- O. Williamson, “The Vertical Integration of Production: Market Failure Considerations,” *American Economic Review*, 1971.
- Bernheim, D. and M. Whinston, “Exclusive Dealing,” *Journal of Political Economy*, 1998.
- Bolton, P. and M. Whinston, “Incomplete Contracts, Vertical Integration, and Supply Assurance,” *Review of Economic Studies*, 1993.
- Hart, O. and J. Tirole, “Vertical Integration and Market Foreclosure,” *Brookings Papers on Economic Activity*, 1990.
- S. Grossman, and O. Hart, “The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration,” *Journal of Political Economy*, 1986.

Empirical

- T. Chipty, “Vertical Integration, Market Foreclosure, and Consumer Welfare in the Cable Television Industry,” *American Economic Review*, 2001.
- Asker, J. and A. Ljungqvist, “Competition and the Structure of Vertical Relationships in Capital Markets,” *Journal of Political Economy*, 2010.
- Hortacsu, A. and C. Syverson, “Cementing Relationships: Vertical Integration, Foreclosure, Productivity, and Prices,” *Journal of Political Economy*, 2007.
- G. S. Crawford and A. Yurukoglu, “The Welfare Effects of Bundling in Multichannel Television Markets,” *American Economic Review*, 2012.
- Villas-Boas, “Vertical Relationships between Manufacturers and Retailers: Inference with Limited Data”, *Review of Economic Studies*, 2007.

4 Course Assessments

- attendance and readings (10%)
- two problem sets (30%)
- presentation (40%)
- referee report (20%)