

Economics 611 - Fall 2013 Syllabus
GRADUATE EMPIRICAL INDUSTRIAL ORGANIZATION
DEPARTMENT OF ECONOMICS
UNIVERSITY OF CALGARY

Instructor:	Eugene Choo	Place:	SS423
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Introduction:

This is a graduate level topics class in empirical industrial organization. The material covered in this term relates largely to firm behavior in oligopolistic markets, as well as consumer and firm behavior in environments with asymmetric information. There will be an emphasis on empirical (data-related) work, although theoretical work will also be presented and discussed, with a view towards motivating (1) how theory can be tested; (2) how theoretical models can be adapted into empirical models, in order to estimate theoretically important parameters.

This course assumes that students have taken an undergraduate course in econometrics and are familiar with regression analysis, elementary statistics and matrix algebra.

Software

Assessment in the form of 5 problem sets will mean that students will have a first hand experience working with data. As such students will have to learn and use a statistical software package. You are free to use whatever package you wish (such as Matlab, Gauss or Stata.). Both Matlab and Stata are available in the Tri-Faculty Lab in the basement of the Social Science Building.

Evaluation:

- There will be 5 problem sets, each worth 12% of the final grade and a final exam worth 40%.
- The course grade is calculated using the weights indicated above. As a guide to determining standing, these letter grade equivalences will generally apply:

A+	95-100	A	87-94	A-	80-86	B+	75-79	B	65-74
B-	55-64	C+	50-54	C	45-49	D	40-44	F	< 40

Course Outline

Below I have listed the topics, largely in the order that they will be covered. We will use a (work in progress) book by Victor Aguirregabiria entitled “Empirical Industrial Organization: Models, Methods and Applications,” as class notes. The link for this book is

http://www.aguirregabiria.org/barcelona/book_dynamic_io.pdf

1. Static Demand and Supply - Oligopolistic Differentiated Markets (2-3 weeks)

- * VA Notes: Chapter 1 and 3
- * Bresnahan, T., (1987): “Competition and Collusion in the American Automobile Oligopoly: The 1955 Price War”, *Journal of Industrial Economics*, pp. 457-482.
- * Berry, S. (1994); “ Estimating Discrete Choice Models of Product Differentiation”, *RAND*, pp. 242-262.
- * Berry, S., J. Levinsohn, A. Pakes (1995): “Automobile Prices in Market Equilibrium”, *Econometrica*, Vol. 63, No. 4, pp. 841-90.
- Rosen, S., (1974): “Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition”, *Journal of Political Economy*, pp. 34-55.
- Petrin, A.,(2002): “Quantifying the Benefits of New Products: The case of Minivan” *Journal of Political Economy*, 110(4) pp. 705-29
- Hausman, J., G. Leonard, and J. D. Zona, Competitive Analysis with Differentiated Products, *Annales d'Economie et de Statistique* 34, 1994, 159-180
- M. Trajtenberg, (1999) The Welfare Analysis of Product Innovations, with an Application to Computed Tomography Scanners”, *Journal of Political Economy*, 444-79.
- Hausman, J. (1997): “The Valuation of New Goods Under Perfect and Imperfect Information” in T. Bresnahan and R. Gordon (editors) *The Economics of New Products* , 1999, University of Chicago Press.

2. Production and Technological Change (2 weeks)

- * VA Notes: Chapter 2
- * Olley, S., A. Pakes (1996): “The Dynamics of Productivity in the Telecommunications Equipment Industry”, *Econometrica*, 1263-1297.
- Benkard, L. (2001): “Learning and Forgetting: The Dynamics of Commercial Aircraft Production”, *AER*, 90(4), 1034-54.

- Bresnahan, T. F., M. Trajtenberg (1995): “General Purpose Technologies: Engines of Growth?” *Journal of Econometrics* 65, 83–108.
- Bresnahan, T. F., S. Stern, and M. Trajtenberg (1997): “Market Segmentation and the Sources of Rents from Innovation: Personal Computers in the Late 1980s,” *RAND*, 28(0), 17–44.

3. Discrete Games: Static Models of Entry and Exit (2 weeks)

- * VA Notes: Chapter 5
- * Bresnahan, T., P. Reiss, (1991): “Entry and Competition in Concentrated Markets”, *Journal of Political Economy*,
- * Mazzeo, M., (2002): “Product Choice and Oligopoly Market Structure” *RAND Journal of Economics*, 33(2), 221-242.
- * Berry, S., (1992): “Estimation of a model of Entry in the Airline Industry”, *Econometrica*, 60(4), 889-917.
- * Seim, K. (2006): “An Empirical Model of Firm Entry with Endogenous Product-Type Choices,” *RAND Journal of Economics* 37(3). *mimeo* Stanford Graduate School of Business available at http://faculty-gsb.stanford.edu/seim/personal_page/research.html.

4. Single Agent Dynamic Behavior (2 weeks)

- * VA Notes: Chapter 6 and 7
- Stokey, Lucas and Prescott, Chapter 5.
- * Pakes, A., (1986): “Patents as Options: Some Estimates of the Value of Holding European Patent Stocks”, *Econometrica*, 54(4), 755-84.
- * Rust, J., (1987): “Optimal Replacement of GMC Bus Engines: An Empirical Model of Harold Zurcher”, *Econometrica*, 55(5), 999-1033.
- * Aguirregabiria, V., (1999): “The Dynamics of Markups and Inventories in Retail Firms”, *Review of Economic Studies*, 66(2), 275-308.

5. Empirical Models of Auctions (2 weeks)

- * Susan Athey and Phillip Haile (2005a), “Non-Parametric Approaches to Auctions” *Handbook of Econometrics*, Volume 6A (2007), Edited by Heckman J. and Leamer E. also available at <http://kuznets.fas.harvard.edu/~athey/athey-haile-handbook.pdf>

- * Susan Athey and Phillip Haile (2005b), “Empirical Models of Auctions” available at <http://kuznets.fas.harvard.edu/~athey/EmpiricalModels.pdf>
- * “Identification of Standard Auction Models,” Susan Athey and Phillip Haile, *Econometrica*, 70(6), November 2002, 2107-2140.
- Hendricks, Ken and Rob Porter (1988), “An Empirical Study of an Auction with Assymmetric Information”, *AER*, 78, 865-883.
- Guerre, Perrigne and Vuong (2000), “Optimal Nonparametric Estimation of First Price Auctions”, *Econometrica*, 68, 525
- “An introduction to the structural econometrics of auction data”, MIT Press, Harry Paarsch and Han Hong

6. Empirical Models of Matching (1 week)

- * Morten Sorensen, “How Smart is Smart Money: An Empirical Two-Sided Matching Model of Venture Capital” *The Journal of Finance* Volume 62, Issue 6, pages 2725-2762, December 2007
- * Choo, E. and Siow, A. “Who Marries Whom and Why,” *Journal of Political Economy* 2006.
- Matthew Shum, Federico Echenique, SangMok Lee, and M. Bumin Yenmez, “The Revealed Preference Theory of Stable and Extremal Stable Matchings” *Econometrica*, Vol. 81, pp. 153-171 (January 2013).
- Yu-Wei Hsieh, “Understanding Mate Preferences from Two-Sided Matching Markets: Identification, Estimation and Policy Analysis” UCSD mimeo
- Jeremy T. Fox, “Estimating Matching Games With Endogenous Prices,” mimeo University of Chicago, available at http://home.uchicago.edu/~fox/fox_matching.pdf.
- * Hitsch, Guenter, and Ali Hortacsu and Dan Ariely) “Matching and Sorting in Online Dating,” *American Economic Review* , 100(1), March 2010.