Economics 611 - Winter 2011 Syllabus

Graduate Empirical Industrial Organization

Department of Economics
University of Calgary

Instructor:	Eugene Choo	**Place:**	SS423
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Office hours:	MW 2.00-3.00		

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 4 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 4 problem sets that will include a theoretical and an empirical component. Each of these will be worth 20% of the final grade.
- In-class presentation of assigned papers 20%.
- 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. For each topic, I will provide introductory lectures, and also assign students to present several recent papers in class. We may skip and/or dawdle on certain topics as the interests of the class and time constraints dictate.

1. **Static Demand and Supply - Oligopolistic Differentiated Markets**

   - 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 dEconomie 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**

   - Olley, S., A. Pakes (1996):"The Dynamics of Productivity in the Telecommunications Equiment 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**

   - 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**

   - 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**

- 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, 21072140.
- Hendricks, Ken and Rob Porter (1988), "An Empirical Study of an Auction with Assymetric 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