

University of Colorado  
Department of Economics  
SPRING 2009

ECON 8747

## INDUSTRIAL ORGANIZATION

INSTRUCTOR: Professor Håle Utar

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TIME AND LOCATION	Monday	12:00-1:15 PM	ECON 5
	Wednesday	12:00-1:15 PM	ECON 5

### COURSE DESCRIPTION

This is a graduate course on empirical industrial organization. The focus of the course will be on firms' productivity. We will study a selection of papers to understand empirical research on firms' productivity, its relationship with organizational structure, its relationship with market conduct and power, and its relationship with market environment. Firms have different levels of productivity, also referred to as 'firm fixed effect'. Two essential questions are: What are the sources of 'firm-fixed effect'? What are the aggregate consequences of the firm heterogeneity? We will explore both sources of within firm productivity and, through reallocation patterns between firms, aggregate implications of firm heterogeneity. These are important questions that also relate to other fields in economics such as macroeconomics, international trade, and development economics. In this course, we will approach this topic from an industrial organization perspective. We will treat firms as part of the environment under which they operate with explicit considerations of market power, market frictions, and uncertainty.

OFFICE HOURS	Monday	10:00 - 12:00pm
	Wednesday	2:00 - 3:00pm

### COURSE WEBPAGE

- For lecture notes, assigned articles and other class material: CULearn
- Also see: My Web Site

### COURSE OUTLINE

- Production Function/Productivity Estimation
  - Griliches and Mairesse: NBER Working Paper No. 5067 Issued in March 1995 Production Functions: The Search for Identification
  - Olley and Pakes: Econometrica, Vol. 64, No. 6 (Nov., 1996), pp. 1263-1297 The Dynamics of Productivity in the Telecommunications Equipment Industry
  - Levinsohn and Petrin: Review of Economic Studies, April 2003, pp. 317-342. Estimating Production Functions Using Inputs to Control for Unobservables

- Klette, Tor Jakob : The Journal of Industrial Economics, December 1999 Market Power, Scale Economies and Productivity: Estimates From a Panel of Establishment Data
- Klette and Grilliches : Journal of Applied Econometrics Volume 11 Issue 4 (1996), Pages 343 - 361 The Inconsistency of Common Scale Estimators When Output Prices are Unobserved and Endogenous
- Melitz, Marc : Working paper, 2000 Estimating Firm-Level Productivity in Differentiated Product Industries
- Market Demand
  - Campbell and Hopenhayn : The Journal of Industrial Economics, March 2005 Market Size Matters
  - Syverson, Chad : Journal of Political Economy, v. 112, no. 6, pp. 1181 Date: 2004 Market Structure and Productivity: A Concrete Example
- Dynamic Industry Equilibrium Models
  - Jovanovic, Boyan : Econometrica, Vol. 50, No. 3 (May, 1982), pp. 649-670 Selection and Evolution of Industry
  - Hopenhayn, Hugo : Econometrica, Vol. 60, No. 5 (Sep., 1992), pp. 1127-1150 Entry, Exit, and Firm Dynamics in Long Run Equilibrium
  - Ericson and Pakes : The Review of Economic Studies, Vol. 62, No. 1 (Jan., 1995), pp. 53-82 Markov-Perfect Industry Dynamics: A Framework for Empirical Work
  - Utar, Håle : Working paper Industrial Evolution, Import Competition and Allocative Efficiency
  - Technical Appendix
    - \* Dynamic Programming
      - Lecture Notes from Fabrice Collard
      - Adda and Cooper: Dynamic Economics, 2003, The MIT Press
    - \* Simulation Based Estimation Techniques
      - Lee and Ingram: Journal of Econometrics 47, 1991, pp.197-205. Simulation Estimation of Time Series Models
      - Duffie and Singleton : Econometrica 61 1993, pp.929-952. Simulated Moments Estimation of Markov Models of Asset Prices
      - Gourieroux, Monfort, and Renault : Journal of Applied Econometrics 8 1993, S85-S118. Indirect Inference
      - Smith, Anthony : The New Palgrave Dictionary of Economics, 2nd Edition Indirect Inference
- Market Selection, Reallocation and Aggregate Productivity
  - Foster, Haltiwanger, and Krizan: NBER Working Paper 2000 Aggregate Productivity Growth: Lessons from Microeconomic Evidence
  - Restuccia and Rogerson : Review of Economic Dynamics, Volume 11, Issue 4, October 2008, pp. 707-720 Policy Distortions and Aggregate Productivity with Heterogeneous Establishments
  - Foster, Haltiwanger and Syverson: American Economic Review, March 2008 Reallocation, Firm Turnover and Efficiency: Selection on Productivity or Profitability?
  - Hsieh and Klenow : forthcoming in the Quarterly Journal of Economics Misallocation and Manufacturing TFP in China and India
- Innovation

- Klette, Tor Jacob : The RAND Journal of Economics, Vol 27, No: 3, Autumn 1996, pp.502-522. R&D, Scope Economies and Plant Performance
- Klette and Kortum : The Journal of Political Economy, October 2004 Innovating Firms and Aggregate Innovation
- Aghion, Bloom, Blundell, Griffith and Howitt : Quarterly Journal of Economics, May 2005, Vol. 120 Issue 2, p701-728 Competition and Innovation: An Inverted U Relationship
- Innovation and Export
  - Atkeson and Burstein : Working paper, 2008 Innovation, Firm Dynamics and International Trade
  - Constantini and Melitz: Working paper, 2007 The Dynamics of Firm-Level Adjustment to Trade Policy
  - Aw, Roberts, and Winston : NBER Working Paper 11774, 2005 The Complementary Role of Exports and R&D Investments as Sources of Productivity Growth
- Vertical Integration and Firms' Boundaries
  - Hortaçsu and Syverson : Working paper 2008 Vertical Integration and Production: Some Plant-level Evidence
  - Lafontaine and Slade : Journal of Economic Literature, September 2007, pp. 629-685. Vertical Integration and Firm Boundaries: The Evidence
  - Acemoglu, Aghion, Griffith and Zilibotti : Working paper 2004 Vertical Integration and Technology: Theory and Evidence
  - Acemoglu, Aghion, Lelarge, Van Reenen, Zilibotti : Quarterly Journal of Economics, November 2007 Technology, Information and the Decentralization of the Firm

## REFeree REPORT ASSIGNMENTS

I will assign two papers to each student for preparation of referee reports. The first referee report will be due on **February 18**. The second referee report will be due on **March 30**.

## GUIDELINES FOR A REFeree REPORT

The purpose of a referee report is to recommend to an editor whether a paper is suitable for publication for a particular journal or not, potentially after revision. The job is to document reasons for accepting, rejecting, or requesting revisions. It should contain:

- A good summary of the paper
  - What is the question asked by the authors/
  - What is the modeling strategy?
  - What data is used?
  - How is the hypothesis formulated and tested?
  - What are the results?
  - How does it fit in the relevant literature?
- Development of 3 or 4 main points (positive or negative)
  - For a positive point: why the question is particularly important, or the approach particularly novel, or the techniques new, or the identification strategy innovative, the data very uncommon etc..
  - For a negative point: Lack of correspondence between the idea and the model, the model and the empirical technique, the empirical strategy/results and the conclusion; lack of significant contribution
- 4 or 5 small points that need clarification or addition
  - Specific points that can be improved for sure

## PRESENTATIONS

Starting from March 30 (tentative date), we will have class presentations. Each student will present the paper that is assigned for the second referee report.

Content: Research paper that is assigned to you to present.

Slide format: Keep it simple, do not put too much information on one slide. In the beginning of your presentation, give the outline of your talk, so your audience knows what to expect.

The length of the presentation: Prepare for approximately 45 minutes talk ~ about 25-30 slides

Bring your own laptop. If you do not have access to one, I can provide one. Please let me know well in advance.

## GRADING POLICY

You are expected to participate in the class and attendance is required. There will be a final examination and the time and the place for the exam will be determined by the university. No show at the final exam or seminar presentation with no valid excuse according to university policy will be graded zero. There will not be any make-up exam. The final grade will be given as follows:

- ♣ Overall Class Participation 10%
- ♣ Referee Report I 20%
- ♣ Referee Report II 20%
- ♣ Seminar Presentations 25%
- ♣ Final Examination 25%

#### METHODS OF COMMUNICATION

- Face to face conversation (Preferred )
- Phone call (For urgent situations)
- Email (For non-urgent and low priority matters only)

I will be available during my office hours and/or immediate after class for questions on both class materials and other course-related matters. If you need to see me outside office hours, please make an appointment either during class, or by email, as I may not be available to see you if you come by without an appointment. The use of emails should be limited to brief communications such as keeping me informed or sending me files. Email is too time-consuming a method to give answers at any length to academic questions. Please come by during office hours instead.

#### ACADEMIC INTEGRITY

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council ([honor@colorado.edu](mailto:honor@colorado.edu); 303 – 725 – 2273).

Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode/>

#### DISABILITY MESSAGE

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303 – 492 – 8671, Willard 322, and <http://www.Colorado.EDU/disabilityservices>

#### CLASSROOM BEHAVIOR

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which they and their students express opinions. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at <http://www.colorado.edu/policies/classbehavior.html> and at <http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student-code>