# *Industrial Organization Theory: Special Topics*

*Economics 885.05*

*Fall 2017*

*Instructor: Tracy Lewis*

**Time:** Thurs: 4:40–7:10, Aug 31–Oct 26, 2017

**Location:** TBA

**Office Hours:** By appointment, at Rm. A412, Fuqua School of Business

## Description:

This course presents special topics in Industrial Organization Theory and Market Design. It is intended for students interested in applied theory who are seeking to learn about recent developments in IO, Mechanism and Market Design and Policy Games

This year the course provides a selective overview of current work in *Market Design and Mechanisms for Social and Economic Programs.* Market Design is the study of how to organize markets to achieve efficient allocations of resources. Recent developments, ushered in by the information economy and the emergence of social media, have given rise to new forms of buyer and seller exchanges, such as internet advertising platforms, buyers clubs, on-line auctions and two sided markets. These organizations are designed to make sellers search for buyers and buyers search for products, more efficient.

Mechanisms for Social and Economic Programs is broadly focused on how governments, regulatory institutions, statutory bodies and strategic alliances carry out a variety of tasks. Our attention this term is on economic and political theories of incentives in organizations with applications to law and economics, the formation of economic networks, reform of public welfare, financial markets, and environmental protection. Unlike many micro theory classes, this is not a math tools course, but rather an applied microecon course that surveys advances in mechanism design to address political, economic legal and environmental issues.

## Course Organization

This is a seminar and reading course. The class material is presented in six meetings listed below with a tentative reading list of papers that are the basis for presentation in class. An overview of papers listed for each week is provided in class. Students are to read the papers on the syllabus (with asterisks "*") and to complete take home exercises relevant to these papers prior to the class where the papers are discussed. Most of the readings are provided on the course web site, enabling students to prepare for class in advance.

## Prerequisites, Reference Reading Materials and Lecture Plans:

The prerequisite for the class is a first-year graduate level knowledge of micro-theory and game theory. The required text, *Fudenberg and Tirole* and recommended references are

> Bolton and Dewatripont, *Contract Theory*: MIT Press
>
> Laffont and Tirole, *A Theory of Incentives in Procurement and Regulation:* MIT Press
>
> *Fudenberg and Tirole, *Game Theory:* MIT Press * (**obtain from Duke Book Store**)
>
> Gibbons and Roberts: *The Handbook of Organization Economics,* Princeton University Press, 2013
>
> Tirole, *The Theory of Industrial Organization,* MIT Press

Lectures are based on required readings, (marked with an "*" (asterick), suggested readings, (if you want a broader view), and notes to be covered in the lecture.

## Evaluation

Students will present and analyze one of the assigned readings in class, write a first draft of a research paper related to the class material and perform weekly take home assingments. Details of the research paper will be provided in class.

## Lecture Readings Assignments

Papers assigned for lectures 1-6 are tentative and may change depending on the interests of the students. *Please note there is no Week 0 Class because I am out of town. Complete the Week 0 readings and Assignment 0 in preparation for Week 1 Class.*

**W0: Aug. 31: Overview of Games of Information**
No class meeting. Do the background reading for Strategic Information Transmission

- Strategic Information Transmission
  - *Chpts 6,7 Fudenberg and Tirole
  - *Milgrom, Paul. 2008. "What the Seller Won't Tell You: Persuasion and Disclosure in Markets." *J. Econ. Perspectives* 22 (2): 115–31.
  - *Sobel, Joel 2008 "Signaling Games" Working Paper
  - *Sobel, Joel 2011 "Giving and Receiving Advice"
  - *Crawford, Vincent P., and Joel Sobel. 1982."Strategic Information Transmission "*Econometrica* 50 (6): 1431–51

- Delegation and Signaling
  - *Feltovich, Harbaugh and Ho (2002) "Too cool for school? Signaling and Countersignalling, *Rand Journal of Economics*

    *Alonso,R and N. Matouschek, Optimal Delegation, Review of Economic Studies
  - *Chakravarty A. and J. Harbaugh, (2007) "Comparative Cheap Talk" *Journal of Economic Theory*

    Li and Matouschek "Managing "Conflicts in Relational Contracts," *Review of Economic Studies*
  - Li, J, N. Matouschek and M. Powell "Power Dynamics in Organizations" *American Economic Journal, Microeconomics*
  - Natenzo, Paulo, (2014) "Random Choice and Learning" Washington University Working Paper.

- Games of Persuasion
  - *Kemenica,Emir and Matthew Gentzkow, (2011) "Bayesian Persuasion" *Amer. Econ. Review.* 101 Oct.
  - Gentzkow, M., and E. Kamenica (2012) "Costly Persuasion"
  - *Gentzkow, M., and E. Kamenica (2012): "Competition in Persuasion," Discussion paper, University of Chicago
  - *Gentzkow, M., and E. Kamenica(2015): "Information Environments and the Impact of Competition on Information Provision,"Discussion paper, University of Chicago
  - Competitive Information Disclosure in Search Markets, (2014) Board, S. and J. Lu *UCLA WP*
  - Hoffmann, F., R. Inderst, and M. Ottaviani (2014): "Persuasion through Selective Disclosure: Implications for Marketing, Campaigning, and Privacy Regulation," Discussion paper, Bocconi.
  - Bhattacharya, S., and A. Mukherjee (2013): "Strategic Information Revelation when Experts Compete to Influence," RAND Journal of Economics, 44(3), 522–544.
  - Li, F., and P. Norman (2014): "On Bayesian Persuasion with Multiple Senders," Discussion paper, UNC.*Lewis,
  - Tracy R., and David E. M. Sappington, (1994) "Supplying Information to Facilitate Price Discrimination." *Internationa*

- Mechanism Design
  - *Fudenberg and Tirole, Chpts: 7 and 8

- Cramton et al (1987) "Dissolving a Partnership Efficiently" Econometrica 55 615-632
- Athey, S. and I.Segal (2013)"An Efficient Dynamic Mechanism Econometrica 2463-2485
- *Bergemann and Valimaki (2010) The dynamic pivot Mechanism, Econometrica 78 771-789
- Pavan et al (2013) Dynamic Mechanism Design: Incentive compatibility, profit maximization and information disclosure, Econometrica
- *Eso¨, Peter, and Balazs Szentes,(2007) "Optimal Information Disclosure in Auctions and the Handicap Auction." *Rev. Econ. Studies* 74:705–31.

- Global Games and Strategic Uncertainty

  Bassetteto, Marco and Chris Phelan, 2008 Tax Riots, *Review of Economic Studies*

  *Sákovics,József and Jakub Steiner (2012) "Who Matters in Coordination Games,"*American Economic Review*

  Drozd, Lukasz A.and Ricardo Serrano-Padial (2016) "Financial Contracting with Enforcement Externalities" working Paper

  - Gershkov, Alex and Eyal Winter 2015 "Formal versus Informal Monitoring" in Teams *American Economic Journal: Microeconomics* , 7(2): 27–44
  - Angeletos, G., Hellwig, C., Pavan, A., 2007. Dynamic global games of regime change: Learning,
  - multiplicity, and the timing of attacks. *Econometrica* 75 (3), 711–756.
  - Angeletos, G., Werning, I., 2006. Crises and prices: Information aggregation, multiplicity,
  - and volatility. *American Economic Review* 96 (5), 1720–1736
  - Burdzy, K., Frankel, D., Pauzner, A., 2001. Fast equilibrium selection by rational players
  - Living in a changing world. *Econometrica* 69 (1), 163–189
  - *Morris, S., Shin, H. S., 2003. Global games: theory and applications. In: Advances in Economics and Econometrics, the Eighth World Congress. Cambridge University Press [1]
  - Mathevet,Laurent and Jakub Steiner‡ (2013 "Tractable Dynamic Global Games and Applications" working paper

[1] Obtain

- Ray, Debraj "Notes for a course in Development Economics" Chpts 4,5

**W1: Sept 7: Overview of Organization Design**

- Class notes: Summary of Organizational Design
- Complete Readings:
  - Stragegic Information Transmission
  - Delegation and Signaling
  - Cheap Talk and Games of Persuasion

**W2–Sept. 14 Mechanism Design**

- Class notes: "Dynamic Mechanism Design
- Complete Readings for Mechanism Design

**W3–Sept 21 Global Games and Strategic Uncertainty**

- Class notes: " Expectations and Multiple Equilibrium"
- Complete Global Games and Strategic Uncertainty Readings

**W4–Sept 28:** Strategic Uncertainty and Financial Distress

- Class notes: " Strategic Uncertainty and Financial Collapse"
- Complete Global Games and Strategic Uncertainty Readings

**W5–Oct.6**

- Class Notes " Strategic Uncertainty and Innovation "
- Complete Global Games and Strategic Uncertainty Readings

**W6–Oct.13**

- Class Notes" Strategic Uncertainty and Sustainability
- Complete Global Games and Strategic Uncertainty Readings
- Term Project due[2]

[2] Assignment to be TBD