

# ECON 7520: Industrial Organization and Regulation II

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## Description of the course

This course focuses on empirical methods and applications of research topics in Industrial Organization. Although not exclusively, the course will focus mostly on the application of econometric techniques used to study specific markets and antitrust policies. The topics that will be covered include the evaluation of market power and mergers, product differentiation, investment and innovation, collusion, price discrimination, vertical relations, entry and product positioning, and the dynamics of industries. The course will also discuss research methodologies related to microeconomic theory, computational methods, and econometric analysis. The applicability of the techniques goes beyond the field of Industrial Organization, and include to Labor, Health, Trade and Public economics.

## Evaluation

The requirements of the course are summarized as followed:

1. 2 computer assignments.
2. Presentations: (1) short 20-minutes presentations of 2nd year paper topic (end of April), and (2) 60-minutes presentation of 2nd year paper (end of May)

## List of Topics

### 1 Homogenous Product Oligopolies

- **Evaluation of market power:** Rosse (1970)\*, Bresnahan (1982)\*, Bresnahan (1989), Sullivan (1985)\*, Ashenfelter and Sullivan (1987), Lau (1982), Wolfram (1999), Genesove and Mullin (1998)\*, Corts (1999).
- **Collusion:** Porter (1983)\*, Porter and Zona (1993), Ellison (1994), Genesove and Mullin (2001), Roeller and Steen (2006), Asker (2010), Clark and Houde (2010), Byrne and de Roos (2017)

Figure 1: Calendar of main topics and important due dates

Dates	Lectures	Topics	Assignments
26-Jan		1 Market power: Collusion and horizontal merger	
2-Feb		2 Market power: Collusion and horizontal merger	
9-Feb		3 Search and matching frictions	
16-Feb		4 Dynamic discrete choice: Investments	
23-Feb		5 Dynamic discrete choice: Durable and storable goods	
2-Mar		6 Dynamic discrete choice: Experience goods	
9-Mar		7 Productivity	PS1 Due
16-Mar		8 Industry dynamics	
23-Mar		9 Dynamic games: Theory and computation	
30-Mar		10 Dynamic games: Estimation	
6-Apr	Spring break		
13-Apr		11 Dynamic games: Applications	PS2 Due
20-Apr		12 Dynamic games: Panle's guest lecture (TBD)	
27-Apr		13 20-min Presentation (optional for non-IO students)	Short Presentation
23-May		14 60-min Presentation (optional for non-IO students)	Long Presentation
25-May		15 60-min Presentation (optional for non-IO students)	Long Presentation

## 2 Horizontal mergers

- Nevo (2000), Hastings (2004), Houde (2012), Allen, Clark, and Houde (2014), Ashenfelter, Hosken, and Weinberg (2015), Miller and Weinberg (2016)

## 3 Search and matching frictions

- Hong and Shum (2006), Hortacsu and Syverson (2004), Gavazza (2016), Allen, Clark, and Houde (2017)

## 4 Dynamic discrete choice models

- **Investment:** Pakes (1986), Rust (1987)
- **Quality uncertainty and learning:** Erdem and Keane (1996), Akerberg (2003), Akerberg (2001), Akerberg (2003), Crawford and Shum (2005)
- **Storable and durable goods:** Pesendorfer (2002), Erdem, Imai, and Keane (2003), Hendel and Nevo (2006b), Hendel and Nevo (2006a), Carranza (2006), Gowrisankaran and Rysman (2012)

## 5 Static models of entry and product positioning

- **Entry and differentiation:** Bresnahan and Reiss (1987), Bresnahan and Reiss (1990), Bresnahan and Reiss (1991), Berry (1992), Berry and Waldfogel (1999), Mazzeo (2001), Seim (2004), Barwick (2008).

- **Multiple equilibria:** Sweeting (2009), Ciliberto and Tamer (2004), Bajari, Hong, and Ryan (2004), Pakes, Porter, Ho, and Ishii (2005).

## 6 Industry dynamics

- **Industry turnover and productivity:** Dunne, Roberts, and Samuelson (1988), Olley and Pakes (1996), Akerberg, Caves, and Frazer (2015), Hopenhayn (1992), Jovanovic (1982), Melitz (2003), Syverson (2004), Foster, Haltiwanger, and Syverson (2008), Collard-Wexler and De Locker (2015)
- **Markov-perfect models of oligopolies:** Maskin and Tirole (1988), Beggs and Klemperer (1992), Ericson and Pakes (1995), Pakes and McGuire (1994) Pakes and McGuire (2001), Doraszelski and Satterthwaite (2005), Doraszelski and Judd (2004), Besanko, Doraszelski, Kryukov, and Satterthwaite (2010).

## 7 Estimation of dynamic games

- **Estimation methods:** Aguirregabiria and Mira (2007), Bajari, Benkard, and Levin (2007), Pesendorfer and Schmidt-Dengler (2007), Pakes, Ostrovsky, and Berry (2007).
- **Empirical applications:** Benkard (2004), Schmidt-Dengler (2006), Ryan (2006), Sweeting (2013), Collard-Wexler (2013), Goettler and Gordon (2008), Takahashi (2010).
- **Reduced-form papers:** Ellison and Ellison (2007), Dafny (2005), Chevalier (1995), Goolsbee and Syverson (2008).

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