

## **ECON5313 Industrial Organization**

University of Oklahoma, Fall 2023

T/R, 3-4:15pm, Cate Center 1 338

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Instructor: Dr. Qihong Liu      Office: Cate Center 1, Room 426

E-mail: [qliu@ou.edu](mailto:qliu@ou.edu)

Office Hours: T/R, 1:30-2:30pm and by appointment

Course Website: <https://canvas.ou.edu>

TA: TBA

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### **Course Description**

Industrial Organization studies the behavior of firms and the functioning of markets, as well as the role of public policy in promoting efficiency. This course will cover selected topics in industrial organization theory. Recommended textbooks include: (1) *The Theory of Industrial Organization* by Jean Tirole, MIT Press, (2) *Industrial Organization* by Oz Shy, MIT Press. A good source for references is the *Handbook of Industrial Organization, Vol. 1, 2, and 3. HIO3* (2007, Mark Armstrong and Robert Porter edits) surveys the major developments in IO since Tirole.

### **Grading**

Your grade will be based on homework and class participation (25%), a midterm exam (25%), group presentations (20%), and term paper and presentation (30%). You are encouraged to form study groups to discuss homework and lecture materials. More details about the research component will be discussed later.

### **Honor Policy**

You may not access any old problem sets, old exams, answer keys without my explicit permission. When collaborating with others, do not copy answers from another student. Always cite any resources or individuals you consult to complete an assignment.

### **Course Schedule**

The course materials are arranged by topics, each usually covered over several classes. Tirole remains the classic graduate IO textbook, and you are encouraged to read the entire book and work out the exercise problems there (even though we only cover a few parts of the book in the course). Several problem sets will be assigned, including short reviews for papers (each review is about two pages long, double spaced).

A tentative course schedule is listed below. Approximate number of lectures to cover each chapter is listed in parenthesis. There can be changes to this schedule during the semester,

which will be announced in class. It is your responsibility to update information about the course according to announcements made in class.

## **Chapter 0. Introduction (0)**

Readings:

- Tirole; Shy; HIO 1, 2, 3.
- Varian, H. “How to Build an Economic Model in Your Spare Time,” first published in 1997, updated in 2016, American Economist.
- Berk, J., C. Harvey, and D Hirshleifer, “How to Write an Effective Referee Report and Improve the Scientific Review Process,” Journal of Economic Literature, 2017.

## **Chapter 1. Monopoly Pricing (3)**

- Single- and multi-product monopoly pricing
- Price discrimination

Readings: Tirole Ch. 1

- \*Pisano, Gary P., Richard M. J. Bohmer, and Amy C. Edmondson. “Organizational Differences in Rates of Learning: Evidence from the Adoption of Minimally Invasive Cardiac Surgery,” Management Science (2011)
- \*Lafontaine, Francine, and Kathryn Shaw. “Serial Entrepreneurship: Learning by Doing?” Journal of Labor Economics (2016)
- \*Haggag, Kareem, Brian McManus, and Giovanni Paci. “Learning by Driving: Productivity Improvements by New York City Taxi Drivers,” AEJ: Applied (2017)
- \*Judith Chevalier and Austan Goolsbee. “Are durable goods consumers forward-looking? Evidence from college textbooks”, QJE (2009)
- Ben Shiller. “Approximating Purchase Propensities and Reservation Prices from Broad Consumer Tracking,” IER (2020)
- \*Phillip Leslie. “Price discrimination in Broadway theater”, Rand (2004)
- Chu, C. S.; Leslie, P. and Sorenson, A. “Bundle-Size Pricing as an Approximation to Mixed Bundling”, AER (2011)

- \*Pinelopi Goldberg. “Dealer price discrimination in new car purchases: Evidence from the consumer expenditure survey”, JPE (1996)
- Varian, H., “Price Discrimination and Social Welfare”, AER (1985).
- Armstrong, M. (2006) “Recent Developments in the Economics of Price Discrimination.”
- Stole, Lars. “Price Discrimination in imperfectly competitive markets,” HIO 3.
- \*Chen, Y. and M. Schwartz. “Differential Pricing When Costs Differ: A Welfare Analysis,” RAND, 2015.
- Liu, Q. and K. Serfes. “Third-degree price discrimination,” Journal of Industrial Organization Education (2010)

## Chapter 2. Static Models of Oligopoly (6)

- Bertrand and Cournot competition
- Spatial competition
- Vertical differentiation

Readings: Tirole Ch. 5, Ch. 7

- Kreps, D., and J. Scheinkman, (1983) “Quantity Precommitment and Bertrand Competition Yield Cournot Outcomes”, BELL.
- \*Bresnahan, T. and P. Reiss, “Entry and Competition in Concentrated Markets,” JPE (1991)
- Hotelling, H. (1929). ”Stability in Competition”, Economic Journal.
- Liu, Q. and K. Serfes. “Quality of information and oligopolistic price discrimination,” JEMS (2004).
- Liu, Q. and K. Serfes. “Customer information sharing among rival firms,” European Economic Review (2006).
- \*Hans Degryse and Steven Ongena. “Distance, Lending Relationships, and Competition,” Journal of Finance (2005)

- Perloff, J.M. and Salop, S.C. “Equilibrium with product differentiation,” *Review of Economic Studies* (1985).
- Liu, Q. and K. Serfes. “Imperfect price discrimination, market structure and efficiency,” *Canadian Journal of Economics* (2005).
- Shaked and Sutton (1982), “Relaxing Price Competition through Product Differentiation,” *REStud*, 3-13.
- Ferrier, P. and Q. Liu (2010), “Consumer sorting of vertically differentiated goods,” *Economics Letters*.

### **Chapter 3. Dynamic Models of Oligopoly (3)**

- Dynamic price competition
- Competition in the airline industry
- Tacit collusion

Readings: Tirole Ch. 6.

- Farrell, J. and P. Klemperer, “Competition in Markets with Switching Costs and Lock-In”, *HIO* 3.
- Chen, Y. “Paying Customers to Switch,” *JEMS* (1997).
- Fudenberg, D and J. Tirole, “Consumer Poaching and Brand Switching,” *RAND* (2001)
- \*J. Miguel Villas-Boas. “Dynamic competition with customer recognition,” *RAND* (1999)
- Severin Borenstein. “Selling costs and switching costs: explaining retail gasoline margins,” *RAND* (1991)
- \*Victor Stango. “Pricing with Consumer Switching Costs: Evidence from the Credit Card Market,” *JIE* (2002)
- \*V. Brian Viard. “Do switching costs make markets more or less competitive? The case of 800-number portability,” *RAND* (2007)
- Borenstein, Severin, and Nancy Rose. “Competition and Price Dispersion in the U.S. Airline Industry,” *JPE* (1994)

- Dana, James, Jr. “Advance-Purchase Discounts and Price Discrimination in Competitive Markets,” JPE (1998)
- \*Gerardi, Kristopher, and Adam Shapiro, “Does Competition Reduce Price Dispersion? New Evidence from the Airline Industry,” JPE (2009)
- Dai, M., Q. Liu and K. Serfes. “Is the Effect of Competition on Price Dispersion Non-Monotonic? Evidence from the U.S. Airline Industry,” REStat (2014)
- Mazzeo, M. “Competition and Service Quality in The U.S. Airline Industry,” Review of Industrial Organization (2003)
- \*Goolsbee Austan, and Chad Syverson. “How Do Incumbents Respond to the Threat of Entry? Evidence from the Major Airlines,” QJE (2008)
- \*Forbes, S. and M. Lederman. “Adaptation and Vertical Integration in the Airline Industry,” AER (2009)
- \*Prince, J. and D. Simon. “Do Incumbents Improve Service Quality in Response to Entry? Evidence from Airlines’ On-Time Performance,” Management Science (2015) (This paper also covers entry – topic of next chapter.)
- Myongjin Kim, Qihong Liu and Nicholas Rupp. “When Do Firms Offer Higher Product Quality? Evidence from the Allocation of Inflight Amenities,” RIO (2023)
- \*Brueckner, J., D. Lee, P. Picard, and E. Singer. “Product Unbundling in the Travel Industry: The Economics of Airline Bag Fees,” JEMS (2015)
- Lei He, Myongjin Kim and Qihong Liu. “Competitive Response to Unbundled Services: An Empirical Look at Spirit Airlines,” JEMS (forthcoming)
- Green, E. and R. Porter, “Noncooperative Collusion under Imperfect Price Information,” Econometrica (1984).
- Abreu, D. “Extremal Equilibria of Oligopolistic Supergames,” JET (1986)
- \*Bernheim, D. and M. Whinston, “Multimarket contact,” RAND (1990).
- Liu, Q. and K. Serfes. “Market segmentation and collusive behavior,” IJIO (2007)
- Fong, Y. and Q. Liu. “Loyalty Rewards Facilitate Tacit Collusion,” JEMS (2011)

## Chapter 4. Entry and Exit (3)

- Natural monopolies
- Accommodated, deterred and blockaded entry
- Limit pricing and signal jamming

Readings: Tirole Ch. 8, Ch. 9.

- Spence, A. M. “Contestable Markets and the Theory of Industry Structure: A Review Article,” JEL (1983).
- Michael Mazzeo. “Product choice and oligopoly market structure”, RAND (2002)
- \*Seim, K. “An empirical model of firm entry with endogenous product-type choices,” RAND (2006)
- Ellickson, P. “Does Sutton apply to supermarkets?” RAND (2007)
- \*Bart Bronnenberg, Sanjay Dhar and Jean-Pierre Dubé. “Brand History, Geography, and the Persistence of Brand Shares”, JPE (2009)
- \*Bart Bronnenberg, Jean-Pierre Dubé and Matt Gentzkow. “The Evolution of Brand Preferences: Evidence from Consumer Migration,” AER (2012)
- \*Basker, E. “Job Creation or Destruction? Labor Market Effects of Wal-Mart Expansion”, REStat (2005)
- Holmes, T. “The Diffusion of Wal-Mart and Economies of Density” Econometrica (2011)
- \*José Azar, Martin C. Schmalz and Isabel Tecu. “Anticompetitive Effects of Common Ownership,” Journal of Finance (2018)
- Milgrom, P. and J. Roberts, “Limit Pricing and Entry Under Incomplete Information: An Equilibrium Analysis,” Econometrica (1982)
- Bagwell, K. and G. Ramey, “Oligopoly Limit Pricing,” RAND (1991)
- Bagwell, K. “A Model of Competitive Limit Pricing,” JEMS (1992)

## Chapter 5. Platforms and two-sided markets (4)

- Media markets
- Targeted advertising
- Ad blocking and ad skipping
- Search advertising
- Platform market design

## Chapter 6. Other topics (2)

- Low price guarantees
- Consumer search
- Oligopolistic third-degree price discrimination

### Readings:

- Edlin, A. (1997). “Do guaranteed-low-price policies guarantee high prices, and can antitrust rise to the challenge?” Harvard Law Review.
- \*Moorthy, S. and R. Winter (2006), “Price-matching guarantees,” RAND
- Cooper, T. (1986). “Most-favored-customer pricing and tacit collusion,” RAND
- \*Scott Morton, Fiona. “The Strategic response by pharmaceutical firms to the Medicaid most- favored-customer rules,” RAND (1997)
- Chen, J. and Q. Liu (2011). “The Effect of Most-Favored Customer Clauses on Prices,” JIE
- \*Dmitri Kuksov, Chenxi Liao. “When Showrooming Increases Retailer Profit”, Journal of Marketing Research (2018)
- \*Alberto Cavallo. “Are Online and Offline Prices Similar? Evidence from Large Multi-channel Retailers,” AER (2017)
- Diamond, P., “A Model of Price Adjustments,” JET (1971)
- Stahl (1989): “Oligopolistic Pricing with Sequential Consumer Search,” AER
- Baye, M, and J Morgan. ”Information Gatekeepers on the Internet and the Competitiveness of Homogeneous Product Markets.” AER (2001).

- \*Armstrong, M, Vickers, J, and Zhou, J., “Prominence and Consumer Search”, RAND (2009)
- \*Edelman, B. and J. Wright. “Price Coherence and Excessive Intermediation,” QJE (2015).