

# **ECON 7050: Advanced Economic Theory**

**Fall 2019**

Instructor: Professor Yongmin Chen

Office: Econ 108

Class Time and Location: 11:00-12:15, TTH; ECON 119

Office Hours: 3:30-5:30 PM, Tuesday; 9:30-12:00 AM, Wednesday

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**Course Description:** This is the third graduate course in microeconomic theory. It contains several important topics that were not covered in the two previous microeconomic theory courses. It will also discuss additional advanced topics of interest.

**Course Materials:** The textbook is *Microeconomic Theory*, by Mas-Colell, Whinston, and Green. Other reading materials, including articles, are indicated below or will be added during the semester.

**Grading:** Grades are based on homework and class participation (30%), Midterm Exam (35%), and Final Exam (35%).

**Lecture Topics:** Below is a tentative plan for the lectures. Changes will be announced in class during the semester and you are responsible for updating course information.

## **Topic 1      Monopoly and Imperfect Competition**

Readings: Ch. 12

**Hw1a:** 12.B.4, 12.B.5, 12.B.9, 12.C.3, 12.C.9.

**Hw1b:** 12.C.18, 12 D.2., 12 E.4., 12 E.7, 12G.1.

## **Topic 2      Pass-through and Differential Pricing**

Required Readings:

- Weyl, E. Glen and Michal Fabinger. "Pass-Through as an Economic Tool" JPE, 121 (2013): 528-583.
- Chen, Y. and M. Schwartz. "Differential Pricing when Costs Differ: A Welfare Analysis", RAND, 2015

**Hw2:** Write a simple model of monopoly differential pricing to two consumer groups that differ only in marginal costs, and show that if average price is not higher under differential than under uniform pricing, then aggregate consumer surplus is higher under differential pricing.

## **Topic 3      Adverse Selection, Signaling, and Screening**

Readings: Ch. 13

**Hw3:** 13.B.2, 13.B.4, 13.C.1, 13.C.5.

**Midterm Exam**      Thursday, October 10; regular class time.

**Topic 4      The Principal-Agent Problem**

Readings: Ch. 14

**Hw4:** 14.B.4, 14.C.3, 14.C.7, 14.C.8.

**Topic 5      Theory of the Firm**

Readings:

- Coase, R., "The Nature of the Firm," *Economica* (1937), 386-405.
- Williamson, O.E., *The Economic Institutions of Capitalism*, 1985, New York: Free Press.
- Grossman, S. and O. Hart, "The Costs and Benefits of Ownership", *JPE* (1986), 691-719.
- Hart, O., "The Market Mechanism as an Incentive Mechanism", *BELL* (1983), 366-382.
- Binmore, K., A. Rubinstein, and A. Wolinsky, "The Nash Bargaining Solution in Economic Modeling." *RAND* (1986).
- Wouter Dessein, Andrea Galeotti, and Tano Santos, "Rational Inattention and Organizational Focus" *AER*, 2016

**Hw5:** (i) Write or discuss a simple model that illustrates the Hold-Up problem; (ii) Write a short review of Dessein et al (2016).

**Topic 6      Vertical Control and Exclusionary Contracts**

1. Vertical Control
2. Contracts as a Barrier to Entry
3. Naked Exclusion
4. Recent Developments

Required Readings:

- Aghion, Philippe and Patrick Bolton, "Contracts as a Barrier to Entry," *AER*, 77(3), 1987.
- Rasmusen, Eric, J. Mark Ramseyer, and John Wiley, "Naked Exclusion," *AER*, 1991.
- Özlem Bedre-Defolie and Gary Biglaiser, "Contracts as a Barrier to Entry in Markets with Nonpivotal Buyers", *AER*, 107(7): 2041-2071, 2017.

Additional Readings:

- Chen, Yongmin and David Sappington, "Exclusive Contracts, Innovation, and Welfare," *American Economic Journals: Microeconomics*, Vol. 3, 194-220, 2011.
- Fumagalli, Chiara and Massimo Motta, "Exclusive Dealing and Entry when Buyers Compete," *AER*, 96(3), 2006.

- Greenlee, Patrick, David Reitman, and David Sibley, "An Antitrust Analysis of Bundled Loyalty Discounts," *International Journal of Industrial Organization*, 2008.
- Segal, Ilya and Michael Whinston, "Exclusive Contracts and the Protection of Investments," *RAND*, 2000.
- Segal, Ilya and Michael Whinston, "Naked Exclusion: Comment," *AER*, 2000.
- Spier, Kathryn and Michael Whinston, "On the Efficiency of Privately Stipulated Damages for Breach of Contract: Entry Barriers, Reliance and Renegotiation," *RAND*, 1995.
- Simpson, John and Abraham Wickelgren, "Naked Exclusion, Efficient Breach, and Downstream Competition," *AER*, 2007.

**Hw6:** (1) Using a simple model to explain the Chicago School argument that anticompetitive exclusive contracts are not profitable. Briefly explain the possible reasons under which this argument no longer hold. (2) Write a short review of Özlem Bedre-Defolie and Gary Biglaiser (2017).

## **Topic 7            Economics of Search**

### 1. Price Search in Homogeneous Product markets

- (1) Salop and Stiglitz's "Bargains and Ripoffs"
- (2) Varian's model of sales
- (2) Diamond's Paradox
- (3) Stahl's model of sequential search

### 2. Product Search in Differentiated Markets and on the Internet

- (1) Wolinsky's model
- (2) Intermediaries and Consumer Search

#### Required Readings:

- Diamond, Peter. 1971. "A Model of Price Adjustment." *Journal of Economic Theory*, 3, 156-168.
- Salop, S. and J. Stiglitz, "Bargains and Ripoffs: A Model of Monopolistically Competitive Price Dispersion", *RES* (1977), pp. 493-510.
- Stahl, Dale O. 1989. "Oligopolistic Pricing with Sequential Consumer Search." *AER*, 700-712.
- Varian, Hal. 1980. "A Model of Sales." *American Economic Review*, 70, 651-659
- Wolinsky, A. 1986. "True Monopolistic Competition as a Result of Imperfect Competition," *QJE*, 101: 493-511.
- Zhou, J. 2014. "Multiproduct Search and the Joint Search Effect", *AER*.

#### Additional Readings:

- Armstrong, M. and Y. Chen, "Inattentive Consumers and Product Quality," *Journal of the European Economic Association*, (2009), pp. 411-422.

- Armstrong, M, Vickers, J, and Zhou, J., “Prominence and Consumer Search”, RAND, 2009.
- Athey, S. and G. Ellison, 2011, “Position Auctions with Consumer Search”, QJE, 126, 1213-1270.
- Bagwell, K. and G. Ramey, “Coordination Economies, Advertising, and Search Behavior in Retail Markets”, AER (1994), 498-517.
- Chen, Y. and R. Rosenthal, “On the Use of Ceiling-price Commitments by Monopolists”, RAND (1996), 207-220.
- Chen, Y. and C. He, 2011. “Paid Placement: Advertising and Search on the Internet,” Economic Journal, 121: F309-F328.
- Chen, Y. and T. Zhang, “Equilibrium Price Dispersion with Heterogeneous Searchers,” International Journal of Industrial Organization, 2011.
- Chen, Y. and T. Zhang, “Entry and Welfare in Search Markets”, Economic Journal, 2017.
- Chen, Y. and T. Zhang, 2017. “Intermediaries and Consumer Search,” International Journal of Industrial Organization.
- Reinganum, J., “A simple Model of Equilibrium Price Dispersion”, JPE (1979), pp. 851-858.
- Baye, Michael and John Morgan. 2001. "Information Gatekeepers on the Internet and the Competitiveness of Homogeneous Product Markets." AER, 91, 454-474.
- Baye, M.R. and J. Morgan. 2004. "Price Dispersion in the Lab and on the Internet: Theory and Evidence." RAND, 35(3), 449-466.
- Burdett, Kenneth and Kenneth L. Judd. 1983. "Equilibrium Price Dispersion." Econometrica, 51, 955-969.

**Hw7:** (1) Discuss the main assumptions and results in Stahl (1989) and Wolinsky (1986). (2) Write a short review of Athey and Ellison (2011).

**Final Exam: Tuesday, Dec. 17, 1:30-3:00 pm.**

## **University Policies**

### **Students with Disabilities**

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or [dsinfo@colorado.edu](mailto:dsinfo@colorado.edu) for further assistance. If you have a temporary medical condition or injury, see [Temporary Medical Conditions](#) under the Students tab on the Disability Services website.

### **Religious Observances**

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, please make your requests to me within the first two weeks of the semester. See the [campus policy regarding religious observances](#) for full details.

### **Classroom Behavior**

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. 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. For more information, see the policies on [classroom behavior](#) and the [Student Code of Conduct](#).

### **Discrimination and Harassment**

The University of Colorado Boulder (CU Boulder) is committed to fostering a positive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct intimate partner abuse (including dating or domestic violence), stalking, protected-class discrimination or harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or [cureport@colorado.edu](mailto:cureport@colorado.edu). Information about the OIEC, university policies, [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#).

Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

### **Honor Code**

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code ([honor@colorado.edu](mailto:honor@colorado.edu)); 303-492-5550). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found at the [Honor Code Office website](#).