Department of Economics
University of Colorado, Boulder

Economics 8757-002
Industrial Organisation 2
Fall 2007

Syllabus

Professor: Martin Byford
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Lectures: TR 9.30–10.45 Economics 5
Office Hours: 2–5 Tuesday
Course Website: CULearn

Course Description

This course provides an introduction to the theoretical foundations of industrial organization. We will cover topics that explore the themes of efficiency, strategic behavior and market power in markets. The aims of this subject are three fold: First, to introduce key models and results in the study of IO, thereby providing students with an insight into the factors that influence the organization of markets and the challenges that face regulators. Second, to make students familiar with the technical and game theoretic methods employed in IO. Third, the subject will provide the skills necessary to formulate and critically assess the theoretical literature.

Prescribed Text

The prescribed textbook is *The Theory of Industrial Organization* by Jean Tirole. In addition, significant articles from each of the topics to be covered are listed below. Additional reading may be assigned during the semester. Any additional reading will be listed on the course website.

Assessment

The assessment of this subject consists of three components:

Each student will be required to complete a referees report on one piece of assigned reading. No two students may select the same paper. The report should comprise a 2-4 page typed critique of the paper, and a 15-20 minute presentation to be delivered in class. (Students are encouraged to use media, such as overhead projectors or PowerPoint, to facilitate their presentations.) Further details will be provided in class.

Over the course of the semester, students will develop a theoretical model based on a topic of interest. Ideally, the subject of the model should relate to one or more of the topics covered in this course, however any subject with a solid IO foundation is acceptable. The first step in the modeling project is to develop a 1-2 page proposal. The proposal is due at the start of class on September 27. The completed exercise is due at the start of class on December 13. The project will be marked on the quality of the modeling, technical skill demonstrated, and the interpretation of both the model and results.

Five problem sets will be offered throughout the semester as an alternative to the modelling exercise. If students attempt both the modelling exercise and the problem sets the higher of the two marks will be counted toward the final grade.

The final exam is take home. It will be handed out in class on December 13, and is due at 4.30 pm. on December 17.

Weighting:
Referee's Report: 25%
Theoretical Modeling Exercise: 25%
Take Home Final Exam: 50%

Tentative Program

The following schedule is tentative and subject to change.

1. Monopoly I: Static Monopoly and Price Discrimination

   Tirole Ch. 1-3.

   Armstrong, Mark, "Price discrimination by a multiproduct firm", RES (1999), 151-168.

   Bagwell and Riordan, "High and declining prices signal product quality", AER (1991).

   Fudenburg and Tirole, "Upgrades, Trade-ins, and Buybacks " RAND (1998).

   McAfee, McMillan, and Whinston, "Multiproduct Monopoly, Commodity Bundling, and Correlation of Values", QJE (1989), 371-384.

   Maskin and Riley, "Monopoly with Incomplete Information" RAND (1984), 15, 171-196.

   Mussa and Rosen, "Monopoly and Product Quality", JET (1978), 18, 301-317.

   Varian, "Price Discrimination and Social Welfare", AER (1985), 870-875.

2. Monopoly II: Dynamic Monopoly

   Bagnoli, Salant & Swierzbinski, "Durable Goods Monopoly with Discrete Demand", JPE (1989), 97, 14591478.

   Bagwell & Riordan, "High and Declining Prices Signal Product Quality", AER (1991), 81, 224-239.

   Bulow, "Durable Good Monopolist", JPE (1982), 90, 314-352.

Bulow, “An Economic Theory of Planned Obsolescence”, QJE (1986), 101, 729-749.

Gul, Sonnenschein & Wilson, “Foundation of Dynamic Monopoly and the Coase Conjecture”, JET (1986), 39, 155-190.

Milgrom & Roberts, “Pricing and Advertising Signals of Product Quality”, JPE (1986), 94, 796-821.

Pesendorfer, “Design Innovation and Fashion Cycles”, AER (1995), 85(4), 771-792.

3. Oligopoly I: Price, Quantity and Product Differentiation

   Tirole Ch. 5 & 7

   DAspremont, Gabszewicz & Thisse, “On Hotellings Stability in Competition,” Econometrica (1979), 47 1145-50.

   Bulow, Geanakoplos & Klemperer, “Multimarket Oligopoly: Strategic Substitutes and Complements,” JPE (1985), 488-511.

   Chen & Riordan, “Price and Varity in the Spokes Model”, EJ (2007).

   Davidson & Deneckere, “Long-Run Competition in Capacity, Short-Run Competition in Price, and the Cournot Model,” RAND (1986), 3, 404-415.

   Deneckere and Davidson, “Incentives to form coaliations with Bertrand competition,” RAND, 1985.

   Ellison, “A Model of Add-On Pricing”, QJE (2005).

   Homes, “The Effects of Third-Degree Price Discrimination in Oligopoly”, AER (1989) 244-250.

   Hoteling, “Stability in Competition,” EJ, (1929), pp. 41-57.

   Kreps & Scheinkman, “Quantity Pre-commitment and Bertrand Competition Yield Cournot Outcomes,” BJE (1983), 326-337.

   Shaked & Sutton, “Relaxing Price Competition through Product Differentiation”, RES (1982), 3-13.

   Shaked & Sutton, “Multiproduct Firms and Market Structure”, RAND (1990), pp. 45-62.

4. Oligopoly II: Dynamic Oligopoly

   Tirole Ch. 6

   Athey & Bagwell, “Optimal Collusion with Private Information”, RAND (2001), 428-465.

   Athey, Bagwell & Sanchirico “Collusion and Price Rigidity”, RES (2004) 317-349.

   Bernheim & Whinston, “Multimarket Contact and Collusive Behavior,” RAND (1990), 21, 1-26.

Eaton & Engers, “Intertemporal Price Competition”, Econometrica (1990), 58, 637659.

Fudenberg & Tirole, “Customer Poaching and Brand Switching”, RAND (2001), 634-657.

Green & Porter, “Noncooperative Collusion Under Imperfect Price Information,” EMA (1984) 52, 87-100.

Klemperer, “Competition when Consumers Have Switching Costs: An Overview”, RES (1995), 515-539.

Klemperer, “The Competitiveness of Markets with Switching Costs”, RAND (1987), 138-150.

Maskin & Tirole, “A Theory of Dynamic Oligopoly, II: Price Competition, Kinked Demand Curves, and Edgeworth Cycles”, Econometrica (1988), 56, 571599.

5. Oligopoly III: Constrained Coalitional Price Setting

   Byford “A Constrained Coalitional Approach to Price Formation”

   Byford “Spatial Competition with Discrete Players”

   Guesnerie & Oddou, “Second Best Taxation as a Game”, JET (1981), 25, 6791.

   Hamilton, MacLeod & Thisse, “Spatial Competition and the Core”, QJE (1991), 106, 925937.

6. Mergers, Entry and Exit

   Tirole Ch. 8-9

   Aghion & Bolton, “Contracts as a Barrier to Entry,” AER (1987), 77, pp. 388-401.

   Cabral, “Horizontal mergers with free-entry: why cost efficiencies may be a weak defense and asset sales a poor remedy”, IJIO (2003) 21, 607-623.

   Cabral & Riordan, “The Learning Curve, Market Dominance, and Predatory Pricing,” EMA 62, 1115-1140.

   Farrell & Shapiro, “Horizontal Mergers: An Equilibrium Analysis”, AER (1990), 107-126.

   Gowrisankaran, “A dynamic model of endogenous horizontal mergers”, RAND 30(1), 56-83.

7. Vertical Contracting & Vertical Integration and Foreclosure

   Tirole Ch. 4

   Bernheim & Winston, “Exclusive Dealing”, JPE (1998) 106(1), 64-103.

   Ordover, Saloner & Salop, “Equilibrium Vertical Foreclosure”, AER (1990) 80(1), 127-142.

Rey & Tirole (forthcoming), "A Primer on Foreclosure", in: M. Armstrong and R. Porter (eds.), Handbook of Industrial Organization III.

Salop & Scheffman, "Raising Rivals' Costs", AER (1983) 73(2), 267-271.

Whinston, "Tying, foreclosure, and exclusion," AER (1990) 80(4), 837-859.

Procedures

1. 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

   Disability Services letters for students with disabilities indicate legally mandated reasonable accommodations. The syllabus statements and answers to Frequently Asked Questions can be found at,

   http://www.colorado.edu/disabilityservices

2. Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. You must inform me at least seven days in advance of any conflict due to a religious observance in order for alternative arrangements to be made. See full details at,

   http://www.colorado.edu/policies/fac_relig.html

3. 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 has 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 variance, and nationalities. See polices at:

   http://www.colorado.edu/policies/classbehavior.html

   http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

4. 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; 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

http://www.colorado.edu/academics/honorcode/

5. The University of Colorado Policy on Sexual Harassment applies to all students, staff and faculty. Sexual harassment is unwelcome sexual attention. It can involve intimidation, threats, coercion, or promises or create an environment that is hostile or offensive. Harassment may occur between members of the same or opposite gender and between any combinations of members in the campus community: students, faculty, staff, and administrators. Harassment can occur anywhere on campus, including the classroom, the workplace, or a residence hall. Any student, staff or faculty member who believes s/he has been sexually harassed should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH and the campus resources available to assist individuals who believe they have been sexually harassed can be obtained at:

   http://www.colorado.edu/odh/