EC853-01, Spring 2012
Industrial Organization I (MW 1:30-2:45)
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COURSE DESCRIPTION

This is a course in industrial organization at the Ph.D. level. The course includes standard theoretical models of industrial organization, and the approach will be mostly game-theoretic. A solid background in graduate microeconomics is required. The aim of this course is two-fold: to present basic tools of industrial organization, and to encourage students to start their own researches. The basic game theory tools (such as quantity competition, discrete choice models, mixed strategy equilibria with infinite strategy sets, search theory, signalling games, and repeated games) will be presented by showing how the Bertrand paradox can be resolved by modifying the basic setup of perfect information homogeneous good market with price competition. This course is designed to provide theoretical tools and ideas that are useful in conducting research in applied microeconomic theory.

RECOMMENDED BOOKS


GRADE AND COURSE REQUIREMENTS
I will give problem sets and you are required to submit answers, although I will not grade them (10%). Tentatively, I would say that your grade will be based on your performance on a final exam (60%), and your presentation of a paper (30%). You have an option of writing a term paper. It can give you up to 20% bonus points. Your paper can be based on an existing paper, but it should involve some additional thoughts on the topic (additional exercises, changing assumptions etc.) A mere referee report would not count. If you want to write a more ambitious proposal which will grow to a chapter of your dissertation, the paper does not have to be as polished. However, the idea must be interesting and needs to be seemingly implementable. In completing your term paper (in particular), please refer University’s academic integrity policy: http://www.bc.edu/offices/stserv/academic/resources/policy/#integrity

Tentative Schedule (subject to change)
(Tirole and Bagwell&Wolinsky are denoted by T and BW, respectively.)

1. Introduction
   1. introduction: Berand paradox
   2. strategic substitutes and strategic complements (BW)
   3. simple Cournot and Bertrand competition
   4. merger (Salant, Switzer and Reynolds, 1983 QJE)
   5. cartel (d’Aspremont et al., 1983, Canadian JE)

2. Cournot Model: Strategic Substitutes
   1. Debreu’s existence theorem
   2. McManus’s existence theorem
   3. strategic substitutes
   4. (local) comparative statics and (non)uniqueness

3. Bertrand Model: Strategic Complements
   1. heterogeneous goods Berand model
   2. Shubik’s quadratic utility model
3. existence of equilibrium and global comparative statics
4. generalization: supermodular games

4. Other Oligopoly Models and Monopolistic Competition Models
   1. Hotelling’s horizontally differentiation model (T, d’Aspremont et al. 1979 Em)
   1. monopolistic competition models Dixit-Stiglitz (1977 AER)
   3. a new model with heterogeneous workers (Furusawa-Konishi, 2012)

5. Durable Goods
   1. durable goods: Coase theorem (T)
   2. durable goods: Markov Perfect eq (Rust, Em 1985)

6. Consumer Search
   1. consumer search: Diamond paradox (Diamond, 1970 JET)
   2. Wolinsky’s search model (Wolinsky, 1986 QJE)
   3. sequential search
   4. demand curve and equilibrium
   5. other related models

7. Discrete Choice
   1. commitment
   2. concentration of retail stores (Konishi, 2005 JUE)
   3. Prekopa’s theorem
   4. demand curve and equilibrium
   5. Stiglitz (1977, AER)

8. Advertrisement
1. Butters (1977, RES:, T)
2. Varian (1980, AER: BW)
4. Anderson and Renault (2006, AER)

9. Entry-Deterrence

1. contestability (T)
2. commitment: Dixit model (T)
3. technology transfer (Creane-Konishi, 2008)
4. signalling: Milgrom and Roberts (BW)
5. application: Milgrom and Roberts (1986, JPE)

10. Repeated Games

2. Rotemberg-Saloner (1986, AER: BW)
4. Abreu-Pierce-Stacchetti (1986, JET)

11. Licensing

1. Katz-Shapiro 1985 RAND
2. Katz-Shapiro 1986 QJE
3. Creane-Ko-Konishi 2012

12. Students’ Presentations