

Econ 613: Microeconomics II

Winter 2010

Concordia University

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1 Course Description

This course is the second part of the microeconomics sequence for the Ph.D. program in economics, as well as an elective for M.A. students. The topics to be covered include the theory of general equilibrium, economics of information, and selected topics in game theory and its applications.

2 Texts

The required text for the course is “*Advanced Microeconomic Theory*,” by Geoffrey A. Jehle and Philip J. Reny (2000), 2nd ed., Addison Wesley (abbreviated as JR). I presume most of you already have the textbook from taking Microeconomics I.

Occasionally, you may also want to refer to the following books:

1. “*Microeconomic Analysis*,” by Hal R. Varian (1992), 3rd ed., W.W. Norton and Company (abbreviated as “Varian”);
2. “*Microeconomic Theory*,” by Andreu Mas-Colell, Michael D. Whinston, and Jerry R. Green (1995), Oxford University Press (abbreviated as “MWG”);
3. “*Game Theory*,” by Drew Fudenberg and Jean Tirole (1991), MIT Press (abbreviated as “FT”).

I have asked the library to put these books on reserve, subject to their availability.

3 Prerequisites

Students are presumed to have knowledge of consumer theory, production theory, and basic game theory. All the above three microeconomics textbooks have excellent coverage on consumer theory and production theory, while JR and MWG can also serve as good references for game theory. FT is a standard game theory textbook.

4 Requirements

The course grade consists of six problem sets (15 points, your grade will be based on your best five), a midterm (35 points), and a final exam (50 points). You are urged to work in groups on the assignments, but you are required to submit your own answers.

5 Course Outline

The course outline will serve as a rough if ambitious guide to what I will cover in the course. As you may notice, the numbers of weeks add up to more than thirteen, which means some materials may be dropped. In particular, the asterisked parts may be skipped. Only the JR readings are mandated unless otherwise announced in class, though you are encouraged to read the other ones as well, as they are specifically chosen for their merits. To find the journal articles listed below, you may use Concordia library's online E-journal database.

1. Partial Equilibrium (1 week)
 - JR, Chapter 4 (4.1 and 4.3)
 - Varian, Chapter 13
2. General Equilibrium (2 weeks)
 - JR, Chapter 5
 - Varian, Chapters 17, 18, and 21.
3. Adverse Selection (2 weeks)
 - JR, Chapter 8 (8.1)
 - MWG, Chapter 13 (13A-13B).
 - Akerlof, George (1970), "The market for lemons: Quality uncertainty and the market mechanism," *Quarterly Journal of Economics*, 89: 488-500.
 - Rothschild, Michael and Joseph E. Stiglitz (1976), "Equilibrium in competitive insurance markets: An essay in the economics of imperfect information," *Quarterly Journal of Economics*, 80: 629-649.
4. Signalling and Solution Concepts (2.5 weeks)
 - JR, Chapter 8 (8.1)
 - MWG, Chapter 13 (13C, 13AA)
 - Cho, In-Koo and David M. Kreps (1987), "Equilibrium selection in signaling games," *Econometrica*, 55: 647-662.

- Kreps, David M. and Robert Wilson (1982), “Sequential equilibrium,” *Econometrica*, 50: 863-894.
 - Spence, A. Michael (1973), “Job market signaling,” *Quarterly Journal of Economics*, 80: 629-649.
 - Crawford, Vincent and Joel Sobel (1982): “Strategic Information Transmission,” *Econometrica*, 50(6), 1431-1452.
5. Principal-Agent Problems (2 weeks)
- JR, Chapter 8 (8.2)
 - MWG, Chapter 14 (14A-14C)
 - Grossman, Sanford J. and Oliver D. Hart (1983), “An analysis of the principal-agent problem,” *Econometrica*, 53(1): 7-45.
6. Mechanism Design and Auctions (2 weeks)
- JR, Chapter 9
 - MWG, Chapter 23 (23A-23E)
 - Dasgupta, Partha, Peter Hammond, and Eric Maskin (1979), “The implementation of social choice rules: Some general results on incentive compatibility,” *Review of Economic Studies*, 46: 185-216.
 - Myerson, Roger B. (1979) “Incentive compatibility and the bargaining problem,” *Econometrica*, 47: 61-73.
7. Repeated Games and Reputation* (2 weeks)
- FT, Chapter 5
 - Abreu, Dilip, David G. Pearce, and Ennio Stacchetti (1990), “Toward a theory of discounted repeated games with Imperfect monitoring,” *Econometrica*, 58(5): 1041-1063.
 - Mailath, George J. and Larry Samuelson (2006), *Repeated Games and Reputations*, Oxford: Oxford University Press.