

Econ 502: Microeconomics II Spring 2007

Instructor: Nathan Anderson. My office is 2112 University Hall. My e-mail address is: nba@uic.edu. My telephone number is: 312-355-3216. My office hours are Tuesdays 1-3pm and by appointment.

Course Description: This course is the second part of the graduate microeconomics course sequence. This course is an introduction to game theory, general equilibrium theory, and other selected topics. No previous knowledge of game theory or general equilibrium theory is assumed.

Textbooks: There is no required textbook for this course. The two recommended texts are as follows:

- Samuel Bowles, *Microeconomics: Behavior, Institutions, and Evolution*, Princeton: Princeton University Press, 2004.
- Hal Varian, *Microeconomic Analysis*, New York: W.W. Norton & Company, 1992.

The Varian book is recommended because many of you already own it, as it was the required textbook in Microeconomics I. Bowles's book is new and takes a very different approach than most graduate economics textbooks. The book displays Bowles's very sharp vision of the future of economics. If you have had no previous instruction in game theory or general equilibrium theory the Bowles book does not serve as a nice ground-level introduction, but he does try to be friendly.

Before I suggest *other possibly useful books*, I should note that I am an avid collector of economics texts that spend more time on the bookshelf than open on my desk. No single book is the "magic bullet" that will suddenly, with amazingly little effort on your part, open your eyes to the wonder and simplicity of economics and turn you into the next Ken Arrow, Herb Simon, or Gary Becker. It is often useful, however, to read what different authors have to write about similar topics as sometimes a different approach may jar something loose in your brain and you might learn something.

- Robert Gibbons, *Game Theory for Applied Economists*, Princeton: Princeton University Press, 1995.

- Geoffrey Jehle and Philip Reny, *Advanced Microeconomic Theory*, Boston: Addison-Wesley, 2001.
- Andreu Mas-Colell, Michael Whinston and Jerry Green, *Microeconomic Theory*, New York and Oxford: Oxford University Press, 1995.
- Martin Osborne and Ariel Rubinstein, *A Course in Game Theory*, Cambridge and London: The MIT Press, 1994.

Among these books, Gibbons's book presents game theory at the advanced undergraduate level. If you have had no previous course in game theory you will find this book most accessible. Mas-Colell, Whinston and Green is a graduate textbook that covers all of microeconomic theory. We shall only cover Part 2 of this book. MWG is not recommended as an introduction to anything. Jehle and Reny is a graduate textbook that is much lighter in both weight and mood than MWG. Finally, Osborne and Rubinstein's book is a graduate level course in game theory that covers more topics than we will be able to cover in this course. If you have had a previous game theory course, then you might find this book particularly interesting. In addition to these books many students find intermediate microeconomics texts to be a nice appetizer to the graduate textbook main course.

Lectures: We meet on Mondays and Wednesdays, 3:30pm - 4:45pm, in BSB 389. The first lecture is on Wednesday, 17 January. The last will be on Wednesday, 2 May. There will be no lectures on Monday, 26 March and Wednesday, 28 March (Spring Break). I will mainly use the chalkboard during lectures. An effort will be made to post some of the lecture notes online (Blackboard), but there are no guarantees.

Problem sets: When assigned problem sets can be downloaded from Blackboard. Problem sets are not a large part of your grade but should be helpful for exams. You are encouraged to work in groups on the problem sets, but you must hand in your very own copy of any assignment.

Discussion Section: The discussion section will occur once a week and will last for one hour. The purpose of the section is for the TA to go over problems in detail and answer questions. The time and place are to be announced. It will be taught by Bei Qin (e-mail: bqin2@uic.edu). Bei's office hour is to be announced.

Grading Policy: In addition to problem sets here will be one midterm in class, and a final exam.

- Problem Sets (15%)
- Wednesday, 21 March, 60 minute midterm exam. (25%)
- TBA, 2 hour final exam (60%)

Please note these dates now, and keep them free from any other obligations. If you have any parallel obligations on these dates that you cannot change, you need to let me know not later than Monday, 30 January.

Disabilities: To obtain academic accommodations for this course, students with disabilities should contact the Office of Disability Services and myself at your earliest convenience. You will need to contact Disability Services at 1-312-413-2183 (voice) or 1-312-413-0123 (TTY). Some aspects of this course may be modified to facilitate your participation and progress. I will treat any information you provide as private and confidential. Please get in touch with me about this no later than Monday, 30 January.

Expectations for the Midterm and the Final Exam: The quiz and the final exam will consist of formal problems. Please provide answers that are written sufficiently carefully so that I can read them. Please give rigorous and complete answers. Explain all required steps of your argument. Do not leave out calculations. Include all steps of an argument that are of conceptual relevance to the argument, even if the mathematics are trivial. The exams will focus on topics discussed in class as opposed to random drawings of topics from all of micro theory.

Note: The course syllabus provides a general plan for the course; deviations may be necessary. It is your responsibility to stay apprised of changes in assignments, due dates, material to be covered, etc.

Honor Code: This course and its associated coursework are being administered under the policies of the University of Illinois at Chicago (UIC) College of Business Administration Honor Code. All students are expected to respect and uphold this code.

The Plan

Topic 1: *Strategic Interactions*

Bowles (B): Chapter 1; Varian (V): Chapters 15 and 16; Jehle and Reny (JR): Chapter 7.

Topic 2: *Evolutionary Games*

B: Chapter 2.

Topic 3: *Preferences*

B: Chapter 3; V: Chapters 7,8, 11; JR: Chapters 1 and 2.

Topic 4: *Coordination Failures*

B: Chapter 4 ; V: Chapters 23 and 24.

Topic 5: *Bargaining*

B: Chapter 5;

Topic 6: *Utopian Capitalism* (i.e. decentralized allocation)

B: Chapter 6; V: Chapter 17; JR: Chapter 5.

Topic 7: *Hidden Actions*

B: Chapters 7 and 8; V: Chapter 25; JR: Chapter 8.

Topic 8: *Voting and Social Welfare*

JR: Chapter 6; V: Chapter 22.