

Econ 414: Game Theory – Spring 2008

Section 0301: Tuesday/Thursday 2:00pm-3:15pm, TYD 1132

Instructor

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Office Hours: Monday 10:30am-11:30am

Course Webpage: <http://www.econ.umd.edu/~chesnes/414>

Problem sets, announcements, and lecture notes will be posted on the website. Once announcements are posted, I will consider students to be aware of them. For this reason, I urge students to frequently visit the course website.

Required Text

The required textbook for this course is Martin J. Osborne, *An Introduction to Game Theory*, Oxford University Press (2004). Osborne is a formal introduction to game theory and its applications. Additional references are posted on the website.

Course Description

Most real-world decisions are not made in isolation, but involve interaction with others. This course studies the competitive and cooperative behavior that results when several parties with conflicting interests must work together. We will learn how to use game theory to formally study situations of potential conflict: situations where the eventual outcome depends not just on your decision and chance, but the actions of others as well. Applications are drawn from economics, business, and political science. Typically there will be no clear-cut "answers" to these problems (unlike most single-person decisions). Our analysis can only suggest what issues are important and provide guidelines for appropriate behavior in certain situations. (Professor Peter Cramton)

Prerequisites

Economics 306 (intermediate microeconomics) and Math 140 or 220 (first semester calculus) are required of all students. I will use calculus freely during the semester. Based on my experience, I expect some students to find this course difficult.

IF YOU STRUGGLED IN ECON 200 OR ECON 306, IF YOU FIND MATHEMATICS DIFFICULT, OR IF YOU DO NOT LIKE SOLVING PROBLEMS, YOU SHOULD DEFINITELY CONSIDER TAKING A DIFFERENT CLASS.

Grading

Your grade will be determined as follows:

Problem Sets: 200 Points Midterm Exam: 300 Points Final Exam: 500 Points

Let x be the percentage of the available points that you achieve. Grades will be assigned as follows:

A: $90\% \leq x$ B: $80\% \leq x < 90\%$ C: $70\% \leq x < 80\%$ D: $60\% \leq x < 70\%$ F: $x < 60\%$

Problem Sets: There will be a number, to be determined, of web based “pre-class” exercises, which you will have to solve before class. These “pre-class” exercises will be worth 20 points as a whole. You will only have to participate in these exercises to get the points. There will be also six (6) graded “post-class” problem sets; each one will be worth 30 points. “Post-class” means that you will have to solve each one of them after we cover the relevant topics in class. I will announce the due dates for the “pre-class” exercises and the “post-class” problem sets in class and on the course website during the semester. **You will not receive credit for a “post-class” problem set you hand in late.**

In order to participate in the “pre-class” exercises, you have to register on the following web page <http://gametheory.tau.ac.il/student/>. Our course number is **1399**. The class password is **8760** (case sensitive). Please use the email address that you have registered with the school (on Testudo).

Exams: Students with learning disabilities who require special exam procedures should get in touch with me as soon as possible. Students are required to take both examinations. A make-up examination will be an exception and will be granted **only** to those students with a valid university excuse. Exam dates, times, and locations will be posted on the course website.

The Department of Economics policy on grading requires me to use the grading system I announce at the beginning of the semester in all cases. I cannot make any exceptions to that rule. I realize that many of you may be taking this as your last course at Maryland, potentially to satisfy a major requirement. From my experience, students find this course fairly difficult and it requires substantial time to master the concepts. Be sure to review the problem sets and old examinations posted on the website as soon as possible to determine if this course is right for you.

There is NO EXTRA CREDIT in this course.

Academic Honesty

The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit <http://www.studenthonorcouncil.umd.edu/whatis.html>

Tentative Course Outline

See lecture notes on website.