

EC308, Fall 2001
Game Theory in Economics (T,TH 9:00-10:20)
Campion 328
Instructor: Hideo Konishi
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(Office Hours) M 1:00-3:00

COURSE DESCRIPTION

Game Theory is the social science that analyzes how to think (and act) strategically in interactive situations. This course presents Game Theory with its applications to the real world situations. Although applications of Game Theory are a lot of fun, you also need to study hard to become familiar with techniques used in Game Theory. They could involve some mathematics. Without understanding the theory properly, you cannot apply insights from it to the real world situations appropriately. We begin with analyzing a few basic games: sequential move games, simultaneous move games, and their mixtures. After that, we proceed to broader classes of games, and discuss more applications.

TEXTBOOK

There is one required textbook for this course, *Games of Strategy* by A. Dixit and S. Skeath. While the lectures will be mainly based on the textbook, some lectures (especially in the latter half of the course) will contain materials which are not presented in the book. There is one more recommended book, *Thinking Strategically* by A. Dixit and B. Nalebuff. This is a book with many interesting stories, but no formal theory is introduced. These two books are nice complements.

GRADE

Your grade will be based on your performance on two midterm exams, a final exam, and homeworks. Homework will count for 10% of your course grade. The remaining 90% will be divided up between two exams: the midterm and final exam scores will count for 30% and 60%, respectively. The final is a cumulative

exam. The midterm exam will be held on October 18 (TH), and the final exam on December 15 (M: 9:00am). The Midterm exam is an in-class exam. **No make up exam will be given.** A student will not be allowed to take a make up exam unless he/she asks for it **in advance** for compelling reasons. You may work on homework problems with other students, but you are required to make up the answers independently.

TENTATIVE SCHEDULE OF THE COURSE
Note that the course schedule may change

1. Before Midterm exam (basic theory): Chapters 1, 2, 3, 4, 5, and 6.
2. After the Midterm exam (advanced theory and applications): parts of Chapters 8, 9, 12, 14, 15, 16, and 17.