

## **Game theory (ECON 309) Fall 2008**

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Lectures: MW 12:20-1:10pm  
Haslab Add room 124  
Office Hours: MW 2:30-3:30pm

This course gives an introduction to game theory. Game theory is a tool for analysing the strategic interactions between decision makers (or “players”). In these interactions the choices of any one “player” affects and is known to affect the outcome for other “players” too. The objectives of the course are (1) to introduce the main concepts and ideas of game theory in a relatively non-technical way and (2) to apply these ideas to a range of topics from economics and other social sciences.

### **EXAMS AND GRADING**

The final grade will be based on a midterm (25%), a final exam (35%), homework assignments (20%), and quizzes (20%). The midterm exam will be given Thursday 23 Oct in the evening. Makeup exams will only be given in cases of verifiable medical excuse or other very good reasons. There will be no makeup for quizzes; instead the two worst quizzes will be dropped.

### **READINGS**

Textbook (available from Food for Thought Books):

Dixit, A. and Skeath, S. (2004) *Games of Strategy*, 2<sup>nd</sup> edition.

The book may be supplemented occasionally by outside readings that will be handed out in class.

### **OUTLINE**

We'll cover chapters 1-8, and 11-13 of Dixit & Skeath in reasonable detail. The coverage of the remaining chapters will be more selective. The choice of topics from these later chapters will depend on student interests.

**Preliminary plan:**

Sept 3, 8, 10	Introduction, general setup and terminology (chapters 1-2)
Sept 15, 17	Games with sequential moves (chapter 3)
Sept 22, 24	Games with simultaneous moves (chapter 4)
Sept 29, Oct 1	Continuous strategies (chapter 5)
Oct 6, 8	Combining sequential and simultaneous moves (chapter 6)
Oct 14, 15	Mixed strategies in zero sum games (chapter 7)
Oct 20, 22	Mixed strategies (chapter 8)
Thursday 23 Oct	Midterm exam
Oct 27, 29, Nov 5	Repeated prisoners' dilemma (chapter 11)
Nov 10, 17	Collective action games (chapter 12)
Nov 19, 24, 26	Evolutionary games (chapter 13)
Dec 1, 3, 8, 10	Selected topics from chapters 9-10 and 14-18.