Syllabus

The purpose of this course is to teach the basic concepts and discuss some important economic applications of game theory, at a graduate level. As we will cover a broad set of topics, we will not have time to delve into them very deeply. Hence, the course is intended to provide you foundations to be able to do your own research in abstract or applied game theory, but in order to be able to start doing research, you will either need to take a more specialized course covering the topic of your interest, or read into the related literature yourself.

We will not strictly follow any textbooks, but as a background reading I recommend you the following two books, which cover a lot of the material we will study:


In addition, I plan to distribute hand-outs after classes, summarizing the covered material.

Grading will be based on problem sets (20% of the grade), an in-class midterm exam (30%), and a final exam (50%). I also give extra points for active class participation.

Class times and location: 8.45-11.15 am Fridays, Social Science 111

Office Hours: 1-2.30 pm Mondays, 220B Economics Department

The currently planned list of topics:

August 29: Review of basic concepts
September 5: Agreeing to disagree, No trade theorems
September 12: Extensive form games: basic concepts
September 19: Signaling games, forward induction, repeated games
September 26: Type spaces, rationalizability, correlated equilibrium
October 3: Repeated games II: Imperfect monitoring
October 10: Midterm exam
October 17: Application: Dynamic bargaining
October 24: Application: Strategic communication

October 31: Reputation, part I.

November 7: Reputation, part II.

November 14: Continuous-time games

November 21: Global games