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), a midterm exam (30%), and a final exam (50%). I also give extra points for active class participation.

Class times and location: This is a hybrid course, with classes at 8.30-9.45am Tuesday and Thursday, Social Science 136. Classes will be recorded for those who cannot attend them.

Office Hours: 2-3pm Mondays, on Zoom

The currently planned list of topics:

Week 1: Review of basic concepts
Week 2: Type spaces, rationalizability, correlated equilibrium
Week 3: Extensive form games: basic concepts
Week 4: Agreeing to disagree, No trade theorems
Week 5: Signaling games, forward induction, repeated games I.
Week 6: Repeated games II: Imperfect monitoring
Week 7: Midterm exam
Week 8: Application: Dynamic bargaining
Week 9: Application: Strategic communication

Week 10: Reputation, part I.

Week 11: Reputation, part II.

Week 12: Continuous-time games

Week 13: Global games