

Economics 212 – Game Theory – Syllabus v3
Spring 2018
Professor Steven Matthews
University of Pennsylvania

Description. The object of game theory is to understand situations in which a person's behavior affects the optimal behavior of others. In this course we study the theory and its applications to economics, political science, and law.

Prerequisites. Econ 101 and Math 114/115, in a previous semester.

Class Times. Tuesday/Thursday, 10:30-12 noon, in McNeil 286-7.

Professor. Steven Matthews, stevenma@econ.upenn.edu.

Teaching Assistant. Joao Granja de Almeida, joaog@sas.upenn.edu.

Professor Office Hours. Mondays, 3:30-5 pm, McNeil 521. By appt otherwise.

TA Office Hours. Fridays, 10:30-12 noon, McNeil 421.

Textbook. *Strategy: An Introduction to Game Theory*, 3rd edition, by Joel Watson.

Course Materials. Lecture slides, supplementary readings, and solutions will be posted on <http://canvas.upenn.edu>.

Homework. Every 1-2 weeks a problem set is due. They are graded on a 1-3 scale. Only one or two problems from each problem set, chosen randomly, will be graded. Late homework is not graded. The problem set on which you score the lowest is not counted. Doing the homework is necessary for learning the material and doing well on the exams.

Exams. Two non-cumulative midterms, and one semi-cumulative final exam that emphasizes the material following midterm 2. All exams are closed book, notes, and electronics.

Grading. 10% for homework, 25% for each midterm, and 40% for the final exam. If you are unable to take one of the midterms for an excused reason, the other one will count 32% and the final exam 58%.

Additional Policies. <http://www.econ.upenn.edu/undergraduate/policies>

Dates.

Midterm 1: Tuesday, February 13, in class

Midterm 2: Tuesday, March 27, in class

Final Exam: Monday, May 7, 12-2 pm, TBA location.

Tentative Course Outline

Topic	Chapter	Lecture Slides
Representing Games		
Extensive form, strategies	1 – 3	1 – 2
Normal form, beliefs/mixed strategies	4, 5	3
Static Games		
Best response, rationalizability, applications	6 – 8	4 – 5
Equilibrium, applications	9, 10	6
Mixed strategy equilibrium	11	7
Strictly competitive games	12	8
Contract and law	13	9
MIDTERM 1?		
Dynamic Games		
Extensive forms and subgame perfection	14, 15	10
Applications: IO and parlor games	16, 17	11
Bargaining games	19	12
Repeated games and applications	22, 23	13
MIDTERM 2?		
Incomplete Information Games		
Random events and incomplete information	24, App A	14
Bayesian-Nash equilibrium, applications	26, 27	14 – 15
PBE, signaling, reputation	28, 29	14 – 15

Chapters Tentatively Skipped: 18, 20, 21, 25