Econ 106G - Introduction to Game Theory
Summer 2015

Time and Location

Tuesday and Thursday 10:45 am - 12:50 pm, Fowler A103B
Final: Thursday, July 30th 10:45 am - 12:50 pm, Fowler A103B

Instructor

Greg Kubitz
E-mail: gkubitz@ucla.edu
Office Hours: Wednesday 12 - 2 pm, Thursday 8 - 10 am, Location TBA
Note: There is a grader assigned to this course, however, they will not be responsible for holding office hours.

Textbook

Required: Joel Watson: Strategy: An Introduction to Game Theory 3rd Edition

All practice problems (not graded) and some homework problems will come from this textbook. It is available at the student store.

Prerequisites

In this class we will use basic calculus and probability theory. This is an introductory course in game theory, so previous instruction on this topic will not be assumed. If you have not had an intermediate microeconomics course, I would suggest reading Chapters 1-5 of Watson before the first lecture, as we will move quickly over this material.

Grading

There will be 4 homeworks and a final exam that count towards your overall grade. Each homework will be 10% of your total score, and the final will make up the remaining 60%.

Cutoffs for the grades will be as follows: 100-97% A+, 96-92% A, 91-90% A-, 89-88% B+, 87-82% B, 81-80% B-, 79-70% C, 69-60% D, <59% F.
Depending on the grade distribution of the final exam, these cut-offs may be lowered, but they will not be raised (if you get 88% aggregate score in the class, then will receive at least a B+).

Homeworks

There will be 4 homeworks. You can turn in assignments on your own, or in a group of two. You are encouraged to work with additional classmates, but each assignment turned in must be written up by those members exclusively. Homeworks that are turned in with identical writeups will not receive points. Homeworks **MUST** be typed (diagrams and tables can be neatly drawn). The homeworks are designed to make you think critically about the concepts of the course and will not be easy. I will not provide help or answers to the problems in office hours.

These rules exist so that you take the homeworks seriously. You will learn the most in this shortened schedule from thinking about homework problems and writing them up in a thorough, yet concise way. If you do not put time into the homework assignments, you will most likely not do well on the final.

Final

The final will be 2 hours long and will consist of mainly short answer questions that will require basic calculations and small write ups. This is a closed exam (no notes, textbook, neighbors, etc.). Calculators will **NOT** be allowed. Please bring a form of ID (preferably Bruin ID) to the exam. Cases of academic dishonesty will follow the university guidelines.

Course Outline

Week 1: June 23rd and 25th

Introduction to game theory, Components of a game, Rationality, Expected payoffs, Strategies, Game Forms, Dominance, Weak dominance. (Watson Ch 1-6)

Week 2: June 30th, July 2nd

Best responses, Rationalizability, Nash equilibrium, Mixed strategies (Watson 7, 9-11)

Week 3: July 7th, July 9th

Dynamic games, Subgame perfect Nash equilibrium, Repeated games (Watson 14,15,18,19)

Week 4: July 14th, July 16th

Oligopoly, Collusion, Cooperative Games, CORE (Watson 20-23)

Week 5: July 21st, July 23rd

Incomplete information, Imperfect information, Bayesian Nash equilibrium, Moral Hazard, Signaling, Adverse Selection (Watson 24, 26-29)

Week 6: July 28th, July 30th

Experiment and Final Exam