

Econ 485 A: Game Theory

Winter 2019

Instructor: Justin Downs

Lecture: Monday and Wednesday, 10:30am-12:20pm, ARC G070

Office: 319C Savery Hall

Email: jdowns1@uw.edu

Webpage: <http://canvas.uw.edu>

Office Hours: TBD

Prerequisites

Econ 300 grade of 2.0 or better.

Required Materials

Game Theory for Applied Economists, Robert Gibbons

Optional Materials

Game Theory: An Introduction, Steve Tadelis

Games of Strategy, A. Dixit and S. Skeath

Game Theory, D. Fudenberg and J. Tirole

Playing for Real, Ken Binmore

Games, Strategies, and Decision Making, Joseph Harrington

Topics

1. Static Games of Complete Information
2. Dynamic Games of Complete Information
3. Repeated Games
4. Static Games of Incomplete Information
5. Dynamic Games of Incomplete Information

Learning Goals

By the end of the course, students should be able to:

1. Understand the logic and intuition of standard game-theoretic models
2. Build games that represent common real world and economic situations.
3. Apply the tools and concepts of game theory to these models to obtain and critique its predictions

Reading

1. Static Games of Complete Information: Gibbons Chapter 1
2. Dynamic Games of Complete Information: Gibbons Chapter 2 Sections 2.1, 2.2, and 2.4
3. Repeated Games: Gibbons Chapter 2 Section 2.3
4. Static Games of Incomplete Information: Gibbons Chapter 3
5. Dynamic Games of Incomplete Information: Gibbons Chapter 4

Grading

Problem Sets - 40% - There will be **6** problem sets due on 1/16, 1/23, 1/30, 2/6, 3/6 and 3/13. Among those **6**, the highest **5** scores will be counted at 8% each.

Problem Sets are to be turned in at the beginning of the class they are due. Answers are to be written on *plain white paper*, one side only, with each new question started on a new page, numbered, and the pages stapled. Problem Sets that are turned in without meeting these requirements are subject to deductions.

Midterm Exam - 30% - There will be a midterm exam on Wednesday, 2/13 in class. This exam will cover all material from the beginning of the class.

Final Exam - 30% - There will be a final exam on Monday, 3/18 from 8:30am - 10:30am. This exam will cover all material since the midterm exam.

Student Athletes

Student athletes who have conflicts with attending any lecture or submitting any assignment should submit a list of such conflicts along with a letter from the athletics department by **Monday, January 14**. I will reasonably accommodate any student athlete who follows this guideline.

Academic Accommodations

The University of Washington is committed to providing access and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. For information or to request disability accommodation contact: Disability Resources for Students (Seattle campus, matriculated students) at (206) 543-8924/V, (206) 543-8925/TTY, (206) 616-8379 (FAX), or e-mail at uwdss@uw.edu

Academic Integrity

Academic integrity is the cornerstone of the Department's rules for student conduct and evaluation of student learning. Students accused of academic misconduct will be referred directly to the Office of Community Standards and Student Conduct for disciplinary action pursuant to the Student Conduct Code and, if found guilty, will be subject to sanctions. Sanctions range from a disciplinary warning, to academic probation, to immediate dismissal for the Department and the University, depending on the seriousness of the misconduct. Dismissal can be, and has been, applied even for first offenses. Moreover, a grade of zero can be assigned by the instructor for the course.

Behavior that constitutes academic misconduct includes but is not limited to cheating on exams or quizzes (copying answers from others, using unauthorized materials, a student not taking their own quiz/exam, etc.), copying homework answers, and plagiarism.

Miscellaneous

Lecture notes will NOT be distributed. If you miss class, it is your responsibility to contact a classmate and get lecture notes from them.

The text and lectures are complementary goods. Some material in the text will not be covered in lecture, and some material from lecture is not available in the text.

No laptops will be allowed for note-taking in class. This rule is to prevent students from distracting themselves and others with "non-class-related" uses, as well as to encourage detailed note-taking.

No calculators will be needed for exams *unless otherwise specified by me*. Questions will usually be written in such a way that all calculations can reasonably be completed by hand in the allotted time.

Students are **strongly** encouraged to ask questions and foster discussion in class. These questions and discussions are useful in helping us all understand economics better.