

Intro To Game Theory
EC 327
Spring 2023

Time: Monday and Wednesday from 4:00 to 5:20 pm

Location: Chiles 128

Instructor: Evan Hart

Email: EHart4@uoregon.edu

Office Hours: after class and by appointment

TA:

Email:

Office Hours: TBD

Grading Function:

Assignments: 30%

Midterm: 30%

Final Exam: 40%

*Bring a calculator to the exams

Grading Distribution:

The most competitive grading distribution I will use is below. If class performance allows, I will lower the threshold for some grades.

A: 90%-100%

B: 80%-89%

C: 70%-79%

D: Participation

F: Failure to Participate

Assignments:

I will post four assignments on Canvas. You should submit your answers via Canvas. You will be graded on the merit of your answers.

Late Homework Policy

The homework assignments will be due on Sundays at 11:59 pm. Late homework can be submitted until 3 pm Monday with a penalty (10% grade reduction). I will release the homework key then, and submissions will no longer be accepted.

Exam Grading Policy:

- If you don't know the answer, please write "I don't know" or leave it blank, and you will receive partial credit. 25%
- If you choose to attempt a question, you will be graded on the merit of your answer.
- An answer that shows understanding with some mistakes will be given partial credit, decided by the grader. A well-written response should receive more than 25%.
- Show all your work. Answers without work are not guaranteed credit.

Schedule: (can be modified at any time)

I

- Background
- Introduction to Games

II

- Pure Strategies
- Mixed Strategies I

III

- Mixed Strategies II
- Review Homework 1, Nature

IV

- Bayesian Nash Equilibrium
- Repeated Games

V

- Review HW 2, Midterm Q & A
- Midterm

VI

- Sequential Games I
- Sequential Games II

VII

- Sequential Mixed Strategy I
- Sequential Mixed Strategy II

VIII

- Principal Agent I
- Principal Agent II

IX

- Bargaining I
- Bargaining II

X

- Review Homework 4 and Bargaining III
- Questions

Objectives:

This course aims to help you to understand the fundamental principles of game theory, become familiar with basic classes of games, practice the mathematical skills to solve for the appropriate equilibria, apply game theoretic models to real-world interactions, and recognize some of the limitations and critiques of the theory.

References:

I will provide reference material.

Prerequisites:

This class has EC 201 as a prerequisite.

Exams:

Suppose any one of the examinations is missed for any reason. In that case, a typewritten petition fully explaining and documenting why the exam was missed must be submitted to me within a week of the exam being missed. Please note that the possibility to submit a petition is offered to deal with unforeseen exceptional cases such as serious injury, illness, or a death in the family, and a petition may not be approved. If the petition is approved, I will decide on a case-by-case basis how you can make up for the missed exam. The alternative is to receive a zero for the missed exam. Any requests for re-grades on an exam must be submitted in writing within one week after the exam is graded. A regrade request should include an argument of why you feel your answer was correct. Since I grade the exam questions as a whole, I reserve the right to re-grade the entire question when a regrade request is made.