

Syllabus: EC 327, Introduction to Game Theory

University of Oregon

Fall 2020

Class Times: Mon/Wed, 4:15PM-5:45PM

Classroom Location: STB 245

Zoom Link (on

canvas): <https://uoregon.zoom.us/j/93343078150?pwd=bWhzeElNUCtqMzhyMkRrZDIvN2ZmQT09>

Instructor: Ethan Holdahl

Email: eholdahl@uoregon.edu

Office Hours: Mon/Tue, 3:30PM-4:30PM

Office Location: 419 PLC

Zoom Link (on canvas):

<https://uoregon.zoom.us/j/97832997533?pwd=dldiOUptWXVnNmhhaEVMNGRnT1N5dz09>

TA: Connor Wiegand

TA Email: cwiegand@uoregon.edu

Office Hours: Wed, 3:00PM-4:00PM

Office Location: 508 PLC

Course Website (on canvas): <https://canvas.uoregon.edu/courses/192231>

Course Outline:

Unit 1: Introduction; Preferences, utility, and rationality

Unit 2: Sequential Move Games

Unit 3: Simultaneous Move Games

Unit 4: Mixed Strategy Nash Equilibrium

Unit 5: Combining Simultaneous and Sequential Moves

Unit 6: Voting

Unit 7: Continuous Strategies

Unit 8: Repeated Games

Course Description: This course is an introduction to Game Theory. Game Theory involves the analysis of strategic situations; situations where the "payoffs" obtained by one or more "players" depend on the "strategies" of themselves and others. For example, consider the question "do I need to study hard for this course?" Game Theory tell us that if the grade is determined at least

partially by your relative performance, then the answer is yes if all the other students study, but no if they don't!!! A number of problems in Game Theory will be analyzed theoretically (but with little emphasis on the formal mathematics), and each will be explored by all students via active in-class game playing. The game playing will involve dividing the class into teams, each of which will compete against the others in a variety of strategic situations.

Textbook: *Games of Strategy* by Dixit, Skeath, and McAdams, published by W. W. Norton (ISBN 9780393422191).

Grades: Your grade for this course will be based on two exams, homework assignments, and your participation in practical exercises to be performed during class. The components of your grade will be weighted as follows:

Midterm	25%
Final	25%
Quizzes	20%
Homework	20%
In-Class Activities and Participation	10%

Grading Scale: Letter grades will be assigned as follows:

	93-100% → A	90-92% → A-
87-89% → B+	83-86% → B	80-82% → B-
77-79% → C+	73-76% → C	70-72% → C-
67-69% → D+	63-66% → D	60-62% → D-
	59% or below → F	

Homework: There will be bi-weekly homework due on canvas at the start of class every other Wednesday. Credit for homework will be graded on accuracy. You are encouraged to work with your classmates to complete the homework, however, each person must submit their own assignment. Note: new homework problems will be assigned to the current homework set after each class. Homework may be submitted before the set is due and before all problems in the set have been assigned. I will grade and return submitted homework as soon as I am able. Homework may be submitted as many times as desired, if multiple submissions for the same assignment are made I will count the one with the highest grade for the gradebook.

Late Homework Policy: Late homework will be accepted at a 40% penalty.

Quizzes: There will be weekly quizzes. The quizzes will follow the following format: first everyone will take an individual quiz. Then everyone will immediately retake the same quiz with their teammates. Both the individual and team quiz will equally count towards your quiz grade.

Exams: The midterm will be administered during class on Wednesday, February 2, and the final exam will be administered 10:15 on Monday, March 14. The final will not technically be comprehensive, but concepts from the first half of the course will remain relevant until the end of the course. I may apply a curve to each exam.

Make-Up Exam Policy: A make-up exam will only be given in the case of serious illness or family emergency, and barring truly exceptional circumstances, I will expect you to inform me of the reason for your absence in writing as soon as possible and no later than 6PM on the day of the exam. You should be aware that make-up exams may be more difficult than the original exam since I will be writing them on short notice.

In-Class Activities and Participation: This course is designed to be interactive and collaborative. To help you build social ties, you will be divided into teams that you will stay in for the remainder of the term. I expect that when possible each of you will attend every class live

and be active participants. You will earn points for your attendance and participation in activities. During class you may have the ability to earn bonus points or win the ability to drop a bad quiz score based on your performance during the games we play.

Chegg/Course Hero: Posting any of my class materials (homework sets, quizzes, tests, solutions, any handout) online or giving them to another student not in this class will be considered academic misconduct.

University Policies:

Accessibility: The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. You are also encouraged to contact the Accessible Education Center in 155 Oregon Hall at 541-346-1155 or uoaec@uoregon.edu.

Academic Integrity: Academic Misconduct: The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor. Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students' obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at researchguides.uoregon.edu/citing-plagiarism. -From the Office of the Dean of Students

Prohibited Discrimination and Harassment Reporting: Any student who has experienced sexual assault, relationship violence, sex or gender-based bullying, stalking, and/or sexual harassment may seek resources and help at safe.uoregon.edu. To get help by phone, a student can also call either the UO's 24-hour hotline at 541-346-7244 [SAFE], or the non-confidential Title IX Coordinator at 541-346-8136. From the SAFE website, students may also connect to Callisto, a confidential, third-party reporting site that is not a part of the university.

Students experiencing any other form of prohibited discrimination or harassment can find information at respect.uoregon.edu or aaeo.uoregon.edu or contact the non-confidential AAEO office at 541-346-3123 or the Dean of Students Office at 541-346-3216 for help. As UO policy has different reporting requirements based on the nature of the reported harassment or discrimination, additional information about reporting requirements for discrimination or harassment unrelated to sexual assault, relationship violence, sex or gender based bullying, stalking, and/or sexual harassment is available at Discrimination & Harassment.

Specific details about confidentiality of information and reporting obligations of employees can be found at titleix.uoregon.edu.

Mandatory Reporting of Child Abuse: UO employees, including faculty, staff, and GEs, are mandatory reporters of child abuse. This statement is to advise you that your disclosure of information about child abuse to a UO employee may trigger the UO employee's duty to report that information to the designated authorities.

Diversity: The University of Oregon is dedicated to the principles of equal opportunity and freedom from unfair discrimination for all members of the university community and an acceptance of true diversity as an affirmation of individual identity within a welcoming community. This course is committed to upholding these principles by encouraging the exploration, engagement, and expression of distinct perspectives and diverse identities.

All of us associated with the course—you included—are expected to value each class member's experiences and contributions and to communicate disagreements respectfully. Please notify me if you feel aspects of the course undermine these principles in any way. You may also notify the Department of Economics at 541-346-8845. For additional assistance and resources, you are also encouraged to contact the following campus services:

- Office of Equity and Inclusion: 1 Johnson Hall | 541-346-3175 | oied.uoregon.edu
- Center on Diversity and Community: 54 Susan Campbell Hall | 541-346-3212 | codac.uoregon.edu
- Bias Response Team: 164 Oregon Hall | 541-346-1134 | brt@uoregon.edu | bias.uoregon.edu

Basic Needs

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in the course is urged to contact the Dean of Students Office (346-3216, 164 Oregon Hall) for support.

This UO webpage includes resources for food, housing, healthcare, childcare, transportation, technology, finances, and legal support: <https://blogs.uoregon.edu/basicneeds/food/>

Feed the Flock – Services for Students Facing Food Insecurity

The following is a list of services and programs that offer free food, meals, and support for accessing resources. Their availability and operation remain fluid and subject to change without notice. We will do everything we can to ensure that we are communicating as quickly as possible. We are working to shift our resources and efforts to ensure that students facing food insecurity have multiple avenues of support. Program descriptions can be found out at: foodsecurity.uoregon.edu

The Student Sustainability Center (@uo_ssc) will try to aggregate changes and information for all programs via facebook and Instagram. For food security specific resources, follow @feedtheflockuo. Please follow for the most up to date information regarding program changes.

- **ECM Student Food Pantry**– Open 4-6pm Wednesdays and Thursdays. 710 E. 17th Ave. Eugene, OR 97401. Check the Student Food Pantry facebook for updates including the possible addition of Saturday hours.
- **Produce Drops**– Free, fresh produce for students every Tuesday of the month from 3-5pm during the academic term (ie, not during Winter Break). Produce Drops take place in the EMU amphitheater rain or shine.
- **SNAP Enrollment help**– The Student Sustainability Center and the Duck Nest are working to ensure continuity in SNAP enrollment help. SNAP enrollment drop-in hours with the Duck Nest are posted on the Duck Nest Instagram (@uo_ducknest). The SSC also has SNAP drop-in hours which are updated on their Instagram (@feedtheflockuo). Please follow the Duck Nest and the Student Sustainability Center on social media to stay up to date.
- **Ducks Feeding Ducks** – Emergency meal dollars will remain available and can be used wherever Duck Bucks are accepted. To qualify, students must not have more than \$4 in their Duck Bucks account and may not have used the program already this term. Additional funds can be received upon meeting with the Dean of Students office.
- **Hearth to Table Meals** – Free community meals and meal preparation with professional Chef. Hearth to Table will not hold meals during finals week or Winter Break. Starting week 1, kitchen teams will be reduced to 4 people. Student volunteers must sign up in advance by emailing sisterclare@welcometocentral.net. Communal meals will continue being served with increased distance between tables and only 4 seats at each table. Total number of diners will be capped at 32. Meals are served 6:30 pm to any student for free. Check Hearth & Table facebook and Instagram for updates. Check the @feedtheflockuo Instagram for Hearth and Table updates
- **Additional Resources via FOOD for Lane County:**
 - o Free Produce and Groceries
 - Call FOOD for Lane County at 541.343.2822 to find out which location best serves you
 - o Hot meals
 - The Dining Room – 270 W 8th Ave; passing out to-go meals; M-Th 12-12:45pm

- St. Vincent de Paul Service Station – 450 B Hwy 99 N; (18+ only); limited number of guests in the building, outdoor respite space available
- Ebert Memorial Methodist Church – 532 C St. Springfield; passing out to-go meals Monday 8:30-10:30am & Tuesday/Thursday 8-11:15am
- Eugene Catholic Worker 5th and Washington; Weds-Sat 8:30am-9:30am; Tuesday-Thursday 4:30pm-5pm
- Free People! – Lamb’s Cottage at Skinner’s Butte, Eugene; Saturday Breakfast 9:15-9:45am, Saturday dinner
- Burrito Brigade – First Christian Church; 1143 Oak Street, Eugene; Sun 11am-2pm
- First Christian Church – 1166 Oak Street, Eugene; Sun 7:45am-9:15am
- Food Not Bombs – 10 E. Broadway, Eugene; Friday 3pm

*all times and dates are subject to change, please call Food for Lane County or check out their website for the most up to date information

- o Food Pantry
 - Daily Bread – 89780 N. Game Farm Road, Eugene; 2nd and 4th Thursday, 2-6pm
- o Double Up Food Bucks! – Receive up to \$10 for fruits and vegetables with SNAP at farmer’s markets when you spend \$10 on your SNAP card. Go to the token vendor, spend \$10 and get an additional \$10!