

ECON 451 - Game Theory

Purdue University - Fall 2018

Tuesdays and Thursdays • 3:00PM–4:15PM • 4:30PM–5.45PM

Course Description and Goals

- This course will introduce upper-level undergraduates to game theory, which is now a vital methodology in many disciplines, including economics, political science, biology, computer science, and engineering.
- You will learn to analyze decision making in situations in which the outcome depends on the actions of multiple decision makers (people, firms, governments, etc.).
- The class will include a number of experiments. The goal of the experiments is to encourage you to actively participate in your learning, and to provide hands-on experience.

Contact Information

- **Professor:** Yaroslav Rosokha
- Office: Krannert 405
- Email: yrosokha@purdue.edu
- Phone: 765-496-3668
- Office Hours: Wed 4-5 PM, Thurs 10-11am, and by appointment

Course Materials

- Textbook: **Strategy: An Introduction to Game Theory** by Joel Watson. W. W. Norton & Company, 2013. (ISBN: 9780393918380)
 - Textbook is placed on course reserve at the library.
 - Reading assignments will be announced in class. The text is very readable, so some of the material will not be addressed directly in class. That makes it especially important for students to keep up with the assigned reading.
- Announcements, updated schedules, assignments, class slides, etc. will be posted on **Blackboard**.
 - Students are responsible to get information from the web site in a timely manner.
 - For most of the class I will use slides to present the material. I will try to post the slides the day before class to give you time to review them before class. However, these slides will typically not be complete and will be missing many parts that may be presented, and will need to be filled in.
- We will use **MobLab** (<https://www.moblab.com/>) for the in-class experiments. This is an application which will allow us to run in class experiments which will help us gain a better understanding of the concepts that are being discussed. If you do not have access to smartphone/computer, please send me an email or talk to me after class, and we will work something out. Krannert has a school-wide license, so you do not need to purchase an individual account. However, you do need to create an account.

Assessments

Course grades will be based on the grades obtained in homework, quizzes, exams, and participation as follows.

Exams	60%
Homework and Quizzes	30%
Participation	10%

- **Exam** dates are to be determined.
 - All three exams are equally weighted.
 - No student will be allowed to make up any exam unless they have an excused absence.
- **Quizzes** will be given randomly throughout the semester.
 - No “make-up” quizzes will be assigned or accepted. For cases of a severe documented illness or bereavement, missed quizzes will be dropped.
- **Homework Assignments** are due at 11.59pm the night before class through Blackboard. Late submission of HWs will not be accepted. There will be no opportunity to turn it in late or to make up the assignments, no exceptions. For cases of a severe documented illness or bereavement, missed HWs will be dropped. I will also drop the lowest homework grade for everyone.
 - Students are encouraged to form study groups to discuss and work through the problems assigned as homework. However, all material handed in must be written up individually. Also, please write the names of the people that you worked with on your assignments. If you don't write the names of the people you worked with, it may appear that you have copied someone's homework.
 - In order to receive full credit, homework must be neat, well organized, have the start of the answer to each part of each question clearly labeled, and have the student's name written clearly at the top. All homework and exam work must be shown with enough detail for the grader to follow your reasoning.
- **Participation** grade will be based on in-class participation, experiment participation, blackboard discussion board participation, and on-time arrival to class.
 - Participation in classroom discussions is strongly encouraged!
 - My goal is to create an optimal learning environment for all students. Therefore, please be sure arrive to class on time and turn off all electronic devices before class starts. Please be conscious that even minor whispering or other distracting behaviors can be very disruptive in a classroom. **Late arrivals and distracting behaviors will result in lower participation grade.**
 - Students may use laptops to take notes. However, if I notice that the laptop is causing a distraction I reserve the right to ask the student to stop using the laptop during class.
 - Students anticipating an excused absence due to illness must provide a physician's certification of illness and notify the instructor by emails in advance.
- **Course Grades:** Typical but not guaranteed grade cut-offs are A: 100-90; B: 89-80; C: 79-70; D: 69-60. In the grade distribution, “A” includes “A+” and “A-”, “B” includes “B+” and “B-” and so on.
 - **Curve:** At least 25% of students will receive “A” grade (typical range 25% to 35%). At least 75% of students will receive “A” or “B” grade (typical range 75% to 85%). Remaining students can expect grades of “C” and below.
- Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.

Statements

Class Attendance Statement

Purdue University policy states that all students are expected to be present for every meeting of classes in which they are enrolled. All matters relative to attendance, including the make-up of missed work, are to be arranged between the student and the instructor. Only the instructor can excuse a student from classes or course responsibilities. In the case of an illness, accident, or an emergency, the student should make direct contact with the instructor as soon as possible, preferably before the class. If a student will be absent for more than five days, the student or his/her representative should notify the Office of the Dean of Students (765-494-1254) as soon as possible. Be advised, the student may be asked to provide documentation from an authorized professional or agency that supports an explanation for the absence.

Purdue University Code of Honor

The purpose of the Purdue University academic community is to search for truth and to endeavor to communicate with each other. Self-discipline and a sense of social obligation within each individual are necessary for the fulfillment of these goals. It is the responsibility of all Purdue students to live by this code, not out of fear of the consequences of its violation, but out of personal self-respect. As human beings we are obliged to conduct ourselves with high integrity. As members of the civil community we have to conduct ourselves as responsible citizens in accordance with the rules and regulations governing all residents of the state of Indiana and of the local community. As members of the Purdue University community, we have the responsibility to observe all University regulations.

To foster a climate of trust and high standards of academic achievement, Purdue University is committed to cultivating academic integrity and expects students to exhibit the highest standards of honor in their scholastic endeavors. Academic integrity is essential to the success of Purdue University's mission. As members of the academic community, our foremost interest is toward achieving noble educational goals and our foremost responsibility is to ensure that academic honesty prevails. For additional information on academic integrity, see http://www.purdue.edu/cie/teachingtips/academic_integrity/index.html. Remember the Purdue Honors Pledge: <https://www.purdue.edu/provost/teachinglearning/honor-pledge.html>.

In this course, if you are caught cheating, or knowingly helping someone else to cheat, you will receive zero on that particular assignment. If you are caught cheating more than once you will fail the course. If you do not know what cheating is please see http://www.purdue.edu/cie/teachingtips/academic_integrity/index.html.

Emergency Statement

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances.

Adverse Weather Conditions

The University takes into consideration local and regional weather conditions, travel conditions and decisions by local school districts when deciding whether to delay, dismiss or cancel classes and/or routine operations for an entire campus due to Adverse Weather Conditions. When conditions warrant, a decision to delay, dismiss, or cancel classes and/or routine operations is coordinated with appropriate local city, county or state officials and communicated to faculty, staff and students of the affected campus. The decision to delay, dismiss or cancel classes and/or routine operations for the West Lafayette campus is made by the President and for each of the Regional Campuses it is made by the Chancellor. The President and the Chancellors will each assign a designee for such purposes to act in his or her absence.

Adaptive Programs Statement

Students with disabilities must be registered with Adaptive Programs in the Office of the Dean of Students before classroom accommodations can be provided. If a student is eligible for academic accommodations because the student has a documented disability that will impact the students work in this class, please schedule an appointment with the instructor to discuss the needs.

CAPS Information

Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, such individuals should contact Counseling and Psychological Services (CAPS) at (765)494-6995 and <http://www.purdue.edu/caps/> during and after hours, on weekends and holidays, or through its counselors physically located in the Purdue University Student Health Center (PUSH) during business hours.

Tentative Schedule

Week	Tuesday		Thursday	
1	08/21	Ch. 1	08/23	Ch. 2, 3
2	08/28	Ch. 4, 5	08/30	Ch. 6, 7
3	09/04	Ch. 8	09/06	Ch. 9
4	09/11	Ch. 10	09/13	Ch. 11, 12
5	09/18	Ch. 14	09/20	Ch. 15
6	09/25	Review	09/27	No Class
7	10/02	Ch. 15	10/04	Ch. 16
8	10/9	Ch. 17	10/11	Ch. 18
9	10/16	Ch. 19	10/18	Ch. 20
10	10/23	Ch. 21	10/25	Ch. 22
11	10/30	Review	11/01	Ch. 23
12	11/06	Ch. 24	11/08	Ch. 24
13	11/13	Ch. 25	11/15	Ch. 26
14	11/20	No Class	11/22	No Class
15	11/27	Ch. 27	11/29	Ch. 28
16	12/04	Ch. 29	12/06	Review
Finals Week	Final Exam - TBA			

- **Midterm exam 1** will be held on 9/26 at 6.30-7.30pm in WTHR 200 (No class on 9/27)
- **Midterm exam 2** will be held on 10/31 at 6.30-7.30pm in WTHR 200 (No class on 11/20)
- **Final exam** will be held in accordance to the university exam schedule.