



**University of Connecticut
College of Liberal Arts and Sciences
Department of Economics**

Econ 3208: Game Theory
Spring 2015, Storrs Campus (1/20/2015 – 5/01/2015)

Instructor Information:

Sining Wang, PhD Candidate
Office: Oak Hall 320
Office Hours: 1:00 PM - 3:00 PM, Tuesday, or by appointment
Email: Sining.wang@uconn.edu

Class Details:

Classroom: Oak Hall 105
Meeting Time: 11:00 AM - 12:15 PM, Tuesday & Thursday

General Overview:

Most of time people make decisions in interactive situations. The outcome of our choices depend upon the choices made by others. consequently, the profits and happiness of these other individuals depends on the actions that we will take. Game theory provides a systematical way of analyzing interdependent decision making.

As it is a course in “theory,” we will take an analytical and often quantitative approach. We will use equilibrium analysis to study topics including the use of backward induction, credible threats and promises, strategic use of information, negotiation and bargaining, and bidding in and designing auctions. This course develops a conceptual framework for understanding these environments and introduces analytical tools for solving games.

The ultimate goal of this course is to enhance the student’s ability to think strategically in complex situations. The simple examples presented in class are intended to isolate and illuminate aspects of strategic interaction that arise in real situations. For a broader understanding, it is necessary for the student to recognize the similarities between these simple games and real situations. Students will participate in games against classmates most weeks. Both fun and simple, the games illustrate general principles of behavior. Required course readings will sometimes delve further into the theory. Often, these readings will demonstrate the application of game theoretic principles not only to economics, but also to sports, movies, popular culture, nature, etc.

Performance Evaluation:

An Individual's performance will be evaluated according to the following criteria and percentages.

- Midterm Exam 1 25%
- Midterm Exam 2 25%
- Final Exam 30%
- Participation in Games 10%
- Class Participation 10%

Explanation of the evaluation criteria:

- **Exams:** Most of the exam questions will be a straightforward review of the study material in class. All exams will be comprehensive (cumulative), but focusing on different topics. For each topic we discussed, you can also find **practice problems** on Husky CT. The practice problems will NOT be graded. However, I strongly urge you to do the practice problems everyweek, as they are important tools to evaluate whether you understand and keep up with the contents of the class. To test your critical understanding of the matieral, you will also see a few questions that are unlike those you have seen in class, or in the practice problems. No make-up or early exams will be given except with written permission from the Office of Student Services & Advocacy.
- **Participation in Games:** You will be required to participate in online games each week. Performance in the games is NOT graded, but participation is required and failure to participate will reduce one's grade.
- **Class Participation:** You should be prepared for class and expect to be called upon without notice to contribute to class discussion, particularly about your decisions in online games. Occasionally, a student may be swamped with work and unprepared for a class meeting or simply not wish to be called on. This is understandable. If you occasionally do not wish to be called on, simply let me know before class.

Readings:

- Readings are available online on Husky CT. Ranging from the whimsical to the serious, readings allow you to examine the material more deeply or readings may cover important concepts not covered in class directly. **All readings are required.** Exam questions may be based directly on these readings.
- Further, an *optional* text is:
Games of Strategy. Avinash Dixit and Suan Skeath. New York: WW Norton.
We will not be referencing this text, but it may be valuable for reviewing course concepts. There are three editions available, any will work.
- If you are looking for more fun stuffs, visit www.gametheory.net

Online Games:

Students will find a link to online games each week on Husky CT. Participation in these games is mandatory, but performance in the games does not impact the grade. Games will generally become available Thursday afternoon and must be played by 8:00 pm on Sunday. No make-ups for missed or late games are possible. No studying or preparation is necessary prior to participating. Games generally will not require more than ten to fifteen minutes to complete.

Academic Integrity:

Academic Misconduct in any form is in violation of the University of Connecticut Student Code and will not be tolerated. This includes, but is not limited to: copying or sharing answers on tests, plagiarism, and having someone else do your academic work. Any violation of the academic integrity policy will result in failure of the course and will likely be referred to the Academic Misconduct Hearing Board for further sanctions. Please see the Student Code at <http://www.dosa.uconn.edu/code2.html> for more details and a full explanation of the Academic Misconduct policies. With respect to problem sets and reviewing for exams, working in a small group can be very helpful in terms of the learning process. However, each person is still responsible for submitting their own (unique) work. The following specific guidelines relate to this class:

- **Exams:** All exams are closed-book, closed-note, individual efforts.
- **Online Games:** The educational value of the online games is diminished with prior knowledge of the game. Therefore, it is a breach of academic integrity to discuss the content of an experimental game with another student in the course who has not yet participated or to gain information in any manner about an experimental game in which one has not yet participated.

Ambiguity in academic integrity policies is not an excuse for a violation. If you have any questions about how the policy applies to specific scenarios, please discuss them with me.

Student with disabilities:

Please contact me during office hours to discuss academic accommodations that may be needed during the semester due to a documented disability. The Center for Students with Disabilities (CSD) engages in an interactive process with each student and reviews requests for accommodations on an individualized, case-by-case basis. Depending on the nature and functional limitations of a student's documented disability, he/she may be eligible for academic accommodations. CSD collaborates with students and their faculty to coordinate approved accommodations and services for qualified students with disabilities. If you have a documented disability for which you wish to request academic accommodations and have not contacted the CSD, please do so as soon as possible. The CSD is located in Wilbur Cross, Room 204 and can be reached at (860) 486-2020 or at csd@uconn.edu. Detailed information regarding the process to request accommodations is available on the CSD website at <http://www.csd.uconn.edu>.

Rescheduling Final Exam:

Finals week for Spring 2015 takes place from Monday, May 4th through Saturday, May 9th. Students are required to be available for their final and/or complete and assessment during the stated time. If you have a conflict with this time you must visit the Dean of Students Office to discuss the possibility of rescheduling your final. DOS is REQUIRING that students who have a conflict about which they have or should have had advanced notice (bunched finals, religious obligation, legal/medical appointments...) MUST seek permission to reschedule their assessment NO LATER THAN April 24th. Please note that vacations, previously purchased tickets or reservations, graduations, social events, misreading the finals schedule and oversleeping are not viable excuses for missing a final. If you think that your situation warrants permission to reschedule, please contact the Dean of Students Office, Wilbur Cross Building, 2nd floor, room 203 to meet with a staff member.

Course Calendar:

This Schedule is Subject to Change, with Prior Notification of The Instructor

| WEEK | TOPICS | IMPORTANT DATE |
|-------------------------------|-----------------------|---------------------------------|
| Week1 20 – 23 January | 1. Introduction | |
| Week2 26 – 30 January | 2. Simultaneous Games | |
| Week3 02 – 06 February | 2. Simultaneous Games | |
| Week4 09 – 13 February | 3. Sequential Games | |
| Week5 16 – 20 February | 3. Sequential Games | Midterm Exam 1 (Feb. 19) |
| Week6 23 – 27 February | 4. Mixed Strategies | |
| Week7 02 – 06 March | 4. Mixed Strategies | |
| Week8 09 – 13 March | 5. Repeated Games | |
| Week9 16 – 20 March | Spring Recess | |
| Week10 23 – 27 March | 5. Repeated Games | |
| Week11 30 March – 03 April | 6. Strategic Moves | Midterm Exam 2 (Apr. 02) |
| Week12 06 – 10 April | 7. Information | |
| Week13 11 – 17 April | 7. Information | |
| Week14 18 – 24 April | 8. Auctions | |
| Week15 27 – 30 April | 8. Auctions | |
| Week 16 01 – 05 May | FINAL EXAM WEEK | FINAL EXAM (TBA) |