Required Text:

Course Description:
Game theory is the study of decision-making in situations where the choices of different individuals interact. The course will discuss game theory and teach the analysis of strategic decision-making. Strategic games are appropriate models in many economic situations, such as price competition, product design, firm entry into a new market, bargaining, and bidding in auctions. They are also appropriate in non-economic situations such as political decision making and voting. The course will develop a general framework for optimal strategic decision making in all such situations. In order to better understand the mathematical solutions we will look at many examples and in order to test the theories we will frequency participate in classroom experiments.

Student Learning Outcomes:
1. Understand the central role of game theory in strategic situations.
2. Learn to model and analyze strategic situations.
3. Draw conclusions about optimal actions and outcomes in strategic situations.
4. Develop an intellectual appreciation for the elegant mathematics of game theory.
5. Appreciate some of the current limitations of game theory in predicting real economic behavior, and directions where game theory will likely develop in the future.

Student Expectations:
Math 120 or 121 or 150 and Econ 102 are prerequisites. You should be prepared to devote roughly 1-2 hours of your time for every hour of in-class time to studying, practicing techniques, solving problems. Any kind of behavior which is disruptive to the class will not be allowed. The course materials are all inter-related, so it is essential that you do not let yourself get behind. I strongly encourage you to see me whenever you encounter problems. If you are unable to attend office hours, I am happy to make an appointment, please do not hesitate nor wait until after you get a bad exam grade. You are also encouraged to form a study group. It helps in understanding the material when you are able to explain your thought to your fellow classmates.

Class Attendance:
5% of your course grade will be based on your class attendance. I’ll be collecting attendance several times (can be as few as two times) during the semester. Your attendance percentage will determine how much you’ll get out of 5 points. Attendances collected on exam and quiz days will not count towards class attendance points.) Class attendances will also be important because many thing will be done in class which you’ll not find in the textbook.

Course Materials:
1. Lecture notes.
2. Textbook. (I might occasionally assign additional readings.)
3. Practice problems. (They will not be graded.) The practice problems will help you prepare yourself for the quizzes and exams. You are encouraged to work together on the practice problems. I suggest you talk to me during my office hours if you would like to discuss these problems.
4. We will be participating in several classroom experiments.

Quizzes:
There will be in total approximately 4-6 quizzes. Your lowest quiz score will be dropped. All the quizzes together will be worth 20% of your course grade. The quizzes will be important also for your preparation for the exams. So you are strongly advised not to miss a quiz. There will no make up quizzes under any circumstance. (The purpose of the quizzes, however, is not to suggest which questions are important for the exams.)
Exams:
There will be two midterm exams and a comprehensive final exam. You must take your exams at the scheduled time and place. All the exams together will be worth 75% of your course grade (with each exam carrying the same weight). There will be no make-ups. A student may miss at most one exam and this can happen only when a verifiable medical excuse is documented (such as a doctor’s note). In that case, his or her quiz scores and the other two exam scores will be used to replace the missed exam.

Practice problems and problems solved in class will be your guide for preparing for quizzes and exams.

Grading:

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Attendance</td>
<td>5%</td>
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<tr>
<td>Quizzes</td>
<td>20%</td>
</tr>
<tr>
<td>Exams</td>
<td>75%</td>
</tr>
</tbody>
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Tentative Course Outline:
Chapter 1: Basic Ideas and Examples
Chapter 2: How to Think About Strategic Games
Chapter 3: Games with Sequential Moves
Chapter 4: Simultaneous Moves Games
Chapter 5: Simultaneous-Move Games: Continuous Strategies
Chapter 6: Combining Simultaneous and Sequential Moves
Chapter 7: Simultaneous-Move Games with Mixed Strategies
Chapter 9: Uncertainty and Information
Chapter 10: Strategic Moves
Chapter 11: The Prisoners’ Dilemma and Repeated Games
Chapter 14: Mechanism Design
Chapter 17: Bidding Strategy and Auction Design

Course Calendar:
<table>
<thead>
<tr>
<th>Class meetings: (30 meetings)</th>
<th>Exams:</th>
<th>Holidays:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb: 1, 3, 8, 10, 15, 17, 22, 24</td>
<td>Midterm 2: Thursday 7 Apr (class time)</td>
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<td>Mar: 1, 3, 8, 10, 15, 17, 22, 24</td>
<td>Final: Tuesday 17 May (1:00-3:00pm, in the classroom)</td>
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<td>Apr: 5, 7, 12, 14, 19, 21, 26, 28</td>
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<td>May: 3, 5, 10</td>
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Honor Policy:
Cheating of any form (which includes plagiarism) will not be tolerated. Evidence of cheating by a student will result in an automatic “F” as that student’s grade. Any evidence will also be promptly reported to the Judicial Procedures Office.

Students with Disabilities:
Students who need accommodation of their disabilities should contact me privately to discuss specific accommodations for which they have received authorization. If you have a disability, but have not contacted Student Disability Services at 619-594-6473 (Calpulli Center, Suite 3101), please do so before making an appointment to see me.

Cell & Email Policy:
Please turn off cell phones before coming to the class. If your cell phone rings during the class, you’ll be required to leave the class. Include “Econ 321” in all of your emails to me. Please don't email me to learn about the topics covered in a class you miss or to discuss the solution to a problem. I will be communicating with the class via emails regarding important issues/announcements. Please make sure that your current email address is on your Blackboard account. It will be your responsibility to check your emails regularly.