POLITICS AND GAME THEORY (POLS 306)
Monday and Wednesday, 3:00 – 4:15pm (Fall 2014)
314 Morgan Hall, Western Illinois University

Professor: Jonathan Day
Office: 424 Morgan Hall
Office Hours: Monday and Wednesday 1:15-3:00pm
Tuesday 3:00 – 3:30pm
Please feel free to make an appointment if these times do not work for you

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Website: http://westernonline.wiu.edu


Course Description and Objective

Game theory is a type of analysis that allows us to understand the strategic interaction between people in different situations using games. The course will introduce game theory and formal models that have become increasingly important in political science. Game theory is useful in understanding many political phenomena, including voter choice and turnout, election campaigning, legislative bargaining, diplomatic negotiations, war making, coalition building, and jury decision making. Larger social questions, and their political applications, such as cooperation, conflict, collective action, and norms also can be understood through game theory. We will be evaluating different types of games and applying them to both life and politics.

Expectations

We should attend all scheduled classes, so that we can use that time to help each other understand the material and practice the skills that we learn. We should read any assigned material so that we have the same information available for our discussions. We should participate as much as we feel comfortable in class so that we can all gain a better understanding of game theory. Finally, we should do all the homework assignments so that we can ensure that we understand how to apply the concepts we learn.
Grading

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<thead>
<tr>
<th>Category</th>
<th>Points</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Attendance</td>
<td>300</td>
<td>30%</td>
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<tr>
<td>Homework</td>
<td>300</td>
<td>30%</td>
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<tr>
<td>Final Exam</td>
<td>400</td>
<td>40%</td>
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<td><strong>Total</strong></td>
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<td><strong>Points</strong></td>
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Final Grade Determination

<table>
<thead>
<tr>
<th>Points Range</th>
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<tr>
<td>92 – 100</td>
<td>A</td>
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<td>90 – 92</td>
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Attendance

In learning game theory, it is best to watch others use it. In addition, we need players in order for us to demonstrate some of these games. Furthermore, we will be doing some discussion about these games. Attendance is thus very important.

Points will be given for attendance. Excused absences will be treated as attendance for the purposes of awarding points. For excused absences, you must email me the excuse. Just let me know if it was for sickness, a personal or family emergency, or university event.

One unexcused absence will be treated as attendance for the purposes of awarding points (invariably something will keep us from class one day).

For each day, signing into the attendance sheet will be the record that you were present for that day.

Homework

There will be ten homework assignments given throughout the semester. These homework assignments will help us to evaluate whether we understand the concepts. We will be asked to apply the concepts we learn in class in completing the homework. Each homework assignment is worth 30 points (3% of your final grade; total 30% of your final grade). [*One of the homework assignments involves a writing assignment of several pages in length]*

Final Exam

The final exam will be used to evaluate the overall learning. Since there is only a final exam, it is important that you take very good notes throughout the semester. I will provide a study guide for this exam so that you know what to expect.
Course Outline

Lesson #0: What is a Game?
Lesson #1: Always Maximize your Payoffs
Lesson #2: Eliminate any dominated strategy
Lesson #3: If you have a dominant strategy, use it
Lesson #4: Choose the equilibrium strategy
Lesson #5: Look ahead and reason back
Lesson #6: Be unpredictable
Lesson #7: Evolve
Lesson #8: Send the right signal
Lesson #9: Use a strategic move when you otherwise wouldn’t get your highest payoff
Lesson #10: Know what happens in repeated games
Lesson #11: Know your opponent
Lesson #12: Update your beliefs
Lesson #13: How to act with incomplete information
Lesson #14: What to do in different situations

Examples of Games: Ultimatum Game, Chicken, Prisoner’s Dilemma, Cake Cutting, Tragedy of the Commons, Stag Hunt, Matching Pennies, Rock Paper Scissors, Traveler’s Dilemma, Battle of the Sexes, Dating Game, Poker, Dollar Auction

Important Dates

November 23 - 27: No Classes – Thanksgiving Break
December 16: Exam Day (Wednesday at 3:00pm in our classroom)

Classroom Procedures / Student Rights and Responsibilities

Please submit all excused absences to me in an email as soon as possible. Let me know before class starts if you need to leave class early for an excused absence. Each class session may be recorded via audio and/or video and made public so that anyone can access them. The purpose of this is to provide a universal accommodation to enhance the learning experience. The following website provides information on a student’s rights and responsibilities at WIU: http://www.wiu.edu/provost/students.php. We also need to maintain our academic integrity: http://www.wiu.edu/policies/acintegrity.php
Accommodations

If you have a physical and/or financial difficulty, please feel welcome to come and talk to me during office hours or set up an appointment through email or phone so that we can discuss the best accommodation to ensure that you can do your best in the classroom.

“In accordance with University policy and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor’s attention, as he/she is not legally permitted to inquire about such particular needs of students. Students who may require special assistance in emergency evacuations (i.e. fire, tornado, etc.) should contact the instructor as to the most appropriate procedures to follow in such an emergency. Contact Disability Support Services at 298-2512 for additional services” (WIU)

Contacting Me

Please feel free to contact me at any time by email, phone, or in person. My email, phone number, and office hours are listed at the top of this syllabus. If you would like to visit with me and my office hours are not convenient, we will schedule a time that works for both of us.
Recommended Readings


