MC 293—001
Methods for Strategic Analysis in Public Affairs
James Madison College
Michigan State University
Fall 2013

“What is of supreme importance . . . is to attack the enemy’s strategy.”
Sun Tzu, *The Art of War*

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**Basic Course Info**

**Days & Time:** MW, 8:30 – 9:50 am  
**Room:** 339 Case Hall  
**Instructor of Record:** Ross B. Emmett

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**Course Materials and Communication**

All course materials and course communication will be conducted via [Piazza.com](http://www.piazza.com). You will receive an invitation to join MC 293 on Piazza. Piazza has a mobile interface for discussion, but you will have to visit the webpage itself to register and to download course materials.

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**Dr. Emmett’s Contact Info**

Office: 304 S. Case Hall  
Office Hours: MW 1-3  
Email: emmettr@msu.edu  
Phone: 517.432.6139

*Yes, I am on Facebook, but I am only “friends” with graduates, not current students! You can check out my websites or follow me on Twitter, Linkedin, Google+, goodreads.com, or academia.edu.*

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**Course Description**

The study of public affairs requires an awareness of strategic thinking. Politicians plan how to get their bills passed. Nations try to make sure they prevail in international crises. Former spouses vie for the best advantage in divorce negotiations. Firms constantly seek to stay one step ahead of their competitors. In all these contexts, strategy is everything.

What makes strategic thinking so important? The key is something so obvious that is has often been overlooked: in many decision-making contexts, the outcome of your decision is dependent not only on what you do, but also on the decisions of others whom you do not control. A politician wants to ensure that she becomes chair of a legislative committee. She is going to have to convince others to vote for her, but doesn’t know how they will actually vote. How is she going to ensure that she gets what she wants? The social scientist, of course, is interested in a
related question: what can we say about the social outcome of the voting process by which the politician gets elected? Does it produce the “best” outcome for the legislative process, or even for society as a whole?

While the principles of strategic thinking are as old as Sun Tzu’s *The Art of War*, game theory has a more recent social scientific pedigree. Developed in the 1940s and 1950s in the context of the Cold War, game theory has become an integral part of contemporary economic, social and political theory. The tools of game theory are now commonly used to investigate many situations in public affairs: bargaining; voting in both two-party and multi-party elections; legislative decision-making; deterrence in international crises; bureaucratic politics; competition among firms; and the role of interest groups, cartels, unions and other “clubs.” This course will provide an introduction to key concepts in game theory and apply them to issues in the fields of politics, economics, social relations, and international relations.

Our first task will be to learn some basic tools for thinking strategically. Then we will study some broad classes of games, examine strategic activity within those games, and apply the what we have learned to various types of strategic situations.

**Official Description**

Basic methods of strategic analysis and game theory. Applications and case studies in international relations, politics, political economy, and social relations.

**Required Reading**

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<tr>
<td>NOTE: The problems in this edition are significantly different than earlier editions, so you will need the 3rd edition</td>
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| NOTE: Available in several formats. Will be used for research project and class discussion. |
Course Requirements

A. Overview and Grading Weights

All course work will be graded on the university’s 4-point scale.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Attendance &amp; Participation</td>
<td>10%</td>
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<tr>
<td>Cooperation Game</td>
<td>3%</td>
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<tr>
<td>Problem Set 1</td>
<td>19%</td>
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<tr>
<td>Poster Presentation</td>
<td>5%</td>
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<tr>
<td>In-Class Test</td>
<td>20%</td>
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<tr>
<td>Research Paper</td>
<td>19%</td>
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<tr>
<td>Final Exam</td>
<td>24%</td>
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Please note: failure to complete any of the assignments weighted 15% or more constitutes failure to complete a major assignment in the course, and is grounds for an automatic zero in the course (regardless of how well you do on other course requirements).

B. Description of Each Course Requirement

Cooperation Game
A game will be played on September 4th. You cannot prepare for playing this game, so relax and come ready to participate. Yes, your results from this game do count in your final course grade!

Attendance & Participation
Mastering the tools taught early in this course require preparation, attendance at class for lectures, and participation in problem solving. Attendance in the early portion of the course is so important that I will take attendance each day until the in-class test. Three absences, for any reason, are allowable up to that point in the course. More than three absences will lower your participation grade. While I will not take attendance after that point in the course, your participation will still contribute to your attendance and participation grade; not attending will mean you cannot participate and will lower your final participation grade.

Here is a guide to your attendance and participation grade: A zero for frequent absences with no or very minimal comments/questions made in class; 1.0 for occasional class comments/questions and a lot of absences; 2.0 for no comments/questions in class even if attending regularly; 2.5 for good attendance and some contributions; 3.0 for good attendance and good contributions; 3.3 for showing familiarity with the readings and problems, leadership in the direction of class discussion occasionally and attending regularly; 3.8 for regularly moving class discussion forward by providing productive comments based on the problems and readings that contribute to discussion and also help others to enter/participate in the conversation.

Preliminary attendance and participation grades will be emailed to students shortly after the in-class test. The preliminary grade indicates the grade I would give you on the basis of your
participation up to that point in the course. While you can discuss this grade with me, the best way to have an impact on the final grade is to change your participation during the latter portion of the course. I will revise the participation grade at least once during the last few weeks of the semester, and will finalize the grade after the end of classes.

**Problem Set 1**
A set of questions related to the material from D/S/R, chapters 2, 3, 4, 6, and 7 will be distributed no later than October 1st. You will turn in answers to those questions before 11 pm on Friday, October 11, via email. The questions will be similar to the “Unsolved” questions at the end of those chapters.

**In-class Test**
The mid-term test will cover material from chapters 2, 3, 4, 6, 7, 10, 11, and 12. The test will be taken in-class on the date indicated on the course schedule. You will need to bring a calculator with you to the test, but may not use the one on your phone.

**Poster Presentation**
Starting in Week 7 (October 14), 2 or 3 students will have poster presentations available at the beginning of the class for the first 10 minutes. The poster will present a game situation from real life or a movie that the student has modeled using the tools of game theory, with a brief explanation of the situation and the strategic outcome. Each student will turn in a 2-3 page description of the situation and analysis at least 3 days before your presentation. The short papers should be submitted to me via email.

Students will have 10 minutes to examine the posters, and will be asked for some brief feedback on a form to be submitted to the professor during class.

A sign-up sheet will be available the first 2 weeks of class for students to choose dates.

**Research Paper**
In week 9 of the course, we will be discussing BdM/Smith’s *The Dictator’s Handbook*. You are responsible to construct a 12 page research paper based on combining the ideas of the book with our strategic analysis tools. You may examine the actions of a contemporary autocrat in light of BdM’s analysis, showing how various aspects of the leader’s actions can be accounted for in game theoretic terms. Or you can construct a strategic memorandum showing how opposition forces might use strategic action to counter the moves of the authoritarian leader they live under. Or you can construct a paper showing how the actions of ordinary people living under such a regime are strategically rational, given the rules they live under. In other words, there are a variety of ways you can approach the paper.

I will set up a series of times for research paper meetings with groups of students in mid-November. The paper is due before 11 pm on Friday, November 22nd, and should be submitted via email.

**Final Exam**
A set of questions, some based on specifically on D/S/R, chapters 9, 15, 16, and 18, will be distributed before the Thanksgiving University Holiday. Answers to the questions are to be submitted via email before 12 noon, Friday, December 13.
Expectations

What you can expect from me

Strategic thinking is best learned by practice and interaction with specific situations. My goal in this course is to provide a structured environment in which you learn how to think strategically and how to interpret social/political/economic situations from a strategic perspective.

You can expect that I will provide clear explanations of the expectations for the problem set, test, poster/paper, and exam. If something is not clear in my explanations, please ask again and I will try to explain it a different way. Questions and responses that may be of interest to the whole class can be handled by posting a question on Piazza. You can expect me to respond publicly when appropriate, and to respond to private issues via direct email exchange with you.

You can expect me to provide prompt and adequate feedback about your performance on the assignments.

What I expect of you

I expect you to read the assigned chapters of the textbook and work through the “Solved Exercises” associated with the week’s material.

I expect you to attend class, to have read the assigned material in advance, and to have worked on the assigned problems. I also expect you to come prepared to be engaged in the discussion of techniques, problems, and situations. Being engaged does not mean simply talking. Engagement with class problems and discussion comes in many forms (sleeping through class is not one of them!), and thoughtful contributions that advance our common understanding of strategic thinking will be rewarded more than simply talking.

I expect you will work with others preparing for the problem set, the test, and the exam. However, I also expect that the answers you turn in will be your own work, and not ultimately the work of others. That is, cooperation in solving questions is fine, but write the final version yourself with your own explanations.

I expect you will plan your time ahead to complete the assigned work in timely fashion. The due dates identified on the syllabus are the last possible dates on which assignments can be turned in for full credit. If your planning indicates that you will have to delay turning in an assignment, contact me as soon as possible to arrange alternative arrangements, if possible.

I expect you to treat others (and their solutions) in problem-solving sessions with the same respect you expect from them. Successful cooperation requires giving others the benefit of the doubt and helping them; you never know when you will need them to do the same for you!

I expect that you will work with others in the class on solving the problems assigned on problem sets. However, your write up of the problems, including written explanations where required, I expect to be your own. In other words, I expect you to respect others by engaging the material yourself; in the end you will both help yourself and those you work with.

I expect that you will contact me with questions either via email or Piazza.
Course Schedule of Reading and Assignments

**D/S/R:** Dixit/Skreath/Reiley, *Games of Strategy.*
**BdM/S:** Bueno de Mesquita/Smith, *The Dictator’s Handbook*

Opening Day – August 28: Introduction to Game Theory and Course (D/S/R, ch. 1 and 2)
Week 1 (Sept. 2): No Class (September 2—Labor Day); September 4: Cooperation Game
Week 2 (Sept. 9): Sequential Games (D/S/R, ch. 3)
Week 3 (Sept. 16): Simultaneous Games (D/S/R, ch. 4)
Week 4 (Sept. 23): Combining Sequential & Simultaneous Games (D/S/R, ch. 6)
Week 5 (Sept. 30): Mixed Strategies (D/S/R, ch. 7)
Week 6 (Oct. 7): No Class (Oct. 7); Strategic Moves (D/S/R, ch. 10)

**PROBLEM SET 1 Due:** Friday, October 11, before 11 pm.
Week 7 (Oct. 14): Prisoner’s Dilemma (D/S/R, ch. 11)
Week 8 (Oct. 21): Collective Action (D/S/R, ch. 12)
Week 9 (Oct. 28): Discussion of BdM/S as application of game theory (read all of it)
Week 10 (Nov. 4): **In-Class Test (Nov. 4)**; No Class Nov. 6 (in lieu of research paper meetings)
Week 11 (Nov. 11): Adverse Selection and Signaling (D/S/R, ch. 9)
Week 12 (Nov. 18): Brinkmanship (D/S/R, ch. 15)

**RESEARCH PAPER Due:** Friday, November 22, before 11 pm.
Week 13 (Nov. 25): Voting Strategies (D/S/R, ch. 16)
Week 14: (Dec. 2): Bargaining (D/S/R, ch. 18)
Week 15 (Dec. 9): Finals Week

**FINAL EXAM Due:** Friday, December 13, before 12 noon.