“What is of supreme importance . . . is to attack the enemy’s strategy.”

Sun Tzu, *The Art of War*

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**Basic Course & Contact Info**

**Days & Time:** MW, 10:20 – 11:40 am  
**Room:** 339 Case Hall  
**Course Management Site:** d2l.msu.edu  
**Phone and Computer Policy:** Phones away and on airplane mode; no tablet and/or laptop use during class time unless you are presenting.

**Instructor of Record:** Ross B. Emmett, Ph.D.  
**Office:** 304 S. Case Hall  
**Office Hours:** MW 1-3 pm  
**Preferred Method of Contact for Course-Related Questions:** Piazza discussion platform, available via D2L or Piazza.com  
**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 website (www.msu.edu/~emmettr) or follow me on Twitter (rossemmett) and Linkedin.*

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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* (or at least Jane Austen, whose novels are permeated by strategic thinking in social relations!), 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.

We begin with an examination of how politicians (in this case, dictators) play the political game, in order to whet our appetite for strategic analysis and familiarize ourselves with how game theorists think. We will then learn some basic tools for game theory and for thinking strategically. Then we will study some broad classes of games, examine strategic activity within those games, and apply 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.

**Overview of Course Requirements**
All course work will be graded on a percentage basis (out of 100%). On D2L, assignments and averages will also appear in percentages. Conversion to the university’s 4-point scale will follow this chart:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade 1</th>
<th>Grade 2</th>
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<tbody>
<tr>
<td>94-100%</td>
<td>4</td>
<td>67-73%</td>
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<tr>
<td>87-93%</td>
<td>3.5</td>
<td>60-66%</td>
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<tr>
<td>80-86%</td>
<td>3</td>
<td>50-59%</td>
</tr>
<tr>
<td>74-79%</td>
<td>2.5</td>
<td>&lt;50%</td>
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<td>&lt;50%</td>
<td>0</td>
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</table>

**Grading Weights**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Cooperation Game</td>
<td>3%</td>
</tr>
<tr>
<td>Problem Sets (3)</td>
<td>50%</td>
</tr>
<tr>
<td>Student Paper/Poster</td>
<td>12%</td>
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<tr>
<td>Final Exam</td>
<td>25%</td>
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*Please note:* failure to complete the final exam 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).
Required Reading


**NOTE**: The problems in this edition are significantly different than earlier editions, so you will need the 3rd edition. Also, the 4th edition was just released before our semester. I have chosen to remain with the 3rd edition for this semester. The 4th edition may be significantly different from the 3rd, so please make sure you have the 3rd edition.


**NOTE**: Available in several formats.

Detailed Descriptions of Course Requirements

**Cooperation Game**

A game will be played in class on January 21st. 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 requires 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 due date for Problem Set 1. Two absences, for any reason, are allowable up to that point in the course. More than two 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 rough guide to my grading of participation (since frequent absences result in a participation grade of 0, I’ve deleted the bottom end of the grade descriptions): 63% (approximately 1.5/4.0) for no comments/questions in class even if attending regularly; 70% (2.0/4.0) for good attendance and some contributions; 73% (2.7/4.0) for good attendance and good contributions; 85% (3.2/4.0) for showing familiarity with the readings, leadership in the direction of class discussion occasionally and attending regularly; 97% (4.0/4.0) for regularly moving class discussion
forward by providing productive comments based on the 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 Sets**

Each of the three problem sets will include a number of problems, some of which will be selected from the “Unsolved” questions that appear at the end of the chapters in *Games of Strategy*. Other questions will be provided at least a week before the problem set is due.

Problem Sets are to be turned in at the beginning of class on the date identified on the syllabus.

**Problem sets are NOT to be thought of as simply “homework.”** You should consider the answers you turn in to be like your response to an essay question. In this case, however, a portion (sometimes a significant portion) of the response will be calculations and/or game boxes/trees. Explanations of work and of the answers are essential, however, to successful completion of the problem.

**“Game Theory in Life” Paper and Poster Presentation**

Students will work together in pairs to develop a game scenario based on “real life” or a movie. Two outcomes will emerge from the game scenario you develop. The first is a paper of 3-5 pages, explaining the game and the outcome, plus any strategic moves involved. The second is a poster presentation that will be scheduled during the week of April 20th. Details about the poster presentation will be finalized later. The paper will comprise 7%, and the presentation 5%, for a total of 12%.

**Final Exam**

An in-class final exam will take place on Wednesday, May 6, 10 – 12 noon. The exam will be focused on the material in the latter half of the course (since spring break), although clearly analyzing that material requires the knowledge gained from the first half of the course. Details about the exam will be provided ahead of time.

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**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 project, research 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 sets 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 contact me with questions either via email or Piazza.
Honors Option

My honors option this semester will use Darly Press’ *Calculating Credibility* as the occasion for a discussion of credibility and commitments as strategies in international affairs.

All students are invited to participate in the Honors Option.

To earn the H-Option credit, a student must attend all of the meetings (because there are only 4), earn at least a 3.5 in MC 293, and write a 5-6 page paper on assessing the credibility of commitments. Honors Option meetings will occur on the following Wednesdays, from 5 – 6:30 pm: March 18, March 25, April 1, and April 15.


NOTE: Used paperback copies available. Will be used for H-option discussion.
Course Schedule of Reading and Assignments

BdM/S: Bueno de Mesquita/Smith, *The Dictator’s Handbook*

Week 1 (Jan. 12): BdM/S, chapters 1-5

**Week 2 (Jan. 19): NO CLASS (Jan. 19); Cooperation Game (Jan. 21)**
*During Week 2 you should also read D/S/R, chapters 1&2*

Week 3 (Jan. 26): Sequential Games (D/S/R/, ch. 3)
Week 4 (Feb. 2): Simultaneous Games (D/S/R, ch. 4)
Week 5 (Feb. 9): Combining Sequential & Simultaneous Games (D/S/R/, ch. 6)

**PROBLEM SET 1 Due: Before Class, Monday, February 16**

Week 6 (Feb. 16): Mixed Strategies (D/S/R, ch. 7)
Week 7 (Feb. 23): Strategic Moves (D/S/R, ch. 10 for Monday; BdM/S, ch. 10 for Wednesday)

**PROBLEM SET 2 Due: Before Class, Monday, March 2**

Week 8 (March 2): Prisoner’s Dilemma (D/S/R, ch. 11)

**SPRING BREAK (March 9 – 13)**

Week 9 (March 16): Collective Action (D/S/R, ch. 12)
Week 10 (March 23): Adverse Selection and Signaling (D/S/R, ch. 9)
Week 11 (March 30): Brinkmanship (D/S/R, ch. 15)

**PROBLEM SET 3 Due: Before Class, Monday, April 6**

Week 12 (April 6): Voting Strategies (D/S/R, ch. 16); **NO Class**, April 8 (in lieu of meetings for “Game Theory in Life” projects)
Week 13 (April 13): Voting Strategies (D/S/R, ch. 16); and Bargaining (D/S/R, ch. 18)

“Game Theory in Life” Paper Due before 11 pm, Friday, April 17

Week 14 (April 20): Student Poster Fairs both days
Week 15 (April 27): Bargaining (D/S/R, ch. 18)

**Final Exam: Wednesday, May 6, 10 – 12 noon (Case 339)**