

PLSC 380I - Fall 2009
Game Theory and International Relations

Instructor: Michael Allen

Class: TTh 6-7:30; LN1120

Office: LNG 279

Office Hours: Tuesday 3:00-5:00

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and by appointment.

General Note: The syllabus is a living document that can and will be altered throughout the duration of the course based both on need and design. Generally, this may mean readings will be removed or added as needed. All changes will be listed on Blackboard, so make sure to check announcements for any such change. Additionally, I maintain the right to all of my own intellectual property presented in this course, whether it is the course lectures or this syllabus and ought not to be reproduced without my expressed permission.

Course Description

This course introduces students to understanding, solving, and producing game theoretic models of the world. This is primarily a methodological course, but it is grounded in major works in the field of international relations and intends to present students with the tools to describe the interactions between actors in world politics. Such formal models have become mainstream in political science, are used throughout the social sciences, and have applications to general decision making. Students are encouraged to have a prior foundation in advanced algebra as the course has a strong emphasis on mathematic concepts and solutions in homework and tests. Open to Political Science, PPL, Dual Diploma majors. Freshman and others admitted only with permission of instructor.

Course Format

The primary purpose of this course is to give students the tools necessary to understand introductory game theory in the context of International Relations. As such, the course employs a textbook to understand the fundamentals of game theory and then attempts to apply this in the context of international relations.

The first half of this class will follow a more traditional lecture format. Each week contains two classes and, generally, homework will be given out on a Thursday and will be returned the following week. The second half of the class will begin to have more formal discussions and encourage student participation to master the material.

Finally, this class will make ample use of Blackboard and students will be required to check it frequently to ensure they are aware of any changes made to the syllabus/reading list.

Course Requirements

1. Attendance and Participation 10%

This is a 300-level Political Science Course and attendance is strongly encourage for each lecture. Attendance will be taken every course. Additionally, during courses in which discussion is encourage, students will required to contribute freely and fully in a substantive way. Participation days will be weighted more heavily than a normal lecture day. All students will be able to drop one poor grade of attendance at the end of the semester (for whatever reason, though this is best preserved for legitimate absences).

It should be noted that Fall is giving rise to new concerns about the H1N1 virus and the Center for Disease Control as well as Binghamton University wants students to *not* come to class if they have a

fever, body aches, cough, and/or a sore throat. Instead, they suggest that you "...remain at home or in your room and follow instructions from the University's Health Services that will be available on the web." Students who do follow these guidelines must let the instructor know immediately (as in, before class starts) that you will be missing lecture. Any homework should still be turned in (either through the digital dropbox or through an alternative means) on time. Students who inform the instructor of such absences in advance and continue to turn in their other assignments on time will not have their attendance grade penalized.

2. **Homework 30%**

Homework is a vital component of this class and will be assigned nearly every week. Sometimes the material will cover previous topics, while sometimes it will cover future topics and require the students to read ahead of the lectures. Often, the homework will require the students to solve complicated math problems and working in groups is appropriate, as long as the students show their work. Simply copying answers is never acceptable.

It is believed that homework is vital to mastering the concepts taught in this course. Late homework is penalized 10% for every day late (this penalization begins at the end of the class it is due).

3. **Midterm & Final 40%**

The Midterm and Final are worth 20% each. These will be in class tests that require the students to exercise their accumulated knowledge. Additional information will be provided as the test date nears.

4. **Final Project 20%**

This project will require students to take a situation and model it using techniques we have learned in class. More details, such as length and scope, will be available later in the semester.

Academic Dishonesty: Plagiarism

All written work is subject to being run through turnitin via blackboard and will be required for the final project. Any cases of plagiarism will receive an automatic failure on the assignment, possible failure in the course, and will be pursued further through the university for additional punishment.

The Binghamton University Student handbook says the following about plagiarism (2009:105) under the "Rules Governing Academic Life" section:

Presenting the work of another person as ones own work (including papers, words, ideas, information, computer code, data, evidence-organizing principles, or style of presentation of someone else taken from the Internet, books, periodicals or other sources). Plagiarism includes:

- quoting, paraphrasing or summarizing without acknowledgement, even a few phrases;
- failing to acknowledge the source of either a major idea or ordering principle central to ones own paper;
- relying on another persons data, evidence or critical method without credit or permission;
- submitting another persons work as ones own;
- using unacknowledged research sources gathered by someone else.

Additionally, cheating on any exam will result in failure for the exam and further action taken as per the guidelines stipulated in the student handbook (for reference, see 108-9).

Required Text

There is only one text required for this course:

Dixit, Avinash, Susan Skeath, and David H. Reiley, Jr. *Games of Strategy*, 3rd edition. New York: W. W. Norton & Company.

In addition to the required text, there will be additional scholarly articles for students to read for particular classes. All of the articles ought to be available through JSTOR which you can access through the library's website. IN the event that I assign an article or reading that is not available through JSTOR, I will post it on Blackboard.

Contacting the Instructor

The best way to get in touch with me is either through email or through blackboard. I tend to be a person extremely connected to the internet and will often be able to reply promptly if it is a question with a simple answer - more complicated answers take more time. Additionally, I am in my office (LNG 279) daily and am available on campus outside of my stated office hours. If you want to catch me, email me first and there is a high likelihood I can meet with you.

Final Grades

A: 93+
A-: 90-93
B+: 88-90
B: 83-88
B-:80-83
C+: 78-80
C: 70-78
D: 60-70
F: 0-60

The Course Schedule continues on Pages 4-5.

Tentative Course Schedule

Date	Plan
September 1st	Introduction, Class Syllabus, Rationality
September 3rd	Finish Chapter 1 Begin Chapter 2 <i>Homework 1 Handed Out</i>
September 8th	Concepts and Techniques Chapter 2
September 10th	Chapter 2 Lichbach, Mark I. "What Makes Rational Peasants Revolutionary?: Dilemma, Paradox, and Irony in Peasant Collective Action." <i>World Politics</i> . 46(3):383-418. <i>Homework 2 Handed Out</i>
September 15th	Games with Sequential Moves Chapter 3 Drezner, Daniel W. 2003. "The Hidden Hand of Economic Coercion." <i>International Organization</i> . 57(3):643-659.
September 17th	Fearon, James D. 1995. "Rationalist Explanations for War." <i>International Organization</i> . 49(3):379-414. Chapter 3 <i>Homework 3 Handed Out</i>
September 22nd	Chapter 3
September 24th	Simultaneous-Move Games with Pure Strategies I: Discrete Strategies Chapter 4 <i>Homework 4 Handed Out</i>
September 29th	Chapter 4 Gowa, Joanne. 1989. "Bipolarity, Multipolarity, and Free Trade." <i>American Political Science Review</i> . 83(4):1245-1256.
October 1st	Chapter 4
October 6th	Chapter 4 Review for the Midterm.
October 8th	Midterm
October 13th	Simultaneous-Move Games with Pure Strategies II Morrow, James. D. 1994. "Modeling the Forms of International Cooperation: Distribution Versus Information." <i>International Organization</i> . 48(3):387-423.
October 15th	Chapter 5 <i>Homework 5 Handed Out</i>
October 20th	Chapter 5
October 22nd	Chapter 5 (con) <i>Homework 6 Handed Out</i>
October 27th	Combining Sequential and Simultaneous Moves Chapter 6
October 29th	Chapter 6 <i>Homework 7 Handed Out</i>
November 3rd	Chapter 6
November 5th	Chapter 6 <i>Homework 8 Handed Out</i>

November 10th	Simultaneous-Move Games with Mixed Strategies I
	Chapter 7
November 12th	Chapter 7
	<i>Homework 9 Handed Out</i>
November 17th	Nioui, Ermerson M. S. and Peter C. Ordeshook. 1994 "Less Filling, Tastes Great": The Realist-Neoliberal Debate." <i>World Politics</i> 46(2): 209-234.
	Chapter 7
November 19th	Chapter 7
	<i>Homework 10 Handed Out</i>
November 24th	Chapter 7
November 26th	No Class, Thanksgiving.
December 1st	Goeree, Jacob. K. and Charles A. Holt. 2001. "Ten Little Treasures of Game Theory and Ten Intuitive Contradictions". <i>The American Economic Review</i> . 91(5):1402-1422.
December 3rd	T.B.D.
	<i>Homework 11 Handed Out</i>
December 8th	T.B.D.
December 10th	Last Class, Final Project Due