

Strategy and Politics

Course Information

Course Number: PL SC 410

Class Time: Tuesday, Thursday 2.30-3.45

Place: 13 Life Sciences Building

Course Website: https://files.nyu.edu/mrg217/public/game_theory.html

My homepage: <https://files.nyu.edu/mrg217/public/>

Contact Information for Professor

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Office Hours: 1.00-2.00 Tuesdays

Course Description

Strategic behavior is central to politics. It is common for political outcomes to be determined by the interaction of individuals seeking goals in an environment in which goal attainment is complicated by the choices of other actors. This course introduces various methods for analyzing strategic behavior. We will employ these methods to better understand a wide range of political phenomena in international politics, comparative politics, and American politics, such as war, terrorism, voting, electoral competition, government formation, and democratic transitions. The course covers the basics of social choice theory and game theory. By the end of the course, students will, among other things, have experience calculating expected utilities, solving complete information games in strategic and extensive form, solving repeated games, solving simple games with incomplete information, and evaluating multi-dimensional spatial models in the context of important substantive political questions. The course assumes no prior knowledge of social choice theory or game theory; a very basic understanding of high school algebra is the only mathematical prerequisite.

Requirements

Attendance at lectures is both recommended and required. You will find it *extremely* difficult to pass this class if you do not attend regularly. If you do miss class, you are expected to get notes from a fellow student – ‘private make-up lectures’ with the professor will not take place. It is assumed that students will do all of the assigned readings and you should come to class prepared to participate in discussions. You are encouraged to volunteer questions and observations; I will call on students at random with questions from time to time. Problem sets will be an important component of this class. The emphasis on problem sets comes from the belief that there is a lot of art in science and one learns an art by doing, not simply by watching others do. Developing a command over analytical materials and building a capacity to engage in

analysis require practice and repetition, and the problem sets are meant to provide such opportunities for students. There will be three exams (two midterms and a final) and almost weekly problem sets. In the interests of fairness, problem sets that are handed in late will not be graded and exam makeups will only be possible in the most extenuating of circumstances (oversleeping, leaving early for Spring Break etc. are not suitable excuses). If you are extremely ill or have a university-accepted excuse for missing an exam, please notify me *prior* to the test date. I will only consider your request if you make it prior to the exam. Material covered on the exams will come from lectures, the assigned readings, and problem sets.

Grades

Your final grade is a weighted average of the three exams, problem sets, and attendance: midterms 1 and 2 are *each* worth 20%, the final is worth 30%, the problem sets are worth 20%, and attendance is worth 10%. Additional points may be earned from in-class quizzes.

I will use the following scale to calculate your course grade:

A	93-100	C+	77-79.9
A-	90-92.9	C	70-76.9
B+	87-89.9	D	60-69.9
B	83-86.9	F	59.9 and below
B-	80-82.9		

Exam Dates:

Midterm 1: Wednesday, February 12

Midterm 2: Wednesday, April 2

Final Exam: TBA

Readings:

All readings can be found on Angel.

Schedule:

This schedule should be treated as tentative and flexible. It may be the case that it takes us more or less time for a particular topic than I have allotted here. We will adapt accordingly. Note, however, that I will not alter the exam dates.

Week 1: January 12-16 – – What is science? Role of theory. Logical fallacies. Building models.

Shepsle, Kenneth A. 2010. *Analyzing Politics: Rationality, Behavior, and Institutions*. New York: W. W. Norton. pp. 3-12.

Clark, William, Matt Golder, & Sona Golder. 2012. *Principles of Comparative Politics*. Washington D.C.: CQ Press. Ch. 2.

Lave, Charles A. & James G. March. 1975. *An Introduction to Models in the Social Sciences*. New York: Harper & Row. pp. 1-84.

Week 2: January 19-23 – Rational choice. Rationality, utility, expected utility, and risk. Applications: (i) applying to schools, (ii) Christopher Columbus, (iii) the role of power and motivation in conflict, (iv) war and bargaining, and (v) turnout.

Shepsle, Kenneth A. 2010. *Analyzing Politics: Rationality, Behavior, and Institutions*. New York: W. W. Norton. pp. 13-37.

Bueno de Mesquita, Bruce. 2006. *Principles of International Politics: People's Power, Preferences, and Perceptions*. Washington D.C.: CQ Press. 84-106, 284-296.

Fearon, James. 1995. “Rationalist Explanations for War.” *International Organization* 49: 379-414.

Weeks 3-5: January 26 - February 13 – Strategic games and Nash equilibria. Best response functions, pareto optimality, dominated actions. Applications: (i) contractarian and predatory views of the state, (ii) turnout, (iii) counterterrorism, (iv) electoral competition, (v) war of attrition.

Clark, William, Matt Golder, & Sona Golder. 2012. *Principles of Comparative Politics*. Washington D.C.: CQ Press. Ch. 4.

Shepsle, Kenneth A. 2010. *Analyzing Politics: Rationality, Behavior, and Institutions*. New York: W. W. Norton. pp. 231-261.

Morton, Rebecca. 2006. *Analyzing Elections*. New York: W. W. Norton. pp. 24-45.

Arce M., Daniel G. & Todd Sandler. 2005. “Counterterrorism: A Game-Theoretic Analysis.” *Journal of Conflict Resolution* 49: 183-200.

Midterm 1 (Thursday, February 12)

Week 6: February 16-20 – Mixed strategy Nash equilibria.

Dixit, Avinash, Susan Skeath, & David H. Reiley, Jr. 2009. *Games of Strategy*. New York: W. W. Norton & Company. pp. 213-261.

Bueno de Mesquita, Bruce. 2006. *Principles of International Politics: People's Power, Preferences, and Perceptions*. Washington D.C.: CQ Press. 269-279.

**** Spring Break (No Class): March 8-13 ****

Weeks 7-9: February 23 - March 20 – Extensive form games, Nash equilibria, and subgame perfect Nash equilibria. Backward induction. Credible threats. Combining extensive form and strategic form games. Chance moves. Applications: (i) ultimatum and dictatorship games, experiments, and culture, (ii) exit, voice, and loyalty, (iii) culture and democracy, (iv) and principal-agent models.

Bueno de Mesquita, Bruce. 2006. *Principles of International Politics: People's Power, Preferences, and Perceptions*. Washington D.C.: CQ Press. 106-116, 162-170.

Clark, William, Matt Golder, & Sona Golder. 2012. *Principles of Comparative Politics*. Washington D.C.: CQ Press. Ch. 3.

Henrich, Joseph et al. 2005. “‘Economic Man’ in Cross-Cultural Perspective: Behavioral Experiments in 15 Small-Scale Societies.” *Behavioral and Brain Sciences* 28: 795-815.

McGillivray, Fiona & Alastair Smith. 2000. “Trust and Cooperation Through Agent-specific Punishments.” *International Organization* 54: 809-824.

Week 10: March 23-27 – Social choice theory. Condorcet's paradox, Arrow's theorem, median voter theorem, chaos theorem.

Clark, William, Matt Golder, & Sona Golder. 2012. *Principles of Comparative Politics*. Washington D.C.: CQ Press. Ch. 11.

Week 11: March 30 - April 3 – More spatial models. Applications: (i) veto player theory, (ii) government formation, and (iii) courts.

Shepsle, Kenneth A. 2010. *Analyzing Politics: Rationality, Behavior, and Institutions*. New York: W. W. Norton. pp. 423-432, 473-529.

Clark, William, Matt Golder, & Sona Golder. 2012. *Principles of Comparative Politics*. Washington D.C.: CQ Press. Ch. 15, read just pp. 718-739.

Midterm 2 (Thursday, April 2)

Week 12: April 6-10 – Selectorate theory. Applications: (i) government performance, (ii) institutional choice, (iii) democratic peace, (iv) foreign aid, and (v) nation building.

Bueno de Mesquita, Bruce. 2006. *Principles of International Politics: People's Power, Preferences, and Perceptions*. Washington D.C.: CQ Press. 413-446.

Weeks 13-15: April 13 - May 1 – Incomplete information games. Bayesian updating. Applications: (i) democratic transitions, (ii) trade sanctions, (iii) deterrence, (iv) terrorism, (v) religious parties and democracy, (vi) coups, dictatorships, and parties.

Bueno de Mesquita, Bruce. 2006. *Principles of International Politics: People's Power, Preferences, and Perceptions*. Washington D.C.: CQ Press. 343-412.

Clark, William, Matt Golder, & Sona Golder. 2012. *Principles of Comparative Politics*. Washington D.C.: CQ Press. Ch. 8.

Smith, Alastair & Federico Varese. 2001. "Payment, Protection, and Punishment: The Role of Information and Reputation in the Mafia." *Rationality and Society* 13: 349-393.

Final Exam (TBA)

Additional Information

Academic Dishonesty

The Department of Political Science, along with the College of the Liberal Arts and the University, takes violations of academic dishonesty seriously. Observing basic honesty in one's work, words, ideas, and actions is a principle to which all members of the community are required to subscribe.

All course work by students is to be done on an individual basis unless an instructor clearly states that an alternative is acceptable. Any reference materials used in the preparation of any assignment must be explicitly cited. Students uncertain about proper citation are responsible for checking with their instructor.

In an examination setting, unless the instructor gives explicit prior instructions to the contrary, whether the examination is in class or take home, violations of academic integrity shall consist but are not limited to any attempt to receive assistance from written or printed aids, or from any person or papers or electronic devices, or of any attempt to give assistance, whether the one so doing has completed his or her own work or not.

Lying to the instructor or purposely misleading any Penn State administrator shall also constitute a violation of academic integrity.

In cases of any violation of academic integrity it is the policy of the Department of Political Science to follow procedures established by the College of the Liberal Arts. More information on academic integrity and procedures followed for violation can be found at: http://www.la.psu.edu/CLA-Academic_Integrity/integrity.shtml

Disabilities

Penn State welcomes students with disabilities into the University's educational programs. If you have a disability-related need for reasonable academic adjustments in this course, contact the Office for Disability Services. For further information regarding policies, rights and responsibilities please visit the Office for Disability Services (ODS) Web site at: www.equity.psu.edu/ods/. Instructors should be notified as early in the semester as possible regarding the need for reasonable accommodations.