

SYLLABUS
POL 110: Strategy of Politics

Fall 2005

Monday and Wednesday 10:00am – 11:50am
Wellman 226

Prof: James Fowler, 1265 Social Science, 752-1649
Office Hours: Wednesday 12pm – 3pm or by appointment
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Course description

Politics is about strategic interaction. When political actors make choices about voting for a candidate, running for office, passing a law, or going to war, they usually take into account the likely responses and actions of others. This course introduces *formal* theory as a technique for analyzing strategic interactions. The principles of decision theory and game theory are introduced, and you will learn how to predict the outcome of simple games. Mathematical topics covered include probabilities, set theory, summation notation and infinite series, linear equations, and quadratic equations. The games are motivated and illustrated with examples drawn from politics. The logic of strategic interaction and techniques of game theory developed in this class also have wide applications to other fields and your own everyday life.

Required texts

The texts we will use for this class are:

Dixit, Avinash and Susan Skeath. 2004. *Games of Strategy*. New York: Norton, **SECOND EDITION (Very different from first edition)**

Shepsle, Kenneth and Mark S. Bonchek. 1997. *Analyzing Politics*. New York: Norton.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Addison Wesley

The books should be available at the University book store, but they can be acquired online much more cheaply. (Try <http://addall.com> for a comparison of multiple new and used book stores).

Requirements

Your evaluation will depend on your understanding of basic research methods and your ability to apply them to problems in political science. Your grade for this course will depend on four components:

1. Attendance and Participation

With the exception of our first course meeting, you should plan to do all of the readings prior to the class for which they are assigned. While this component is not graded, experience shows that it is highly correlated with exam performance. Some lecture topics will be in addition to material in the texts.

2. Problem Sets (15%)

Three problem sets will be due **October 26th**, **November 16th**, and **November 30th**. Problem sets are the heart of this course. The only way you can learn formal theory is to practice it. You are encouraged to work with other people in the class on the problem sets (write the names of the people you work with at the top of your paper).

3. Midterm Exam (20%)

This will be a short answer and essay question exam in class on Wednesday, **November 9th**.

4. Paper (30%)

Due **December 9th** (the last day of class) is a research paper. You must choose an informal idea about democratic politics from Downs (or inspired by Downs) and model it formally *in your own words*, showing the players, their moves, and the equilibrium outcome of the strategic interaction you are modeling. The paper must be 1000 to 1500 words long (include a word count on the title page). We will discuss this assignment more in class.

5. Final Exam (33%)

This will be a cumulative in-class final exam **4:00pm - 6:00pm** on **December 14th**.

6. Participation in Experimental Study (2%)

You will have an opportunity to participate as a subject in a computer-administered political science study. We will discuss this opportunity 1-2 weeks prior to the administration of the study, but it will probably be in mid-late October.

Policies

I will only give incompletes or PTAs for compelling, unanticipated, and nonacademic reasons. Late assignments will be marked down the equivalent of a full letter grade for each 24 hour period in which they are late. I will only make an exception to this policy if 1) you contact me in writing a week in advance to discuss a conflict, or 2) you provide documentation of a severe illness or family emergency that prevented you from completing the assignment on time.

Tentative Schedule

Oct 3rd, 5th, 10th Rationality, Decision Theory, and Elements of Games

Dixit and Skeath, Chapters 1, 2, 7 (appendix pp.221-228)

Shepsle & Bonchek, Chapters 1 and 2

Oct. 12th, 17th Sequential Games and Subgame Perfect Equilibrium

Dixit and Skeath, Chapter 3

Oct. 19th, 24th Simultaneous Games and Nash Equilibrium

Dixit and Skeath, Chapter 4 & 5

Problem Set 1 due Oct. 26th

D&S Ch 2.1, 2.3, 2.4; 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 4.5

Oct. 26th, 31st **Group Choice, Spatial Models, and Majority Rule**
Shepsle & Bonchek, Chapters 3, 4
Dixit and Skeath, Chapter 15

Nov. 2nd, 7th **Voting Methods and Electoral Systems**
Shepsle & Bonchek, Chapters 5, 7

Nov. 9th **Midterm Exam**

Nov. 14th **Combination Games and Strategic Moves**
Dixit and Skeath, Chapter 6 & 10
Shepsle & Bonchek, Chapters 6

Problem Set 2 due Nov. 16th
D&S 15.1, 15.2, 15.3, 15.4, 15.5, 15.8; 10.1, 10.3; 6.1, 6.3

Nov. 16th, 21st **Mixed Strategies**
Dixit and Skeath, Chapter 7 & 8

No class Nov. 23rd (day before Thanksgiving Day)

Problem Set 3 due Nov. 30th
D&S 7.1, 7.3, 7.4, 7.5; 8.1, 8.4, 8.5; 17.2, 17.6

Nov. 28th, 30th **Bargaining**
Dixit and Skeath, Chapter 17
Shepsle & Bonchek, Chapters 11, 12, 13

Dec. 5th **Cooperation and Collective Action Games**
Dixit and Skeath, Chapter 12
Shepsle & Bonchek, Chapters 8, 9, 10

Dec. 7th **Downs and Democratic Theory**
Downs, All Chapters

Final Paper due Dec. 7th

Final Exam Dec. 14th 4-6pm