Theories of Political Choice

       This seminar introduces students to game theory and other formal theories of political choice. Our emphasis will be on how models of political choice apply to common problems in politics. This will help students think about politics analytically, objectively, and deeply. No prior knowledge of the subject is needed, but I will assume that students have sufficient aptitude for abstract reasoning and enough high school algebra to move at a fairly quick pace.

       The course begins with a brief introduction to game theory (a theory of strategic choice). We illustrate the theory using several examples, then apply it more extensively to problems in international diplomacy and voter turnout. We will then examine repeated games and their effects on cooperation. The next section of the course introduces students to spatial voting models and how they help us understand legislative behavior. In particular, we will study the effect of bicameral legislatures, veto power, and legislative strategy on political outcomes. We will further study the anomalies of multiple dimensional spatial voting models, such as McKelvey's Chaos Theorem (a wild but fascinating discovery), then apply these models to the Russian Duma as well as the alleged vote trading in the election of 1824. In the end, students will understand some of the most advance theories of political choice. They will also gain the tools needed to approach new problems objectively and "scientifically."

Grading

       Your grade will consist of three homework assignments, a mid-term exam, and a final exam. I expect students to attend all classes and assume that you are mature enough to understand what happens when you miss a class. Ask another student for notes if you miss a class. I will not give out notes nor put them on the web. However, all assignments will be on-line. Please look at my web page if you miss the day I hand out an assignment.

       Although I generally think of 90-100 as an A, 80-90 as a B, etc., since the university moved to a plus minus system, your overall grade for the course will be based upon the following scale:

		A	92 or above	A−	90-91.99
B+	88-89.99	B	82-87.99	B−	80-81.99
C+	78-79.99	C	72-77.99	C−	70-71.99
D+	68-69.99	D	62-67.99	D−	60-61.99
F	59.99 or below				

Home Work Assignments

Each home work assignment is worth 10% of your grade. These assignment will help you practice the analytic skills taught in the course and help you prepare for the exams. Assignments will be posted on-line roughly one week before they are due.

Exams

The preponderance of your grade comes from a mid-term exam and a final exam. Both may contain multiple choice, fill in the blank, problem solving, and essay type questions worth 30% of your grade each. The idea is to give you multiple types of questions to evaluate your understanding of the material, not your aptitude for a particular type of test question. You will be given a review sheet for each. The final is *no*t cumulative. Note: up to 1/5 of each exam may come from the readings not covered in lecture, so please read the assignments.

Extra Credit

Occasionally, I will assign in class games for additional points. These games are designed to help students think about the differences between actual behavior and game theoretic behavior first hand. However, there are no make-ups for these demonstrations, so please plan to attend regularly.

Make-ups

Homework assignments require a fair amount of analysis time. Please plan ahead to avoid turning them in late. **Late assignments will be lowered one letter grade for every *working* day they are late and will not be accepted later than two *working* days after the due date**. If an assignment is late, it would be a good idea to stick it under my office door (Baldwin 408) as soon as possible to avoid any unnecessary late penalties. Grades are lowered for every *working day* they are late, not every class day they are late.

If you miss the midterm exam for a good reason, pre-approved by me, you will be allowed to complete a make-up midterm on Friday, March 4 at 4:00 pm, meeting in Baldwin 408. Please allow additional time in case we have to start late. **THERE WILL BE NO OTHER TIME TO MAKE UP THE MID-TERM AND NO MAKE-UP FOR THE FINAL.** It also should be noted that the make-up exam will be considerably more difficult than the regular mid-term exam and should be avoided. Please plan ahead.

	Date	Percent of Grade
HOMEWORK 1 (two person games)	Feb 8	10%
HOMEWORK 2 (step-good games)	Feb 22	10%
MIDTERM EXAM	Mar 2	30%
HOMEWORK 3 (repeated games)	Mar 25	10%
HOMEWORK 4 (spatial voting)	April 29	10%
FINAL EXAM	May 6	30%

<u>Student Honesty</u>

All academic work must meet the standards contained in "A Culture of Honesty." Students are responsible for informing themselves about these standards before performing academic work. The penalties for academic dishonesty are severe and ignorance is not an acceptable defense. Also note that the course syllabus is a general plan for the course and that deviations announced to the class by the instructor may be necessary.

<u>Required Texts</u>

We will read both theoretical and substantive works in this course which vary in length. Long assignments are generally more descriptive than short assignments and can be read fairly quickly. Short assignments are usually analytical and may require a second or third reading. Try working a few problems out on a sheet of paper as you go along. It will help. Remember, if you work hard and complete all the readings, this should be a very rewarding course.

Required readings will come from three sources: a text book, a course packet, and a couple of readings on-line. The first is available from the book store. The second is available at Bel Jeans (location described below). The third are marked on the day of the assignment below.

1. Dixit, Avinash, Susan Skeath, and David H. Reiley (2014) *Games of Strategy*, 4th edition. W. W. Norton & Company – earlier editions acceptable though chapter numbers may vary.

2. Course Packet, Bel-Jean Copy Center, 163 East Broad Street, (706)548-3648 (between Lumpkin and College on Broad street, near the arches). **Required.** These readings are marked with a "**CP**" below.

<u>Schedule of Topics and Readings</u>

I. GAME THEORY

Jan 11   **Introduction & Foundations of Theory**

                Two-Person, Sequential Games
Jan 13-20   *Dixit and Skeath, Ch 2, "How to Think about Strategic Games."
                *Dixit and Skeath, Ch 3, "Games with Sequential Moves."

                Note: no class Jan 18! MLK day

                Two-Person, Simultaneous Games
Jan 22 -   *Dixit and Skeath, Ch 4, "Simultaneous-Move Games: Discrete Strategies."
 Jan 29

                Application: Ratification of the Constitution
Feb 1   *Riker, "Nationalist Strategy for Ratification" *The Strategy of Rhetoric*, **CP**.

	Application: Marbury v. Madison
Feb 3	*Clinton, "Game Theory, Legal History, and the Origins of Judicial Review" *American Journal of Political Science*, **CP**.

	Incomplete Information Games
Feb 5-10	*Dixit and Skeath, Ch 8, "Uncertainty and Information." *Dixit and Skeath, Ch 14, "Brinkmanship: the Cuban Missile Crisis."

	Step-Good Games and Voter Turnout
Feb 12-15	*Cain and Dougherty, "Suppressing Shays' Rebellion." *Journal of Theoretical Politics*, **CP**.

Note: no class Feb 17-19! Lecture at IMBS, UC Irvine.

	The Political Machines
Feb 22-26	*Reichley, Ch 7 & 10, *The Life of the Parties*, **CP.** *Jac Heckelman, "The Effect of the Secret Ballot on Voter Turnout Rates," *Public Choice*, **CP**.

Feb 29	*Catch-Up and Review.

Mar 2	**MIDTERM EXAM**

	Repeated Games
Mar 4	*Dixit and Skeath, Ch 11, "The Prisoners' Dilemma and Repeated Games."
- Mar 21	*Recommended Reading*: Joel Watson, 1997, Ch 22, "Repeated Games and Reputation," *Strategy: An Introduction to Game Theory* – on course reserve.

Note: no class Mar 7-11! Spring Break.

II. SPATIAL VOTING MODELS

	The Median Voter Theorem
Mar 23-28	*Hinich and Munger, Ch 2, "The Spatial Model of Downs and Black," *Analytical Politics*, **CP**. *Stewart, *Analyzing Congress*, Chapter 1 (pp. 3-22), **CP**.

	Supermajority Rules
Mar 30	*A note from a [Harvard website]().

	Application: Pivotal Politics
Apr 1 - 11	*Krehbiel, Ch 2, "A Theory," and Ch 3, "Gridlock," *Pivotal Politics*, **CP**. *Woon, "Change We Can Believe In?," *PS*, available at this url: <http://www.pitt.edu/~woon/papers/ps_change.pdf>
	Note: no class on Apr 8! MPSA conference.
Apr 13	*Recommended Reading*: Keith Poole and Howard Rosenthal, 1997. *Congress: A Political-Economic Theory of Roll Call Voting*. Chapter 2 – on my class web page, password: dougherty (introduces how ideal points are estimated).
	Multidimensional Spatial Voting Models
Apr 15-25	*Stewart, *Analyzing Congress*, Chapter 1 (pp. 22-40), **CP**. *Hinich and Munger, Ch 3, "Two Dimensions: Elusive Equilibrium," *Analytical Politics*, **CP**.
	Application: Roger Sherman at the Constitutional Convention
Apr 27	*Dougherty and Heckelman, "A Pivotal Voter from a Pivotal State," *American Political Science Review*, **CP**.
	Application: Vote Trading and the Election of 1824
April 29	*Jeffery Jenkins and Brian Sala, "The Spatial Theory of Voting and the Presidential Election of 1824" *American Journal of Political Science*, **CP**.
May 2	*Catch-up and Review
May 6	**FINAL EXAM (12:00-2:00 pm, same location)**