POLS 4071   Dr. Keith Dougherty
Tues & Thurs, 3:30-4:45 p.m.   Office: Baldwin 408, (706) 542-2989
Baldwin 102   Office Hours: available by appointment
Spring, 2019   dougherk@uga.edu
                                             http://spia.uga.edu/faculty_pages/dougherk/

Social Choice and Elections

The field of Social Choice examines the structure of a fair voting system based on the preferences of individuals. Think of it as examining how a constitution could be engineered that satisfies certain democratic principles that have to be mathematically consistent with one another – a problem pertinent to the creation of new governments after the Arab spring. Studying social choice should help students think about democracy analytically, objectively, and deeply.

We will ask how new democracies should structure their elections. Is proportional representation or voting in a single member districts more appropriate? What are the paradoxes of apportionment? Why do candidates always tend to be centrists in two party elections? Do the rules of a democratic process affect political outcomes, and if so, how? What kinds of systems, be they for electing national leaders or student council presidents, go furthest toward truly representing the wishes of the voters? What concepts of liberty are consistent with democracy and how might they conflict? These classic questions will be analyzed using formal analytical techniques – that is, using some simple logic and mathematics. Although we will go deeply, no prior understanding of formal theory or economic reasoning is required to master this course.

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 if you miss class. Ask another student for notes if you are absent. I don't give out notes, nor put them on the web, but all assignments will be posted on my web page.

Although I generally think of 90-100 as an A, 80-90 as a B, etc., the university moved to a plus minus system, so 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

You will be assigned three homework assignments. The first is worth 12% of your grade and the second two are worth 14% of your grade each. 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 at least one week before they are due. Feel free to remind me if they don't get posted quickly enough.

Exams

The preponderance of your grade will come 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 *not* cumulative. Note: up to one-fifth of each exam may come from the readings not covered in lecture, so please read the assignments and work on the starred problems in the book.

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**. This gives folks plenty of time to get their homeworks back. 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 Tuesday, February 19 at 4:45 pm, meeting in Baldwin 408. Please allow additional time in case we have to start late and please contact me in advance if you hope to use this option. **THERE WILL BE NO OTHER TIME TO MAKE UP THE MID-TERM EXAM AND <u>NO</u> MAKE-UP EXAM 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 (apportionment & Downs)	Feb 5	12%
MIDTERM EXAM	Feb 14	30%
HOMEWORK 2 (voting rules)	Mar 26	14%
HOMEWORK 3 (liberty)	Apr 23	14%
FINAL EXAM	May 7	30%

Student Honesty

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.

Required Texts

The best way to learn material like this is to solve problems on your own. The Hodge and Kilma book contains tons of questions you can work through. Starred questions are answered at the end of each chapter. I recommend you work out each of these on your own. It

will help. Some of the more important readings come from the course packet. The few that read like history are generally more descriptive and can be read like history. Short assignments are usually analytical and may require a second or third reading for you to fully comprehend them. 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. Older editions are fine. The second is available at Bel Jeans (location described below). The third will be marked on the day of the assignment on my web page (password: dougherty).

1. Hodge, Jonathan K. and Richard E. Klima. 2018. *The Mathematics of Voting and Elections: a hands-on approach*, 2nd edition. American Mathematical Society.

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. INTRODUCTION

Jan 10   **Introduction**

                Electoral Systems Around the World
Jan 15   *David Farrell, (2001) *Electoral Systems*, pp. 1-12, **CP**.

Jan 17   **No Class! SPSA Meetings.**

II. PROPORTIONAL REPRESENTATION

                Paradox of Apportionment
Jan 22 - 24   *Hodge and Kilma, Ch 11, "Proportional (Mis)representation"

                Recommended: Balinski and Young, 2001, *Fair Representation.* Washington,
                    D.C.: Brookings Institution Press – on course reserve.

III. PLURALITY RULE AND POPULAR ELECTIONS

                The Median Voter Theorem
Jan 29 - 31   *Hinich and Munger, Ch 2, "The Spatial Model of Downs and Black," *Analytical Politics*, **CP**.

	The Downsian Voter
Feb 5	*Downs, Anthony 1957. "An Economic Theory of Political Action in a Democracy," *Journal of Political Economy*, 65(2): 135-150, **CP**.
	*Hinich and Munger, *Analytical Politics,* Ch 6, "Uncertainty and Policy Preference," **CP.**
	Application: U.S. Presidential Elections
Feb 7	*2000 election (click here)
	*2008 election (click here)
	*2016 election (click here)
Feb 12	Catch-up and Review

Feb 14   **MIDTERM EXAM**

IV. PROBLEMS WITH VOTING RULES

	May's Theorem
Feb 19	*Hodge and Kilma, Ch 1, "What's So Good about Majority Rule?"
	Plurality Rule and Pairwise Majority Rule
Feb 21 - 26	*Hodge and Kilma, Ch 2, "Le Pen, Nader, and Other Inconveniences"
	*Hodge and Kilma, Ch 3, "Back into the Ring"
	Recommended: Donald Saari, *Decisions and Elections*, Ch 1 – on course reserve.
	Other Voting Rules
Feb 28 - Mar 5	*Marron, Brian. 2004. "One Person, One Vote, Several Elections: Instant Runoff Voting and the Constitution" *Vermont Law Review*, 28: 343-372, **CP**.
	Arrow's Impossibility Theorem
Mar 7	*Hodge and Kilma, Ch 4, "Trouble in Democracy" – focus on the strong form.
Mar 11-15	**No Class! Spring Break.**
Mar 19	*Hodge and Kilma, Ch 5, "Explaining the Impossible."
	Ways out of Arrow's Theorem
Mar 21	*Sen, Amartya "Collective Rationality," *Collective Choice and Social Welfare,* Ch 3, pp. 33-40, **CP**.
	*Vickrey, William, "Utility, Strategy, and Social Decision Rules," in Brian Barry and Russell Hardin Eds. *Rational Man and Irrational Society*, pp. 343-353, **CP**.

Recommended: Russell Hardin, "Public Choice Versus Democracy" in Copp, Hampton, and Roemer eds., *The Idea of Democracy*, pp. 157-172 – on electronic course reserve.

The Probability of Violating Voting Criteria

Mar 26 - 28   *Dougherty and Heckelman, "The Probability of Violating Arrow's Conditions," (mimeo: University of Georgia), **CP**.

Apr 2 - 4   *Dougherty and Edward, Ch 6, "Electoral Decision Making," The Calculus of *Consent and Constitutional Design*, **CP**.

V. LIBERTY AND DEMOCRACY

Liberty

Apr 9 - 11   *Sen, "Markets and Freedoms," *Oxford Economic Papers*, focus on sections 3-5 (pp. 522-532), skim rest, **CP**.

Sen's Liberal Paradox

Apr 16 - 18   *Sen, "The Impossibility of a Paretian Liberal" *The Journal of Political Economy*, **CP**.

The Probability of Sen's Paradox

Apr 23 - 25   *Recommended*: Saari, Donald, *Decisions and Elections*, chapter 2 (pp. 56-67) – on course reserve.

Recommended: Sen, Amartya, "Liberty, Unanimity, and Rights," *Economica*, 43(171): 217-245 – introduces several criticisms of Sen's paradox as well as Sen's response to them (available through electronic course reserve).

Apr 30   Catch-Up & Review

May 7   **FINAL EXAM (same room) 3:30-5:30 p.m.**