

POLS 4071
Tues & Thurs, 2:55-4:15 p.m.
Baldwin 102
Fall, 2026

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Social Choice and Elections

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 to satisfy certain democratic principles. These principles have to be mathematically consistent or they won't work. The problem is pertinent to the creation of new governments, such as those 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 and how does that affect Congress? 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.

Polling

Occasionally we will use Google Forms for in-class polling. I won't know who answered a question nor record individual responses, but it will help us see patterns in the class in real time. If the QR-codes don't work, use this <https://forms.gle/fJTbrTY3H2daXXUbA>.

Grading

Your grade consists of discussing readings in perusall, three homework assignments, a mid-term exam, and a final exam. I expect students to attend class and assume that you are mature enough to understand what happens when you miss class. Ask another student for notes if you are absent. All assignments are posted on eLC.

I generally think of 90-100 as an A, 80-90 as a B, etc., but since the university uses a plus minus system I use the following scale for overall grades:

		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				

Perusall and Readings

All required reading assignments are posted on Perusall – a social e-reader which you can use for free. Make sure your first login is through ELC. Perusall gets you to discuss the readings with other students, which helps create critical thinking skills. Each reading is considered an assignment that you read, question, and comment on. 10% of your grade will be based on your Perusall discussions. Students often ask, “how does Perusall grade me?” The simple answer is it grades reading and discussion. Focus on “discussion,” not posting, and pay attention to its nudges to get full points. Note, each assignment (a.k.a., each reading) must be completed before the relevant class, which you can get to by clicking on the Perusall link in ELC.

Home Work Assignments

You will be assigned three homework assignments, each 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 at least one week before they are due.

Exams

Most 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. A review sheet for each will be posted on eLC. The final is *not* cumulative. It only covers the material from the first day after the midterm to the end. Note: some questions may come from the readings not covered in lecture, so working in Perusall should pay off. You might also want to work on the starred problems in the Hodge and Kilma chapters – the most important questions are listed in the practice problems section on eLC.

Make-ups

Homework assignments require time. Please start early to avoid turning them in late. **Late assignments will be lowered one letter grade for every day they are late and will not be accepted after the next class begins.** Folks need their homeworks back in a timely fashion. If an assignment is late, it would be a good idea to e-mail me <dougherk@uga.edu> as soon as possible so I know to look for it. Grades are lowered for every *day* they are late, not every class day.

If you miss the midterm for a good reason, such as coming down with COVID, and your excuse is ***pre-approved*** by me, you will be allowed to complete a make-up exam at 4:30 pm on Tuesday, September 29, meeting in Baldwin 408. Make-ups are not available any other time or date. They are more difficult than regular exams and should be avoided.

	<u>Date</u>	<u>Percent of Grade</u>
PERUSALL (reading and discussions)	daily	10%
HOMEWORK 1 (apportionment)	Sept 10	10%
MIDTERM EXAM	Sept 24	30%
HOMEWORK 2 (voting rules)	Oct 29	10%
HOMEWORK 3 (liberty)	Nov 17	10%
FINAL EXAM	Dec 8	30%

AI Software

The use of artificial intelligence (AI) tools like ChatGPT, Copilot, or similar generative AI systems is strictly prohibited in this course for any part of an assignment, including brainstorming, writing, or editing. This policy facilitates your learning of social choice, which at times requires struggling.

Practice Problems

The best way to learn this type of material is to solve problems on your own. The Hodge and Kilma text (on Perusall) is full of questions you can work through, with the answers to starred questions listed at the end of each chapter. I recommend you work out the problems listed under “practice problems” on eLC. It will help. Most of the readings are short but may require more than one read to be fully comprehended. If you work hard, complete all the readings, and keep up with the practice problems, this should be a very rewarding course.

Texts

If you want a hard copy of the Hodge and Kilma book, it is available at the bookstore. But note that this and all other readings are available on Perusall for free. I will test you on some of the readings not discussed in class.

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

Schedule of Topics and Readings

I. INTRODUCTION

Aug 18 **Introduction**

Aug 20 **Electoral Systems Around the World**
*David Farrell, (2001) *Electoral Systems*, pp. 1-12.

II. PROPORTIONAL REPRESENTATION AND APPORTIONMENT

Aug 25 **Paradox of Apportionment**
*Hodge and Kilma, Ch 11, “Proportional (Mis)representation”

Aug 27 -
Sept 1 **Recommended*: Balinski and Young, 2001, *Fair Representation*. Washington, D.C.:
Brookings Institution Press – on course reserve.

Sept 3 **Congressional Apportionment**
*Dougherty, Ch 2, “Theory” and Ch 7, “Stalemate in the 1920s,” *Shifting Seats*.

III. PLURALITY RULE AND POPULAR ELECTIONS

- Sept 8-10 **The Median Voter Theorem**
*Hinich and Munger, Ch 2, “The Spatial Model of Downs and Black,” *Analytical Politics*.
- Sept 15 **May’s Theorem**
*Hodge and Kilma, Ch 1, “What’s So Good about Majority Rule?”
*Mueller, “May’s theorem on Majority Rule,” *Public Choice III* – the correct statement of May’s theorem.
- Sept 17 **The Downsian Voter**
*Downs, Anthony 1957. “An Economic Theory of Political Action in a Democracy,” *Journal of Political Economy*, 65(2): 135-150.
*2024 election ([click here](#))
- Sept 18 **Constitution Day** (optional)
*5 extra credit points on your second homework for [attending](#). If you can’t make the lecture but want the extra points, please email me a 1.5 page summary of Thomas Jefferson’s role in creating the Constitution by 11 pm, Saturday, Sept 19.
- Sept 22 Catch-up and Review
- Sept 24 **MIDTERM EXAM.**

IV. PROBLEMS WITH VOTING RULES

- Sept 29 **Plurality Rule and Pairwise Majority Rule**
*Scientific America, “Ranking Candidates Is More Accurate Than Voting.”
*Hodge and Kilma, Ch 2, “Le Pen, Nader, and Other Inconveniences”
- Oct 1 **No Class! NASPAA Conference.**
- Oct 6 *Hodge and Kilma, Ch 3, “Back into the Ring”
- Oct 8-13 **Other Voting Rules**
*NPR News, “Ranked-Choice Voting Gets A Prime-Time Shot Under New York City’s Bright Lights,” June 23, 2021.
*The Center for Elections Science, “The Limits of Ranked-Choice Voting,” February 7, 2019.
- Oct 9 **Principles of 1776 lecture** (optional)

*5 extra credit points on your third homework for attending. If you can't make the lecture but want the extra points, please email me a 1.5 page summary of Benjamin Franklin's role in creating the Declaration of Independence by 11 pm, Saturday, Oct 10.

Arrow's Impossibility Theorem

Oct 15 *Hodge and Kilma, Ch 4, "Trouble in Democracy" – a rough idea of Arrow's theorem. Focus on the strong form.

Oct 20 *Sen, Amartya "Collective Rationality," *Collective Choice and Social Welfare*, Ch 3, pp. 33-40 – the correct statement of Arrow's theorem.

Ways out of Arrow's Theorem

Oct 22 *Hodge and Kilma, Ch 5, "Explaining the Impossible."

*Vickrey, William, "Utility, Strategy, and Social Decision Rules," in Brian Barry and Russell Hardin Eds. *Rational Man and Irrational Society*, pp. 343-353.

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

The Probability of Violating Voting Criteria

Oct 27 *Dougherty and Heckelman, "The Probability of Violating Arrow's Conditions," *European Journal of Political Economy*.

Oct 29 - Nov 3 *Dougherty and Edward, Ch 6, "Electoral Decision Making," *The Calculus of Consent and Constitutional Design*.

V. LIBERTY AND DEMOCRACY

Liberty

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

Sen's Liberal Paradox

Nov 10-12 *Sen, "The Impossibility of a Paretian Liberal" *The Journal of Political Economy*.

Ways out of Sen's Paradox

Nov 17 *Saari, Donald, *Decisions and Elections*, chapter 2 (pp. 56-67).

*Recommended: Sen, Amartya, "Liberty, Unanimity, and Rights," *Economica*, 43(171): 217-245 – on eLC. The reading introduces several criticisms of Sen's paradox as well as Sen's response to them.

Nov 19 Catch-Up & Review.

Nov 23 - 27 NO CLASS: THANKSGIVING BREAK

Dec 1 Attend your Friday or WF classes (does not apply to MWF classes).

Dec 8 FINAL EXAM: 3:30-5:30 pm (same location).

CLASSROOM AND UNIVERSITY POLICIES

Disclaimer

This syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

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.

Mental Health and Wellness Resources

If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.

UGA has several resources for students seeking mental health services or crisis support. If you need help managing stress anxiety, relationships, etc., please visit [BeWellUGA](#) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center. Additional resources can be accessed through the UGA App.