POLS 4071   Dr. Keith Dougherty
MWF: 1:50-2:40 p.m.   Office: Baldwin 408,
Baldwin 102   Office Hours: let's make an appointment
Spring, 2023   dougherk@uga.edu
                                         http://spia.uga.edu/faculty_pages/dougherk/

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? 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.

<u>Polling</u>

Occasionally, I will use Google Forms for in-class polling. That means you will login to a form to pick an answer. I will not know who answered a question nor record individual responses. However, Google Forms will show us how the group responded in real time. The Google Form login is https://forms.gle/nXbJZ2YHN8ySLmJh9. Please keep it in a handy location.

<u>Grading</u>

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 started using 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. Perusall gets you to discuss the readings with other students. Each reading is considered an assignment that you read, question, and discuss. 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 the most points. Note, each assignment (a.k.a., each reading) should be completed before the relevant class with a few hour grace period for unexpected time constraints. See the course overview in ELC for details on how to sign up for Perusall.

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. Please remind me if they don't get posted.

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. 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 Perusall should pay off in the end. 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.

<u>Make-ups</u>

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 day they are late and will not be accepted after the next class begins.** This allows folks to get their homeworks back in a timely fashion. If an assignment is late, it would be a good idea to post it on ELC then e-mail me <dougherk@uga.edu> as soon as possible to avoid any unnecessary late penalties. Grades are lowered for every *day* they are late, not every class day they are late.

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. The make-up for the midterm will be at 4 pm on February 15, meeting in Baldwin 408. It is not available any other time or date. There is no make up for the final. Make-ups are more difficult than regular exams and should be avoided.

	Date	Percent of Grade
PERUSALL (reading and discussions)	daily	10%
HOMEWORK 1 (apportionment)	Jan 30	10%
MIDTERM EXAM	Feb 13	30%
HOMEWORK 2 (voting rules)	Mar 22	10%
HOMEWORK 3 (liberty)	Apr 24	10%
FINAL EXAM	May 8	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.

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 a student seeking mental health services or crisis support. If you need help managing stress anxiety, relationships, etc., please visit BeWellUGAfor 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.

Readings

All readings will be made available through Perusall. 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. Starred questions are answered at the end of each chapter. I recommend you work out each of those on your own. It will help. Most of the readings are shorter but analytical, which may require more than one read to be fully comprehended. Remember, if you work hard and complete all the readings, this should be a very rewarding course.

If you want a hard copy of the Hodge and Kilma book, it is available at the bookstore.

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

Disclaimer

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

Schedule of Topics and Readings

I. INTRODUCTION

Jan 9   **Introduction**

        Electoral Systems Around the World
Jan 11   *David Farrell, (2001) *Electoral Systems*, pp. 1-12.

II. PROPORTIONAL REPRESENTATION

        Paradox of Apportionment
Jan 13   *Hodge and Kilma, Ch 11, "Proportional (Mis)representation"

Jan 16   *No Class! MLK day*.

Jan 18-23   *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 25-27   *Hinich and Munger, Ch 2, "The Spatial Model of Downs and Black," *Analytical
              Politics*.

        May's Theorem
Jan 30   *Hodge and Kilma, Ch 1, "What's So Good about Majority Rule?"

Feb 1   *Mueller, "May's theorem on Majority Rule," *Public Choice III* – the correct
              statement of May's theorem.

The Downsian Voter

Feb 3   *Downs, Anthony 1957. "An Economic Theory of Political Action in a
            Democracy," *Journal of Political Economy*, 65(2): 135-150.

Feb 6   *Hinich and Munger, *Analytical Politics,* Ch 6, "Uncertainty and Policy
            Preference."

Application: U.S. Presidential Elections

Feb 8   *2008 election ([click here](#))
            *2016 election ([click here](#))
            *2020 election ([click here](#))

Feb 10   Catch-up and Review

Feb 13   **MIDTERM EXAM**.

IV. PROBLEMS WITH VOTING RULES

Plurality Rule and Pairwise Majority Rule

Feb 15   *Scientific America, "Ranking Candidates Is More Accurate Than Voting,"
            October 6, 2008.

Feb 17   *Hodge and Kilma, Ch 2, "Le Pen, Nader, and Other Inconveniences"

Feb 20   *Hodge and Kilma, Ch 3, "Back into the Ring"

Other Voting Rules

Feb 22   *NPR News, "Ranked-Choice Voting Gets A Prime-Time Shot Under New York
            City's Bright Lights," June 23, 2021.

Feb 24-27   *The Center for Elections Science, "The Limits of Ranked-Choice Voting,"
            February 7, 2019.

Arrow's Impossibility Theorem

Mar 1   *Hodge and Kilma, Ch 4, "Trouble in Democracy" – a rough idea of Arrow's
            theorem. Focus on the strong form.

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

Mar 6-10   *No Class! Spring Break*.

Ways out of Arrow's Theorem

Mar 13-15   *Hodge and Kilma, Ch 5, "Explaining the Impossible."

Mar 17   *No Class! Public Choice Meetings.*

Mar 20   *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

Mar 22-27   *Dougherty and Heckelman, "The Probability of Violating Arrow's Conditions,"
                  European Journal of Political Economy.

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

V. LIBERTY AND DEMOCRACY

Liberty

Apr 5-10   *Sen, "Markets and Freedoms," *Oxford Economic Papers*, focus on sections 3-5
                  (pp. 522-532), skim rest.

Sen's Liberal Paradox

Apr 12-17   *Sen, "The Impossibility of a Paretian Liberal" *The Journal of Political Economy*.

The Probability of Sen's Paradox

Apr 19-24   *Saari, Donald, *Decisions and Elections*, chapter 2 (pp. 56-67).

Apr 26-28   *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.

May 1   Catch-Up & Review

May 8   FINAL EXAM: 12:00-2:00 pm (same location).