

POLS 4150: Research Methods in Political Science *

Instructor: [David Cottrell](#)

Spring, 2021

Days:	TuTh
Time:	12:45pm – 2:00pm
Location:	Baldwin 101D
Zoom office hours:	Th @ 4:00 pm – 6:00 pm

Course Description

Scholars in political science and in disciplines across the social sciences are increasingly relying on quantitative, data-driven methods to answer important questions in their field. This course provides an introduction to the study of politics through quantitative reasoning and data analysis. Like a traditional research methods course, we will cover the fundamentals of empirical research in political science including causal inference, summary statistics, data visualization, and regression. However, unlike a traditional research methods course, this course places a particular emphasis on developing technical skills used to conduct real-world data analysis. Therefore, a significant amount of the coursework will be dedicated to learning how to program in the statistical computing environment, *R*. The goal is for you to gain a valuable skillset in data analysis that you can use in your political science classes and, more importantly, in your future careers.

Prerequisites

You do not need any prior experience with programming or statistical computing. Although prior experience may be helpful, the class is designed to help you develop these skills without such experience. Nonetheless, you should be aware that there is a steep learning curve to coding. It will require time, effort, practice, and patience. You must be able and willing to dedicate yourself to the coursework throughout the semester. It is not easy to catch up in this class.

Method of instruction

This course will use a flipped-classroom (or hybrid asynchronous) method of instruction. Rather than hold lectures during the regularly-scheduled class session, lectures will be pre-recorded and posted online in eLC for students to watch from home. In-person class time will instead be dedicated to Q&A and practicing the skills addressed in the lectures and readings. The purpose of the flipped-classroom method is to allow for us to meet face-to-face in a small group setting where I can more easily address the challenges you are facing with the material and provide more targeted help. Moreover, we will use class time to cover the data assignments for the module.

Attendance

Due to COVID restrictions, we can only fit a third of the class in the classroom at any given time. Therefore, students in the class will be divided into three groups that will rotate their attendance once every three class sessions. Groups will be determined by the first letter of a student's last name. Students with a last name beginning with the letter A through D will be in Group 1. Students with a last name beginning with the letter E through O will be in Group 2. And all other students will be in Group 3. **Students are expected to attend class in-person on the days assigned to their group.** The dates for attendance for each group are detailed in the agenda section below. Students will attend class in-person nine times throughout the semester. As a result, the lectures and readings have been divided into nine separate modules - each spanning three class sessions - so that students will attend an in-person class once per module.

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

Textbook

Imai, K. (2017). *Quantitative Social Science: An Introduction*. Princeton University Press
(Preview [Chapter 1](#) and [Chapter 2](#))

Reading in Perusall

You do not need to purchase a physical copy of the textbook. Students will instead read from the textbook each week using the Perusall app. Perusall is an e-reading platform that allows students to read and annotate the textbook collaboratively with other students. Using Perusall, students can provide comments about the text as they read, ask questions about the text, and provide feedback to their peers in an online environment. Moreover, Perusall allows me to evaluate the reading engagement of students throughout the course. It uses an algorithm to assess the quality of your comments, questions and responses and will ultimately provide a reading engagement score for each module of the course. Please download and review the [rubric](#) and [example](#) to get a better understanding of how reading engagement is scored in Perusall. The engagement scores will be averaged across the nine modules and used as a component of your final grade. To begin, first watch this introductory video about Perusall [here](#). Then go to www.perusall.com, click Login, and follow the directions to create an account. To join our course on Perusall, enter the following course code when prompted: COTTRELL-THGAN.

In-class data assignments

For every module, you will have a data assignment to be completed in class. These assignments will ask you to apply what you have learned in the online lectures and in the book. And they will provide you an opportunity to practice analyzing data using R. You will submit your answers electronically online and you will be given solutions once they are completed.

Midterm

The midterm exam will be completely online and will be made available on eLC on March 9th. It will be designed to test your ability to analyze data by coding in R. You will be asked to apply the skills you developed in Chapters 1 and 2.

Final exam

The final exam will be completely online and will be made available on eLC on May 6th. Like the midterm, it will be designed to test your ability to analyze data by coding in R. You will be asked to apply the skills that you developed primarily in Chapter 4.

Grades

10% Perusall score
10% Data assignments
40% Midterm
40% Final

A	100-94%	B	86-84%	C	76-74%	D	66-64%
A-	93-90%	B-	83-80%	C-	73-70%	D-	60-63%
B+	89-87%	C+	79-77%	D+	69-67%	F	59-0%

Agenda

Module	Group 1	Group 2	Group 3	Chapter	Sections
1	Jan 19	Jan 21	Jan 26	Ch. 1	Intro - 1.3.3
2	Feb 02	Feb 04	Feb 09	Ch. 1	1.3.4 - 1.4.0
3	Feb 11	Feb 16	Feb 18	Ch. 2	2.0.0 - 2.2.5
4	Feb 23	Feb 25	Mar 02	Ch. 2	2.3.0 - 2.7.0
5	Mar 04	Mar 09	Mar 11	Ch. 3	3.0.0 - 3.6.3
6	Mar 16	Mar 18	Mar 23	Ch. 4	4.0.0 - 4.1.3
7	Mar 30	Apr 01	Apr 06	Ch. 4	4.2.0 - 4.2.6
8	Apr 13	Apr 15	Apr 20	Ch. 4	4.3.0 - 4.3.2
9	Apr 22	Apr 27	Apr 29	Ch. 4	4.3.3 - 4.4.0

Statistical Software

For data analysis, we will be using [R](#). R is an open-source (free!) statistical computing environment widely used for manipulating data, performing statistics, and producing graphics. To run R, we will take advantage of a commonly used integrated development environment (IDE) called RStudio. RStudio provides a user-friendly interface for accessing and computing in R. Complete the following steps:

1. First, download R and follow the instructions to install.
 - For macOS 10.13 (High Sierra) you can download R through this link: [R-4.0.2.pkg](#). Once downloaded, double click on the file to begin installation. For older versions of macOS, please update your operating system. Otherwise, contact me.
 - For Windows, download R through this link: [R-4.0.2-win.exe](#). Once downloaded, double click on the file to begin installation.
2. Second, download RStudio and follow the instructions to install.
 - For all operating systems go to this [link](#) and download the free version of RStudio Desktop. Then follow the instructions for installation into your applications folder.

Computers

Bring your computer with R installed to class.

Face coverings

As a reminder, the University of Georgia—along with all University System of Georgia (USG) institutions—requires all faculty, staff, students, and visitors to wear an appropriate face covering while inside campus facilities/buildings where six feet social distancing may not always be possible. Anyone not using a face covering when required will be asked to wear one or must leave the area. Reasonable accommodations may be made for those who are unable to wear a face covering for documented health reasons. Students seeking an accommodation related to face coverings should contact Disability Services at <https://drc.uga.edu/>.

Ethics

UGA Student Honor Code: “*I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others.*” A Culture of Honesty, the University’s policy and procedures for handling cases of suspected dishonesty, can be found at www.uga.edu/ovpi. Please adhere to the university’s standards for academic honesty and integrity. Do not submit someone else’s code as your own. You must complete your exams independently.

Accessibility Needs

Students with special needs that require accommodation should notify me and the Office for Disability Services in the first two weeks of the course so appropriate arrangements can be made. All information and documentation of special needs is confidential.