SOSC 13200/4: Social Science Inquiry II (Winter 2023)

Meeting Time: Tue & Thu 12:30-1:50 PM
Location: Cobb Hall 202

Instructor: Dr. Shu Fu, fushu@uchicago.edu
Office: Pick Hall 503
Office hours: Fri 3:00-5:30 PM (in Pick Hall 504) or by appointment

COURSE OBJECTIVES

This course is an introduction to the use of quantitative data to explore social scientific theories. You will learn how to approach a social scientific claim, conceptualize it, measure it by data, and evaluate the data. The goal of this course is to increase your understanding of the most common statistical concepts and to work on statistical software programming and data visualization.

To guide this introduction, the course will focus on one of the most vivid and important literature in social science: *The American Voter*. We will do so by spending most of the quarter looking at a particular claim related to this question: *What affects individual vote choice and why did Joe Biden win in the 2020 presidential election?*

By the end of the course, you will 1) comprehend basic statistical concepts, 2) be able to do some programming and analyze social science phenomena with empirical data, and 3) better understand the American presidential elections.

COURSE ORGANIZATION

The class meets twice per week for 1 hour and 20 mins each. The course will pace in a **weekly** basis.

Each week, class sessions will be one of two types:

- **Lecture and Discussion**, where I introduce the main concepts in a mini lecture, then I guide the class – divided into small groups – through a discussion about that week's topic;
- **Demonstration and Lab**, where I use `R` to perform a task related to that week's topic, then guide students to use `R` to perform a task related to that weeks' topic themselves.

After the second session of the week, assignments that are designed to strengthen your understanding of the week's topic will be circulated. On Friday afternoon, I will hold office hours to answer any question you might have about the week's topic and the assignments. The assignments will be due on Sunday 7 PM.

COURSE REQUIREMENTS

Attendance and Class Preparation:

Students are expected to come to every class and to participate in class activities. You should read the assigned reading(s) for a particular class day prior to coming to class. *If you attend class and do your work responsibly, then you will do well in this class.*

Readings:

All required readings are available on the course Canvas page. Readings will be a combination of academic journal articles, statistics textbooks, programming guidance, and blog posts.

Furthermore, you might also find helpful the following resources. These readings are not required but are rather additional resources for further learning.

- *Introductory Statistics with R*, by Peter Dalgaard, which is available electronically through the library, or on Canvas.
- *R for Data Science* by Hadley Wickham and Garrett Grolemund, which is in open access at https://r4ds.had.co.nz/.
- *ggplot2: Elegant Graphics for Data Analysis*, by Hadley Wickham, which is available at https://ggplot2-book.org/index.html.

Software, Computer Use, and Datasets:

For this class we will be using `R`. `R` is a programming language that is especially powerful for data exploration, visualization, and statistical analysis. To download `R`, go to CRAN (the Comprehensive `R` Archive Network) at this site, https://cran.r-project.org/.

To interact with `R`, we use RStudio. Please install the latest desktop version of RStudio. You can download the latest version of RStudio at this site, https://rstudio.com/products/rstudio/download/.

The datasets we will be using in the class or their links can be all found on Canvas.

ASSIGNMENTS

The main assessment in the class will be your performance on seven weekly assignments. These assignments will be given on Thursday and be due on **Sunday 7 PM**. Late submissions will be penalized.

I have a **15-minute Rule** for this class.1 If you encounter a problem in your assignments, spend 15 minutes troubleshooting the problem on your own. Make use of Google and StackOverflow to resolve the error. However, if after 15 minutes you still cannot solve the problem, ask for help.

GRADING

Your final course grade will be figured according to the following proportion

Attendance/Class Participation:	**10%**
Weekly Assignments:	**70%**
Final Paper (details to TBA):	**20%**

COURSE OUTLINE

Week 1: Introduction & Vote Choice Theory

Tue (Jan 3): *Course overview*

Thu (Jan 5): *Theory of Vote Choice – The Fundamentals*

- William G. Jacoby. 2010. "The American Voter." In *The Oxford Handbook of American Elections and Political Behavior*, edited by Jan E. Leighley, 262-277. Oxford University Press.

Week 2: R Workshop

Tue (Jan 10): *Programming 101 – Getting to know* R

Thu (Jan 12): No Class (SPSA)

Assignment 1: Practice in R and RMarkdown

Week 3: Conceptualizing and Measuring

Tue (Jan 17) & Thu (Jan 19): *Measuring Vote Choice by American National Election Studies (ANES)*

- Donald Green, Bradley Palmquist, and Eric Schickler. 2002. *Partisan Hearts & Minds: Political Parties and the Social Identities of Voters*. Yale University Press. Chapter 2.
- Stephen Ansolabehere, Jonathan Rodden and James M. Snyder Jr. 2006. "Purple America." *Journal of Economic Perspectives* 20(2): 97-118.

Assignment 2: ANES Data Loading and Variable Recoding

Week 4: Observing

Tue (Jan 24) & Thu (Jan 26): *Seeing a "there" by Observing Patterns; Visualization*

Assignment 3: Plotting Vote Choice

Week 5: Analyzing

Tue (Jan 31) & Thu (Feb 2): *See a "there, there". Sampling and Statistical Inference. Hypothesis Testing, T-tests and P-values*

- Donald R. Kinder and D. Roderick Kiewiet. 1981. "Sociotropic Politics: The American Case." British Journal of Political Science 11(2): 129-161.

Assignment 4: Basic Analysis of Vote Choice

Week 6: Complicating

Tue (Feb 7) & Thu (Feb 9): *Threats to Inference; Bringing in new/control variables; Conditional T-tests*

Assignment 5: Adding and Evaluating Control Variables

Week 7: Regressing

Tue (Feb 14) & Thu (Feb 16): *OLS Regression; Bivariate Regression and multivariate Regression*

Assignment 6: Regression Analysis I

Week 8: (More) Regressing

Tue (Mar 21) & Thu (Mar 23): *Regressing with a binary outcome – Linear Probability Model and Logit Model*

Assignment 7: Regression Analysis II

Week 9: Past, Present, and Future

Tue (Feb 28) & Thu (Mar 2): *Extension on American Vote Theory & Replicating Studies in SSI I.*

- Anthony Fowler. 2020. "Partisan Intoxication or Policy Voting?" *Quarterly Journal of Political Science* 15(2): 141-179.
- Andrew Healy and Gabriel S. Lenz. 2014. "Substituting the End for the Whole: Why Voters Respond Primarily to the Election-Year Economy." *American Journal of Political Science* 58(1): 31-47.
- Gabriel S. Lenz. 2009. "Learning and Opinion Change, Not Priming: Reconsidering the Priming Hypothesis." *American Journal of Political Science* 53(4): 821-837.
- Donald R. Kinder and Alison Dale-Riddle. 2012. *The End of Race? Obama, 2008, and Racial Politics in America.* New Haven: Yale University Press.
- Anthony Fowler. 2016. "Football games, shark attacks, and why voters may not be so incompetent after all."

Final Paper: TBA