This course is designed to build on some of the skills you learned in your prior courses on political science research and analysis. We will divide our time between three units. We will begin by considering the design, implementation, and interpretation of surveys. Next, we will consider measurement, including the construction of scales, evaluation of measures, and factor analysis. Finally, we will study mediation and the tools we use to investigate the mechanisms by which factors influence political outcomes.

Given the ratio of topics to weeks of the semester, we will not have time to richly develop each topic. Instead, we will spend more time on applications and hands-on data analysis than we spend on the mathematics and statistics behind the specific methods. Those interested in developing greater specialization in a given topic are encouraged to contact the instructor for additional background readings on a topic. While we will not be programming in R or developing our own estimators in this course, you should have a basic familiarity with probability, statistics, and the classic linear model. If you have successfully competed PSCI 7085 and PSCI 7095, you should have sufficient background for the topics covered in the course.

**reading assignments**

Readings for the course will be drawn from several texts as well as journal articles. Journal articles are accessible through the library’s website, while book chapters can be found on the course website on CULearn. In addition, you should also purchase the following required texts. The recommended texts are also excellent references that will be useful additions to your bookshelf.

**required texts:**


**recommended texts:**


culearn is your friend

This syllabus, assignments, data sets, and other exciting material can be accessed on the class website on culearn.colorado.edu.

requirements

homework and participation (60% of your final grade)

It is recommended that you complete each week’s readings before that week’s class session. Each week, you will also be responsible for a homework assignment designed to help you practice the skills learned in class. Some of these assignments will be written memos while others will be designed as problem sets. While you are welcome to consult with your classmates on the homework assignments, the final work you turn in must be your own. Late homework assignments will not be accepted.

research paper (40% of your final grade)

You will also develop a research paper that incorporates one of the methods discussed in class. In style, this paper should resemble the journal articles you have read in your classes. The research paper will be due the last week of the class. Additional guidelines will be detailed in a separate handout.

special accommodations

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed. You can contact the Disability Services office for more information at www.colorado.edu/disabilityservices.

some important comments on academic integrity

Plagiarism and other academic dishonesty will not be tolerated. If you are not familiar with the rules of citing sources in written work or what constitutes plagiarism, you should contact me or refer to the University Honor Code at www.colorado.edu/academics/honorcode. Academic dishonesty will result in an F in the course and referral to the Honor Court for additional non-academic sanctions.

All papers are expected to be original work, not previously or simultaneously handed in for credit in another course (unless prior approval of all instructors involved is obtained).
1. Introduction to the course and an introduction to R.
   Wednesday, August 24

2. Why we use surveys. The psychology of survey response.
   Wednesday, August 31
     Arbor: University of Michigan Press.
   - Weisberg, Chapters 1 and 2.

3. Questionnaire design.
   Wednesday, September 7
   - Pasek, Josh, and Jon A. Krosnick. 2010. “Optimizing Survey Questionnaire Design in Political Science:
     Insights from Psychology.” In Jan Leighley, ed., Oxford Handbook of American Elections and Political
   - Weisberg, Chapters 5 and 6.

4. Sampling.
   Wednesday, September 14
   - Weisberg, Chapters 3, 9, and 10.
   - Berinsky, Adam J. 2006. “American Public Opinion in the 1930s and 1940s: The Analysis of Quota-

5. Sampling error and response rates.
   Wednesday, September 21
   - Weisberg, Chapter 8.
6. Sample selection bias and sidebar on selection models.
   Wednesday, September 28

7. Nonresponse and sidebar on multiple imputation.
   Wednesday, October 5
   - Weisberg, Chapter 7.

8. Survey mode and survey administration.
   Wednesday, October 12
   - Weisberg, Chapters 4, 12, and 13.

   Wednesday, October 19
   - DeVellis, Chapters 1-4.

10. Scaling.
    Wednesday, October 26
    - DeVellis, Chapter 5.

11. Factor analysis.
    Wednesday, November 2
    - DeVellis, Chapter 6.
12. Item response theory.
   Wednesday, November 9
   - DeVellis, Chapter 7.

**mediation and path analysis**

13. Mediators and causal mechanisms.
   Wednesday, November 16
   - MacKinnon, Chapters 1 and 3.

14. Recursive systems and path analysis.
   Wednesday, November 30
   - MacKinnon, Chapters 4, 5, and 6.

Class does not meet – fall break
   Wednesday, November 23

15. Nonrecursive systems.
   Wednesday, December 7