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 study mediation and the tools used to investigate the mechanisms by which factors influence political outcomes, such as path analysis or structural equation modeling. Finally, we will spend the last unit of the course on assorted special topics, as taught by members of the class.

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 writing R code 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 have been placed on the library’s e-reserves. 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.

teaching unit (40% of your final grade)

You will be responsible for teaching the class about some topic in political methodology. This will include choosing the reading assignment, leading a class lecture, providing lecture notes to the class, and developing a homework assignment and key. 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).
SURVEYS

1. Introduction to the course. Why we use surveys.
   Monday, August 24
   - Weisberg, Chapters 1 and 2.

2. The psychology of survey response. Questionnaire design.
   Monday, August 31
   - Recommended: Weisberg, Chapters 5, 6, and 7.

Class does not meet – Labor Day
   Monday, September 7

3. Sampling
   Monday, September 14
   - Weisberg, Chapters 8, 9, and 10.

4. Survey administration
   Monday, September 21
   - Weisberg, Chapters 3 and 4.

5. Survey analysis and assessment
   Monday, September 28
   - Weisberg, Chapters 12 and 13.
MEDIATION AND PATH ANALYSIS

6. Mediators and causal mechanisms

   Monday, October 5
   - Kline, Chapters 1, 2, and 3.

7. Recursive systems and path analysis

   Monday, October 12
   - Kline, Chapters 5 and 6.

8. Nonrecursive systems

   Monday, October 19
   - Kline, Chapter 9.

9. Factor analysis

   Monday, October 26
   - Kline, Chapter 7.
OTHER SUPER FUN TOPICS

10. Interaction effects (R.W. and D.L.)
   Monday, November 2

11. LOESS and spline regression (G.L. and J.K.)
   Monday, November 9

12. Clarify and missing data (M.B. and J.N.)
   Monday, November 16

Class does not meet – fall break
Monday, November 23
13. Ecological inference and panel data (E.P. and A.C.)  
Monday, November 30  

14. Heteroskedastic regression and seemingly unrelated regression (J.L. and L.R.)  
Monday, December 7  

15. Matching (B.J.)  
Monday, December 14  