

# **Research Design & Methods**

**POLS 505**

**Spring 2021**

## **SYLLABUS**

Instructor: Chris Mooney

Class time: Thursdays, 4:00-6:30pm

Classroom: Online synchronous via Zoom

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Office hours: Thursdays 1-3pm, and by appointment

### **Course Description**

Graduate school consists of two basic tasks—learning the literature and learning how to conduct research. This course focuses on the latter task.

This semester, we continue your research training in earnest by surveying various aspects of the conduct of scholarly research, with a focus on political and policy questions. We will explore how a researcher conceives of important questions, develops potential answers, defines relevant concepts, and collects and compares empirical data to address these questions validly and reliably. Understanding these components of the research process will lay the foundation for both conducting and understanding political science scholarship. The issues we deal with this semester will be among those with which you deal in all the other class you take in graduate school, especially your political science graduate seminars. Just as important, this course raises questions with which you will grapple throughout your professional career, both in conducting and consuming research.

This a broad survey course covers a wide range of topics, almost any one of which could be (and are) the focus of an entire course. We will work through the basic logic of each topic and look at some examples of techniques that are particularly useful to political scientists. While this course serves only as a basic introduction to these topics, it will allow you to conduct further study of them on your own, as needed.

Note that this is not a statistics class. POLS and UIC have other classes to learn about those important tools. Likewise, you may want to take advanced courses in ethnographic research, measurement, experimental design, etc. in POLS or other departments. It is also important to note that most of the concepts we will explore are generally relevant for either qualitative or quantitative research.

## Course Objectives/Learning Outcomes

1. To understand the major concepts of social scientific research, including theory, causality, validity, and reliability and be able to explain the major debates surrounding each of these.
2. To design research employing valid and reliable analytical techniques to explain political phenomena.
3. To be able to implement the basic steps of the research process and understand why each step is important and how each step can be problematic.
4. Most importantly, to begin to think like a political scientist rather than just someone who has an interest in politics.

## Class Format

Due to COVID, the entire class will be on Zoom. I expect that this will have no hugely negative impact on the course or what you can learn from it. Class will consist of various parts lecture and discussion. Given the nature of the material, we will probably be having significantly more lecture in this class than in any of your graduate seminars. Each class will have somewhat of a different mix, depending on the topic. I will try to mix it up at least a little each session.

## Graded Assignments

Course assignments include a series of five short papers (“intermediate memos”), a major research design paper (see separate handout), and informed participation in class discussions—so make sure you read the assigned works before class each week. Final grades will be determined as follows:

Informed class participation and attendance	10%
Research question memo (with references)	8%
Hypothesis memo	8%
Measurement strategy memo	8%
Sampling memo	8%
Observational plan memo	8%
Final research design paper	50%

A grade of incomplete will only be given under extreme and well-documented conditions, such as long-term hospitalization close to the end of the semester.

## Readings

To get the most out of each class, **YOU MUST COMPLETE YOUR INITIAL RUN THROUGH OF THE ASSIGNED READINGS BEFORE YOU COME TO CLASS**. This is very important, as it is with all graduate classes. Without doing this, you will have very little idea about what is going on in class. Also, much of this material will/may be new and conceptually difficult for you. So expect to have to read the assigned readings multiple times to understand them well.

In addition, note the following two important points about the readings:

1. Have access to the week's readings at the Zoom class each week, in case you need to refer to them for discussion.
2. \*\*\*If a reading that you have read for a previous week is on the reading list again for a later week, read it carefully again, with an eye toward the topic of that later week. This will happen often. I assign a reading multiple times in order to highlight examples of different issues that we may be dealing with on different weeks. A given reading may serve as an example for multiple issues. Furthermore, I assign some readings more than once so that you get used to re-reading research articles—this is something you should get in the habit of doing.

I have gathered the readings for the course from various sources, but major sections of the following books will be used, and therefore I suggest that you purchase them:

Booth, Wayne C., Gregory G. Colomb, and Joseph M. Williams. 2008. *The Craft of Research*. 3<sup>rd</sup> ed. Chicago: University of Chicago Press.

Johnson, Janet Buttolph, and H.T. Reynolds. 2012. *Political Science Research Methods*. 7<sup>th</sup> ed. Washington, DC: CQ Press.

Kuhn, Thomas. 1996. *The Structure of Scientific Revolutions*. 3<sup>rd</sup> ed. Chicago: University of Chicago Press.

Strunk, William and E. B. White. *The Elements of Style*. Any publisher or edition is OK. Buy this little book used on-line for next to nothing and RE-READ IT EVERY YEAR.

American Political Science Association. 2018. *Style Manual for Political Science*. Washington, DC: ASPA. This is available for free on-line: <https://connect.apsanet.org/stylemanual/> )

Note that there are more recent editions of Booth, Colomb and Williams, and Johnson and Reynolds, but I assign you the penultimate edition so that you can buy much cheaper used copies online. Most of the material in these earlier editions is so close to that in the current editions that this is fine. Most of these issues are evergreen, but textbook companies have to put out new editions to make money. If you do buy a different edition than the ones above, watch out about the page and chapter numbers being assigned, since the content gets shifted around somewhat in the new editions (one way that textbook companies make you think the new edition is different...). Let me know if you have any questions. If you have a choice, get the most recent old edition you can find, as cited above. E.g., on December 14, 2020, I found used copies of Booth, Colomb and Williams, Kuhn, and Strunk and White for a TOTAL of \$4.87 (plus shipping) on Amazon. They had Johnson and Reynolds' 7<sup>th</sup> edition at \$43.86, but that seems very unusual—maybe check another day.

Each week, I will also assign various articles and chapters that are not from these books. These are posted on the course Blackboard site under the “Weekly Content” link.

\*\*\*In addition to the assigned readings for the course, you should also plan to read 4-6 political science articles per week on the subject of your research design paper. You will need this substantive background in order to write the paper for the class. It is fine if some of this reading arises out of your work in another class.

### **Running Example: The Impacts of Legislative Term Limits**

We will use the study of the impact of term limits as a running example of a line of political science research throughout the semester, reading several articles/chapters on the subject multiple times and discussing them in relation to the various topics we cover. Even if you have no interest in term limits (which has been a very important institutional reform in the US and other countries recently), using this running example will help us avoid getting sidetracked by substantive issues as we focus on research design. You can read about whatever political science question that you are interested in for your own project for this class.

### **General Course Policies**

Here are some general policies regarding the running of this class.

#### **Returning Papers**

My general practice is to hand back assignments and papers one week after they are turned in to me. I intend to continue that practice in this class. To facilitate this in our online semester, submit all assignments as Word docs, if possible.

#### **Social Justice Statement**

UIC is committed to social justice. I heartily share this commitment and expect to maintain a positive learning environment based upon open communication and mutual respect. In particular, we may be engaging in some controversial material from time to time, so we all need to be professional—critique ideas, not people. Any suggestions as to how to enhance such an environment will be appreciated.

#### **Accommodating People with Disabilities**

UIC and I are committed to maintaining a barrier-free environment so that individuals with disabilities can fully access programs, courses, services, and activities at UIC. If you have a disability that requires accommodation, you should contact the Disability Resource Center (DRC) who will provide instructions for me. Please do this as early in the semester as possible for maximum accommodation. Contact DRC at (312) 413-2183 (voice) or (312) 413- 0123 (TDD) for further information.

#### **Academic Integrity**

UIC and I are also to truth and accuracy. Integrity and intellectual honesty in scholarship and scientific investigation are, therefore, of paramount importance. These standards require intellectual honesty in conducting research, writing up research results, and relations with colleagues and students. UIC has specific definitions of misconduct (such as plagiarism, falsification of data, etc.), procedures used for investigating charges, and the consequences of that conduct. Students are governed by the Student Disciplinary Policy (<http://dos.uic.edu/wp-content/uploads/sites/262/2018/10/DOS-Student-Disciplinary-Policy-2018-2019-FINAL.pdf>). **I strongly encourage you to read pp.11-16 of that policy for more specific information about academic integrity.**

## **Course Schedule**

### **Week 1 (January 14): The Research Enterprise**

#### **READ THIS MATERIAL BEFORE YOU COME TO CLASS ON THE FIRST NIGHT**

Johnson and Reynolds, Chapter 2 and p.74-77.

Booth, Colomb, and Williams, p.3-15 and 31-107.

King, Gary, Robert O. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton, NJ: Princeton University Press, Chapter 1.

American Political Science Association. 2018. *Style Manual for Political Science*

(<https://connect.apsanet.org/stylemanual/> )

Zigerell, L.J. 2011. "Of Publishable Quality: Ideas for Political Science Seminar Papers." *PS: Politics and Political Science* 44(3):629-33.

### **Week 2 (January 21): Philosophy of Science and Searching the Political Science Literature**

Johnson and Reynolds, Chapter 3.

Susser, Bernard. 1992. *Approaches to the Study of Politics*. New York: Macmillan, p.101-117.

Von Mises, Richard. 1992. "Positivism." In *Approaches to the Study of Politics*, ed. Bernard Susser. New York: Macmillan, p.118-133.

Popper, Karl R. 1992. "Science: Conjectures and Refutations." In *Approaches to the Study of Politics*, ed. Bernard Susser. New York: Macmillan, p.134-165.

Kuhn, Thomas. 1970. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press. Chapters 2-4, 6, 10.

Bowser, Jennie Drage, and Gary Moncrief. 2007. "Term Limits in State Legislatures." In *Institutional Change in American Politics: The Case of Term Limits*, eds. Karl T. Kurtz, Bruce Cain, and Richard G. Niemi. Ann Arbor, MI: University of Michigan Press. (PART OF "KURTZ, CAIN, AND NIEMI 2007.PDF.")

### **Week 3 (January 28): Variables, Relationships, and Explanation**

Shadish, William R., Thomas D. Cook, and Donald T. Campbell. 2001. *Experimental and Quasiexperimental Designs for Generalized Causal Inference*. Boston, MA: Houghton-Mifflin, p. 1-12.

Kellstedt, Paul M., and Guy D. Whitten. 2009. *The Fundamentals of Political Science Research*. New York: Cambridge University Press, Chapter 3.

Brewer, William F., Clark A. Chinn, and Ala Samarapungavan. 2000. "Explanation in Scientists and Children." In *Explanation and Cognition*, eds. Frank C. Keil and Robert A. Wilson. Cambridge, MA: MIT Press.

Vakilifathi, Mona. 2019. "Constraining Bureaucrats Today Knowing You'll Be Gone Tomorrow: The Effect of Legislative Term Limits on Statutory Decisions." *Policy Studies Journal* 47(4):978-1001.

### **Week 4 (February 4): Theory and Hypothesis**

**\*\*RESEARCH QUESTION MEMO (WITH REFERENCES) DUE**

Booth, Colomb, and Williams, p.103-170.

Johnson and Reynolds, p.109-15.

- Vakilifathi, Mona. 2019. "Constraining Bureaucrats Today Knowing You'll Be Gone Tomorrow: The Effect of Legislative Term Limits on Statutory Decisions." *Policy Studies Journal* 47(4):978-1001.
- Olson, Michael P., and Jon C. Rogowski. 2020. "Legislative Term Limits and Polarization." *Journal of Politics* 82(2):572-86.
- Jordan, Christian H. and Mark P. Zanna. 1999. "How to Read a Journal Article in Social Psychology." In *Political Psychology: Key Readings*, eds. John T. Jost and Jim Sidanius. New York: Psychology Press.
- Knopf, Jeffrey W. 2006. "Doing a Literature Review." *PS: Political Science & Politics* 39(1):127-32.

### **Week 5 (February 11): Measurement Theory and Error**

- Johnson and Reynolds, Chapter 5, and p.119-24.
- Shadish, William R., Thomas D. Cook, and Donald T. Campbell. 2001. *Experimental and Quasiexperimental Designs for Generalized Causal Inference*. Boston, MA: Houghton-Mifflin, p. 64-82.
- Adcock, Robert, and David Collier. 2001. "Measurement Validity: A Shared Standard for Quantitative and Qualitative Research." *American Political Science Review* 95(3):529-46.
- De Benedetto, Marco Alberto, and Maria De Paola. 2019. "Term Limit Extension and Electoral Participation. Evidence from a Diff-in-Discontinuities Design at the Local Level in Italy." *European Journal of Political Economy* 59(1):196-211.
- Li, Quan, Michael J. Pomante II, and Scot Schraufnagel. 2018. "Cost of Voting in the American States." *Election Law Journal* 17(3):234-47.

### **Week 6 (February 18): Documentary Data Collection**

**\*\*HYPOTHESIS MEMO DUE**

- Johnson and Reynolds, Chapter 9.
- Webb, Eugene J., Donald T. Campbell, Richard D. Schwartz, and Lee Seechrest. 1966. *Unobtrusive Measures: Nonreactive Research in the Social Sciences*. Chicago: Rand-McNally, Chapters 3-4.
- Maier, Mark H., and Todd Easton. 1999. *The Data Game*. 3<sup>rd</sup> ed. Armonk, NY: M.E. Sharpe, Chapter 11.
- Kousser, Thad. 2006. "The Limited Impact of Term Limits: Contingent Effects on the Complexity and Breadth of Laws." *State Politics and Policy Quarterly* 6(4):410-29.
- Vakilifathi, Mona. 2019. "Constraining Bureaucrats Today Knowing You'll Be Gone Tomorrow: The Effect of Legislative Term Limits on Statutory Decisions." *Policy Studies Journal* 47(4):978-1001.
- De Benedetto, Marco Alberto, and Maria De Paola. 2019. "Term Limit Extension and Electoral Participation. Evidence from a Diff-in-Discontinuities Design at the Local Level in Italy." *European Journal of Political Economy* 59(1):196-211.

### **Week 7 (February 25): Observational Data Collection**

- Johnson and Reynolds, Chapter 8.
- Webb, Eugene J., Donald T. Campbell, Richard D. Schwartz, and Lee Seechrest. 1966. *Unobtrusive Measures: Nonreactive Research in the Social Sciences*. Chicago: Rand-McNally, Chapter 5.

- Fenno, Richard. 1978. *Homestyle: House Members in Their Districts*. Boston, MA: Little, Brown, "Appendix: Notes on Method."
- Berman, David R. 2008. "Arizona Legislative Term Limits: More Churning, More Chaos, and a Diminished Institutional Role for Legislators." In *Legislative without Experience: Case Studies in State Legislative Term Limits*, eds. Rick Farmer, Christopher Z. Mooney, Richard J. Powell, and John C. Green. Lanham, MD: Lexington Books.
- Peskin, Alan. 1984. "Odd Man Out: The Participant Observer in an Absolutist Setting." *Sociology of Education* 57(2):254-64.

### **Week 8 (March 4): Communication Data Collection**

- Johnson and Reynolds, Chapter 10.
- Leech, Beth L., et al. 2002. "Symposium: Interview Methods in Political Science." *PS: Political Science & Politics* 35(4):663-88.
- Maestas, Cherie, Grant W. Neeley, and Lilliard E. Richardson, Jr. 2003. "The State of Surveying Legislators: Dilemmas and Suggestions." *State Politics and Policy Quarterly* 3(1):90-108.
- Carey, John M., Richard G. Niemi, Lynda W. Powell, and Gary F. Moncrief. 2006. "The Effects of Term Limits on State Legislatures: A New Survey of the 50 States." *Legislative Studies Quarterly* 31(1):105-134.
- Berman, David R. 2008. "Arizona Legislative Term Limits: More Churning, More Chaos, and a Diminished Institutional Role for Legislators." In *Legislative without Experience: Case Studies in State Legislative Term Limits*, eds. Rick Farmer, Christopher Z. Mooney, Richard J. Powell, and John C. Green. Lanham, MD: Lexington Books.
- Curry, James M. 2017. "In-Depth Qualitative Research and the Study of American Political Institutions." *PS: Political Science & Politics* 50(1):114-20.

### **Week 9 (March 11): Sampling**

**\*\*MEASUREMENT AND DATA-GATHERING STRATEGY MEMO DUE**

- Johnson and Reynolds, Chapter 7 and p. 115-23.
- Shadish, William R., Thomas D. Cook, and Donald T. Campbell. 2001. *Experimental and Quasiexperimental Designs for Generalized Causal Inference*. Boston, MA: Houghton-Mifflin, p. 83-93.
- Kurtz, Karl T., Bruce Cain, and Richard G. Niemi. 2007. "Introduction." In *Institutional Change in American Politics: The Case of Term Limits*, eds. Karl T. Kurtz, Bruce Cain, and Richard G. Niemi. Ann Arbor, MI: University of Michigan Press. (PART OF "KURTZ, CAIN, AND NIEMI 2007.PDF.")
- Kousser, Thad. 2006. "The Limited Impact of Term Limits: Contingent Effects on the Complexity and Breadth of Laws." *State Politics and Policy Quarterly* 6(3):410-429.
- De Benedetto, Marco Alberto, and Maria De Paola. 2019. "Term Limit Extension and Electoral Participation. Evidence from a Diff-in-Discontinuities Design at the Local Level in Italy." *European Journal of Political Economy* 59(1):196-211.

### **Week 10 (March 18): The Validity of Causal Inference**

- Shadish, William R., Thomas D. Cook, and Donald T. Campbell. 2001. *Experimental and Quasiexperimental Designs for Generalized Causal Inference*. Boston, MA: Houghton-Mifflin, Chapter 2.

- Morgan, Stephen L., and Christopher Winship. 2007. *Counterfactuals and Causal Inferences: Methods and Principals for Social Research*. New York: Cambridge University Press, Chapter 1.
- Olson, Michael P., and Jon C. Rogowski. 2020. "Legislative Term Limits and Polarization." *Journal of Politics* 82(2):572-86.
- Kousser, Thad. 2006. "The Limited Impact of Term Limits: Contingent Effects on the Complexity and Breadth of Laws." *State Politics and Policy Quarterly* 6(3):410-429.
- Vakilifathi, Mona. 2019. "Constraining Bureaucrats Today Knowing You'll Be Gone Tomorrow: The Effect of Legislative Term Limits on Statutory Decisions." *Policy Studies Journal* 47(4):978-1001.
- Berman, David R. 2008. "Arizona Legislative Term Limits: More Churning, More Chaos, and a Diminished Institutional Role for Legislators." In *Legislative without Experience: Case Studies in State Legislative Term Limits*, eds. Rick Farmer, Christopher Z. Mooney, Richard J. Powell, and John C. Green. Lanham, MD: Lexington Books.

### **March 25: NO CLASS—SPRING BREAK**

#### **Week 11 (April 1): Observational Plans- Introduction, Experimental and Panel Designs**

**\*\*SAMPLING MEMO DUE**

Johnson and Reynolds, pp.165-77.

Angrist, Joshua D., and Jorn-Steffen Pischke. 2009. *Mostly Harmless Econometrics*. Princeton, NJ: Princeton University Press, Chapters 1 and 2.

Dunning, Thad. 2008. "Improving Causal Inference: Strengths and Limitations of Natural Experiments." *Political Research Quarterly* 61(2):282-93.

Olson, Michael P., and Jon C. Rogowski. 2020. "Legislative Term Limits and Polarization." *Journal of Politics* 82(2):572-86.

Butler, Daniel M., and David E. Brookman. 2011. "Do Politicians Racially Discriminate against Constituents? A Field Experiment on State Legislators." *American Journal of Political Science* 55(3):463-77.

Zelizer, Adam. 2019. "Is Position-Taking Contagious? Evidence of Cue-Taking from Two Field Experiments in a State Legislature." *American Political Science Review* 113(2):340-52.

#### **Week 12 (April 8): Observational Plans- Times Series and Non-Experimental Designs**

Johnson and Reynolds, pp.178-181.

Smith, Gordon C. S., and Jill P. Pell. 2009. "Parachute Use to Prevent Death and Major Trauma Related to Gravitational Challenge: Systematic Review of Randomised Controlled Trials." *British Medical Journal* 327(December):20-27.

Kousser, Thad. 2006. "The Limited Impact of Term Limits: Contingent Effects on the Complexity and Breadth of Laws." *State Politics and Policy Quarterly* 6(3):410-429.

Vakilifathi, Mona. 2019. "Constraining Bureaucrats Today Knowing You'll Be Gone Tomorrow: The Effect of Legislative Term Limits on Statutory Decisions." *Policy Studies Journal* 47(4):978-1001.



- De Benedetto, Marco Alberto, and Maria De Paola. 2019. "Term Limit Extension and Electoral Participation. Evidence from a Diff-in-Discontinuities Design at the Local Level in Italy." *European Journal of Political Economy* 59(1):196-211.
- Emmons, Cassandra V., and Andrew M. Moravcsik. 2020. "Graduate Qualitative Methods Training in Political Science: A Disciplinary Crisis." *PS: Political Science & Politics* 53(2):258-64.
- Berman, David R. 2008. "Arizona Legislative Term Limits: More Churning, More Chaos, and a Diminished Institutional Role for Legislators." In *Legislative without Experience: Case Studies in State Legislative Term Limits*, eds. Rick Farmer, Christopher Z. Mooney, Richard J. Powell, and John C. Green. Lanham, MD: Lexington Books.

### **Week 13 (April 15): Writing Up Your Research**

**\*\*OBSERVATIONAL PLAN MEMO DUE**

- Booth, Colomb, and Williams, p.16-28 and 171-270.
- King, Gary. 2006. "Publication, Publication." *PS: Political Science & Politics* 39(1):119-125.
- Strunk, William and E. B. White. *The Elements of Style*. Any publisher or edition is OK. Buy this little book used on-line for next to nothing and RE-READ IT EVERY YEAR.
- Boyd, Michelle. 2012. "How We Write: Understanding Scholarly Writing through Metaphor." *PS: Political Science & Politics* 45(4):736-41.
- Vakilifathi, Mona. 2019. "Constraining Bureaucrats Today Knowing You'll Be Gone Tomorrow: The Effect of Legislative Term Limits on Statutory Decisions." *Policy Studies Journal* 47(4):978-1001.
- Rich, Timothy S. 2013. "Publishing as a Graduate Student: A Quick and (Hopefully) Painless Guide to Establishing Yourself as a Scholar." *PS: Political Science & Politics* 46(2):376-79.
- Pole, Antoinette, and Sangeeta Parashar. 2020. "Am I Pretty? 10 Tips to Designing Visually Appealing Slideware Presentations." *PS: Political Science & Politics* 53(4):757-62.

### **Week 14 (April 22): The Publication Process and Research Ethics**

- UIC "Human Subjects & IRBs" web site: <http://research.uic.edu/compliance/irb> (check out the links, too).
- Fujii, Lee Ann. 2012. "Research Ethics 101: Dilemmas and Responsibilities." *PS: Political Science & Politics* 45(3):717-23.
- Key, Ellen M., and Jane Lawrence Sumner. 2019. "You Research Like a Girl: Gendered Research Agendas and Their Implications." *PS: Political Science & Politics* 52(3):663-68.
- Monogan, James E., III. 2015. "Research Preregistration in Political Science: The Case, Counterarguments, and a Response to Critiques." *PS: Political Science & Politics* 48(3):425-29.
- Alvarez, R. Michael, Ellen M. Key, and Lucas Nunez. 2018. "Research Replication: Practical Considerations." *PS: Political Science & Politics* 51(2):422-26.
- Gray, Phillip W. 2019. "Diagnosis versus Ideological Diversity." *PS: Political Science & Politics* 52(4):728-31.
- Verhulst, Brad, and Peter K. Hatemi. 2020. "Gray's False Accusations Necessitate Establishing Standards of Evidence for Making Claims of Misconduct." *PS: Political Science & Politics* 53(4):746-50.

Piper, Kelsey. 2020. "Science Has Been in a "Replication Crisis" for a decade. Have We Learned Anything?" *Vox* (October 14).

**Week 15 (April 29): Wrap Up**

**Readings: TBA**

**May 6: Final research design paper due in my email inbox ([cmoon1@uic.edu](mailto:cmoon1@uic.edu)) by 6pm.**

**-Note that this is the THURSDAY of exam week.**