

POL 280: Research Methods
Fall 2020 (Syllabus Version: 8/31/2020)
Online: T R 12:30p-1:45p

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Schedule an Office Hours Appointment: <https://appoint.ly/s/esareyje/office-hours>

COURSE OBJECTIVES AND LEARNING OUTCOMES

This course introduces students to basic ideas in scientific epistemology, social science research design, statistical analysis, and the application of all these ideas to substantive questions in political science.

Students will be able to:

1. understand basic empirical (qualitative and quantitative) approaches to the scientific study of the social world to substantive topics in political science;
2. interpret statistical analysis of quantitative political data to answer about substantive questions in political science; and
3. recognize and understand threats to inference based on empirical data in political science, including the weaknesses of research designs and statistical analyses.

The course design is the product of combined effort by many scholars at Emory, Rice, and Wake Forest over many years to refine the teaching of research methods to undergraduate political scientists. These scholars include Sara Dahill-Brown, Eric Reinhardt, Betina Wilkinson, Rick Wilson, and Chris Zorn.

GRADING POLICIES AND ASSIGNMENT DETAILS

Grade Components:

- Discussion Responses 25%
- Midterm Exam: 30%
- Small Group Discussion: 15%
- Final Exam: 30%

Grading Scale:

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|---------------|---------------|---------------|
| 100%-93%: A | 82.9%-80%: B- | 69.9%-67%: D+ |
| 92.9%-90%: A- | 79.9%-77%: C+ | 66.9%-63%: D |
| 89.9%-87%: B+ | 76.9%-73%: C | 62.9%-60%: D- |
| 86.9%-83%: B | 72.9%-70%: C- | >59.5%: F |

Attendance: This online-only class will meet on Zoom from 12:30p-1:15p. The class can be joined from this link: <https://zoom.us/j/96721131731>. A password is required to join; that password will be distributed on Canvas. Class meetings will discuss the readings and discussion questions, including problems involving data analysis with RStudio, during these meetings. Note that class meetings are 45 minutes long instead of the normal 75 minutes; this is because I expect students to spend roughly 30 minutes (on their own time) engaged in small group discussions and working collaboratively on analyses using RStudio.

Small Group Discussion: Everyone in class will be randomly assigned to a small group. Each group must meet and discuss the discussion questions (including RStudio analysis problems, where applicable). The group must also come up with a new discussion question for the class. This discussion must be recorded (e.g., on Zoom or Google Meet) and uploaded to Canvas 90 minutes before class begins. Grading for this assignment is 100% or 0% based on attendance and active participation in the discussion (as shown in the video). The lowest six grades in the category of Small Group Discussion will be dropped (e.g., if you miss a small group discussion and receive a 0%). The rest will be averaged to form this portion of the grade.

Discussion Responses: Discussion questions will be distributed in advance of each day's readings. For each class meeting, there will be a corresponding Canvas assignment. This assignment will randomly select one discussion question, and students will need to write a short essay response to the discussion question within twelve minutes (the response is time-limited). In some cases, these questions may involve data analysis in RStudio. The discussion response is due at 12:30p on the day of class. (The questions will form the basis for that day's in-class discussion). You are permitted to use your notes to assist you with these response questions, and I recommend that you use the small group discussion to workshop your ideas for this response. The lowest ten grades in the category of discussion responses will be dropped; the rest will be averaged to form this portion of the grade.

Quizzes: A diagnostic quiz will be assigned at the beginning of the semester, and a review quiz will be assigned at the end. These instruments are designed to help me understand what you learned during class and to help you prepare for the final exam. **No class materials, references, other students, or anyone except Dr. Esarey may be consulted during a quiz.** These quizzes will be counted as discussion responses for the purpose of grading.

Exams: There will be two exams in this class, a midterm and a final. All exams are cumulative but will focus on material learned since the last exam. Exams will be take home; you will be bound by the honor system when taking the exam. You may take as much time as you like to complete the exam, but you must submit the exam before the due date and time. (The exams are designed to be completed in about 90 minutes.)

Class notes and textbooks may be consulted during an exam, but no other materials may be used. No one except Dr. Esarey may be consulted during an exam, including electronic communications over the internet.

COURSE POLICIES

Illness: *Do not come to class while experiencing any symptoms of illness.* Small group discussions and discussion responses may be completed at home (on Canvas). **If you develop a severe illness that you believe will interfere with your ability to complete more than one or two discussion responses/small group discussions, please contact Dr. Esarey immediately.**

Safety: Each of us shares responsibility for the health and safety of all in a learning space. Maintaining a consistent six feet of distance; wearing a face covering; limiting our gathering sizes; and isolating or quarantining when ill or exposed to someone with the virus are Wake Forest University directives and policies we all must follow. Students are encouraged to visit [Our Way Forward](#) to stay informed about the latest guidance and review the [Public Health Emergency Addendum to the Student Code of Conduct](#).

Privacy: Online class sessions will be recorded and made available on Canvas. These recordings may only be shared with participants in the course (students, faculty, and teaching assistants). In order to safeguard the privacy of our students and enable free course discussion, students may not create or share their own recordings of class without the written permission of Dr. Esarey.

Late Work: Assignments are due at the date and time I specify for the assignment. Late exams will be marked off at 5 percentage points for the first hour late, and an additional 10 percentage points for every subsequent hour late. Discussion questions and small group discussions cannot be submitted late or made up.

Important note: Students are responsible for submitting working, uncorrupted files for all assignments. If a file is corrupted and needs to be re-sent, and re-sending happens after the assignment deadline, a late penalty will be assessed.

Discussion responses and small group discussions may not be taken late or rescheduled; responses that are not submitted will be included in the grades that are dropped (up to the maximum number of drops). **If you develop a severe illness that you believe will interfere with your ability to complete more than one or two**

discussion responses or small group discussions, please contact Dr. Esarey immediately.

Failing to take the exam during the scheduled time window will result in no credit for the exam. Exams may be re-scheduled only under the following three circumstances:

- (1) a death in the immediate family (parent, spouse, sibling, or child) within two weeks before the exam due date;
- (2) an unforeseeable and significant illness or medical emergency affecting you, your spouse, or your child; or
- (3) participation in a Wake Forest-sponsored academic or sporting event.

In the event of (1) or (3), you must give me **at least 24 hours advance notice and preferably more** (via e-mail or a phone call) that you will miss the exam, or it may not be made up. I may require supporting documentation. All penalty waivers are at the discretion of the instructor. Under these circumstances, I will extend your due date and/or schedule you a make-up exam time. **Important note: conflicts with a work schedule, non-academic trip, or vacation are not a valid reason to miss an exam or any other assignment** and cannot be the basis for a penalty waiver.

Honor Code/Academic Misconduct: All forms of academic misconduct will be handled according to the Wake Forest University Honor Code. Details on the Honor Code are available at <https://studentconduct.wfu.edu/honor-system-wfu/>.

If you ever have any questions about what you should do to stay within the honor code on a particular assignment, **contact me with your question and I can assist you**. I cannot guarantee a timely response unless you contact me at least 24 hours in advance of the time the assignment is due.

Students with Disabilities: If you have a disability and require accommodation in this class, please contact me as soon as possible (within the first two weeks of class) to discuss these accommodations. You will also need to contact the Disability Services Office (telephone extension: 5929) in 118 Reynolda Hall. More information is available at <https://lac.wfu.edu/disability-services/>.

Syllabus Change Policy: All policies of this syllabus may be changed by Prof. Esarey with advance notice.

COURSE MATERIALS

Required Texts:

- Wheelan, Charles. 2013. *Naked Statistics*. New York: W.W. Norton and Co. This book provides a high-level and easier-to-understand introduction to statistical concepts.
- Kellstedt and Whitten. 2018. *The Fundamentals of Political Science Research, Third Edition*. Cambridge University Press. This book provides a more in-depth coverage of concepts in research design and statistical analysis.
- Quan Li. 2018. *Using R for Data Analysis in the Social Sciences*. Oxford University Press. This book covers the use of R for applied data analysis.

Other readings are available on the Canvas website.

Software: This course will teach statistical analysis using R. We will be using a server that is specially configured for R. You will need your computer (or a tablet) and a browser. All students must have a valid Wake Forest e-mail address and login (and access to the Canvas website) to participate in this course.

In order to use R you will go to: <https://rstudio.justinesarey.com/> In order to use this protected server you will need a user name and password (which will be supplied).

In addition, R is free and available for Windows and Macintosh from <http://cran.r-project.org/>. RStudio is also free and available for Windows and Macintosh at <http://www.rstudio.com>.

COURSE OUTLINE AND ASSIGNED READINGS

| Date | Topic | Readings |
|------|---|--|
| 8/27 | Introduction and RStudio Setup [7 pages of reading] | 1. Li, Ch. 1 pp. 1-7 |
| 8/28 | Diagnostic Quiz on Canvas (take at home) | |
| 9/1 | Quick Start: How to read a social scientific journal article [22 pages of reading] | 1. Raff, "How to read an understand a scientific paper: a guide for non-scientists." URL: https://bit.ly/2uHBJb9 2. Orr, Lilla V. and Gregory A. Huber. 2019. "The Policy Basis of Measured Partisan Animosity in the United States." <i>American Journal of Political Science</i> (forthcoming). URL: https://doi.org/10.1111/ajps.12498 |

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| 9/3 | Quick Start: How to read a linear regression results table in a quantitative article [23 pages of reading] | <ol style="list-style-type: none"> 1. Long, "10 Things to Know About Reading a Regression Table." URL: https://egap.org/resource/10-things-to-know-about-reading-a-regression-table/ 2. Mazumder, Soumyajit. 2018. "The Persistent Effect of U.S. Civil Rights Protests on Political Attitudes." <i>American Journal of Political Science</i> 62(4): 922-935. URL: https://doi.org/10.1111/ajps.12384 |
| 9/8 | What is science? Is political science a science? [26 pages of reading] | <ol style="list-style-type: none"> 1. Kellstedt and Whitten, Ch. 1. 2. Karl Popper, "Science as Falsification." URL: https://bit.ly/35I6E3W |
| 9/10 | Creating research questions, theories, and hypotheses [26 pages of reading] | <ol style="list-style-type: none"> 1. Kellstedt and Whitten, Ch. 2 |
| 9/15 | Transparency and replicability [10 pages of reading] | <ol style="list-style-type: none"> 1. Open Science Collaboration. 2015. "Estimating the Reproducibility of Psychological Science." <i>Science</i> 349(6251). URL: https://bit.ly/3a0NdGT |
| 9/17 | Causal Inference [16 pages of reading] | <ol style="list-style-type: none"> 1. Kellstedt and Whitten, Ch. 3 |
| 9/22 | Experiments [29 pages of reading] | <ol style="list-style-type: none"> 1. Kellstedt and Whitten, Ch. 4 up to and including Section 4.2.3. 2. Lupu and Wallace, "Violence, Non-Violence, and the Effects of International Human Rights Law." <i>American Journal of Political Science</i> 63(2): 411-426. URL: https://doi.org/10.1111/ajps.12416 |
| 9/24 | Field and Quasi-Experiments [32 pages of reading] | <ol style="list-style-type: none"> 1. Lyall (2009). "Does Indiscriminate Violence Incite Insurgent Attacks?" <i>Journal of Conflict Resolution</i> 53(3): 331-362. URL: https://www.jstor.org/stable/20684590 |
| 9/29 | Cross-Sectional, Time-Series, and TSCS Observational Designs [38 pages of reading] | <ol style="list-style-type: none"> 1. Kellstedt and Whitten, Ch. 4 from Section 4.3 to the end 2. Esarey and Chirillo (2013). "'Fairer sex' or purity myth? Corruption, gender, and institutional context." <i>Politics and Gender</i> 9(4): 361-389. URL: https://doi.org/10.1017/S1743923X13000378 |
| 10/1 | Case Studies: Mill's Methods [24 pages of reading] | <ol style="list-style-type: none"> 1. Bram van Heuveln. 2000. "A Preferred Treatment of Mill's Methods." <i>Informal Logic</i> 20(1): 19-42. URL: https://doi.org/10.22329/il.v20i1.2252 |
| 10/6 | Case Studies: Application [21 pages of reading] | <ol style="list-style-type: none"> 1. Reyes-Housholder, Catherine. 2019. "A Constituency Theory for the Conditional Impact of Female Presidents." <i>Comparative Politics</i> 51(3): 429-449. URL: https://bit.ly/2TfZC3N |

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| 10/8 | Process Tracing [23 pages of reading] | <ol style="list-style-type: none"> 1. Collier (2011). "Understanding Process Tracing." <i>PS: Political Science and Politics</i> 44(4): 823-830. URL: https://goo.gl/ByHNZa 2. "Teaching Process Tracing: Examples and Exercises." Read "The Adventure of Silver Blaze" at the end of this article (available on Canvas). |
| 10/9 | Midterm Exam Distributed (Take home) | |
| 10/13 | Focus Groups [28 pages of reading] | <ol style="list-style-type: none"> 1. Stewart et al. (2008). "Group Depth Interviews: Focus Group Research." Chapter 18 in <i>The Sage Handbook of Applied Social Research Methods</i> (available on Canvas). |
| 10/15 | Ethics and Social Science [45 pages of reading] | <ol style="list-style-type: none"> 1. Yale IRB Training, "Introduction/Ethical Overview" (available on Canvas): "Introduction", "Respect for Persons", "Beneficence", "Justice", and "The importance of conducting research ethically." 2. Steven Levitt and Sudhir Venkatesh, "An Economic Analysis of a Drug-Selling Gang's Finances." <i>Quarterly Journal of Economics</i> 115 (2000): 755-789. URL: http://goo.gl/lZrv9F. |
| 10/16 | Midterm Exam Due | |
| 10/20 | Measurement, Reliability, and Validity [34 pages of reading] | <ol style="list-style-type: none"> 1. Kellstedt and Whitten, Ch. 5 |
| 10/22 | Descriptive Statistics I [30 pages of reading] | <ol style="list-style-type: none"> 1. Li, Ch. 1, pp. 7-36 |
| 10/27 | Descriptive Statistics II [21 pages of reading] | <ol style="list-style-type: none"> 1. Wheelan, Ch. 2 including appendix |
| 10/29 | Central Limit Theorem [16 pages of reading] | <ol style="list-style-type: none"> 1. Wheelan, Ch. 8 |
| 11/3 | Data Management [36 pages of reading] | <ol style="list-style-type: none"> 1. Li, Ch. 2, pp. 43-78 |
| 11/5 | Statistical Inference I [39 pages of reading] | <ol style="list-style-type: none"> 1. Li, Chapter 3, pp. 95-133 |

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| 11/10 | Statistical Inference II [26 pages of reading] | 1. Wheelan, Ch. 9, pp. 143-168 |
| 11/12 | Correlation and Covariance [22 pages of reading] | 1. Li, Ch. 4, pp. 143-164 |
| 11/17 | Regression I [30 pages of reading] | 1. Li, Ch. 5, pp. 170-199 |
| 11/19 | Regression II [27 pages of reading] | 1. Wheelan, Ch. 11, pp. 185-211 |
| 11/24 | Potential Problems in Regression Analysis [13 pages of reading] | 1. Wheelan, Ch. 12, pp. 212-224 |
| 11/26 | No Class: Thanksgiving Break | |
| 12/1 | Constructing a Literature Review [12 pages of reading] | 2. Miller (2017). "How to do a Literature Review." URL: https://www.dropbox.com/s/q6j5zfg5ctbbynd/svm-literature-review.pdf?dl=0 Knopf (2006). "Doing a Literature Review." <i>PS: Political Science and Politics</i> 39(1): pp. 127-132. URL: https://www.jstor.org/stable/20451692 |
| 12/3 | Review and Clean-up | |
| 12/4 | Review Quiz Due on Canvas | |