

**PS0700**  
**RESEARCH METHODS IN POLITICAL SCIENCE**

Summer 2021  
Tuesday & Thursday 8:30-11:45 am

PhD candidate  
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Office Hours (by appointment):  
Mon & Wed 9:30-11:30 am

**Course Description**

This course provides an introduction to the methodology of political science research. The first part of this course serves the logic of social scientific inquiry and the basics of research design. Next, the course introduces students to the quantitative and qualitative methods that are commonly used by political scientists to investigate important questions about the political world. The main goals of this course are (1) to familiarize quantitative and qualitative research, with the ability to see the strengths and flaws of social scientific studies in academic journals and books, newspapers, web sites and other outlets; and (2) to give students the skills necessary to begin conducting original political science research studies of their own. Through this course, students will develop a critical understanding of issues related to scientific inquiry, measurement, causal inference, experimental, quasi-experimental and observational research, formal modeling, and sampling and survey research. Also, students will learn fundamental concepts in descriptive and inferential statistical reasoning, and data analytic techniques such as t-test, crosstabulation, and regression analysis, and will develop the skills to apply these methods using the R statistical package.

**COVID-19**

This summer semester is happening under unusual circumstances. I am committed to making sure that everyone wishes to take the course can do so in a way that allows everyone to feel safe and comfortable while maximizing learning opportunities. If you have any concerns about your ability to participate in the class (e.g. time zone, home situation, etc.), please email me so we can find a way for you to succeed.

Some specific COVID-guidance is outlined below:

- Lectures: I believe there are real benefits to attending lecture either in person or synchronously via Zoom as that allows us to collaboratively work through examples and problems. However, all lectures will be recorded for students who cannot do so and all slides/notes will be posted on Canvas. These recordings are not to be distributed to anyone not enrolled in the course. Please contact me if you have concerns regarding these recordings.
- Participation: Active engagement in discussions on Canvas can be done asynchronously (at any time) and thus allow students to participate fully regardless of time-zone.
- Office Hours: I have tried to schedule the Office Hours to work for many time zones. If your situation makes this challenging, please reach out to me directly.

Failure to comply with these requirements will result in you not being permitted to attend class in person and could result in a Student Conduct violation. For the most up-to-date information and guidance, please visit [coronavirus.pitt.edu](http://coronavirus.pitt.edu) and check your Pitt email for updates before each class.

The situation may change as the semester proceeds, so please watch for any announcements.

## Requirements and Evaluation

This is a graded class based on the followings:

- Assignments 50%
- Mid-term Exam 20%
- Final Exam 20%
- Class Participation 10%

The following policies apply to calculating grades. **Students who have an A (93% or above) average on all five assignments do NOT have to take the FINAL EXAM.** I will drop your two lowest assignments grades in calculation of the final grade; this only applies if you do qualify for the final exam exemption. The course will use the following grade boundaries:

A+ 97-100	B+ 87-89	C+ 77-79	D+ 67-69	F 0-60
A 93-97	B 83-87	C 73-77	D 63-67	
A- 90-93	B- 80-83	C- 70-73	D- 60-63	

1. **Assignments (50%):** Assignments aim to test how much students are aware of basic concepts that they have learned during the lectures of the week. They will consist of three parts: (1) basic concepts, (2) application with news articles, and (3) R codes. Each of the assignments will be given on every Thursday except for the last week, and it is due by every Tuesday 8:30 am. You will be allowed to down- and upload the assignments through Canvas. All the assignments should be submitted in the R markdown format. You will learn how to construct and edit the R markdown document in the very first week of the course.
2. **Mid-term Exam (20%):** The mid-term exam will be “take home” (similar to the assignment). It will be checked out on Canvas, completed within a set amount of time, and then uploaded. It will cover all the material covered in the first half of the course.
3. **Final Exam (20%):** Basic structure of the final exam will be similar to the mid-term exam. It will be checked out on Canvas, completed within a set amount of time, and then uploaded. It will cover all the material covered in the semester. Unlike the mid-term exam, you will have some questions that require you to use R codes. So, the document should be created by a R-markdown file.
4. **Participation (10%):** The class participation portion of the grade can be satisfied in one or more of the following ways:
  - Attending the lectures
  - Asking and answering questions in class
  - Attending office hours
  - Participation in discussion section
  - Contributing to class discussion through Canvas

I strongly recommend that you make every effort to attend the lectures. Lectures provide the core ideas that we will explore in the class, and they are the source of many of the questions on the exams as well. Under the current pandemic circumstance, you might be allowed to attend the lectures asynchronously. Every lecture will be uploaded in 24 hours after the synchronous lectures to the course’s cloud. However, when you decide to take the lectures asynchronously, you need to inform the instructor at least 8 hours before the synchronous lecture begins. Being absent in the synchronous lecture without any notice would cost your participation grade.

## **Activities and Materials**

### **1. Course Structure**

Tuesday and Thursday classes will mix lecture and some coding exercises. The first half of each session will focus on the core concepts and theories of research methods. In the second half, students will practice R codes that are useful for the weekly assignments. R is increasingly popular in the social sciences and it allows you to do original research for your papers and theses in advanced coursework. Further, knowing how to manipulate and analyze data is a valuable skill outside of academia.

### **2. Course Website**

The course website will be hosted on Canvas. Canvas will be used to post all course notes, as well as code demonstrations, sample data, and assignments.

### **3. Computer Requirements and Software**

While there are a multitude of programming languages used in computational social science, our main programming language for the purpose of this course will be the R programming language. In the first week of the semester, you should install the following software on your computer:

- R and RStudio (latest versions)

This requires a computer that can handle all this software. Almost any Mac will do the job. Most Windows machines are fine too if they have enough space and memory.

### **4. Office Hours**

Office hours will be from 9:30 to 11:30 on Monday and Wednesday. You can sign up for appointments via email. Your meeting time will be limited to 30 minutes if there is any other student joining the office hour after yours. I can also be contacted by email to set up individual appointments if necessary.

### **5. Textbook**

- Kellstedt, Paul M. and Guy D. Whitten, *The Fundamentals of Political Science Research*, 3<sup>rd</sup> Edition. Cambridge: Cambridge University Press, 2018.

## **Disability Resources and Services**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Office of Disability Resources and Services, 216 William Pitt Union, (412) 6487890/ (412) 3837355 (FTY), as early as possible in the term. Disability Resources and Services will verify your disability and determine reasonable accommodations for this course.

## **Academic Integrity**

Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity, noted below, will be required to participate in the outlined procedural process as initiated by the instructor. A minimum sanction of a zero score for the quiz, exam or paper will be imposed. For the full Academic Integrity Policy, go to <http://www.as.pitt.edu/fac/policies/academic-integrity>.

## **Email Communication Policy**

Each student is issued a University email address ([username@pitt.edu](mailto:username@pitt.edu)) upon admittance. This email address may be used by the University for official communication with students. Students are expected to read email sent to this account on a regular basis. Failure to read and react to University communications in a timely manner does not absolve the student from knowing and complying with the content of the communications. The University provides an email forwarding service that allows students to read their email via other service providers (e, g., Gmail, Yahoo). Students that choose to forward their email from their [pitt.edu](http://pitt.edu) address to another address do so at their own risk. If email is lost as a result of forwarding, it does not absolve the student from responding to official communications sent to their University email address. To forward email sent to your University account, go to <http://accounts.pitt.edu>, log into your account, click on Edit Forwarding Addresses, and follow the instructions on the page. Be sure to log out of your account when you have finished.

## **Acknowledgements**

*This course is inspired by the previous versions of this course offered by Professor Steve Finkel, Jude Hays, and Max Goplerud.*

## **Course Outline**

### **Weeks 1    The Nuts and Bolts of Political ‘Science’**

#### **May 18: Introduction and Political Science as a “Science”**

- Readings:
- “Just How Relevant is Political Science”, *New York Times*, Oct. 9, 2009.
  - “Is “Social Science” an Oxymoron? Will That Ever Change?” *Scientific American* 4-4-13.
  - “Justice Roberts Said Political Science Is ‘Sociological Gobbledygook.’ Here’s Why He Said It, and Why He’s Mistaken”, *Washington Post*, 10-4-2017.

#### **May 20: Theories, Hypotheses, Variables & Measurement** (Assignment 1 will be distributed)

- Readings:
- Kellstedt and Whitten, chs. 1-2, 5.
  - “Is Everyone a Little Racist?” *New York Times* 8-28-2014.
  - “The Bogus ‘Science’ of Second Hand Smoke”, *Washington Post* 1-30-2007.
  - “The Official U.S. Poverty Rate is Based on a Hopelessly Out-of-Date Metric”, *The Washington Post*, 9-16-2019.

### **Weeks 2    Research Designs in Political Science**

#### **May 25: Causality and Experimental Design** (Assignment 1 due)

- Readings:
- Kellstedt and Whitten, chs. 3
  - “Random Acts: What Happens When You Approach Global Poverty as a Science Experiment”, *Slate*, 3-26-2014.
  - “The Anti-Poverty Experiments”, *Nature* 557, 626-628 (2018)

- “What Would Happen if We Randomly Gave \$1,000 to Poor Families? Now We Know”, *The Washington Post*, 12-3-2019.
- “Messing with Montana: Get-out-the-Vote Experiment Raises Ethics Questions”, *THEWPSA*, 10-25-2014.
- “Facebook’s Unethical Experiment”, *Slate*, 6-28-2014.
- “The Experiments Are Fascinating. But Nobody Can Repeat Them”, *New York Times*, 11-19-2018.

**May 27: Observational Design**  
(Assignment 2 will be distributed)

- Readings:
- Kellstedt and Whitten, ch. 4.
  - “Measuring Ramadan”, *New York Times*, 7-13-2014.
  - “Does Your Education Level Affect Your Health?” *New York Times* 6-4-2019.
  - “Sleep Can be Good for Your Salary”, *The New York Times*, 11-4-2019.
  - “Why Demonstrating Is Good for Kids”, *New York Times*, 3-12-2018
  - “Do ‘Fast and Furious’ Movies Cause a Rise in Speeding?”, *New York Times*, 1-30-2018.
  - Is There a Connection Between Undocumented Immigrants and Crime? *The New York Times*, 5-13-2019.

### **Weeks 3      Sampling and Data Collection Strategies**

**June 1: Sampling and Survey Research**  
(Assignment 2 due)

- Readings
- How Unpopular Is Trump’s Muslim Ban? Depends How You Ask”, *New York Times*, December 15, 2015.
  - What’s the Matter with Polling?”, *New York Times* 6-20-2015.
  - “A 2016 Review: Why Key State Polls Were Wrong About Trump”, *New York Times*, 5-31-2017
  - “Election 2020 Polling Field Guide” *Pew Research Center* 2019.
  - “Illegal Voting Claims, and Why They Don’t Hold Up”, *New York Times*, 1-26-2017

**June 3: Mid-term Exam**  
(Assignment 3 will be distributed)

### **Weeks 4      Basic Statistical Methods**

**June 8: Descriptive Statistics and Statistical Inference**  
(Assignment 3 due)

- Readings:
- Kellstedt and Whitten, chs. 6-8.

**June 10: T-Tests, Cross-Tabulation, Correlation, and Regression**  
(Assignment 4 will be distributed)

- Readings:
- Kellstedt and Whitten, chs. 6-8.

## **Week 5      Formal Research and Big Data**

### **June 15: Formal Models and Rational Choice Theory** (Assignment 4 due)

- Readings:
- “The 10 Cunning Ways Public Radio Stations Convince You to Give Them Money”, *Slate* 3-2-2009.
  - “In Praise of Small Miracles”, *New York Times*, 12-12-2014.
  - “Economic Incentives Don’t Always Do What We Want Them To”, *New York Times*, 10-26-2019.
  - “How Game Theory Explains the Leaks in the Trump White House”, *The New Yorker*, 5-15-2018
  - “Why Politics Is Stuck in the Middle”, *New York Times*, 2-6-2010
  - “Vote for Me! For Second Place, at Least?”, *New York Times*, 6-9-2018

### **June 17: Aggregate Analysis, Content Analysis and “Big Data”** (Assignment 5 will be distributed)

- Readings:
- “95,000 Words, Many of Them Ominous, From Donald Trump’s Tongue”, *New York Times* 12-9-2015.
  - “Blowing Off Class? We Know”, *New York Times*, 12-3-2014.
  - “Making (a Huge Number of) Facebook Users (Very Slightly) Sadder”, *Slate* 6-30-2014.
  - “Eight (No, Nine!) Problems With Big Data”, *New York Times*, 4-6-2014.

## **Weeks 6: Comparative and Qualitative Research**

### **June 22: Comparative and Qualitative Research** (Assignment 5 due)

- Readings:
- “An Irish Mirror”, *New York Times*, 3-7-2010.
  - “Why Was Tunisia the Only Arab Spring Country That Turned Out Well?”, *Slate* 1-28-2015.
  - “How Rural Resentment Helps Explain the Surprising Victory of Donald Trump”, *Washington Post Monkey Cage*, 11-13-2016
  - “What Explains U.S. Mass Shootings? International Comparisons Suggest an Answer”, *New York Times*, 11-7-2017.

### **June 24: Final Exam**