

# Methods of Political Science Research

POSC 230  
Winter 2024  
Hasenstab 105  
MW 8:30 – 9:40 am, F 8:30 - 9:30am

Dr. Ryan Dawkins  
Hasenstab 202  
Email: [rdawkins@carleton.edu](mailto:rdawkins@carleton.edu)  
Drop-in Hours: MW 10-12, T 1-2

*"An infinite number of monkeys with an infinite number of typewriters and an infinite amount of time could eventually write the works of Shakespeare" - Ken Ringle*

## Course Description

The **purpose of this course** is to introduce students to the systemic study of political science from a social science perspective. In this course, you will be introduced to political science as a discipline, including a glimpse of some contemporary philosophical and methodological debates that are occurring within the field. Beginning with exposure to the elements of proper research design, you will also learn how to engage with and produce actual political science research. This learning process will include the development of skills to empirically test hypotheses using both quantitative and qualitative approaches. In particular, you will learn some of the basic statistical tools needed to empirically test theories used to answer basic research questions. In doing so, you will also be given the requisite skills to be critical consumers of statistical information, including the ability to interpret what that information does and **does not** say about the world. This course will also lay the foundation for students who choose to further develop their skills in data analytics, including skills that are highly marketable for careers both inside *AND* outside of the military and academia.

The course will be organized into **two parts**. The *first portion* of the course will introduce political science as a discipline, including the underlying philosophy of social science that dominates the field today, as well as the key elements that go into a good research design. In addition to engagement with the philosophy of social science and the logic of causal inference, this portion of the course will focus on how to formulate a good research question and develop theories from which we can write formal hypotheses. We will then learn how to distill those hypotheses into core concepts that can be measured and tested empirically. The *second* of the course will focus on quantitative reasoning and statistical inference as the primary method by which we test our hypotheses.

## Course Objectives:

- Introduce students to political science as a professional discipline, as well as current debates within the field
- Provide an understanding of political science as a social science, including the underlying assumptions that entails
- Expose students to various theories of inference (and interpretation)
- Develop a basic skills in quantitative reasoning and data analysis using R
- To be able to recognize and navigate between different types of arguments using different types of evidence
- Learn how to execute your own term-long research project

## Course Requirements

### Readings

All of the readings listed in the syllabus should be completed the day they are assigned. You will be able to find them on Sakai.

### Books

There is one required textbook for this course. However, you will be provided it as a pdf.

- Paul M. Kellstedt and Guy D Whitten. 2018. *The Fundamentals of Political Science Research*. 3rd Edition. Cambridge Press.

### Evaluation

Your final grade will be calculated as follows:

1. **Short Paper (10%):** You will be responsible to writing a short, two-page paper on the philosophical underpinnings of social science. The page limit is strict. I will not read past the second page.
2. **Final Research Project (30%):** This course will culminate in each student writing their own quantitative research project using the skills they will learn in this class. The project will be broken up so that elements off the paper will be due throughout the semester. The purpose of this approach is two-fold: 1) so that each student remains on-track, and they are not stuck doing the entire project in the last few days of the semester, and 2) so that the project remains manageable for everyone. Formal project guidelines will be distributed later in the semester.
3. **R Labs/Homeworks (40%):** Throughout the semester, you will be responsible for completing six homework assignments. These assignments can range from out-of-class training, to short papers, to problem sets designed to help you develop and execute research designs. Homework assignments will be due in class, the day they are listed on the course schedule. Instructions for each individual assignment will be provided prior to each homework's due date.
4. **Preparation and Participation (20%):** Unlike classes where course readings are supplemental to other course material, readings in this course *ARE* the course material. As such, it is vitally important that everyone come into class prepared to discuss the day's readings. I often employ the Socratic Method to begin class discussion, which includes students being cold called in class.

### Grading Scale

93 -100	A	77-79	C+
90-92	A-	73-76	C
87-89	B+	70-72	C-
83-86	B	60-69	D
80-82	B-	Below 60	F

### Late Work

Assignments submitted after the deadline will be penalized **10-percentage points** for every day it's late unless cleared with me ahead of time, with the first penalty occurring immediately after the in-class deadline. I do not accept emailed assignments unless previously cleared by me first, and electronic submissions without a corresponding paper copy will not be graded. **You must turn in all assignments to pass this class!**

## **Classroom and University Policies**

### **Plagiarism/Cheating**

Plagiarism and cheating are violations of academic integrity and thus violations of the Carleton Honor Code. For this class, plagiarism will be defined as *submitting a piece of work that in part or whole is not entirely the student's work without attributing those same portions to their correct source.*

### **Information Technology Services - Helpdesk**

The ITS helpdesk is a centralized support center for all students, staff, and faculty on campus. For students, we support their personally-owned devices including a drop-off repair service for software and some minor hardware issues. The helpdesk also supports and maintains 13 public computer labs and their associated printers across campus. To contact the ITS helpdesk, go to:

<https://apps.carleton.edu/campus/its/services/helpdesk/> or you can call, email, or contact the helpdesk directly by phone at 507-222-5999 (x5999 from on campus). The phone is best for time-sensitive requests. You can also email [helpdesk@carleton.edu](mailto:helpdesk@carleton.edu) (any email sent here automatically opens a support ticket) or contact the Web Help Desk: <https://helpdesk.carleton.edu/>.

### **Quantitative Skills & Reasoning**

The Quantitative Resource Center (QRC) offers remote and in-person help for students working with numbers in their non-Math/Stats classes. Chat, drop in, or make an appointment with a trained peer tutor for help with: graphs, charts, and writing with numbers; Excel, R, and statistical analysis; and math up through Pre-Calculus.

### **Accommodations For Students with Disabilities**

Carleton College is committed to providing equitable access to learning opportunities for all students. The Office of Accessibility Resources (Henry House, 107 Union Street) is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations. If you have, or think you may have, a disability (e.g., mental health, attentional, learning, autism spectrum disorders, chronic health, traumatic brain injury and concussions, vision, hearing, mobility, or speech impairments), please contact [OAR@carleton.edu](mailto:OAR@carleton.edu) or call Sam Thayer ('10), Director of the Office of Accessibility Resources (x4464), to arrange a confidential discussion regarding equitable access and reasonable accommodations.

### **Assistive Technologies: Technological Resources for Students**

The Assistive Technologies program brings together academic and technological resources to complement student classroom and computing needs, particularly in support of students with physical or learning disabilities. Accessibility features include text-to-speech (Kurzweil), speech-to-text (Dragon) software, and audio recording Smartpens. If you would like to know more, contact [aztechs@carleton.edu](mailto:aztechs@carleton.edu) or visit [go.carleton.edu/aztech](http://go.carleton.edu/aztech). 18

### **Learning Strategies and Time Management**

Steve Schauz, Academic Skills Coach, is eager to help you develop learning strategies that work in the Carleton context. His goals are to heighten your awareness of your strengths and to offer different ways

you can approach your academic work so you're more efficient and effective. For details and resources: Learning Strategies & Time Management. If you prefer to learn these skills and strategies on your own, visit "Helpful DIY Resources."

### **Library Resources**

Your librarian for this course, and political science more generally, is Sean Leahy. You may also email [reference@carleton.edu](mailto:reference@carleton.edu). Librarians are excellent sources of assistance with your research in this class. Library staff can help you find and evaluate articles, books, websites, statistics, data, government documents, and more. You can make an appointment with a librarian, get help via chat 24/7 from any page on the library's website, email, or call. The library has lots of great study spaces, and we'd love for you to visit! For more information and our hours, visit the Gould Library website at [carleton.edu/library](http://carleton.edu/library).

### **Writing Support**

The Writing Center is a space with peer writing consultants who can work with you during any stage of the writing process (brainstorming to final proofreading). Hours and more information can be found on the writing center website. You can reserve specific times for conferences by using their online appointment system.

### **Term-Long Program for Multilingual Writers**

If English is not your first language and you believe you might benefit from working regularly with a writing consultant this term, email Melanie Cashin, Multilingual Writing Coordinator, at [mcashin@carleton.edu](mailto:mcashin@carleton.edu). She can arrange once- or twice-a-week meetings between you and a specific writing consultant throughout the term.

### **Student Well-Being**

Your health and well-being should always be your foremost priority. At Carleton, we have a wide array of health and wellness resources to support students. It is important to recognize stressors you may be facing, which can be personal, emotional, physical, financial, mental, or academic. Sleep, exercise, and connecting with others can be strategies to help you flourish at Carleton. For more information, check out Student Health and Counseling (SHAC) or the Office of Health Promotion.

### **Title IX**

Carleton is committed to fostering an environment free of sexual misconduct. Please be aware all Carleton faculty and staff members, except for Chaplains and SHAC staff, are "responsible employees." Responsible employees are required to share any information they have regarding incidents of sexual misconduct with the Title IX Coordinator. Carleton's goal is to ensure campus community members are aware of all the options available and have access to the resources they need. If you have questions, please contact Laura Riehle-Merrill, Carleton's Title IX Coordinator, or visit the Sexual Misconduct Prevention and Response website: <https://www.carleton.edu/sexual-misconduct/>.

## **Schedule**

### ***Part I: The Science of Politics***

#### **Week 1: What is Political Science Research?**

- **Wednesday (Jan 3): Course Introduction**
  - Putnam. 2003. "The Public Role of Political Science."

- **Friday (Jan 5): Is Political Science a Science?**
  - Rosenberg. 2016. “The Methodological Divide: Naturalism versus Interpretation.”
  - Rose. 2011. “Positivism and Its Critique”
  - Smith. 2002. “Should We Make Political Science More of a Science or More about Politics?”

## **Week 2: Causal Inference & the Experimental Ideal**

- **Monday (Jan 8): Philosophy of Causal Inference: The Experimental Ideal**
  - Thye. 2007. “Logical and Philosophical Foundations of Experimental Research in Social Sciences.”
  - Kellstedt and Whitten. Chapter 1.
- **Wednesday (Jan 10): The Experimental Ideal in Practice**
  - Posner. 2004. “The Political Salience of Cultural Difference: Why Chewas and Tumbukas Are Allies in Zambia but Adversaries in Malawi.”
  - Gerber, Green and Larimer. 2008. “Social Pressure and Voter Turnout”
  - Erikson and Stoker. 2011. “Caught in the Draft: Effects of Vietnam Draft Lottery on Political Attitudes.”
- **Friday (Jan 12): Introduction to R lab**
  - **Short Paper Due**

## **Week 3: Elements of Research Design I**

- **Monday (Jan 15): What is Research Design?**
  - KKV. 1994. *Designing Social Inquiry*. Chapter 1.
  - Stimson. “Professional Writing in Political Science: A Highly Opinionated Essay.”
  - **R Lab 1 due**
- **Wednesday (Jan 17): From Concepts to Hypotheses**
  - Kellstedt and Whitten. 2018. Chapters 2 & 3
  - Knopf, Jeffrey W. 2006. “Doing a literature review.”
  - Munger, Michael. 2010. “[10 Tips on How to Write Less Badly.](#)”
- **Friday (Jan 19): R Lab 2**
  - **Final Project: Research Question + Motivation Due**

## **Week 4: Elements of Research Design II**

- **Monday (Jan 22) Operationalization of Concepts & Measurement I**
  - Shively. 2018. “Problems of Measurement: Accuracy.”
  - Kellstedt and Whitten. 2018. Chapter 5
  - **R Lab 2 due**
- **Wednesday (Jan 24): Operationalization & Measurement II**
- **Friday (Jan 26): R Lab 3**
  - Kellstedt and Whitten. 2018. Chapter 6

## ***Part II: Quantitative Analysis and Inference***

### Week 5: Descriptive Inference

- Monday (Jan 29): Descriptive Statistics, Cross-tabs, and Controlled Comparisons
  - R Lab 3 due
- Wednesday (Jan 31): Probability Theory & Hypothesis Testing
  - Kellstedt and Whitten. 2018. Chapters 7 & 8
- Friday (Feb 2): R Lab 4
  - Final Project: DV-Centered Literature Review Due

### Week 6: Statistical Inference

- Monday (Feb 5): **\*\*No Class\*\***
- Wednesday (Feb 7): Bivariate Regression I: A Line of Best Fit
  - Kellstedt and Whitten. 2018. Chapter 9
  - R Lab 4 due
- Friday (Feb 9): R Lab 5 – Bivariate Regression

### Week 7: Multiple Regression I

- Monday (Feb 12): The Logic of Multiple Regression
  - Kellstedt and Whitten. 2018. Chapter 10
  - R Lab 5 due
- Wednesday (Feb 14): Regression with Dummy and Categorical Variables
- Friday (Feb 16): R Lab 6 – Multiple Regression
  - Final Project: Theory & Hypotheses Due

### Week 8: Multiple Regression II

- Monday (Feb 19): Regression w/ Conditional Relationships
  - R Lab 6 due
- Wednesday (Feb 21): Regression Diagnostics
  - Kellstedt and Whitten. 2018. Chapter 11.
- Friday (Feb 23): R Lab 7 – Multiple Regression II

### Week 9: Other Methods

- Monday (Feb 26): Logit Regression
  - Kellstedt and Whitten. 2018. Chapter 12
  - R Lab 7 due
- Wednesday (Feb 28): Qualitative vs. Quantitative Logic
  - King, Keohane, and Verba. 1994. *Designing Social Inquiry*, Chapter 1. (Yes, again! It is that important)
  - Mahoney and Goertz. 2006. “A Tale of Two Cultures: Contrasting Quantitative and Qualitative Research”

- **Friday (Mar 1): R Lab 8 – Logit Regression**
  - **Final Project: Research Design and Analysis Due**

#### **Week 10: Class Presentations**

- **Monday (Mar 4): Qualitative Methods**
  - Seawright and Gerring. 2008. “Case Selection Techniques in Case Study Research”
  - George and Bennet. 2005. *Case Studies and Theory Development in the Social Sciences*. Chapter 1
  - Lieberman. 2005. “Nested Analysis as a Mixed-Method Strategy for Comparative Research.”
  - **R Lab 8 due**
- **Wednesday (Mar 6): Class Presentations**
- **Friday (Mar 8): Class Presentations**