

PSC 2101: Scope and Methods of Political Science

Colin Emrich

Summer II 2020

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Office Hours: T 10:00 AM - 12:00 PM

Office: Blackboard Collaborative Ultra

Web: blackboard.gwu.edu

Class Hours: MW 02:20PM - 04:40 PM

Class Room: Blackboard Collaborative Ultra

Course Description

This course provides an overview of research methodology and quantitative analysis in political science. Cutting across the political science curriculum, this class introduces students to social scientific inquiry and focuses on the tools needed to investigate research questions systematically. By doing so, this class increases students' understanding of research that they encounter in other courses as well as in the media. This course exposes students to tools used to infer causation as well as analyze substantive questions using descriptive and inferential statistics. The overarching goal is to move students from being consumers of quantitative research to producers of it.

Learning Objectives

As a result of completing this course, students will be able to:

- explain the limitations of observational data for making causal claims.
- critically read and interpret the quantitative content of literature in political science and other social sciences.
- design their own research projects and execute their own statistical analyses.

Course Materials

There are two required texts that we will draw from throughout the semester, both of which are available at the campus bookstore and online. Recommended texts are provided as well to supplement the primary texts. Additional readings in the Course Calendar will be posted on the course web page on Blackboard.

Required Texts

Kellstedt, P., & Whitten, G. (2018). *The Fundamentals of Political Science Research, Third Edition*. New York, NY: Cambridge University Press. [KW on course calendar]

Wheelan, C. (2013). *Naked Statistics*. Norton. [Wheelan on course calendar]

Supplemental Texts

Agresti, A. (2018). *Statistical Methods for the Social Sciences, 5th edition*. Boston, MA: Pearson.

DeGroot, M. H., & Schervish, M. J. (2012). *Probability and Statistics, 4th Edition*. Pearson Education.

Johnson, J.B., Reynolds, H.T., and Mycoff, J. D. (2020). *Political Science Research Methods, Ninth Edition*. CQ Press.

Pollock III, P. H., & Edwards, B. C. (2019). *The Essentials of Political Analysis, Sixth Edition*. CQ Press.

Expectations

Students are expected to attend online lectures on Blackboard Collaborate Ultra and do all readings prior to class meetings. They are also expected to contribute regularly in class. This means answering questions, participating in discussions, and helping other students. This is the best way to maximize performance.

Students are expected to spend a minimum of 100 minutes of out-of-class work for every 50 minutes of direct instruction. There are 2.5 hours of direct instruction and a minimum of 5 hours of independent learning or 7.5 hours per week.

As a rule, there will be no deadline extensions given in this course. Exceptions will be made only with prior consent for planned events such as sponsored GWU activities, religious observances or under unusual circumstances such as a documented medical emergency. As an alternative to extensions, the lowest quiz score will be dropped from the final grade.

Grades

Learning statistical methods is like learning a new language, and it will take time and dedication to master its vocabulary, grammar, and idioms. Given Summer II's condensed time frame, there will be weekly quizzes to gauge student learning. At the beginning of every second class of the week (i.e., Wednesday), the quiz will cover material from the previous lecture(s) assigned readings and content. Note: These Wednesday quizzes will *not* include the current Wednesday's course material.

Course grades will be based on the following components:

- Practice Quiz (5%)
- Quizzes (4 highest at 17.5% each)
- Final Exam (25%)

The final exam will assess if students have acquired an understanding of research methodology and quantitative methods in political science. The exam will be cumulative, although it will have a heavy focus on content in the second half of the semester. Simple calculators are permitted for all assignments.

Final letter grades for the course will be assigned as follows:

92.5% and above = A	80.0% – 82.49% = B–	67.5% – 69.99% = D+
90.0% – 92.49% = A–	77.5% – 79.99% = C+	62.5% – 67.49% = D
87.5% – 89.99% = B+	72.5% – 77.49% = C	60.0% – 62.49% = D–

82.5% – 87.49% = B

70.0% – 72.49% = C–

59.99 and below = F

University Policies:

University Policy on Observance of Religious Holidays

In accordance with University policy, students should notify faculty during the first week of the semester of their intention to be absent from class on the day(s) of religious observance. For details and policy, see: students.gwu.edu/accommodations-religious-holidays

Academic Integrity Code

Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information. For details and complete code, see: studentconduct.gwu.edu/code-academic-integrity

Safety and Security

In the case of an emergency, if at all possible, the class should shelter in place. If the building that the class is in is affected, follow the evacuation procedures for the building. After evacuation, seek shelter at a predetermined rendezvous location.

Support for Students Outside the Classroom

Disability Support Services (DSS)

Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Rome Hall, Suite 102, to establish eligibility and to coordinate reasonable accommodations. For additional information see: disabilitysupport.gwu.edu/

Mental Health Services 202-994-5300

The University's Mental Health Services offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include: crisis and emergency mental health consultations confidential assessment, counseling services (individual and small group), and referrals. For additional information see: counselingcenter.gwu.edu/

Course Calendar

Week 1: Posing Questions and Constructing Answers

Day 1 (June 29): Introduction and Presenting Data

Readings: Wheelan, Introduction and Chapter 1

Aschwanden, Christie. 2015. "Science Isn't Broken: It's just a hell of a lot harder than we give it credit for." *Fivethirtyeight*.

Elliott, Kennedy. 2017. "39 Studies about Human Perception in 30 Minutes." *Medium*

Healy, Kieran. 2018. *Data Visualization: A Practical Introduction*, Chapter 1 (Skim)

John Rauser, "How humans see data."

Wainer, Howard. 1984. "How to Display Data Badly." *The American Statistician*, 38(2), 137-147. Available on Blackboard.

Day 2 (July 1): Political Science as Science

Readings: KW, Chapters 1 and 2

Anderson, Chris. 2008. "The End of Theory: The Data Deluge Makes the Scientific Method Obsolete."

Assignment: Practice Quiz

Week 2: Research Design - How can we answer research questions?

Day 1 (July 6): Evaluating Causation and Experimental Designs

Readings: KW, Chapter 3, Sections 4.1 - 4.2.4

Butler, D. M. and Broockman, D. E. 2011. "Do Politicians Racially Discriminate Against Constituents? A Field Experiment on State Legislators." *American Journal of Political Science*, 55: 463-477. Available on Blackboard.

Day 2 (July 8): Experimental and Observational Designs

Readings: KW, Sections 4.3 - 4.4

Wheelan, Chapter 13

Dee, Thomas and Brian Jacob. 2010. "Evaluating NCLB." *EducationNext* 10(3): 54-61. Available on Blackboard.

Assignment: Quiz 1

Week 3: Measurement and Data Collection - How do we gather evidence?

Day 1 (July 13): Measurement

Readings: KW, Chapter 5

Wheelan, Chapter 7

Geiser, S., & Studley, W. R. (2002). "UC and the SAT: Predictive validity and differential impact of the SAT I and SAT II at the University of California." *Educational Assessment*, 8(1), 1-26. Available on Blackboard.

Day 2 (July 15): Types of Data and Data Collection

Readings: KW, Chapter 6.1 - 6.2

Chapters 7 - 10, Johnson, J.B., Reynolds, H. T., & Mycoff, J. D. (2020). *Political Science Research Methods*, CQ Press. Available on Blackboard.

Pew Research Center. 2015. "[Coverage Error in Internet Surveys](#)".

Pew Research Center. 2017. "[Are Telephone Polls Understanding Support for Trump?](#)".

Assignment: Quiz 2

Week 4: Data Description - How do we describe evidence?

Day 1 (July 20): Probability and Sampling

Readings: KW, Chapters 7

Wheelan, Chapters 5 and 6

Day 2 (July 22): Descriptive and Inferential Statistics

Readings: KW, Chapter 6.3 - 6.6

Wheelan, Chapters 8, 10

Assignment: Quiz 3

Week 5: Data Analysis - How do we evaluate evidence?

Day 1 (July 27): Hypothesis Testing and Cross-tabulations

Readings: KW, Chapter 8.1 - 8.4.1

Wheelan, Chapter 9

Day 2 (July 29): Bivariate Analysis: Difference-in-Means, Correlations, and Bivariate Regression

Readings: KW, Chapter 8.4.2 - 8.5, Chapter 9

Assignment: Quiz 4

Week 6: Data Analysis Continued.

Day 1 (August 3): Multiple Regression 1

Readings: KW, Chapter 10

Day 2 (August 5): Multiple Regression 2

Readings: KW, Chapter 11

Achen, C. H. (2005). Let's put garbage-can regressions and garbage-can probits where they belong. *Conflict Management and Peace Science*, 22(4), 327-339. Available on Blackboard.

Gelman, A., & Loken, E. (2014). The Statistical Crisis in Science. *The American Scientist*. 106, 460-465. Available on Blackboard.

Assignment: Quiz 5

NOTE: In accordance with university policy, the final exam will be given during the final exam period and not the last week of the semester. For details and complete policy, see: provost.gwu.edu/administration-final-examinations-during-examination-period.