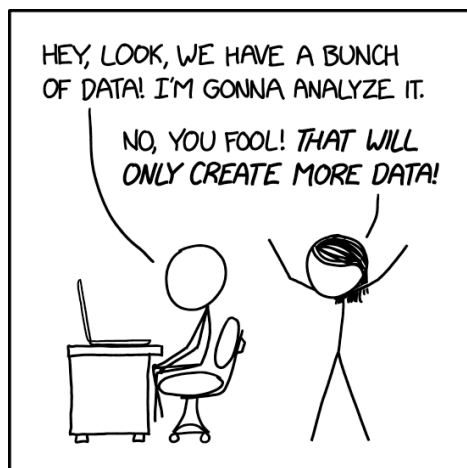


POLS 7012: INTRODUCTION TO POLITICAL METHODOLOGY

Fall 2026

Professor:	Joe Ornstein	Time:	T 2:55 – 5:35pm
Email:	jornstein@uga.edu	Place:	B04 Candler Hall
Website:	https://joeornstein.github.io/pols-7012/		

This course will introduce the foundational mathematical and computational skills you will need to conduct and evaluate political science research. During the first half of the semester, we explore the methods that political scientists use to grapple with several fundamental problems in empirical work: causal inference, measurement, sampling, and prediction. In the second half, we learn essential concepts from probability theory that researchers use to help distinguish patterns from noise in data. Throughout, we will focus on building the practical computational skills you need as a practicing political scientist. By the end of the semester, you will be armed with the necessary tools to tackle the more advanced material that makes up the rest of our graduate methods sequence.



Course Objectives

Upon successful completion of this course, students will be able to:

- Describe the workhorse methods that political scientists use to test their theories with data. See **Readings** and **Exams** for details on how this competency will be assessed.
- Confidently analyze datasets using the R programming language, organizing this work so that it is transparent and reproducible. See **Problem Sets** for details on how this competency will be assessed.

Readings

Each week we will read a selection from our course textbook, *Quantitative Social Science: An Introduction* by Kosuke Imai (abbreviated **QSS** below). At the start of each class period, students will take a short

reading quiz, in which they will be asked to summarize one or more of the key concepts from that week's reading. These quizzes will be graded pass/fail, and there are 12 quizzes in total. To meet expectations, quiz responses must be accurate and clear enough that someone who hadn't read the textbook could understand the response.

As you read each week's assigned section, I strongly encourage you to follow along with the code examples by manually typing them into R and ensuring that everything works as expected. This practice will help you better understand how code works and prepare you for the problem sets.

Problem Sets

After class, I will assign an exercise from QSS as that week's problem set, due before the following week's class. Feel free to consult your classmates with questions about the problem sets, but I expect you to submit your answers individually. Resist the temptation to copy-paste code directly from your classmates or Claudes. You are much more likely to learn if you grapple with the coding yourself. Problem sets will be graded pass/fail, where a passing grade indicates that your solution is correct or contains only minor errors.

Exams & Grading

There will be two written exams: one midterm (scheduled for October 6) and one final exam (scheduled by the university during final exam period, December 8 from 3:30-6:30pm). Both exams will be graded out of 100 points. Exam content will be drawn from the readings and problem sets, and the final exam will be cumulative.

The final letter grade you earn for the semester will be determined based on the number of reading quizzes and problem sets you complete that meet expectations (each worth 5 points) and your performance on the exams (each worth 100 points). Consult the table below for the minimum requirements for each letter grade.

Letter Grade	Points
A	240+
A-	230-239
B+	220-229
B	210-219
B-	200-209
C+	185-199
C	170-184
F	below 170

Office Hours and Email Policy

I will be available for students to drop in and chat every Thursday afternoon from 2:45-3:30pm. My office is Baldwin 304C. If you send me an email, please allow me 24 hours to respond. Like many professors, my inbox is pretty overloaded. Also, I have small children, so it's my policy to not check email after 5pm or on weekends. You should feel free to seek assistance from the senior graduate students staffing the SPIA Methods Helpdesk. You can email them questions at spia-methods-help@uga.edu.

Course Outline

Date	Module	Topic	Reading Quiz	Problem Set
Aug 18	I. Introduction	Getting Started		QSS 1.5.2
Aug 25	II. Causality	Experiments	QSS 2.1-2.4	QSS 2.8.1
Sep 1		Observation	QSS 2.5-2.7	QSS 2.8.3
Sep 8	III. Measurement	Sampling	QSS 3.1-3.4	QSS 3.9.2
Sep 15		Summary Statistics	QSS 3.5-3.8	QSS 3.9.3
Sep 22	IV. Prediction	Linear Models	QSS 4.1-4.2	QSS 4.5.1
Sep 29		Regression and Causation	QSS 4.3-4.4	QSS 4.5.2
Oct 6		Midterm Exam		
Oct 13	V. Probability	Probability	QSS 6.1	QSS 6.6.1
Oct 20		Conditional Probability	QSS 6.2 (skip 6.2.4)	–
Oct 27		Distributions	QSS 6.3-6.4	QSS 6.6.3
Nov 3	VI. Uncertainty	Estimation	QSS 7.1	QSS 7.5.1
Nov 10		Hypothesis Testing	QSS 7.2	QSS 7.5.2
Nov 17		Model-Based Inference	QSS 7.3	QSS 7.5.3
Dec 8		Final Exam		

Academic Honesty

Remember that when you joined the University of Georgia community, you agreed to abide by a code of conduct outlined in the academic honesty policy called *A Culture of Honesty*. You may consult other students with questions about problem sets, but I expect you to submit individual responses. I do not place any restrictions on the use of LLMs or coding agents (e.g. ChatGPT, Claude Code, Posit Assistant) for assisting with problem sets. Reading quizzes and exams are administered in written form, and must be completed without external assistance.

Mental Health and Wellness Resources

- If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.
- UGA has several resources for a student seeking [mental health services](#) or [crisis support](#).

- If you need help managing stress anxiety, relationships, etc., please visit [BeWellUGA](#) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.
- Additional resources can be accessed through the UGA App.