

Political Science Research Methods

PSCI 3300.003 – Fall 2026

Instructor: Michael Elwell

Contact: MichaelElwell@my.unt.edu

Messages received M–Th will receive a response within 24 hours.

Messages received F–Sunday may take additional time.

Office Hours: By appointment. Reserve a meeting here: calendly.com/michael-elwell-my

Class Meetings: Tuesday/Thursday, 2:20–3:40 PM, Wooten Hall 321

“In God we trust; all others must bring data.” — W. Edwards Deming

“Sometimes it’s too slow, for sure. It needs to be reformed, for sure. But which is predictable, loyal, reliable.” — Emmanuel Macron

Course Summary and Objectives

This course introduces students to the fundamentals of empirical political science research. You will learn to formulate research questions, develop theoretical frameworks, design research strategies, collect and analyze data using Stata statistical software, and communicate your findings effectively.

The course emphasizes hands-on application. Throughout the semester, you will complete a scaffolded research project culminating in an original research paper. No prior statistical or methodological training is required.

What This Course Is Really About

This course is about learning to make defensible empirical claims about politics. The technical skills—Stata, regression, descriptive statistics—are tools, not the point. The point is learning to ask a question that can be answered with evidence, design a credible strategy for answering it, and communicate what you found (and what you didn’t) honestly.

Three ideas run through everything we do:

1. **Correlation is not causation.** Most of what you read in political journalism and a lot of what passes for “political science” confuses the two. We will spend real time learning to distinguish them.
2. **Research design beats statistical sophistication.** A well-designed study with simple statistics is more convincing than a poorly-designed study with fancy ones. We will treat design as the first-order question.
3. **Interpretation matters more than computation.** A coefficient is a number; what it *means* substantively is the actual work. You will be asked, repeatedly, to explain your results in plain English.

If you leave this course able to read an empirical political science article, identify what it’s actually claiming, and judge whether you should believe it, the course has succeeded.

Learning Objectives

Students who successfully complete this course will be able to:

- formulate clear, empirically testable research questions;
- conduct a literature review and situate a research question within existing scholarship;
- develop theoretical arguments and derive testable hypotheses;
- design appropriate research strategies for answering political science questions;
- use Stata to manage data and conduct basic statistical analyses;
- interpret and present quantitative results in tables and figures; and
- write a complete empirical research paper.

Required Course Materials

1. **Powner, Leanne C.** *Empirical Research and Writing: A Political Science Student's Practical Guide*. CQ Press. (Referred to as **ERW** in the schedule.)
2. **Stata BE** (Basic Edition), 6-month student license — \$49
Available at: [stata.com/order/new/edu/profplus/student-pricing/](https://www.stata.com/order/new/edu/profplus/student-pricing/)
3. **Course Readings on Canvas** (Referred to as **CR** in the schedule.)

Grading

Your grade will be based on the following components:

Stata Problem Sets — Written (5)	20%
Class Participation & Problem-Set Review	5%
Midterm Exam	10%
Research Project Milestones (4)	20%
Final Research Paper	25%
Paper Defense	20%
Total	100%

Grades will be based on the usual scale (90%+ = A, 80%+ = B, 70%+ = C, 60%+ = D, below 60% = F). I use standard mathematical rounding with respect to your final point total, but will not otherwise manipulate grades. Requests to round your grade will be ignored.

This course follows the UNT Student Academic Integrity Policy ([policy 06.003](#)).

Course Assignments

Stata Problem Sets (20%)

There are 5 problem sets throughout the semester designed to build your skills with Stata. These assignments give you hands-on practice with data management, descriptive statistics, and regression analysis. Submit your code and output for each set. Your lowest submission will be dropped.

Class Participation & Problem-Set Review (5%)

During the class meeting after each problem set is due, we work through it together. I will call on students—selected at random—to walk us through an answer and say, in plain English, what

a result means: What does this coefficient tell us? Would you trust this estimate? What is one alternative explanation? You are graded on whether you can engage with your own submitted work when called on, not on having every answer right.

This component does double duty. It is how you practice the interpretation skills the final defense will test, and it is how I confirm that you can speak to work submitted under your own name (see the Artificial Intelligence policy below). An inability to explain your own submitted work when called on will be treated as a serious red flag. Participation is graded full / partial / none against your engagement across the semester; you may pass or be absent up to three times without penalty, which covers off days and excused absences alike.

Midterm Exam (10%)

A single in-class midterm, given on paper in Week 8, covers the first half of the course: the conceptual material (empirical vs. normative questions, theory and hypotheses, measurement, causal inference) and the quantitative foundations through simple and multiple regression. The exam is multiple choice and closed-book—no notes, no laptop.

The midterm has two parts. Part A is a short assessment of core research-methods learning outcomes; Part B covers the concepts and Stata skills specific to this course. You are responsible for all material covered in lecture and on the problem sets through Week 7. A study guide will be posted the week before.

Paper Defense (20%)

In place of a written final exam, each student sits for a 15-minute one-on-one defense of their final research paper during finals week. Sign up for a time through the Calendly link above. Defenses run throughout finals week; the institutional exam slot for this section anchors the schedule.

The defense is a conversation about *your own paper*. I will ask you to explain, in plain English: what your key result means substantively, why you made the research design choices you did, what an alternative explanation for your finding might be, and what your data *cannot* tell us. You do not need to be flawless. You do need to show command of the research you submitted.

The defense is how this course checks authorship. Every other assessment lets you use outside resources of some kind; this one checks whether you understand the work that carries your name. A polished paper you cannot speak to will not earn a strong grade. Bring a copy of your own paper and output if you want; bring nothing else—no notes, no laptop, no AI. I grade three things: whether you understand your own analysis, whether you can defend your design choices, and whether you are honest about the limits of your evidence.

Research Project Milestones (20%)

The research project is the centerpiece of this course. You will develop an original piece of empirical political science research across the semester. Each milestone builds on the previous ones:

1. **Research Question (5%)** — Identify a research question that is (a) about politics, (b) empirically answerable, and (c) interesting. Provide brief justification for why this question matters.
2. **Literature Review & Theoretical Framework (5%)** — Summarize and synthesize 5–8 scholarly sources relevant to your research question; develop a theoretical argument that

answers it; and derive at least one testable hypothesis from your theory. These three pieces are submitted as one integrated document because theory should grow out of the literature review, not stand apart from it.

3. **Research Design (5%)** — Describe your research design, including your unit of analysis, data source(s), operationalization of key concepts, and analytic strategy.
4. **Data Analysis (5%)** — Conduct your analysis and present preliminary results. Include appropriate tables and/or figures.

Final Research Paper (25%)

Integrate all components into a polished research paper (15–20 pages). The paper should follow the structure of an empirical journal article: introduction, literature review, theory, research design, results, and conclusion.

Important Policies

Attendance

Research consistently shows that students who attend class do better. Attendance is expected at every meeting unless you have a university-excused absence as defined in the [Student Attendance and Authorized Absences Policy \(06.039\)](#). The Professor reserves the right to call on students during class. If you cannot attend due to an emergency, let me know as soon as you reasonably can.

Campus Closures

Students will be notified by Eagle Alert if a campus closing impacts class. The course calendar is subject to change in accordance with the [Campus Closures Policy \(15.006\)](#).

Late Policy

All course assignments should be submitted at the date and time assigned. Late assignments will lose 6% of the total points for every 24 hours after the due date. Extensions will only be offered via an email from the Dean of Students office.

Participation cannot be “made up” after the fact. Up to three passes or absences are absorbed without penalty (see Class Participation & Problem-Set Review); documented university-excused absences never count against your participation grade.

Formatting Assignments

Written assignments should be submitted in Times New Roman 12-point font, with 1-inch margins, double-spaced, and paginated. Upload as .doc or .docx to Canvas.

Do not add a cover page. The upper right-hand corner of the first page (single-spaced) should include:

- Your full name
- Title of the assignment
- Course number (PSCI 3300) and section number

Missed Defense Policy

I will reschedule a defense only for a documented university-excused absence (see the [Student Attendance and Authorized Absences Policy](#)), and only within the grade-submission window. Without documentation, a missed defense earns a zero.

Electronic Devices

Please silence all electronic devices and stow phones before class. The Professor reserves the right to dock points or ask a student to leave the classroom for distracting behavior. Recording, photographing, or video of any lecture or discussion is prohibited without written consent.

Disability Accommodations

The University of North Texas makes reasonable accommodations for students with disabilities. To request accommodations, you must first register with the Office of Disability Access (ODA) by completing an application for services and providing documentation to verify your eligibility each semester. Once your eligibility is confirmed, you may request your letter of accommodation. ODA will then email me a letter of reasonable accommodation, initiating a private discussion about your specific needs in the course.

You can request accommodations at any time, but please provide ODA notice as early as possible in the semester to avoid delays. You must obtain a new letter of accommodation each semester. For more information, see the [Office of Disability Access website](#).

Classroom Environment and Conduct

Every student in this class has the right to learn and engage in an environment of respect and courtesy. Disagreement and debate are welcome; personal attacks are not. If something happens in class that makes that environment harder for you, come talk to me.

Behavior that interferes with my ability to teach the class or with other students' ability to learn will not be tolerated, and may be referred to the Dean of Students. The baseline expectations are set by the UNT [Code of Student Conduct \(07.012\)](#).

Student Wellness and Success Resources

UNT offers a range of mental health, wellness, and academic support services. Using them is a normal part of a successful semester, not a sign that something is wrong. Start at unt.edu/wellness, and for enrollment or financial questions, scrappysays.unt.edu.

Academic Integrity

According to UNT Policy 06.003, academic dishonesty occurs when students engage in behaviors including, but not limited to, cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. If I determine that you have cheated on an assignment in this course, you will fail the class.

You are allowed to use your own notes for take-home assignments. You take the final paper defense without outside help (see the Paper Defense description above): you may reference your own

submitted paper and output, but no notes, no laptop, no AI. You may never have another person complete assignments for you, or submit work you cannot account for as your own.

Artificial Intelligence

Generative AI tools (e.g., ChatGPT, Claude, Copilot) may be used in this course for limited purposes:

- Brainstorming research topics or refining research questions
- Troubleshooting Stata code or understanding error messages
- Grammar and spelling checks on your own writing

AI may **not** be used to generate substantive content for your assignments. This includes drafting sections of your research paper, writing literature review summaries, generating hypotheses, or producing data interpretations. The point of this course is for *you* to learn how to do research—outsourcing that defeats the purpose.

If you use AI for any permitted purpose, you must disclose it. Include a brief statement at the end of your assignment describing how AI was used (e.g., “I used ChatGPT to debug a merge command in Stata” or “I used Grammarly for proofreading”).

Undisclosed AI use will be treated as a violation of academic integrity.

Syllabus Change Policy

Under rare circumstances, it may be necessary to alter due dates or requirements. All changes will be announced via Canvas. Due dates will never be changed to an earlier date.

Important Dates

Fri., Aug. 21	Academic Integrity Form Due
Thu., Sept. 3	No class — APSA conference
Fri., Sept. 4	Research Question Due
Fri., Sept. 18	Literature Review & Theoretical Framework Due
Thu., Oct. 8	Midterm Exam (in class)
Fri., Oct. 16	Research Design Due
Fri., Nov. 6	Last day to drop with W
Fri., Nov. 13	Data Analysis Due
Mon., Nov. 30	Final Research Paper Due
Dec. 7–11	Paper Defenses (finals week, by appointment)

Course Schedule

Week	Topics and Readings	Assignments Due
1	Introduction to Political Science Research ERW Chapter 1: Introduction What is empirical research, and why bother?	Academic Integrity Form
2	Causal Inference and Research Design CR: Angrist & Pischke (2010), “The Credibility Revolution in Empirical Economics,” <i>Journal of Economic Perspectives</i> Correlation vs. causation; confounders; experimental vs. observational studies; what makes a comparison credible?	
3	Finding Questions and Engaging the Literature ERW Chapter 3: Doing Pre-research Introduction to Stata: interface, importing data, basic commands (No Thursday class — APSA)	Research Question Due
4	Theory and Hypotheses ERW Chapter 2: From Research Question to Theory to Hypothesis Building causal arguments; deriving testable hypotheses	
5	Conceptualization, Measurement, and Descriptive Statistics ERW Chapter 7: Quantitative Data Collection and Management Operationalization; central tendency, dispersion, and visualizing data in Stata	Lit Review & Theory Due

Week	Topics and Readings	Assignments Due
6	Bivariate Analysis and Statistical Inference Cross-tabulations and chi-square; difference of means tests Sampling, standard errors, p -values, and what “statistical significance” really means	Stata Problem Set 1
7	Regression: Simple and Multiple OLS as a descriptive tool; the regression line Adding controls; what “controlling for” actually does (and doesn’t)	Stata Problem Set 2
8	Midterm Review and Exam Consolidation of the first half of the course In-class midterm (Thursday)	Midterm Exam (Thu., Oct. 8)
9	Regression in Practice Functional form; dummies and interactions Diagnostics and common pitfalls (heteroskedasticity, multicollinearity)	Research Design Due
10	Presenting Quantitative Results ERW Chapter 9: Writing Up Your Research (Results, Tables & Figures) Tables, figures, and discussing limitations	Stata Problem Set 3
11	Writing Up Empirical Research ERW Chapter 9 cont.: Writing Up Your Research (Abstract, Intro, Conclusion) Structuring a results section	Stata Problem Set 4
12	Research Communication and Peer Review ERW Chapter 10: Practicing Peer Review Peer review workshop	Stata Problem Set 5
13	Paper Workshops Final paper workshops and consultations; defense sign-ups open	Data Analysis Due
14	Paper Workshops and Defense Prep Final consultations; mock defense Q&A	
15	BREAK — NO CLASS (Thanksgiving)	
16	Final Consultations and Defense Prep Final consultations; defense logistics	Final Paper Due (Mon., Nov. 30)
17	FINALS WEEK One-on-one paper defenses (by appointment)	Paper Defenses

The instructor reserves the right to change this syllabus with notice.

Academic Integrity Form

Name: _____

UNT email: _____

Year in school: _____

Major: _____

1) What is a research topic or question you've always been curious about?

2) Have you ever used statistical software before? If so, which one(s)?

3) How comfortable are you with math and statistics?

Very uncomfortable Somewhat uncomfortable Neutral Somewhat comfortable Very comfortable

4) How interested are you in learning to conduct your own research?

Not at all interested Indifferent Somewhat interested Very interested

This certifies that I have read the syllabus and understand the requirements for the course. I also understand the policies on academic integrity. I agree to abide by academic honesty standards outlined by the Center for Student Rights & Responsibilities. I verify that all work done in this class will be my own, that I will cite sources when I draw from other authors' material, and that I will present only accurate and truthful information to the professor.

Signature: _____

Date: _____

Printed Name: _____

EUID: _____

Upload to Canvas by Fri., Aug. 21