

# POLS 4300 – ADVANCED RESEARCH METHODS IN POLITICAL SCIENCE

*Thursdays: 6:00 – 8:50 pm in BEND 205*

INSTRUCTOR: Dr. Rebecca Reid  
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OFFICE: 307 Benedict Hall  
OFFICE HOURS: MW 10:30 am-1:00 pm and 3:00-5:00 pm, or by appointment

## **COURSE DESCRIPTION**

This course will help students learn how to carry out research and write papers in political science. Topics include quantitative methods, including ordinary least squares and maximum likelihood estimators. The course introduces appropriate formats for papers in the discipline and reinforces writing skills. The purpose of this class is to make students familiar with the basic research techniques employed by political scientists as well as many other social science disciplines. In this class, students will learn how to analyze a variety of quantitative data and are expected to complete an original, conference-worthy research paper.

## **UTEP EDGE**

This course encompasses activities associated with UTEP EDGE, including (1) problem-solving and (2) critical thinking through class discussion, applied methodological homework, and research experience. This course enables and requires (3) research and scholarly activity, as well as (4) creativity in that assignments challenge students to think in innovative ways to produce original arguments and evaluate problems. (5) Teamwork is encouraged through homework assignments, where students aid each other to learn, execute, and apply class material. Finally (6) communication is emphasized through the completion of the original research paper, where conveying and explaining the theoretical arguments, methodologies, and quantitative results are crucial.

## **LEARNING OUTCOMES**

In addition to the EDGE experiences, over the course of the semester students will have:

- An understanding of how to generate research questions and appropriate research designs, research techniques, data collection, measurement/operationalization, and data analysis
- Learned to execute advanced statistical analysis (including using statistical software)
- Developed their ability to digest and critically/analytically evaluate political science and social science research
- Developed original research ideas and execute original research, generating a conference-worthy research paper

## REQUIRED READING

- Mehmetoglu, Mehmet, and Tor Georg Jakobsen. 2017. *Applied Statistics Using STATA: A Guide for the Social Science*. Sage Publishing.
- Davis, Morton D. 1983. *Game Theory: A Nontechnical Introduction*. Dover Publications.

## RECOMMENDED READING

- Gujarati, Damodar N., and Dawn C. Porter. 2009. *Basic Econometrics*. Fifth Edition. McGraw-Hill.
- Kennedy, Peter. 2008. *A Guide to Econometrics*. Sixth Edition. Wiley-Blackwell.
- King, Gary, Robert R. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton University Press.
- Gailmard, Sean. *Statistical Modeling and Inference for Social Science*. Cambridge University Press.
- Gill, Jeff. *Essential Mathematics for Political and Social Research*. Cambridge University.
- Kropko, Jonathan. 2016. *Mathematics for Social Scientists*. Sage Publishing.
- Acock, Alan C. 2016. *A Gentle Introduction to Stata*. Fifth Edition. Stata Press.
- Morrow, James D. 1994. *Game Theory for Political Scientists*. Princeton University Press.

## COURSE REQUIREMENTS AND GRADING

Evaluation in this course will be based on the following components:

Homework Assignments	20%
Final Research Paper	30%
Exam I	15%
Exam II	15%
Final Exam	20%

The grading scale is as follows:

90-100	A
80-89	B
70-79	C
60-69	D
59 and below	F

**Participation:** Attendance and participation are essential. Students are responsible for offering their thoughts, opinions, and questions without solicitation from the instructor. Needless to say, these thoughts should have merit and be based upon the readings.

**Examinations:** There will be 3 take home examinations during the course. All exams are **cumulative** and will cover material learned in the class lectures, assignments, discussion, and the assigned readings. As a general rule, **make up exams will NOT be offered**; although

make up exams will be permitted only under the gravest of circumstances, and I reserve the right to determine whether a make up exam is offered to individuals based upon their situation and timely request. I reserve the right to alter the questions for make up exams.

As these exams are take-home, students may use whatever resources they need to complete the assignments. However, these sources must be cited and included in the references for each exam. Each exam must be typed and either emailed to me or turned in under my office door/left at my mailbox in the department office. Plagiarized work and collusion will receive a failing grade (see Academic Dishonesty below), and I will not accept late submissions.

***Homework Assignments:*** Students are required to turn in their homework assignments. While such assignments may be completed in a group setting, all assignments must be the individual student's original work. As such, students may not 'borrow,' copy, or plagiarize from other students' work (or any other source). Any work that is plagiarized will receive a 0 on the assignment (see Academic Dishonesty below). Hence, students working in groups should ensure that each assignment is reflective of individual work.

***Research Paper:*** Due on **May 3rd**, students must submit a typed, hard-copy, roughly 15-20 page research paper on original research. References and in-text citations must be included. This paper will be evaluated on clarity and specification of the research question and theoretical argument, the synthesis of the literature review, the appropriateness of the research design and methods, the quality of the statistical analysis, the proper interpretation of results, the presence and quality of diagnostic analyses, and writing quality, such as organization, clarity, spelling, and grammar. I welcome the submission of drafts to me prior to the deadline for revisions and feedback. No late work is accepted. An additional 5 points will be added if students provide proof of utilizing the Writing Center along with a page reflection on what revisions were instituted and what was learned from the visit(s).

### **SPECIAL ACCOMMODATIONS**

If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to [cass@utep.edu](mailto:cass@utep.edu), or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at [www.sa.utep.edu/cass](http://www.sa.utep.edu/cass). *CASS' Staff are the only individuals who can validate and if need be, authorize accommodations for students with disabilities.*

### **ACADEMIC DISHONESTY**

**Absolutely no form of academic dishonesty will be tolerated.** The University of Texas at El Paso prides itself on its standards of academic excellence. In all matters of intellectual pursuit, UTEP faculty and students must strive to achieve excellence based on the quality of work produced by the individual. In the classroom and in all other academic activities, students are expected to uphold the highest standards of academic integrity. Any form of scholastic dishonesty is an affront to the pursuit of knowledge and jeopardizes the quality of the degree awarded to all graduates of UTEP. It is imperative, therefore, that the members of this academic community understand the regulations pertaining to academic integrity and that all faculty insist on adherence to these standards.

Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, and any act designed to give unfair advantage to a student or the attempt to commit such acts. Proven violations of the detailed regulations, as printed in the Handbook of Operating Procedures (HOP) and available in the Office of the Dean of Students and the homepage of The Dean of Students at [www.utep.edu/dos](http://www.utep.edu/dos), may result in sanctions ranging from disciplinary probation, a failing grade on the work in question, a failing grade in the course, to suspension or dismissal, among others.

### **GENERAL EXPECTATIONS**

I expect all students to behave professionally in this class. You will be held responsible for all material covered in the textbooks, quizzes, articles, videos, and the class discussions. If you miss a class, you are still responsible for the content of that day's information. I will not tolerate disruptive behavior, including (but not limited to) reading newspapers, talking during lectures, using cell phones or pagers, and disrespecting classmates or the instructor. Additionally, I expect all students to attend class prepared and to show up on time. It is disrespectful to the instructor and the other students when individuals show up late or are not prepared to participate in the class discussion. I allow the use of laptops and phones for note-taking, research, and class assignment purposes only; however, should laptop usage become disruptive, I reserve the right to prohibit laptops and other electronic devices.

This class is designed to provide information and challenge students with new, sometimes controversial, ideas, and arguments. This class is designed to be a safe, open environment to express ideas, arguments, and opinions for learning purposes. This class is designed to initiate an open discussion based upon the required readings, encourage critical thinking and application to current events, and enable students to digest difficult material through these discussions. This class does not give you knowledge—i.e. knowledge and understanding is not transfused to students by simply sitting in class. Learning is an interactive process and is the primary responsibility of each student.

### **Late assignments will receive no credit.**

All grades are earned and reflect your reflect the mastery of material through the adequate completion of assignments by their deadline. As such, they do not reflect level of effort, interest, or intention. **I will not change final grades for the course under any circumstances**, with the single exception of cases where an error occurred in my calculation. As general policy, I do not offer incompletes for any course. Finally, no assignments are accepted after the last day of class or its scheduled due date.

## COURSE SCHEDULE

The following is a list of topics to be covered at each class meeting, and the readings should be completed in order to fully participate in class that day. I **require** you to read the appropriate material prior to the class since you will be expected to participate in the discussion. Articles will be provided in Blackboard whenever possible, however it is the responsibility of students to locate each article from the UTEP library (which has access to JSTOR, Sage, and other online journals). Occasionally, Google Scholar and author websites may similarly provide access to these articles. In no situation is a student expected to or required to purchase an article.

While I give specific days/weeks on which certain topics will be discussed, the calendar is subject to change. Any alterations to the course schedule will be clearly announced. As a general rule, the course will follow this order of topics, regardless of date changes, unless otherwise announced.

January	18	Distribute Syllabus and Introduction <b>Causal Inference and Theory</b>
	25	<b>Research and Statistics, Introduction to STATA</b> <i>Reading due: Chapter 1-2</i>  King, Gary. 1986. "How Not to Lie with Statistics: Avoiding Common Mistakes in Quantitative Political Science." <i>American Journal of Political Science</i> 35 (August): 665- 687.
February	1	<b>Bivariate Regression and Multiple Regression</b> <i>Reading due: Chapter 3-4</i>  Schrodt, Philip A. 2010. "Seven Deadly Sins of Contemporary Quantitative Political Analysis." Paper presented at annual meeting of APSA.  Ray, James Lee. 2003 "Explaining Interstate Conflict and War: What Should Be Controlled For?" <i>Conflict Management and Peace Science</i> 20 (2): 1- 31.  Achen, Christopher. 2002. "An Agenda for the New Political Methodology: Microfoundations and ART." <i>Annual Review of Political Science</i> 5: 423- 450.

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### **Dummy Variables and Interactions**

*Reading due: Chapter 5-6*

Mondak, J. J., Hurwitz, J., Peffley, M. and Testa, P. 2017. "The Vicarious Bases of Perceived Injustice." *American Journal of Political Science* 61: 804–819

Bratton, Kathleen A., and Kerry L. Haynie. 1999. "Agenda Setting and Legislative Success in State Legislatures: The Effects of Gender and Race," *The Journal of Politics* 61 (3): 658-679.

### **Research Question due**

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### **Assumptions and Diagnostics**

*Reading due: Chapter 7*

Clarke, Kevin. 2005. "The Phantom Menace: Omitted Variable Bias in Econometric Research." *Conflict Management and Peace Science* 22 (Winter): 341- 352.

Granato, Jim, and Frank Scioli. 2004. "Puzzles, Proverbs, and Omega Matrices: The Scientific and Social Significance of Empirical Implications of Theoretical Models (EITM)." *Perspectives on Politics* 2 (2): 313- 323.

### **Take Home Exam 1**

**Due February 19<sup>th</sup> by 5 pm**

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### **Logistic Regressions**

*Reading due: Chapter 8*

King, Gary, and Langsche Zeng. 2001. "Logistic Regression in Rare Events Data." *Political Analysis* 9 (2): 137- 163.

Alvarez, R. Michael, and John Brehm. 1995. "American Ambivalence Towards Abortion Policy: Development of a Heteroskedastic Probit Model of Competing Values." *American Journal of Political Science* 39 (November): 1055- 1082.

Mitchell, Sara McLaughlin, Jonathan J. Ring, and Mary K. Spellman. 2013. "Domestic Legal Traditions and States' Human Rights Practices." *Journal of Peace Research* 50 (2): 203-217.

Chunrong Ai, Edward C. Norton. 2003. "Interaction Terms in Logit and Probit Models." *Economics Letters* 80 (1): 123-129

March 1

### **Multilevel Models and Panel Data**

*Reading due: Chapter 9-10*

Arceneaux, Kevin, and David Nickerson. 2009. "Modeling Certainty with Clustered Data: A Comparison of Methods." *Political Analysis* 17 (2): 177- 190.

Peffley, Mark A., and Robert Rohrschneider. 2003. "Democratization and Political Tolerance in Seventeen Countries: A Multi-level Model of Democratic Learning." *Political Research Quarterly* 56 (September): 243- 257.

Beck, Nathaniel. 2001. "Time-Series-Cross-Section Data: What Have We Learned in the Past Few Years?" *Annual Review of Political Science* 4: 271- 293

Simmons, Beth. 2009. "Civil Rights in International Law: Compliance with Aspects of the 'International Bill of Rights'." *Indiana Journal of Global Legal Studies* 16 (2): 437-481.

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### **Factor Analysis and Structural Equations**

*Reading due: Chapter 11- 12*

Szmer, John, Donald R. Songer, and Jennifer Bowie. 2016. "Party Capability and the US Courts of Appeals: Understanding Why the "Haves" Win," *Journal of Law and Courts* 4 (1): 65-102.

Sidanius, James. 1988. "Political Sophistication and Political Deviance: A Structural Equation Examination of

Context Theory.” *Journal of Personality and Social Psychology* 55 (1): 37-51.

Williams, Deadric T., Jacob E. Cheadle, and Bridget J. Goosby. 2015. “Hard Times and Heart Break: Linking Economic Hardship and Relationship Distress.” *Journal of Family Issues* 36 (7): 924–950.

15            **Spring Break**

22            **Critical Issues**

*Reading due: Chapter 13*

Achen, Christopher. 2000. “Why Lagged Dependent Variables Can Suppress the Explanatory Power of Other Independent Variables.” Paper for APSA annual meeting.

Nielsen, Richard A., and Beth A. Simmons. 2014. “Rewards for Ratification: Payoffs for Participating in the International Human Rights Regime?” *International Studies Quarterly* 59 (2): 197- 208.

Fortna, Virginia Page. 2015. “Do Terrorists Win? Rebels' Use of Terrorism and Civil War Outcomes.” *International Organization* 69: 519-556.

King, Gary, James Honaker, Anne Joseph, and Kenneth Scheve. 2001. “Analyzing Incomplete Political Science Data: An Alternative Algorithm for Multiple Imputation.” *American Political Science Review* 95 (1): 49- 69.

**Take Home Exam II**  
**Due March 26<sup>th</sup> by 5 pm**

29            **Simultaneous Equations**

*Reading due: Supplemental Reading on Blackboard*

Bartels, Larry M. 1991. “Instrumental and ‘Quasi-Instrumental’ Variables.” *American Journal of Political Science* 35 (August): 777- 800.

Erikson, Robert S., and Thomas R. Palfrey. 1998. "Campaign Spending and Incumbency: An Alternative Simultaneous Equations Approach." *Journal of Politics* 60 (May): 355- 373.

Ritter, Emily Hencken and Courtenay R. Conrad. 2016. "Preventing and Responding to Dissent: The Observational Challenges of Explaining Strategic Repression." *American Political Science Review* 110 (1): 85-99.

April 5

### **Selection Models**

*Reading due: Supplemental Reading on Blackboard*

Conrad, Courtenay R. and Emily Hencken Ritter. 2013. "Treaties, Tenure, and Torture: The Conflicting Domestic Effects of International Law." *Journal of Politics* 75 (2): 397-409.

McLaughlin Mitchell, S. and Hensel, P. R. 2007. "International Institutions and Compliance with Agreements." *American Journal of Political Science*, 51: 721-737.

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### **Event Count and Duration Data**

*Reading due: Supplemental Reading on Blackboard*

Bell, Sam, Patricia Blocksome, Kevin Brown, and Amanda Murdie. 2017. "Help or Hindrance? The Role of Humanitarian Military Interventions in Human Security NGO Operations." *International Political Science Review*. TBA.

Box-Steffensmeier, Janet M., and Christopher Zorn. 2001. "Duration Models and Proportional Hazards in Political Science." *American Journal of Political Science* 45 (October): 972- 988.

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**Longitudinal Data and Time-Series Analyses**

*Reading due: Supplemental Reading on Blackboard*

Lichbach, Mark. 1985. "Protest in America: Univariate ARIMA Models of the Postwar Era." *Western Political Quarterly* 38 (September): 388- 412.

Enders, Walter, and Todd Sandler. 1993. "The Effectiveness of Antiterrorism Policies: A Vector-Autoregression-Intervention Analysis." *American Political Science Review* 87 (December): 829- 844.

Songer, Donald R., Susan W. Johnson, Jennifer Barnes Bowie. 2013. "Do Bills of Rights Matter? An Examination of Court Change, Judicial Ideology, and the Support Structure for Rights in Canada." *Osgoode Hall Law Journal* 51 (1): 297-328.

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**Game Theory and Formal Modeling**

*Reading due: Davis (1983)*

May

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Last day of class and review  
**Research Papers due in class**

**Take Home Final Exam**  
**Due May 7<sup>th</sup> by 5 pm**

## **Components of a Research Paper**

### **1) Introduction**

- a. Usually one or two paragraphs long and includes the research question and why this question is important/ worthy of study

### **2) Theory (and Literature Review)**

- a. Roughly half of your paper, depending on your theoretical argument and its complexity
- b. Offer your theory and causal mechanism(s) as the main narrative, while synthesizing existing literature to bolster your claims, provide examples, and put your theory into context
- c. Includes your causal mechanisms and your hypotheses

### **3) Data and Methods**

- a. Usually a page or two, discusses what sample data you have selected, its sources, and why this data is appropriate
- b. Includes the geographic and temporal limits of data (eg. United States presidential elections from 1960-2016)
- c. Discuss the operationalization of your dependent variable (i.e. tie our concept to your variable in the data and how coded, any descriptive statistics)
  - i. What is the variables
  - ii. How is this variable most appropriate for this project
  - iii. How is the variable coded
  - iv. Where does this data come from
- d. Discuss the operationalizations for each of your independent variables and controls—usually a paragraph each, including each of the aspects above
- e. Identify what type of analysis you are running and justify it (i.e. why is that specification the most appropriate)

### **4) Results**

- a. Includes tables and figures of your results, along with substantive interpretations of the results as text and in the form of predicted probabilities or marginal effects for all statistically significant variables
- b. Identify the extent to which your hypotheses are supported or not

### **5) Conclusions**

- a. Summarize the substantive meaning of this project's results and place within larger context
- b. Identify the limitations of the project
- c. Where should research go from here

### **6) References**

- a. APSA style, alphabetized

### **How to Read and Evaluate Research (Quick Tips)**

- 1) What is the research question?
- 2) What is the theoretical argument and/or thesis?
- 3) What is the dependent variable?
- 4) What are the main independent variables?
- 5) Do the variables match the theory? Are they appropriate? Do they measure what the authors claim?
- 6) What data is utilized and is it appropriate?
- 7) Did the authors include all relevant variables and exclude irrelevant variables? Are there confounding variables? Are there omitted variables?
- 8) What method of analysis was employed? Qualitative or quantitative? Is this method appropriate for the research question?
- 9) What are the results? How strong are these results?
- 10) What are the limitations of the theory, methods, and results?
- 11) How generalizable are the results?
- 12) How persuasive is the article? Why?