Quantitative Research Methods POLITICAL SCIENCE 2075

University of Colorado-Boulder

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http://socsci.colorado.edu/~bairdv/

Office Hours: TR 2-3:30

(also by appointment)

Course Objectives

The purpose of this course is to introduce you to the systematic study of political science. We will study how political scientists explain the attitudes and behaviors of human beings and how those attitudes and behaviors interact with their political institutions to achieve various outcomes. This course is designed to survey the wide range of research designs and methods employed in political science research, including normative analysis, interpretive analysis and causal analysis. It will provide an introduction to students planning to write honors theses and will be useful for any student planning to do research in political science as part of a senior seminar or capstone course. In this course, students will have

- improved their critical thinking skills.
- engaged in a critical analysis of important theoretical assumptions, claims, and arguments in a particular aspect of the existing theoretical literature on a topic in political science.
- developed an appreciation for the various methods that political scientists use to explain their world.

Structure of Course

The lectures will provide the necessary background information necessary to complement your reading. The lectures will not reproduce the reading. You will be required to pick a topic from the variety of aspects of political science scholarship, evaluate that scholarship and develop your own research design that would add to the current body of knowledge regarding your topic, given your evaluation of that literature. (The description of this assignment follows the Course Outline). This approach allows for the achievement of the goals for this course, which are as follows: 1) to obtain a good understanding of the how to design inquiry in political science; 2) to obtain familiarity with current research in an area in political science; and 3) to strengthen critical writing skills, which means an ability to make non-obvious arguments and to anticipate and reconcile all possible weaknesses of that argument.

We will be having class lectures in the data lab in Ketchum. You should be able to use any of the ITS labs on campus in the same way, logging with their IdentiKey Login and Password.

The list of the labs with the numbers of computers, etc. is at
http://webdata.colorado.edu/labs/map/, the more general information on labs is at
http://www.colorado.edu/ITS/MSG/itslabs.html

Course Requirements

You are required to come to every class day, *prepared by the reading for discussion.* There will be THIRTEEN HOMEWORK ASSIGNMENTS (listed on website) due throughout the semester; together, they will be worth 50% of your grade (you will be able to drop two assignments). There will be four quizzes throughout the semester, worth a total of 40% of your grade. You can drop one quiz grade. There is a take home final exam worth 10% of your final grade. These assignments and quizzes and their respective topics will be discussed during the course of the semester.

There are many resources on the website (http://sobek.colorado.edu/~bairdv/) that can be used in preparing exams and the final paper.

You are expected to keep a copy of your work in case something is lost. **Incompletes are strongly discouraged by the College and are only given for non-academic reasons.**

The Rules

In this class, we will be dealing with a great number of sensitive issues. I encourage feedback on my teaching style and the materials, both anonymously by email and otherwise, for any reason at any time, as long as it is respectful. Along those same lines, I always encourage students to disagree with anything I say at any time, again, as long as it is respectful. I expect all students to treat each other with respect as well. If I feel that you have treated me or any other student with disrespect, I will ask you to meet me in my office. If you continue at any other time to treat me or other students with disrespect, I will ask you to leave the classroom. Potentially, this kind of behavior could result in being dropped from the class. If you have any questions about my policies, or the University's policy regarding classroom behavior, do not hesitate to bring it up in class or talk to me about it in my office. The University's general Code of Conduct can be found at the following website: http://www.colorado.edu/studentaffairs/judicialaffairs/code.html and its code of conduct guidelines for the classroom can be found at the following website: http://www.colorado.edu/policies/classbehavior.html

Religious Observation

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. See full details at http://www.colorado.edu/policies/fac_relig.html

Sexual Harassment

I am required by law to report to university officials any sexual harassment that I observe or that is reported to me. The university's sexual harassment policy can be found at the following website. http://www.cusys.edu/~policies/Personnel/sexharass.html

Academic Honesty

All the work you do in this course is expected to be your own. Absolutely no cheating or plagiarism (using someone else's words or ideas without proper citation) will be tolerated. Any time that you consult outside sources, you MUST cite those sources. If your consult outside sources without citation, even if you are not citing the sources directly, this constitutes cheating. Failure to put quotation marks around direct quotations constitutes plagiarism and will always result in an F for the class. Misattribution of sources (citing certain quotations or ideas as coming from a source other than the one that they come from) will result in a lower grade. Any cases of cheating or plagiarism

will be reported to the Office of the Dean of Students. **If you cheat, you will fail the course.** Please review the University's policy regarding academic integrity: http://www.colorado.edu/policies/acadinteg.html

Disabilities Accommodation

The Americans with Disabilities Act of 1990 (ADA) provides protection from illegal discrimination for qualified individuals with disabilities. Students requesting instructional accommodations due to disabilities must arrange for such accommodation. Please review the University's services for such accommodations: http://www.colorado.edu/disabilityservices/

Required Texts

Kellstedt Paul M., Whitten Guy D. *The Fundamentals of Political Science Research.* Cambridge University Press (United States), 2008.

Course Outline

This portion of the class has to do with interpretation and normative political theory. One way of engaging in political science is to do careful textual analysis of ancient and contemporary texts. These texts could be works of political philosophy or historical archives or legal documents. The meaning of the text is interesting because it could give us insights into human nature or how political institutions affect human behavior. We will be investigating how to engage in textual analysis with an in class assignment and an out of class assignment in interpreting Rousseau's view of human nature. The question in these assignments is: what does Rousseau mean when he says what he says. We will then engage in contemporary normative analysis in which we will read a contemporary political scientist, Tom Regan, and his methodology of generating an ethic about protecting animal life. Having discussed this example of contemporary normative analysis, students will come up with their own example of a normative research idea.

Then, we will learn to differentiate the various kinds of arguments that political scientists make. First, there is the issue of fact and summarizing. There are also normative arguments that communicate what the speaker's view of what the world "ought" to be. There are also interpretive arguments, as for example an argument about what the Supreme Court means when it says that speech that presents a "clear and present danger" is not protected speech. There are also causal arguments, such as "alienation from the government causes people to participate in politics." In the beginning of the class, we will talk about the various different kinds of arguments and there will be a quiz in which you will be required to differentiate among the various kinds of arguments. Bring Kellstedt and Whitten for the quiz – it is open book!

	Date	Topic	Assignments Due
Tuesday	August 24	Introduction	
Thursday	August 26	Introduction to Political Theory andKellstedt and Whitten, Chapter 1, 2 Political Philosophy	

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Tuesday	August 31	Interpretation: Rousseau's First Discourse	Assignment 1: Write an essay defending an original causal political theory
Thursday	September 02	Normative analysis: Research design ideas	Assignment 2: One page interpretation of Rousseau's First Discourse
Tuesday	September 07	Quiz I: Statement types (bring your book)	
Thursday	September 09	Evaluating causal arguments	Kellstedt and Whitten, Chapter 3

The next portion of the class deals with causal theory. The most important yet most difficult job of a social scientist is to explain why things happen. What causes war? What causes people to participate in politics? What causes democratic stability? One way to answer such questions is to identify variation in war, participation and democratic stability and then look for attributes that go along with these political phenomena. Causal theories ought to be as exhaustive as possible; however, your model of the world must not (and actually should not) match the world precisely. Thus, we develop a model of the work with the simultaneous goal of keeping the explanations as simple as possible while being as accurate as possible. This section will deal with how to think about variation and variables, how to find evidence for co-variation and how to measure variables. We will also engage in questions of how to "control" for other variables in your model of political phenomena.

We will also look at the notion of "spurious," "intervening" and conditional relationships. Spurious relationships occur when concepts are empirically correlated but not because they are causally related. Intervening relationships happen when one variable causes another which then causes another. We will look at several ways of using data analysis to show that relationships are either spurious or intervening, using crosstab analysis and multiple regression analysis.

	Date	Topic	Assignments or Reading Due
Tuesday	September 14	Introduction to political science data analysis	Almond and Genco, Clouds and Clocks
Thursday	September 16	Concepts	Kellstedt and Whitten, Chapters 5 and 6
Tuesday	September 21	Units of Analysis/Intro to Stata	Assignment 3: Invent a concept and then create a variable that would measure that concept
Thursday	September 23	Types of Variables	
Tuesday	September 28	Central tendency, variation, standard deviation	Assignment 4: Open the National Election Study using Stata, conduct frequency and central tendency analysis
Thursday	September 30	Covariation and correlation	Kellstedt and Whitten, Chapter 8
Tuesday	October 05	Spurious relationships	
Thursday	October 07	Hypothesis testing	Assignment 5: Invent an example of a spurious relationship; Kellstedt and Whitten, Chapter 7

Tuesday	October 12	Quiz II: Variables, concepts, units, spurious relationships	
Thursday	October 14	Linear crosstabs and bivariate regression	Kellstedt and Whitten, Chapter 9
Tuesday	October 19	Using controls in crosstabs: identifying spurious and intervening effects	Assignment 6: Crosstab and correlation analysis
Thursday	October 21	Review: Crosstabs, controls and bivariate regression	Assignment 7: Bivariate regression analysis
Tuesday	October 26	Discussion of literature review	Assignment 8: Crosstab analysis, controlling for a common cause
Thursday	October 28	Using controls in crosstabs: identifying interaction effects	Assignment 9: Crosstab analysis, controlling for an intervening cause
Tuesday	November 02	Quiz III: Crosstabs, controls, and bivariate regression	Assignment 10: Research question with outline
Thursday	November 04	Multiple Regression	Kellstedt and Whitten, Chapter 10
Tuesday	November 09	Interpreting Multiple Regression	Assignment 11: Multiple regression analysis
Thursday	November 11	Criticizing Multiple Regression	Kellstedt and Whitten, Chapter 12

The next section of the course will deal with a variety of kinds of research designs, with a particular focus on situations in which the data are "messy" or when you have to collect your own data. We will think carefully about the rules of inference that are applied for the various kinds of designs. We will be focusing on qualitative analysis, such as case study analysis, with a particular emphasis on selecting those cases. You will be aware of how selection bias could affect your inferences. We will also look at how to collect your own data, using surveys or experiments. You will be expected to criticize various research designs in the literature as well as to design some of your own research ideas.

	Date	Topic	Assignments or Reading Due
Tuesday	November 16	Case study analysis	Ellen Immergut, Institutions, Veto Points, and Policy Results: A Comparative Analysis of Health Care
Thursday	November 18	Selection bias	Assignment 12: One section of a literature review with revised outline
Tuesday	November 30	Experimental designs	Gilliam and Iyengar, Prime Suspects: The Influence of Local Television News on the Viewing Public
Thursday	December 02	Quiz IV: Criticizing multiple regression models and other research designs	Assignment 13: Experimental research design
Tuesday	December 07	Historical Interpretation	Weingast, The Rule of Law
Thursday	December 09	Oral Presentations	

Take home Final Exam Due December 14th 5:00 pm, by email

Final exam will be a take home exam. You will read a political science article and provide a three page critical essay of that study.