Political Science 300
Research Methods
Winter 2017

Department of Political Science
Oregon State University

1   Instructor Information

Dr. Christopher Stout   Office Hours: 10:30-1:00 T, Tr or by Apt
Email:**stoutch@oregonstate.edu**   Class Location: BEX 120
Office: Bexall 312   4 Credits

2   Course Description

Political scientists explore a variety of intriguing questions. For example, some political scientists are interested in explaining why some people vote and others do not. Others are concerned with explaining the factors that predict democratization in different countries. Still others wonder how an increasingly globalized market influences the economies of developed and undeveloped nations. While political scientists grapple with a wide array of issues, what unites most of them is their use of objective evidence to address these questions.

The goal of this course is to provide students with a toolset to address different puzzles in the social sciences. In particular, students in this course will learn how to create viable research questions, to collect, analyze, and interpret data, and to connect the results from their analysis to real world problems. By the end of this course, students should be able to formulate and test a research question of their choice using survey data as evidence. Moreover, students should be able to comprehend quantitative and qualitative methods and analysis used in peer-reviewed academic journals.

3   Course Readings

The two required books for this course are Statistics for People Who (Think They) Hate Statistics, Fourth Edition by Neil Salkind and Political Science Research in Practice by Malici and Smith. In addition to the text books, there will be several social science readings, which we will use as background information for the analysis we conduct in class. Through these readings and class discussions, we will create research questions and use the methods learned in class to examine these questions. Studens who feel comfortable with statistics can use Open Intro Statistics an open source statistics text book (https://www.openintro.org/stat/) instead of the other book.

4   Course Software

One of the largest components of this class will be data analysis. While many hours of tedious work, an intimate knowledge of calculus and statistics, and a calculator would allow us to conduct most of these methods by hand, the use of statistical software makes data analysis much more manageable. The program that we will use in this course to analyze quantitative data is Stata.

Stata is a useful program for analyzing statistics because it can perform a wide variety of statistical functions and is arguably easier to use than other statistical programs such as R or Excel.

Stata is also one of the most commonly used statistical programs in political science. Students can purchase a small stata six month license from http://www.stata.com/coursegp for $38. While the purchase of stata is not required, it is strongly recommended. You will be required to use stata for the final project, the labs, and several homework assignments. As a result, you may be using stata on a weekly basis.

5   Course Structure

The course meets twice a week for 1 hour and 50 minutes. For the first hour of each class, we will discuss the mechanics and theory of each research method. Over several courses during the semester we will do an in-class assignment dealing with a particular method so that students get hands-on experience with how to use the research method. For most days, the second half of the course will focus on learning how to use Stata in the computer lab. Students will be asked to complete and write up results from their analysis of several different data sets using stata.

6   BACC CORE Learning Outcomes

- Develop and articulate content knowledge and critical thinking in the discipline through frequent practice of informal and formal writing. This will be done through weekly informal Canvas discussion blogs and formally through laboratory computer assignments and a quantitative research paper

- Demonstrate knowledge/understanding of audience expectations, genres, and conventions appropriate to communicating in the discipline. This will be done through weekly informal Canvas discussion blogs and formally through laboratory computer assignments, lecture assignments, and a quantitative research paper.

- Demonstrate the ability to compose a document of at least 2000 words through multiple aspects of writing, including brainstorming, drafting, using sources appropriately, and revising comprehensively after receiving feedback on a draft. This will be accomplished through the writing of a quantitative research paper.

7   Assessment

Weekly Canvas Discussions (0%)

Students will be required to post a quick one or two paragraph reply to a prompt posted on canvas each week. These are ungraded, but are required to pass the course. Students must respond to each prompt.

In-Class Lab Assignments (20%)

To assess students' participation, students will complete a daily in-class assignments almost every class starting in the second or third week. The assignments will generally require students to use Stata to solve a particular set of problems. Students can miss three classes without penalty. Students will lose 3% of this grade for every missed or uncredited assignment after that. These assignments are graded.

Midterm (20-25%

Your midterm will test your knowledge of both quantitative and qualitative research methods and stata programming covered in the first half of class. The test will include a combination of multiple choice questions and short answer problems.

Problem Sets (20-25%)

The best way to learn research methods is to actually do them. Thus, the problem sets in this course are designed to teach you to apply the skills we learn in class to different social science questions. The problem sets will ask you to develop research questions, in some cases collect data, and analyze data both by hand and with the aid of statistical software. Students will receive the problem sets one week before they are due. There will be 4 problem sets and each one is worth about 6.25% of your grade.

Final Research Paper (35%)

One of the primary goals of this course is to train students to think like social scientists. To assess students' progress in this area, students will will be required to write a 8-12 page research paper dealing with a research question of their choosing. In these papers, students will formulate hypothesis based on previous research. To test these hypotheses, students will be required to analyze survey data which the class will create and adminstor on Amazon Mturk during the 6th week.

To ensure that students select a viable research question that can be done in a 10 week course, students should clear the project with the professor before week 5. Students will have the opportunity to do this in extra office hours during week 4. Students should also consult with the professor earlier if they are having trouble coming up with a research question.

To make sure the paper is manageable, students will have to turn in segments of the paper in week 4, week 6, and week 9.

8   Course Policies

A Note on Academic Integrity

I find it unfortunate that instructors must include this section on the syllabus, but with a rise of electronic resources, academic dishonesty is a part of the reality in which we now function. Thus, I include a very short reminder here on the importance of maintaining academic integrity. Cheating in any form is prohibited and will result in an automatic fail for the course.

Statement Regarding Students with Disabilities

Accommodations are collaborative efforts between students, faculty, and Disability Access Services. (DAS) Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 541-737-4098.

Accessibility of Course Materials

All materials used in this course are accessible. If you require accommodations please contact Disability Access Services (DAS).

Additionally, Canvas, the learning management system through which this course is offered, provides a vendor statement certifying how the platform is accessible to students with disabilities.

9   Course Schedule and Assigned Readings

Tuesday-January 10th Introduction and Syllabus

- *NO READING*

Thursday-January 12th What is Political Science Research? How Does One Create a Viable Research Question? Nominal, Interval, and Ordinal Variables

Lab

- Introduction to Stata

Required Readings

- Malici and Smith Chapter 2

Tuesday-January 17th Participant Observation

Lab

- Recode in Stata Part 1

Required Readings

- Malici and Smith Chapter 4

Thursday-January 19th Interviews, Content Analysis and Archival Research

Lab

- Recode in Stata Part 2

Required Readings

- Malici and Smith Chapter 9

Tuesday-January 24th Measures of Central Tendency (Mean, Median, and Mode)

Lab

- Descriptive Statistics in Stata Part 1

Required Readings

- Salkind Chapter 2

Thursday-January 26th Measures of Variation (Range and Standard Deviation)

Lab

- Descriptive Statistics in Stata Part 2

Required Readings

- Salkind Chapter 3

Tuesday-January 31st No Class-In Person Meeting With Professor Stout

Required Readings

- None

Thursday-February 2nd-Introduction to Probability

Lab

- Descriptive Statistics in Stata Part 3

Required Readings

- Chapter 1-The Nature of Probability From "Everyday Probability and Statistics: health Elections, Gambling and War (Posted Online)

ABSTRACT DUE ON February 5th by Midnight

Tuesday-February 7th-When is Evidence Convincing? Bernoulli Trials Part 1

Required Readings

- Gelman, Andrew and Hal Stern. 2006. "The Difference Between "Signi

  cant" and "Not Significant" is Not Itself Statistically Significant" *The American Statistician* (Posted Online)

Thursday-February 9th-When is Evidence Convincing? Bernoulli Trials Part 2

Lab

- Midterm Review

Required Readings

- Chapter 9-Binomial Sampling Distributions from "Secrets of Statistics" (Posted Online)

Tuesday-February 14th Midterm

Required Readings

- None

Thursday- February 16th Creating a Viable Survey Question and Introduction to Mturk and Qualtrics

Lab

- Intro to Qualtrics and Mturk

Required Readings

- None

Research Questions Due Monday February 19th by Midnight

Tuesday-February 21st-Normal Distributions and Standard Scores

Lab

- Review and Revise Survey

Required Readings

- Salkind Chapter 8

Thursday-February 23rd Comparison of Means and Proportions: Standard Error and One Sample T-Tests **Course Will be Posted Online***

Lab

- One Sample T-Test in Stata

Required Readings

- Chapter 9 pp 199-209 (Salkind)

Introduction and Literature Review Due February 26th by Midnight

Tuesday-February 28th Comparison of Means and Proportions: Two Sample T-test

Lab

- Two Sample T-Test in Stata

Required Readings

- Salkind Chapter 10

Thursday-March 2nd Chi-Square: Inferences about Nominal Variables Part 1

Lab

- Chi-Square in Stata Part 1

Required Readings

- Salkind Chapter 16

Tuesday-March 7th Chi-Square: Inferences about Nominal Variables Part 2

Lab

- Chi-Square in Stata Part 2

Required Readings

- Salkind Chapter 16

Thursday-March 9th-Regression in Stata Part 1

Lab

- Regression in Stata Part 1

Required Readings

- Salkind Chapter 15

Data-Conclusion Due February 10th by Midnight

Tuesday-March 14th-Regression in Stata Part 2

Lab

- Regression in Stata Part 2

Required Readings

- Salkind Chapter 15

Thursday-March 16th-Regression in Stata Part 3

Lab

- Regression in Stata Part 3

Required Readings

- Salkind Chapter 15

Final Paper Due on Wednesday March 21st at Noon