POLS 2000: Methods in Political Science Lab
Spring 2017
McGannon Computer Lab

Instructor: Dr. Jason Windett

Office: McGannon Hall 152

Office Hours: TR 3:30-5 and by appt..

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Course Description

This lab is to be taken with the POLS 2000 Methods in Political Science Course. You will gain hands on experience in numerous different topics in research methods, as well as using STATA software. This is a statistical package that will allow you to manipulate and analyze data. At the beginning of the semester, you will choose a lab partner. You and your lab partner will turn in a single assignment for the given week's lab exercises. All labs will be started with a brief introduction to the topic/skills you will need to complete the exercises. You will turn in the completed assignments at the start of the following lab session. Late labs will not be accepted and you will receive a zero for the lab.

Course Materials Required for Purchase

1. Pollock, Philip, H. III. 2015. *A STATA Companion to Political Analysis, 3rd edition.* Washington, D.C.: CQ Press. (Hereafter SCPA)

Tentative Course Schedule

Jan 18 Introduction and Expectations

Jan 25 **Using the Library for Research**
Assignment: This will be mostly an informative session without an assignment. It is simply to get the students in touch with the library liaison, gain a general understanding of the online search options, and understand the resources available to students. Guest Speaker: Librarian Dr.

Feb 1 **Human Subjects Training and Research Ethics**
Assignment: Students must complete the course of instruction offered by the Collaborative Institutional Review Board Training Initiative (CITI) Human Subjects Training at the web site given below or provide documentation of having completed a comparable human subjects research training course.

For CITI training, please register at the following site: http://www.citiprogram.org/

Feb 8 **Interviews**
Assignment: Students will design a structured or semi-structured interview on a research

topic of their choice. Students will identify sample of interview subjects and prepare a set of questions.

Feb 15 Introduction to Qualtrics and Survey Design
Assignment: Students must design an original survey through Qualtrics that utilizes at least 4 question types. Students will share the survey with the lab instructor.

Feb 22 Introduction to Stata and Descriptive Statistics
Assignment: SPCA Chapter 1 and 2. This exercise serves as an introduction to STATA. Upon completion of the lab, students will be able to obtain general information about a dataset, information about variables, view a log file, and print results and output. Furthermore, this exercise introduces students to measures of central tendency and variation. Students will be able to describe nominal, ordinal, and interval level variables, as well as distinguish which measure of central tendency is most appropriate based on variable type. Students will also be introduced to the graphic capabilities of STATA and will be able to construct bar charts and histograms.

Mar 1 Transforming Variables
Assignment: SPCA Chapter 3. This exercise introduces students to manipulating data in STATA. Students will be able to transform categorical and interval variables. They will also label and define values in the dataset. Finally, students will create both additive and indicator variables.

Mar 8 Midterm Review

Mar 15 Spring Break, no lab

Mar 22 Making Comparisons
Assignment: SCPA Chapter 4. This exercise introduces students to making comparisons across groups. The lab will introduce students to cross tabulations and mean comparison analysis. Students will be able to visualize these relationships with line charts and bar charts.

Mar 29 Making Controlled Comparisons
Assignment: SPCA Chapter 5. This exercise builds on the previous labs by adding a control variable to cross tabulation and mean comparison analysis. The students will also be exposed to using bar charts for controlled comparisons with a categorical dependent variables and line charts for interval level dependent variables.

Apr 5th In class writing session
Bring drafts of your research design to lab. We will do an in-class peer review and writing exercise.

Apr 12 Making Inferences About Sample Means
Assignment: SPCA Chapter 6. This exercise introduces students to the t-test. This will allow for students to test statistically significant difference between sample means.

Apr 19 Measures of Association
Assignment: SPCA Chapter 7. This exercise will introduce students to analyzing statistical significance in ordinal and nominal level relationships. Students will be exposed to Chi Square, Somer's D, Lamda, and Cramer's V.

Apr 26 **In-class Presentations of Research Designs**

May 3 **Correlation and Linear Regression**
Assignment: SPCA Chapter 8. This exercise will introduce students to correlation and linear regression. Students will perform correlation tests between two variables, as well as bivariate and multivariate regressions. Students will also learn how to plot regression lines over observed data points.