POLT 205: POLITICAL RESEARCH AND ANALYSIS
Fall 2014
Tuesday and Thursday, 1:30 – 2:45 in King 137
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Office Hours: Thursday and Friday, 3:00 – 4:30 in Rice 203
Office Hour Signup: http://tinyurl.com/ParkinOffice

This course is an introduction to the quantitative research methods commonly used to analyze politics. You will gain hands-on experience with various elements of the research process including study design, sampling, measurement, and basic statistical analysis using SPSS. This course is intended to help you understand and conduct quantitative political research that will be useful in both academic and professional settings.

Course Objectives
This course has three principle learning objectives.
1. To understand the quantitative research process and how it relates to other types of research;
2. To comprehend and critically evaluate quantitative studies found in the media and in scholarly journals; and
3. To conduct your own quantitative research and analyze data using statistical software.

Readings
There are two required books for this course. Both are available for purchase online or at the College Bookstore. The Pollock textbook (but not the workbook) is also on reserve at the library, although I would not rely on it. Please note that you will need the Fourth Edition of these books.


In addition, there are required and optional readings on Blackboard. You are expected to complete all required readings before the date assigned on the syllabus.

Assignments
Final grades will be based on class participation, two exams, weekly homework assignments, and a final research paper. The relative weight and due date of each component is as follows:

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<th>Component</th>
<th>Weight %</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>10%</td>
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<tr>
<td>Midterm Exam</td>
<td>15%</td>
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<td>Final Exam</td>
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<tr>
<td>Homework Assignments</td>
<td>30%</td>
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<tr>
<td>Final Research Paper</td>
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Class Participation. It is imperative that you actively participate in this class. You will be evaluated on your participation during class sessions and activities. As not everyone is equally verbose, grades will be based on the quality of participation, not just the quantity of it. Quality participation requires all of the following: office hour meetings, consistent attendance, thoughtful contributions, and a positive attitude toward the activities – even if something irks you, pretending you like it will improve your grade!

Exams. There will be two in-class exams. The first will take place on **October 9th** and the second on **November 20th**. Unless you have a documented need for more time, you will have 75 minutes to complete the exam. You are advised to bring a calculator to each exam.

Weekly Homework Assignments: Starting the second week of class, there will be a homework assignment due **each Friday before 4:00 pm**. Each assignment must be neatly presented in a Word document. Please drop off a hard copy of your completed assignment outside my office door at Rice 203 (no emails). It is absolutely imperative that you do not fall behind in this class; thus, every effort should be made to complete these assignments on time. Any assignment handed in after 4:00 pm on Friday will be docked 30% and no assignments will be accepted after the following Monday at 10:00 am. These assignments are listed on a separate sheet entitled “Homework Assignments” which will be handed out later and posted on Blackboard. Despite their varying lengths, each homework assignment will be worth the same portion of your grade.

Final Research Paper. You will design and implement your own quantitative research project near the end of the semester. Your paper should be between 15 and 20 double-spaced pages (including tables, charts, and graphs). It must be handed in via Blackboard by **Thursday, December 18th at 4:00 pm**. Late final assignments CANNOT be accepted without written documentation from Oberlin College—i.e., you must get a formal incomplete or extension. Further details on the Final Project will be handed out later and posted on Blackboard.

Grades
Letter grades in this course will be based on the following scale:

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<th>Grade</th>
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<tr>
<td>A+</td>
<td>97+</td>
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<td>A</td>
<td>92-96</td>
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<td>A-</td>
<td>88-91</td>
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<td>B+</td>
<td>84-87</td>
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<td>B</td>
<td>80-83</td>
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<td>B-</td>
<td>75-79</td>
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<td>C+</td>
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<td>C</td>
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<td>C-</td>
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General Course Policies

**Courtesy**
Please exercise common courtesy (e.g., no talking at inappropriate times, sleeping, texting, or web browsing) and come to class on time—pretty simple. It is very important in this class, given that we will be in a computer lab, that you do not use the computers for anything other than class work.

**Honor Code**
Oberlin College policy mandates that your performance in this class adhere to the honor code. In general terms, this means that you will be given significant freedoms in exchange for your promise to not cheat, plagiarize material, fabricate information, or participate in any other dishonest academic
activity. If you have any questions about the honor code, I encourage you to visit: http://new.oberlin.edu/conservatory/academic-resources-and-support/honor-code.dot.

Accommodations
Any student with a documented disability should see me immediately to discuss accommodations.

TOPICS AND ASSIGNED READING

Class 1 (September 2\textsuperscript{nd}): Introduction and Course Overview

Class 2 (September 4\textsuperscript{th}): The Idea of Quantitative Research in Political ‘Science’
Politics can be studied any number of ways. In this class, we will consider the strengths and weaknesses of taking a quantitative approach to political research. We will examine the defining characteristics of quantitative research and evaluate the degree to which political ‘science’ can be considered a ‘science’. We will also discuss the proper role of quantitative methods within political science – when should researchers use/avoid a quantitative approach?

Required Readings:
- Pollock, “Introduction” (1-5)

Class 3 (September 9\textsuperscript{th}): From Concepts to Variables
Many concepts are difficult to quantify and measure. Even concepts that might seem easy to measure (e.g., crime, income, intelligence) can pose problems for researchers. In this class, we will go through the process of turning vague concepts into quantitative variables, and consider some cases of questionable concept operationalization and the effect this can have on research. We will also discuss how variables are measured and described.

Required Readings:
- Pollock, “Chapter 1: The Definition and Measurement of Concepts” (6-27)
- Pollock, “Chapter 2: Measuring and Describing Variables” (28-47)

Class 4 (September 11\textsuperscript{th}): Introduction to SPSS and Descriptive Statistics
This class introduces you to the statistical software package called SPSS. You will become familiar with its layout and functions. We will also use the program to describe the basic properties of political variables, including their central tendencies and distribution.

Required Reading:
- Pollock Workbook, “Getting Started” (1-6)
- Pollock Workbook, “Chapter 1: Introduction to SPSS” (7-16)
- Pollock Workbook, “Chapter 2: Descriptive Statistics” (17-40)
Class 5 (September 16th): Transforming Variables in SPSS

Researchers almost always have to transform generically formatted data to suit their particular needs. Sometimes variables contain an unwieldy number of categories, and other times the quantification is odd. This class will walk you through the steps involved with transforming variables in SPSS. This is a critically important skill because any reasonable analysis will require transformation, and any transformation must be precise if you want to analyze data effectively.

Required Reading:
• Pollock Workbook, “Chapter 3: Transforming Variables” (41-60)

Class 6 (September 18th): Explanations, Hypotheses, and Comparisons

Quantitative research is essentially about analyzing the relationship between variables. However, before the statistical analysis can begin, researchers must consider possible explanations and propose formal hypotheses. To that end, this class will focus on the theory-building stage of quantitative research. The class will also introduce some basic techniques for testing the proposed relationships.

Required Reading:
• Pollock, “Chapter 3: Proposing Explanations, Framing Hypotheses, and Making Comparisons” (48-77)

Optional Reading:

Class 7 (September 23rd): Making Comparisons in SPSS

This class builds upon our earlier theoretical work by demonstrating how basic comparisons are executed in SPSS. Specifically, you will learn how to conduct simple cross tabulations and means comparisons. This will allow you to quickly demonstrate the direct effect that one variable has on the other.

Required Reading:
• Pollock Workbook, “Chapter 4: Making Comparisons” (61-91)

Class 8 (September 25th): Research Design and the Logic of Control

Although this course focuses on the quantitative analysis of data, there are many ways to conduct empirical political research. This class will start with an overview of the different research designs commonly used by political scientists. We will then discuss the idea of “control” in which we consider the influence of a third variable when analyzing the relationship between two primary variables.

Required Reading:
• Pollock, “Chapter 4: Research Design and the Logic of Control” (78-101)

Optional Reading:

**Homework Assignment 3 due Friday, September 26th at 4:00 pm** (submit outside Rice 203)

**Class 9 (September 30th): Making Controlled Comparisons**
This class extends our discussion of “control” in quantitative analyses. We will spend some time learning how to conduct “controlled” comparisons which will enable you to determine the relationship between two variables while holding a third variable constant.

Required Reading:
• Pollock, “Chapter 5: Making Controlled Comparisons” (102-121)

**Class 10 (October 2nd): Making Controlled Comparisons in SPSS**
Confirming the relationship between two variables often requires that we consider third variables. In this class, we will use SPSS to add the element of “control” to our analysis. We will do this by conducting multi-layered cross-tabs and means comparisons.

Required Reading:
• Pollock Workbook, “Chapter 5: Making Controlled Comparisons” (93-122)

**Homework Assignment 4 due Friday, October 3rd at 4:00 pm** (submit outside Rice 203)

**Class 11 (October 7th): First Exam Review Session**
This class is devoted to reviewing class material in preparation for the first exam. Please review your notes before class and come prepared to ask (and answer) questions.

**Class 12 (October 9th): First Exam**
Our first exam will be held at 1:30 pm in King 137. Unless you have a documented reason for receiving more time, you will have 75 minutes to complete the exam. The exam is closed-book. You may, however, bring a calculator.

**Class 13 (October 14th): The Foundation of Statistical Inference I**
Up to this point, we really have yet to use statistics in our analyses. This class introduces the logic behind sampling which leads to the foundation of statistical inference. You will be introduced to the statistical theories that enable researchers to estimate the precision of their empirical findings.

Required Reading:
• Pollock, “Chapter 6: The Foundations of Statistical Inference” (122-154)

**Class 14 (October 16th): The Foundation of Statistical Inference II**
This class continues our investigation of statistical inference. If you are starting to find the material difficult (don’t worry, you are not alone!), you should reread Chapter 6. It is important that you master this material as it is vital to understanding future concepts.

Required Reading (Reread):
• Pollock, “Chapter 6: The Foundations of Statistical Inference” (122-154)
October 21st and 23rd: Fall Break

Class 15 (October 28th): Making Inferences about Sample Means in SPSS
Extending our work on statistical inference, we will use SPSS to obtain descriptive information about variables and calculate confidence intervals around each variable. We will then use the T-test function to determine the relationship between a sample mean and the true population mean. Finally, we will look at independent sample T-tests and their ability to determine the statistical validity of mean differences on the dependent variable for two groups that differ on an independent variable.

Required Reading:
• Pollock Workbook, “Chapter 6: Making Inferences About Sample Means” (123-138)

Class 16 (October 30th): Tests of Significance and Measures of Association I
This class introduces the idea of ‘statistical significance’ in the relationship between multiple variables. You will learn how to compare two sample means and proportions by hand, as well as calculate the Chi-squared statistic. These tests will allow you to estimate the confidence you can place in your findings concerning the relationship between two variables.

Required Reading:
• Pollock, “Chapter 7: Tests of Significance and Measures of Association” (pp. 155-181)

Homework Assignment 6 due Friday, October 31st at 4:00 pm (submit outside Rice 203)

Class 17 (November 4th): Tests of Significance and Measures of Association II
In this class, you will learn how to conduct tests of significance and measures of association using SPSS. In particular, we will cover how to generate the Chi-square statistic from various cross-tabulation procedures.

Required Reading:
• Pollock Workbook, “Chapter 7: Chi-Square and Measures of Association” (139-158)

Class 18 (November 6th): Correlation and Linear Regression I
Correlation and linear regression are probably the most widely used techniques for analyzing quantitative political data. In this class, you will learn the fundamentals of correlation and the key aspects of bivariate and multivariate regression. We will also briefly discuss some of the pitfalls to avoid in conducting regression analyses.

Required Reading:
• Pollock, “Chapter 8: Correlation and Linear Regression” (182-211)

Homework Assignment 7 due Friday, November 7th at 4:00 pm (submit outside Rice 203)

Class 19 (November 11th): Correlation and Linear Regression II
This class introduces the basic correlation and linear regression functions in SPSS. These are probably the two most often used functions in SPSS. You will learn how to conduct correlations and regressions as well as how to visually present correlations with scatterplots.
Required Reading:
• Pollock Workbook, “Chapter 8: Correlation and Linear Regression” (159-181)

Class 20 (November 13th): Correlation and Linear Regression III
Regression analysis has become increasingly sophisticated; enabling researchers to better estimate the true relationship between variables. In this class, you will learn how to use more advanced regression features in SPSS including regression with dummy variables and interaction effects. These techniques are critically important for the accurate analysis of data.

Required Reading:
• Pollock Workbook, “Chapter 9: Dummy Variables and Interaction Effects” (183-203)

Homework Assignment 8 due Friday, November 14th at 4:00 pm (submit outside Rice 203)

Class 21 (November 18th): Second Exam Review
We will review course material during this class in preparation for the second exam. Please review your notes before class and come prepared to ask (and answer) questions.

Class 22 (November 20th): Second Exam
Our second exam will be held at 1:30 pm in King 137. Unless you have a documented reason for receiving more time, you will have 75 minutes to complete the exam. The exam is closed-book. You may, however, bring a calculator.

Class 23 (November 25th): Final Paper Design and Data
Having established the basic building blocks for quantitative analysis, we now turn to your individual research project. We will work on formulating your research question, measuring concepts, and proposing explanations and testable hypotheses. (Note: you are required to meet with me to discuss your research ideas.) We will also spend some time researching data sources for your project. This will include a discussion of survey quality and IRB regulations concerning work with human subjects.

Required Reading:
• Pollock, “Chapter 9: Thinking Empirically, Thinking Probabilistically” (240-243)
• Pollock Workbook, “Chapter 11: Doing Your Own Political Analysis” (231-243)

Optional Reading:

Examples of Good Literature Reviews (Optional):

November 27th: Thanksgiving (No Class)

Class 24 (December 2nd): Final Paper Design and Data
The readings for this class provide examples and additional guidance on writing-up your final project. We will also spend some time during class getting your data ready for analysis. You will spend your time “cleaning” the data so that they suit your particular project. It is absolutely imperative that you have your dataset ready for analysis by the end of this class period.

Required Readings:
• Final Paper Outline Example (found under “Readings” in Blackboard)
• Project Example (found under “Readings” in Blackboard)

Optional Reading:

Class 25 (December 4th): Basic Analysis
During this class, you will conduct some basic tests on your data. These include measures of central tendency and variation, descriptive statistics, inferences about sample means, and tests of the relationship between your dependent variable and a single independent variable (e.g., t tests, chi-square, correlation). You may want to review chapters 1-7 in the Pollock workbook before class.

Class 26 (December 9th): Advanced Analysis
By this point, you should be ready to conduct advanced tests on your data. These will likely include layered cross tabs, layered means comparisons and multiple regressions. Be sure to formulate your tests so that they accurately test your hypotheses. Do not run a million different tests trying to find what you believe to be “interesting results.” You should come to this class with a clear strategy for conducting advanced tests of your hypotheses.

Class 27 (December 11th): Advanced Analysis and Final Lab
This will be your last chance to use the computer lab with the professor present. You should be wrapping up your analysis with some final advanced tests.

The Final Paper is due Thursday, December 18th at 4:00 pm.
(Late assignments CANNOT be accepted without official documentation.)