POL 30: Political Inquiry

Fall, 2012

Draft Updated September 26, 2012 - NOTE: Schedule may change.

Lecture: MW 12:00 - 12:50, Peter 108
Final Exam: Thursday, December 13, 2012, 11:30-2:29

Professor Scott Desposato
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Teaching Assistants and Office Hours
Chris Chiego: Monday, 1:00-3:00
Will Hobbs: Tuesday, 9:00-11:00
Michael Plouffe: Wednesday, 10:00-12:00
Dmitar Gueorguiev: Thursday, 10:00-11:00; 12:00-1:00
David Lindsey: Friday, 9:30-11:30

Introduction
This course provides an introduction to the tools of political inquiry, including research design, causal inference, and especially basic statistical methods. While political science has traditionally relied upon largely non-quantitative work, several factors have led to a dramatic increase in the use of experiments and statistics to study political phenomenon. Increasing availability of high-quality data allow scholars to test hypotheses that they previously could not. Advances in computing have made quantitative methods relatively easy and accessible. Quantitative methods have proven to be extremely powerful and flexible tools for social scientists.

Course Objectives
We have three basic goals in the course. First, after this course, you will have a strong intuitive understanding of research design, hypothesis testing, and theory building. Second, you will be capable and critical consumers of quantitative research, in political
research and other areas of scientific inquiry. Finally, you should be capable of answering your own political science questions using quantitative data.

By the end of this course, you will be able to create and explain a variety of statistics, both graphical and numerical. You will also be equipped to critically analyze others' quantitative work, including their sample framework, methods, and analysis. You will also learn how to use a statistical software program, SPSS. These skills will be useful in reading, understanding, and conducting research in political science, as well as in many other disciplines.

**Reasons to take this course**

1. To understand research in political science, you need to understand quantitative methods. Open any one of the top political science journals where the best scholarship is published and you will see that almost every article uses quantitative methods.

2. The skills you will learn in this course are valuable. Many of you will go on to run government agencies, administer nonprofit organizations, or have your own businesses or law practices. Statistics provide a powerful set of tools for understanding problems and making decisions. If you master the material in this course, you will have an additional set of resources for your future career. If you do not, you will always be at the mercy of those that are literate in statistics.

3. The material is challenging, but many students enjoy it. Statistics can be abused, but it has an underlying logic and objectivity that many students find appealing after some less-empirically oriented courses.

4. And of course, the best reason to take this course: you have to.

**Preparation**

Whatever your background, you can do this if you are willing to work at it. This course is targeted to an audience with no previous experience in statistics. You may have some modest calculations to perform, but we will minimize the math and focus on the intuition. This course will lay the groundwork for additional training in statistics and research design, though most advanced applications you might want to pursue will require a solid foundation in algebra, calculus, and linear algebra.

**Study Methods**

You should stay on top of the material and not leave anything until the last minute. The material covered in this course is inherently cumulative. If you do not keep up, you will quickly find yourself too far behind to catch up. Hence you should not expect to be able to blow off this class until the week before the final, unless you are trying to fail.
Further, a great deal of your grade comes from the homework assignments. Take them very seriously and do not wait until the day before to start!

I believe that anyone can get any grade they want in this course. I will work with you to achieve your goals and encourage you to contact me with any questions.

**Evaluation**

- **Final Exam**
  There will be a cumulative final exam as per the official Schedule of Classes. It will be worth forty percent of your grade.

- **Homework**
  There will be four homework assignments, worth a total of fifty percent of your grade. Homework will cover most of the core material on the final examination, but it is not just an exam preparation tool. An important component of the homework will be your conducting independent and original research, using the datasets provided in class, or even some other dataset should you so desire. Some problems will come straight from the text, others from the workbook, and others from me.

  Your lowest-scoring homework will be weighted downward, so that the final formula for your homework score will be:

  \[
  \text{HW}_{\text{Score}} = (\frac{7}{8} \times \text{Average of Three Best Scores}) + (\frac{1}{8} \times \text{Lowest Homework Scores})
  \]

- **Quizzes/Participation**
  Ten percent of your grade will reflect unscheduled quiz scores and your participation in section and lecture.

Note: unless otherwise announced, all assignments should be submitted physically, not electronically, i.e., no email submission of assignments.

**Grades**

Your performance on the above projects will be weighted according to the following table:

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<tr>
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<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>50%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
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<tr>
<td>Quizzes and Participation</td>
<td>10%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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I may provide several opportunities for extra credit. These will be announced in lecture and on the course website.
Evaluation Policy

Late assignments will not be accepted and will receive a failing grade, in accordance with University regulations. Final examinations cannot be rescheduled; please plan your travel and other obligations accordingly.

Policy on Academic Integrity

Students are expected to maintain the highest standards of academic integrity. Cheating, plagiarism and other forms of academic dishonesty will not be tolerated and will be subject to disciplinary action consistent with University rules and regulations. Students are expected to familiarize themselves with University regulations regarding plagiarism and academic dishonesty.

Syllabus

The syllabus and course outline is intended to provide an overview of the course. You cannot claim any rights from it. In particular, scheduling and dates may change. Although the syllabus should be a fairly reliable guide for the course, official announcements are always those made in class or as per the official university academic calendar.

Other: Nametags

All students are required to have on their desk at each lecture a large label card with your name in large print so I can call on you and learn your names. I recommend folding an 8.5 X 11 piece of paper lengthwise.

Communications

We will use the university’s online classroom system, at https://ted.ucsd.edu. A link to the course website will be on my homepage at http://swd.ucsd.edu. Assignments, updates, and other information will be posted there during the quarter. Please login regularly for updates. Please also post general questions there so that all students can see your question and the teaching staff’s response. Any issues or questions that you wish to raise privately should be sent to a member of the teaching staff via email or raised in office hours as appropriate. Limit your use of online class resources to appropriate academic activities.

Textbooks

The following are required and should be available for individual OR bundled sale at the University bookstore:


There is also an optional text: *Intro Stats*, any edition, currently available as cheap as $5 online.

You may purchase just the two required texts, or you can purchase them bundled with the software we will use for data analysis, *SPSS*. The bookstore has a bundle that includes all three - both texts and a student version of the software. Why purchase the software? You don’t have to, but if you buy a copy of the software you can do your homework at home if you have a capable computer, instead of working in the computer lab.

The optional generic stats textbook is not required. The Pollock series is very intuitive, but will short-change you on true understanding of methods. Consequently, we will go beyond the text and learn some basic statistics, with formulas and basic calculations. This is not a math course, and the calculations will not be sophisticated. But this part of the course will be challenging for those of you with a math phobia. You may wish to purchase a basic statistics textbook to use in that part of the course.

There will be some supplemental readings. I am trying to make all supplemental readings available online, so you do not need to purchase a reader. For most, you will need to be on campus to access the readings. If you try to access them from off-campus, you may need to establish a campus connection first, see ACS for details on virtual private networks.

**Computer Labs and Software**  If you do not buy the SPSS software, there are computer labs on campus where you can complete your assignments. To find a lab with SPSS installed, go to the website of Academic Computing Services, http://acs.ucsd.edu. One advantage of the computer labs is that their version of SPSS is more capable than that included in the textbook bundle.

**Assignments and Lectures**

All reading should be completed before class. I may call on individual students to participate in discussions. I reserve the right to adjust the lecture and reading schedule as needed. A tentative list of weekly topics, readings, and exam dates are listed below.
October 1, 2012
Introduction to the Course

Operationalizing Concepts and Measuring Variables
Pollock, Essentials, Ch. 1-2A (P1-32)

October 3, 2012
Describing Variables Numerically
Pollock, Essentials, Ch. 2B (P32-44)
Pollock, SPSS, Ch1 & 2. P1-14, 17-29.

October 8, 2012
Describing Variables Graphically
Optional: Intro Stats, sections on histograms, scatterplots, bar plots.

October 10, 2012
Explanations and Hypotheses
Pollock, Essentials, Ch. 3A (P48-58)

October 15, 2012
Making Simple Comparisons
Pollock, Essentials, Ch. 3B (P 58-71)
Pollock, SPSS, Ch4 P61-74. Optional P41-58.

October 17, 2012
The Fundamental Problem of Causal Inference
October 22, 2012  
Veteran’s Day Holiday - No Class

October 24, 2012  
Experiments and Observational Studies  
Pollock, *Essentials*, Ch. 4 (P78-97)  

October 29, 2012  
Controlled comparisons  
Pollock, *Essentials*, Ch. 5 (P102-118)  
Pollock, *SPSS*, Ch. 5 (P93-109)  

October 31, 2012  
Collecting Data / Surveys and Sampling  

November 5, 2012  
Sampling and Confidence intervals  
Pollock, *Essentials*, Ch. 6B P(122-135)

November 7, 2012  
The Central Limit Theorem and Friends  
Pollock, *Essentials*, Ch. 6C (P 135-144)  
Recommended: *Intro Stats*

November 12, 2012  
Working with the Normal Curve  
Reading: *Intro Stats*

November 14, 2012  
Confidence Intervals: One and two sample proportion; One sample mean  
Introduction to Hypothesis Testing  
Pollock, *Essentials*, Ch. 7A (P 144-152)  
Pollock, *SPSS Companion*, Ch. 6 (P 121-131)  
Recommended: *Intro Stats*
November 19, 2012
Hypothesis Testing and Statistical Significance: One and Two-Sample Proportion Tests.
   Pollock, Essentials, Ch. 7A (P 155-164)
Recommended: Intro Stats

November 21, 2012
Hypothesis Testing and Statistical Significance: Difference of Means and Chi-Square
   Pollock, Essentials, Ch. 7A (P 164-169)
   Pollock, SPSS Companion, P137-146
Recommended: Intro Stats

November 26, 2012
Correlation and Regression
   Pollock, Essentials, Ch. 8A (182-192)
   Pollock, SPSS, Ch8 P159-173
Recommended: Intro Stats

November 28, 2012
Regression
   Pollock, Essentials, Ch. 8B (P192-207)
   Pollock, SPSS, Ch8 TBD
Recommended: Intro Stats

December 3, 2012
Regression and Hypothesis Testing
   Pollock, SPSS Companion TBD
Recommended: Intro Stats

December 5, 2012
Logistic Regression
   Pollock, Essentials, Ch. 9 (P 212-234)

New Directions and Review

December 13, 2012
Final Examination 11:30-2:29. (See official University schedule to confirm date, time, and location)