

January 19, 2010

POL 501 Intro to Statistics for Public Policy

Spring 2010 **SBS N-705**
Mondays, 6 – 9 pm (**SBS N-748 & SBS N-620 as needed**)

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Purpose

This is the first quantitative methodology course in the MA program in Public Policy in the Political Science Department. It introduces students to basic statistical concepts and tools, such as measuring political phenomena, formulating and testing hypotheses, and the basics of regression analysis. The class lays the foundation for POL 502, Intermediate Statistic for Public Policy.

Sound decision making requires a thorough understanding of the facts of the policy problem at hand. Frequently these facts involve some statement or judgement about quantifiable entities, such as project costs, measures of effectiveness of particular policies, and the like. The goal of this and the following class in the methods sequence is to endow students with the tools necessary to understand statistical research, and to perform their own statistical analysis.

Computer Work

In order to give students the practical skills needed for data analysis, this class introduces the statistical software package SPSS. The use of SPSS is not optional, as some assignments will require graphical and statistical analysis using this software. SPSS is installed on computers on some SINC sites, but it is strongly recommended that students buy their own copy of SPSS (see ‘Required Texts’ section).

Course Requirements

The overall course grade consists of the following components, discussed in more detail below.

Class Participation, 10%
Homework Assignments, 30%
Midterm Exam, 25%
Final Exam, 35%

Class Participation

Active class participation is a prerequisite for successful completion of this class. This involves coming to class prepared with the assigned readings, speaking up in class discussions, and working together with other students during tutorials in the computer lab. While I do not take formal attendance, frequent absence from class will result in a poor participation grade.

Homework Assignments

There will be at least three graded homework assignments during the course. Homework assignments will be due at the beginning of class (6pm). Assignments handed in late will receive a grade of 0 (zero).

Midterm Exam

The midterm exam will be held on **March 15** in class. The midterm will cover all materials covered up to that date, both assigned readings and materials covered in class.

Final Exam

The final exam is a take home exam. I will distribute the exam on **May 3** in class. The exam will cover the entire class material up to that date, both assigned readings and materials covered in class. The exam is due on **May 6 at 5 pm** in my office (SBS N-721). Slide the exam under the office door.

Make-up Exams, Extensions

Make-up exams and extensions on homework assignments will only be given if the student presents appropriate documentation of a medical or personal emergencies. Every effort should be made to notify the instructor as soon as possible of the reasons for the emergency.

Required Texts

Pollock, Philip H. 2009. *The Essentials of Political Analysis*. Third Edition. CQ Press. Hereafter called 'Text'.

Pollock, Philip H. 2009. *An SPSS Companion to Political Analysis*. Third Edition. CQ Press. Hereafter called 'Companion'.

SPSS is not required, but I strongly encourage you buy your own copy. The cheapest option is a bundle offered by CQ press that includes the text, the companion, and a student copy of SPSS for only \$25 more than the price of the two text books (ISBN 978-1-60426-502-6).

If you want to buy SPSS separately, student copies are also available at the Seawolves Marketplace (about \$90).

Americans with Disabilities Act

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room 128, (631) 632-6748. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following web site: <http://www.ehs.sunysb.edu> and search Fire safety and Evacuation and Disabilities.

Academic Integrity

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report and suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at: <http://www.stonybrook.edu/uaa/academicjudiciary/>

Critical Incident Management

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn.

Course Outline

The schedule is subject to change. I will announce any changes at least one week in advance.

Week 1, January 25

- Introduction to statistics and public policy.

Required readings: New York Times, 11/18/2007, *Does Death Penalty Save Lives? A New Debate*. Will be distributed by email.

Week 2, February 1,

- Defining and measuring political concepts.
- Describing data.

Required readings: Text, chapters 1 & 2.

Week 3, February 8, in SBS N-748

- Introduction to SPSS.
- Descriptive statistics with real data.

Required readings: Text, chapter 3. Companion, chapters 1 - 3.

Week 4, February 15,

- Comparisons
- Hypotheses

Required readings: Text, chapters 3 & 4.

Week 5, February 22, in SBS N-748

- Controlled comparison
- Comparisons in SPSS.

Required readings: Text, chapter 5. Companion, chapters 4 & 5.

Week 6, March 1,

- Statistical Inference I

Required readings: Text, chapter 6, pages 113-130.

Week 7, March 8

- Statistical Inference II
- Review

Required readings: Text, chapter 6, pages 131-144.

Week 8, March 15 – Midterm Exam.

Week 9, March 22

- Significance tests.

Required readings: Text, chapter 7, pages 145-159.

Spring Break, March 31

Week 10, April 5, in SBS N-748

- T-tests in SPSS.
- χ^2 -tests in SPSS.

Required readings: Companion, chapters 6 & 7.

Week 11, April 12,

- Regression I

Required readings: Text, chapter 8, pages 170-187.

Week 12, April 19,

- Regression II

Required readings: Text, chapter 8, pages 187-197.

Week 13, April 26, in SBS N-620

- Applied regression analysis in SPSS.

Required reading: Companion, chapters 8 & 9.

Week 14, May 3,

- Review Session.
- Final exam distributed in class.