

Quantitative Techniques

Syllabus

Northeastern University
POLS 2400, Fall 2013
Wed, Fri 11:45 am - 1:25 pm
Ell Hall 410

Professor: Nick Beauchamp
Email: n.beauchamp@neu.edu
Office: 317 Meserve Hall
Office Hours: W 2-3pm, F 2-3pm, and by appointment.

Course Description

This course teaches the use of social science quantitative techniques, emphasizing applications in the fields of political science, public policy, and public and international affairs. It includes descriptive statistics, hypothesis testing, cross-tabulation, bivariate regression and correlation, and multiple regression. In addition to statistical theory, students will learn how to conduct statistical analysis using SPSS. Close attention will also be given to practical applications and understanding of statistical techniques as employed in published research.

This course begins at an introductory level, assuming no prior knowledge of statistics. Students will learn a variety of quantitative methods for describing data and for analyzing the significance and strength of relationships between variables. By the end of the semester, students should have the tools to develop and test their own research questions, to read and critique the work of other researchers, and to contribute novel research in their future careers.

Requirements

Required texts

1. Evan Berman and XiaoHu Wang, *Essential Statistics for Public Managers and Policy Analysts*, 3rd ed. CQ Press, 2012.
2. David A. Rochefort (ed.), *Quantitative Methods in Practice: Readings from PS*. CQ Press, 2006.

Software

We will be using SPSS for in-class analysis, homework, and the final project. This student version of SPSS is available for lease at www.onthehub.com. Students may instead choose to access SPSS through Northeastern's MyApps portal, which will be demonstrated in class.

Grading

- Homework assignments: 20%
- Midterm: 20%
- Final exam: 20%
- Final project: 20%
- Attendance and participation: 20%

Attendance and Participation

Students are expected to participate in discussions of theories and papers with comments and questions, and to help work out occasional homework problems as needed. In addition, there will be a couple of brief, informal discussions in class of each student's final project progress. Class attendance is mandatory, and students are expected to attend every session. More than two unexcused absences will result in a 1/2 letter grade being deducted from the student's final grade for each subsequent absence.

Homework

Homework assignments will be based on exercises from the textbook and class materials. The entire class will review assignments together on the day they are due. Therefore, late homework will not be accepted. Homework will also occasionally include progress reports on the final project.

Final project

Students will be asked to create a research hypothesis, find data, compile a dataset, and test their hypothesis using SPSS. More details will be provided as the semester progresses.

Course Schedule

This schedule is subject to change as various topics may take more or less time than anticipated.

BW = Berman and Wang. R = Rochefort.

Week	Dates	Topic	Reading Assignments
1	9/4 9/6	Introduction to the Course	B W 1-16 R 1-10, Selection 1
2	9/11 9/13	Variables and Levels of Measurement	BW 1-16; 43-60 R1-10 Selections 1-2
3	9/18 9/20	Describing a Single Variable	BW 105-113; 122-123 R Selection 4
4	9/25 9/27	Using the Computer and SPSS	BW 80-102 R Selection 5
5	10/2 10/4	Creating Charts and Graphs	BW 118-122 R Selection 3
6	10/9 10/11	The Normal Curve Final Project Status Due	BW 122-128 R Selection 10
7	10/16 10/18	Significance Testing Midterm Review	BW 205-217 R Selection 8
8	10/23 10/25	Chi square Midterm	BW 134-141; 166-183 R Selection 6, 12
9	10/30 11/1	Analysis of Variance	BW 226-234 R Selection 11
10	11/6 11/8	Regression and Correlation Analysis	BW 239-246 R Selection 7
11	11/13 11/15	Multiple Regression	BW 252-260; 261-276 R Selection 16, 14; 260-265
12	11/20 11/22	Final Exam Review Final Project Presentations	
13	11/20 11/22	Thanksgiving	
14	12/4	Final Exam	
	12/6-12/13	Final Project Due	

Policies

Devices. All phones and similar devices should be off during class. Laptops are permitted, but only for note taking and calculations. Use of internet, email, Facebook, Twitter, etc, etc, is not permitted.

Incompletes. Except in the most serious circumstances, Incompletes in this course are not possible. If the professor agrees to an Incomplete, a form in the Political Science Department must be filled out, representing a contract between the student and the faculty member on when and how the course will be completed.

Plagiarism and Academic Dishonesty. The Department of Political Science takes very seriously the issue of academic honesty. Any student who cheats on an exam or in the preparation and writing of a course assignment at minimum will fail the assignment in question, and may fail the course. Further, the Department can recommend that the student be put on academic probation (as outlined in the University's Code of Conduct). Individual faculty, with the support of the Department, can impose harsher penalties as they deem necessary.

Cheating includes plagiarism, which is defined broadly as taking ideas, concepts, or actual words of another person or author and passing them off as your own work. This includes but is not limited to cut and paste construction of a paper, buying a term paper, pulling a paper off of the Internet, or using materials from the Internet without acknowledging the source. A paper written by you (or anyone else) for another course is not acceptable for fulfilling the paper requirement of this course. If you have any questions regarding proper attribution of the work of others, contact your instructor prior to submitting the work for evaluation.

For homework, cheating also includes using the work of other students in this class, in another section, or in a previous year of this course. You may discuss problems of course, but not share solutions, and of course all written work must be your own.