

Political Science 7962: Seminar in Research Design and Quantitative Techniques

Instructor: Leonard Ray
Office: Howe Russell 158 A
Office Hours: TTH 10:30-12:00;
or by appointment.

Semester: Fall 2011
Time: Mondays 9:10-2:00
Room: Stubbs 218
Email: lray2@lsu.edu

Political Science 7962 is the introductory course in quantitative methodology for graduate students in political science. The goal of the course is to enable students to evaluate, conduct, and report research using quantitative methods. The course introduces students to a set of basic statistical concepts and techniques and their practical application to research in political science. Topics covered include measurement, descriptive statistics, statistical inference, and tests of bivariate relationships. The course concludes with an overview of multivariate analysis.

This course is intended to train students to conduct their own research projects. Lectures and readings will present the theory behind some of the tools used in quantitative research. However, like many skills, a facility with statistical methods is acquired through experience and practice. Workbook assignments throughout the semester will allow students to apply concepts from the course materials to practical problems in Political Science. These exercises will also familiarize students with the SPSS statistical package. The required research project is a piece of original quantitative research where students apply their skills to a topic of their own choosing. These skills will be useful later, most immediately in POLI 7963.

Required Texts

The Chicago Guide to Writing About Numbers
by Jane Miller University of Chicago ISBN 0-226-52631-3

SPSS Companion to Political Analysis Third edition
by Philip H. Pollock III. CQ Press; ISBN 0-87168-72

Master Math: Probability
By Catherine A. Gorini ISBN 1435456564

Statistics for Social Data Analysis 4th edition
David Knoke; George W. Bohrnstedt; Alisa Poterba
Thompsdon Wadsworth ISBN 0-7581-448-4

Other readings will be placed on reserve in the library, or are available electronically from JSTOR. Assigned readings must be completed before the class period for which they are assigned to allow participation in class discussion.

Recommended Equipment

A flash drive will be useful for saving work done in the computer lab.

Graded Requirements

Midterm Exam	[weight = 20%]
Final Exam	[weight = 25%]
Lab Assignments	[total weight = 30%]
Research Project	[weight = 25%]

The Midterm Exam will be a take home exam. As such it is an open book exam and course materials may be used during the exam. Collaboration with other students is, however, prohibited.

The Final Exam will be an in-class open book exam.

The Lab Assignments will be taken from the SPSS workbook.

The Research Project is a piece of original quantitative research. Students who wish to combine this research project with a research paper for another class may do so only with the written permission of the instructors of both courses.

The nature of the course

This is a statistics course. But not just a statistics course. And certainly not a math course. It is a course in the basic application of statistics to research problems in social science. As such, the course will cover a very wide range of types of material. We will deal with math of course, because an understanding of the internal logic of statistical techniques is important to their correct interpretation, and is a foundation for future statistical training. There will be formulas because the formulas present, in a concise form, the logical underlying statistical methods. This information is quite straightforward and objective.

Schedule of Readings and Homework

Please complete readings before the day they are assigned so that you are prepared for the class lecture. Homework problems will serve to test your understanding of concepts after they have been covered in class.

Aug 22: Introduction to the course, Vocabulary and Notation, SPSS vs STATA

Read:

J. Miller

Oct 3 More Probability
Gorini Ch 4, 5, 6

Oct 10 The Logic of