

## *Introduction to Political Analysis*

Professor Paul Wahlbeck  
Classroom: Hall of Government 101  
Office: Monroe 477  
E-mail: wahlbeck@gwu.edu  
Office Hours: Thursday 10:00-11:30

Political Science 201  
Fall Semester, 2007  
Phone: 202-994-4872  
Course website: gwu.blackboard.com  
Class Times: Tuesday 5:10-7:00

*Goals and Objectives.* This course, the first in a two-course sequence, will introduce you to basic research design and statistical methods. Political science is increasingly marked by rigorous statistical testing of hypotheses, as noted by a cursory review of the major journals. This course provides an introduction concepts and tools that will make you a better consumer and a competent producer. To this end, this semester we will begin by covering the necessary background information on probability, random variables, and so on. In the second half of this course, we will discuss statistical tools like correlation, t-tests, chi-square tests, and regression analysis, and you will have the opportunity to use them in a semester-ending project.

### *Required Texts:*

Alan Agresti and Barbara Finlay. 1997. *Statistical Methods for the Social Sciences*. Third Edition. Upper Saddle, NJ: Prentice Hall. [AF on course calendar]

Larry Gonick, and Woolcott Smith. 1993. *The Cartoon Guide to Statistics*. New York: HarperPerennial. [GS on course calendar]

### *Recommended Text:*

Lawrence C. Hamilton. 2006. *Statistics with Stata*. Belmont, CA: Brooks/Cole. [This book will be especially useful for those of you planning to take PSC 202 in the Spring]

I have asked Gelman Library to place these books on reserve.

*Course Requirements and Grading.* There will be two exams in this class: a midterm and a final exam. There will also be periodic and regular assignments. At times, these assignments will be drawn from the exercises in the book, while other assignments will be based on data I will provide you and they will require that you use a statistical package for analysis. The rationale for regular assignments is to enable you to get hands-on experience – some people may be able to grasp the material by reading the book and from the class discussion, others may better understand the material by “doing.” You are permitted to work on the problem sets with your classmates, but each student must independently write up his or her assignments.

The final grade will be calculated on the basis of the following allocations:

Midterm Exam	30%
Exercises	30%
Final Exam	40%

The midterm examination is scheduled for October 23. The exam will cover all previously untested materials, i.e., the final exam will not be cumulative. The final exam will be held on the last day of class, December 4.

I will announce the exercises in class and they will be due the following week in class. Late assignments may result in a point deduction.

*Course Schedule.* The following is a course outline with accompanying readings. Of course, I reserve the right to change specifics in the syllabus as the course progresses.

<i>Week</i>	<i>Topic</i>	<i>Readings</i>
September 4	Introduction to the course	
September 11	Introduction to empirical and quantitative political analysis. Introduction to Stata.	AF 1, GS 1
September 18	Measurement and data types. Introduction to sampling. Data summaries and graphing.	AF 2, 3.1; GS pp. 7-13, 89-97; Wainer 1984
September 25	Descriptive statistics	AF 3.2-3.6, GS pp. 14-26
October 2	Probability and random variables	GS 3-4
October 9	Probability distributions: Normal and binomial	AF 4, & pp. 188-191; GS 5
October 16	Sampling distributions and confidence intervals	AF 5, GS 6-7
October 23	Midterm Exam	
October 30	Hypothesis tests	AF 6-7, GS 8-9
November 6	Correlation and bivariate regression	AF 9, GS 11
November 13	Analysis of nominal and ordered categorical data	AF 8
November 20	Introduction to multivariate analysis	AF 10
November 27	Course Review	
December 4	Final Exam	