

Introduction to Empirical Political Analysis
Fall 2004

The George Washington University, Department of Political Science

Political Science 201.11
Mondays, 5:10-7:00 Gelman B01

Instructor:	Eric Lawrence
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Course web site:	Available on Blackboard

Course overview : The purpose of this course is to introduce you to probability, statistics, and data analysis, particularly with respect to how they are used in political science. To that end, you will learn fundamental principles of probability and statistical inference, how to summarize data and make statistical inferences, and how to manipulate and analyze data in a statistical software package that is widely used in political science. The class provides serves as a prerequisite for PSC 202 and will prepare you for more advanced classes in statistical methods.

Required texts (available in GW Bookstore):

Agresti, Alan, and Barabara Finlay. 1997. *Statistical Methods for the Social Sciences*, 3rd ed. Upper Saddle River, NJ: Prentice Hall. [AF on course calendar]

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

Hamilton, Lawrence C. 2004. *Statistics with Stata*. Belmont, CA: Brooks/Cole. [Stata on course calendar]

Grades. Your course grades will be based on two exams and a set of homework assignments. Both exam will be open book, open note exams. The midterm exam (25% of your grade) will be on October 25th, while the final exam (35% of your grade) will be on a date to be announced. The homework exams (40% of your grade) will be evenly distributed throughout the semester. You are permitted to work on the homeworks with your classmates, but each student must independently write up his or her assignments.

Course Calendar:

Date	Topics & Readings
9.13.2004	Course introduction and overview
9.20.2004	Introduction to empirical and quantitative political analysis. Introduction to Stata. AF 1, CG 1, Stata 1-2.
9.27.2004	Measurement and data types. Introduction to sampling. Data summaries and graphing. AF 2, 3.1; CG pp. 7-13, 89-97; Stata 3
10.4.2004	Descriptive statistics AF 3.2-3.6, CG pp. 14-26, Stata 4
10.11.2004	Probability and random variables CG 3-4.
10.18.2004	Probability distributions AF 4, CG 5
10.25.2004	Midterm exam
11.1.2004	Sampling distributions and confidence intervals AF 5, CG 6-7
11.8.2004	Hypothesis tests I AF 6-7, CG 8-9, Stata 5
11.15.2004	Hypothesis tests II
11.22.2004	Correlation and bivariate regression AF 9, CG 11, Stata 6
11.29.2004	Analysis of nominal and ordered categorical data AF 8
12.6.2004	Introduction to multivariate analysis I AF 10
12.8.2004	Introduction to multivariate analysis II, course review

Note: The schedule, policies, and assignments in this course are subject to change in the event of extenuating circumstances.