

Sociology 569: Basic Quantitative Methods

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Fall 2008

Class: Tu Th 2:00–3:15
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Course Description

This course is an introduction to descriptive and inferential statistics. It aims to help enable you to do quantitative empirical research, to teach yourself other statistical approaches in your future research, and to intelligently and critically read quantitative work by others. It also introduces you to one popular software program: Stata.

You will complete 10 or so short assignments involving problem solving and/or computer analysis using Stata. There will be two exams. Grades will be determined as follows: short assignments 40%; midterm exam 25%; final exam 35%.

There are two required books, both available at the campus bookstore (and online):

- Weiss, Neil A. 2008. *Introductory Statistics*. 8th edition. Addison-Wesley.
- Allison, Paul D. 1999. *Multiple Regression: A Primer*. Pine Forge Press.

Stata is available in the SBSRI lab on the first floor of the Social Sciences building and in the computer lab on the second floor. If you want to purchase Stata for your own computer, you can get a one-year license for \$95. To order online, go to www.stata.com/order/schoollist.html#arizona. Click on "University of Arizona." Choose "Stata/IC 10 and *Getting Started* manual (one-year license)." To order by phone, call 800-782-8272.

Schedule

Introduction to Statistics and to Stata

- August 26, 28
- Weiss, chapter 1

Organizing Data

- September 2
- Weiss, chapter 2

Describing a Single Variable

- September 4, 9
- Weiss, chapter 3

Regression and Correlation: Descriptive

- September 11, 16, 25, 30; October 2 (no class Sept. 18, 23)
- Weiss, chapter 14 and section 13.3
- Allison, chapters 1 and 2

Probability, the Normal Distribution, and Sampling Distributions

- October 7, 9
- Weiss, section 4.1
- Weiss, sections 6.1–6.3
- Weiss, chapter 7

Midterm Exam: Tuesday, October 21 (tentative)

Confidence Intervals and Hypothesis Tests

- October 14, 16, 23
- Weiss, chapter 8; skip section 8.3
- Weiss, chapter 9; skip sections 9.4, 9.7, 9.8

Difference in Means T -Test

- October 28, 30
- Weiss, sections 10.1–10.3

Regression and Correlation: Inference

- November 4, 13 (no class Nov. 6, 11)
- Weiss, sections 15.1, 15.2, 15.4
- Allison, chapters 3, 5–9

Analysis of Variance and Chi-Square Independence Test

- November 18, 20
- Weiss, sections 16.1–16.3
- Weiss, sections 13.1, 13.4

Graphing

- November 25 (no class Nov. 27)
- Kastlelec, Jonathan P. and Eduardo L. Leoni. 2007. "Using Graphs Instead of Tables in Political Science." *Perspectives on Politics* 5: 755-771.

A Regression Analysis: Start to Finish

- December 2, 4
- Kenworthy, Lane and Melissa Malami. 1999. "Gender Inequality in Political Representation: A Worldwide Comparative Analysis." *Social Forces* 78: 235-269.

Wrap-up

- December 9

Final Exam: Tuesday, December 16, 2:00-4:00